
Handbook of
Juvenile Forensic Psychology
and Psychiatry

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Elena L. Grigorenko
Editor

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Juvenile Forensic
Psychology
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Abbreviations

298

16PF-Q3	Sixteen-Personality-Factor-Questionnaire	299
5-HTT	Serotonin transporter gene	300
5HTT	Serotonin protein	301
AAPL	American Academy of Psychiatry and the Law	302
ACA	American Correctional Association	303
ACE	The Centers for Disease Control and Prevention Adverse Childhood Experiences	304
ACE	Autonomy, collaboration and evocation	306
A-con	Conduct disorders	307
ADA	Americans with Disability Act	308
ADHD	Attention deficit hyperactivity disorder	309
AIDS	Acquired immune deficiency syndrome	310
ALI	American Law Institute	311
AMA	American Medical Association	312
ANOVA	Analysis of variance	313
ANS	Autonomic nervous system	314
APA	American Psychological Association	315
APA	American Psychiatric Association	316
APS	Adolescent Psychopathology Scale	317
AQ	Aggression Questionnaire	318
AR	Androgen receptor gene—a gene that codes for the protein that functions as a steroid hormone-activated transcription factor	319
ART	Aggression replacement training	321
ASBI	The Adolescent Sexual Behavior Inventory	322
ASEBA	Achenbach system of empirically based assessment	323
A-sch	School problems	324
A-trt	Negative treatment indicators	325
ATSA	Association for the Treatment of Sexual Abusers ()	326
AUC	Area under the curve	327
BART	Becoming a Responsible Teen	328
BASC-2	Behavior assessment system for children—second edition	329
BBBSA	Big Brothers/Big Sisters of America	330
BHP	Behavioral Health Partnership	331
BMX	Bicycle motocross	332
BPS	Biopsychosocial model	333

334	BRIEF	Behavior Rating Inventory of Executive Function
335	BV	Bacterial vaginosis
336	CAFAS	Child and Adolescent Functional Assessment Scale
337	CAI	Computer-assisted instruction
338	CAT	Children's Apperception Test
339	CBCL	Child Behavior Checklist
[AU]340	CBITS	Cognitive behavioral intervention for trauma in schools
341	CBITS	Cognitive behavioral intervention for traumatized students
342	CBM	Curriculum-based measurement
343	CBT	Cognitive behavior therapy
344	CBT-RP	Cognitive behavioral therapy-relapse prevention
345	CC	Court Clinic Model
346	CD	Conduct disorder
347	CDC	Centers for Disease Control and Prevention
348	CD-CP	Child Development-Community Policing
349	CDI	Children's Depression Inventory
350	CFTSI	The Child and Family Traumatic Stress Intervention
351	CGS	Connecticut General Statute
352	<i>CHRM2</i>	Muscarinic acetylcholine receptor M ₂ gene
353	CJCA	Council of Juvenile Correctional Administrators
354	CMH	Community mental health
355	COGA	Collaborative study on the genetics of alcoholism
356	COMT	Catechol- <i>O</i> -methyl transferase
357	Connors CBRS	Connors Comprehensive Behavior Rating Scales
358	CPI-Sc	California Psychological Inventory
359	CSBCL-2nd	Child Sexual Behavior Checklist
360	CSBI-III	Child Sexual Behavior Inventory-III
361	CSSD	Court Support Services Division of the Superior Court
362		of Connecticut
363	CST	Competency to stand trial
364	CT	State of Connecticut
365	DA	Dopamine protein
366	<i>DAT1 (SLC6A3)</i>	Dopamine transporter gene
367	DβH	Dopamine beta-hydroxylase
368	DCF	Department of Children and Families
369	DHHS	Department of Health and Human Services
370	DIBELS	Dynamic Indicators of Basic Early Literacy Skills
371	DICA-IV	Diagnostic Interview for Children and Adolescents-IV
[AU]372		DISC Version 2.3
373	DISC	Diagnostic Interview Schedule for Children
374	DISC-IV	Diagnostic Interview Schedule for Children, Version IV
375	DJJ	Department of Juvenile Justice
376	DMC	Disproportionate minority contact
377	DNA	Deoxyribonucleic acid
378	DOR	Diagnostic odds ratio
379	DRD ₁₋₅	Dopamine different receptors (5)

DSM	Diagnostic and Statistical Manual of Mental Disorders, different versions	380 381
DUI	Driving under the influence	382
DV-HVI	Domestic Violence Home Visit Intervention EARL-20B and EARL-21G	383 384
EARS	Express empathy, amplify ambivalence, roll with resistance, and support self-efficacy	385 386
E/BD	Emotional/behavioral disorder	387
EBFT	Ecologically based family therapy	388
EBPs	Evidence-based practices	389
EBT	Evidence-based treatment	390
EC	Emotions course	391
ED	Emergency Department	392
ED or EBD	Emotional disturbance	393
EDJJ	National Center on Education, Disability, and Juvenile Justice	394
EEG	Electroencephalogram	395
EIA	Enzyme immunoassay, also known as ELISA	396
EKG	Electrocardiograph	397
ELISA	Enzyme-linked immunosorbent assay, also known as EIA	398
ERASOR	Estimate of risk of adolescent sexual offense recidivism	399
ES	Effects size	400
ESTs	Empirically supported interventions	401
FAPE	Free Appropriate Public Education	402
FBA	Functional behavioral assessment	403
FBI	Federal Bureau of Investigation	404
FBT	Family behavior therapy	405
FCU	Family check-up	406
FDA	Food and Drug Administration	407
FERPA	Family Educational Rights and Privacy Act	408
FFT	Functional family therapy	409
FMHA	Forensic mental health assessment	410
fMRI	Functional magnetic resonance imaging	411
FN	False negatives	412
FP	False positives	413
GABA	Gamma (γ)-aminobutyric acid	414
GABRA2	Gamma-aminobutyric acid receptor subunit alpha-2	415
GED	General Education Diploma	416
GBMI	Guilty but mentally ill	417
GGI	Guided group interaction	418
GNRH	Gonadotropin-releasing hormone agonists	419
GPA	Grade point average	420
HIPAA	Health Insurance Portability and Accountability Act	421
HIT	How I Think Questionnaire	422
HIV	Human immunodeficiency virus	423
HPV	Human papilloma virus	424

425	HRCT	Heart Rate Coherence Training
426	HSV	Herpes simplex virus
427	IAP	Intensive Aftercare Program
428	ICPS	Individual cognitive problem solving
429	IDEA	Individuals with Disabilities Act
430	IDEIA	The Individuals with Disabilities Education
431		Improvement Act of 2004
432	IEP	Individualized Education Program
[AU]433	IEPs	Individualized Education Programs
434	IICAPS	Intensive In-Home Child and Adolescent Psychiatric
435		Service
436	IGT	Interactional group therapy
437	IQ	Intelligence quotient
438	IRB	Institutional Review Boards
439	IY	Incredible years
440	JD	Juvenile diversion
441	JD + ST	JD plus skills training
442	JD + MEN	JD plus mentoring
443	JDAI	Juvenile Detention Alternatives Initiative
444	JFRC	Juvenile Residential Facility Census
445	JJDP	Juvenile Justice and Delinquency Prevention Act
446	JJDPA	Juvenile Justice and Delinquency Prevention Act
447	JLWOP	Juveniles to life without the opportunity for parole
448	JSO	Juvenile sex offender
449	JSOs	Juveniles charged with sex offenses
[AU]450	JSOAP-II	Juvenile Sex Offender Assessment Protocol II
451	JUMP	Juvenile Mentoring Program
452	KABC-II	Kaufman Assessment Battery for Children, second
453		edition
454	K-BIT-2	Kaufman Brief Intelligence Test, second edition
455	K-SADS-PL	PTSD traumatic events component of the semi-
456		structured clinical interview for PTSD
457	KTEA-II	Kaufman Test of Educational Achievement, second
458		edition
459	LD	Learning disabilities
460	LSI	Level of Service Inventory
461	LSI-R	Level of Service Inventory—Revised
462	LWOP	Life sentences without the opportunity for parole
463	Ma	Hypomania
464	MacCAT-CA	MacArthur Competence Assessment Tool—Criminal
465		Adjudication
466	MACI	Millon Adolescent Clinical Inventory
467	MAC-R	MacAndrews Alcoholism Scale Revised
468	MAJCC	Massachusetts Alliance of Juvenile Court Clinics
469	MANCOVA	Multivariate analysis of covariance
470	MAOA and MAOB	Monoamine oxidase A and B

	MAPI	Millon Adolescent Personality Inventory	471
	MASC	Multidimensional Anxiety Scale for Children	472
	MAYSI-2	Massachusetts Youth Screening Instrument—version 2	473
	MAYSI-2 TE	Massachusetts Youth Screening Instrument-2 “traumatic experiences”	474 475
	MDFT	Multidimensional family therapy	476
	MDI-C	Multiscore Depression Inventory for Children	477
	MHA-TP	Microhemagglutination-treponema pallidum test	478
	MI	Motivational interviewing	479
	MMD	Mild and/or moderate mental disabilities	480
	MMPI	Minnesota Multiphasic Personality Inventory	481
	MMPI-A	Minnesota Multiphasic Personality Inventory—Adolescent	482
	MPH	Methylphenidate	483
	MSE	Mental status examination	484
	MSM	Men who have sex with men	485
[AU5]	MST	Multisystem therapy	486
	MST	Multisystemic therapy	487
	MTA	Multimodal Treatment Study of Children with ADHD	488
	MTFC	Multidimensional Treatment Foster Care	489
	MTFC-A	Multidimensional Treatment Foster Care—Adolescents	490
	MTO	Moving to opportunity	491
	NAATs	Nucleic Acid Amplification Tests	492
	NASP	National Association of School Psychologists	493
	NCCEV	National Center for Children Exposed to Violence	494
	NCCHC	National Commission on Correctional Health Care	495
	NCJFCJ	National Council of Juvenile and Family Court Judges	496
	NCJTP	National Criminal Justice Treatment Practices Survey	497
	NCLB, 2001	No Child Left Behind Act	498
	NCMHJJ	National Center for Mental Health and Juvenile Justice	499
	NCTSN	National Child Traumatic Stress Network	500
	NEO-FFI	NEO-Five Factor Inventory	501
	NFP	Nurse-Family Partnership	502
	NICHD	National Institute of Child and Human Development	503
	NIDA	National Institute on Drug Abuse	504
	NIH	National Institutes of Health	505
	NIMH	National Institute of Mental Health	506
[AU6]	NREPP	Registry of Evidence-based Program and Practices	507
	NSA	National Survey of Adolescents	508
[AU7]	OARS	Client-centered counseling skills	509
	ODD	Oppositional defiant disorder	510
	OJJDP	Office of Juvenile Justice and Delinquency Prevention	511
	OMHRC	Oregon Youth Mental Health Referral Checklist	512
	OROS	Osmotic-controlled release oral delivery system	513
	OVC	Office for Victims of Crime	514
	Pa	Paranoia	515
	PAI-A	Personality Assessment Inventory-Adolescent	516

517	Pap	Papanicolaou
518	PCIT	Parent–child interaction therapy
519	PCL:YV	Psychopathy Checklist: Youth Version
520	Pd	Psychopathic deviate
521	PDD	Pervasive developmental disorders
522	PDR	Parent Daily Report checklist
523	PENS	Psychological Ethics and National Security
524	PHDCN	Project on Human Development in Chicago Neighborhoods
525		
526	PID	Pelvic inflammatory disease
527	PINS/CHINS	Person or child in need of supervision
528	PIRLS	Progress in International Reading Literacy Study
529	PISA	Program for International Student Assessment
530	PKC	Protein kinases, C
531	PP	Private Practitioner Model
532	PPC	Positive peer culture
533	PPV and NPV	Positive and negative predictive values
534	PRKCG	Protein kinase C gamma type
535	PTE	Potentially traumatic events
536	PTSD	Posttraumatic stress disorder
537	PTSD-RI	UCLA PTSD Reaction Index
538	PYC	Project Youth Connect
539	RADS-2	Reynolds Adolescent Depression Scale—Second Edition
540	RC-MAS	Revised Manifest Anxiety Scale
541	RCT	Randomized controlled trial
[A158] 542	RCT	Randomized placebo-controlled trials
[A159] 543	RCTs	Randomized controlled trials
544	ROC	Receiver operating characteristic
545	RPR	Rapid plasma reagin
546	RRFT	Risk reduction through family therapy
547	RSTI	Risk-Sophistication-Treatment Inventory
548	RT	Relaxation training
549	SAMHSA	Substance Abuse and Mental Health Services Administration
550		
551	SASSI-3	Substance Abuse Subtle Screening Inventory, third edition
552	SAVRY	Structural Assessment of Violence Risk for Youth
553	SB-5	Stanford–Binet Intelligence Scales—Fifth Edition
554	SCDJJ	South Carolina Department of Juvenile Justice
555	SCIP	Social-cognitive information-processing
556	SED	Serious emotional disturbance
557	SGFP	Specialty Guidelines for Forensic Psychologists
558	SiHLE	Sistas Informing, Healing, Living and Empowering
559	SIR	Statistical Information on Recidivism Scale
560	SLC6	Solute Carrier Family 6
561	SLD	Specific Learning Disabilities
562	SNP	Single Nucleotide Polymorphisms
563	SORNA	Sexual Offender Registration and Notification Act of 2006

	SPEP	Standardized Program Evaluation Protocol	564
	SES	Socioeconomic status	565
	SPARCS	is a group intervention that was designed to address the needs of adolescents who have experienced chronic trauma, may still be living with ongoing stress, and are experiencing problems in several areas of functioning	566 567 568 569
	SPI	Student Press Initiative	570
	SPJ	Structured professional judgment	571
	SS	Seeking safety therapy	572
	SSIS	Social Skills Improvement System	573
	SSRI	Selective serotonin reuptake inhibitor	574
	STD	Sexually transmitted diseases	575
	STIs	Sexually transmitted infections	576
	STRP	Short Tandem Repeat Polymorphisms	577
	SUD	Substance use disorder	578
	SUQ	Service Utilization Questionnaire	579
	SVJ	Serious and violent juvenile offenders	580
	SVORI	Serious and Violent Offender Reentry Initiative	581
	SYRF	Survey of Youth in Residential Facilities	582
	TARGET ©	Trauma Affect Regulation: Guide for Education and Therapy	583 584
	TAT	Thematic Apperception Test	585
	TB	Pulmonary tuberculosis	586
	TCA _s	Tricyclic antidepressants	587
	TD	Tardive dyskinesia	588
	TE _s	Traumatic events	589
[AU10]	TESI	Traumatic Events Screening Instrument	590
	TESI	Traumatic Experiences Screening Instrument	591
	TFAP β 2	Transcription factor AP-2 beta	592
[AU11]	TF-CBT	Trauma focused cognitive behavior therapy	593
	TF-CBT	Trauma-focused cognitive-behavioral therapy	594
	TF-CBTWeb	is a free Web-based training program for clinicians holding a master's degree or higher	595 596
	TN	True negatives	597
	TP	True positives	598
	TRAAY	Treatment recommendations for the use of antipsychotics for aggressive youth	599 600
	TSCC	Trauma Symptom Checklist for Children	601
	TSC-CPTS	Trauma Symptom Checklist for Children—Posttraumatic Stress Symptoms	602 603
	TST	Trauma Systems Therapy	604
	TST-SA	Traumatic stress and abusing substances	605
	WASI	Wechsler Abbreviated Scale of Intelligence	606
	WBR	Weekly Behavior Report	607
	WIAT	Wechsler Individual Achievement Test	608
	WIC	Women, infants, and children	609
	WISC-IV	Wechsler Intelligence Scale for Children-Fourth Edition	610

611	WJ-ACH	Woodcock Johnson Tests of Achievement Revised
612	WJ-III/3, WJ-R	Woodcock–Johnson Test of Educational Achievement, Third Edition or Revised
613		
614	WSIPP	Washington State Institute for Public Policy
615	YLS/CMI	Youth Level of Service/Case Management Inventory

Uncorrected Proof

Author Queries

Chapter No.: FM

Queries	Details Required	Author's Response
AU1	Both "Cognitive behavioral intervention for trauma in schools" and "Cognitive behavioral intervention for traumatized students" are given as the expansion for the acronym "CBITS." Please check.	
AU2	Please provide definitions for the terms "DISC Version 2.3 and EARL-20B and EARL-21G".	
AU3	Please check and confirm if the term "IEPs" can be removed from the list since "IEP" is already listed.	
AU4	Please note that the term "JSOAP-II: Juvenile Sex Offender Assessment Protocol" has been repeated twice and it has been deleted.	
AU5	The term "MST" is same for both definitions "Multisystem therapy and Multi-systemic therapy". Please check.	
AU6	Please check the term "NREPP" for the definition "Registry of Evidence-based Program and Practices".	
AU7	Please check the term "OARS" for the definition "Client-Centered Counseling Skills".	
AU8	Please check if "RCT" should be the abbreviation for the definition "Randomized placebo-controlled trials."	
AU9	Please check and confirm if "RCTs" can be deleted since the term "RCT" and its corresponding definition have been given earlier.	
AU10	The term "TESI" is same for both the definitions "Traumatic Events Screening Instrument and Traumatic Experiences Screening Instrument". Please check.	
AU11	Note that there are two definitions for the term "TF-CBT". Please clarify.	

Dana Shoenberg

This handbook offers insights and guidance illuminating the many points at which the practice of mental health and the juvenile justice system intersect today. It comes at a promising time. Juvenile justice officials increasingly understand the critical role that mental health services play in rehabilitating the youth in their care. At the same time, juvenile justice reformers seek ways to connect youth to the behavioral health services they need without having courts become the primary means for youth to access care. Budget pressures are forcing states to be more careful about how they spend their juvenile justice funds, and communities are searching for ways to keep youth in programs closer to home rather than relying on expensive, sometimes less effective out-of-home placements for youth far from their families and other supports. Mental health care providers play critical roles in these public policy dialogues, while also fulfilling essential evaluation and treatment functions in the community, through the courts, and in locked settings. The authors brought together in this publication have produced rich resources that can inform both policy and practice.

This introduction offers a bird's-eye view of some of the mental health-related challenges facing juvenile justice policy makers and advocates.

These issues form the landscape that treatment providers must navigate when working with youth and their families, and they also demonstrate the importance of mental health professionals' involvement in the discourse about how to serve court-involved youth most effectively.

Youth involved in the juvenile justice system bring with them experiences and characteristics shaped by a common theme: most have been failed by one or more adults or systems meant to protect and serve them. As many authors in Part V of this handbook acknowledge, youths' histories of exposure to trauma and related PTSD are significant and often overlooked problems in juvenile justice. Antonis Katsiyannis and David Barrett in their chapter on offenders with disabilities discuss how the unmet needs of youth with educational disabilities contribute to their disproportionate representation among the juvenile justice population. In addition, youth with child welfare histories represent between 9 and 29% of youth in the juvenile justice system (Smith and Thornberry 1995), and as much as 42% of youth in probation placement (Halemba et al. 2004). Youth who have experienced foster care are more likely to recidivate and end up deeper in the system as well (Alltucker et al. 2006 cited in Chap. 33). John Chapman observes that a "driving factor" contributing to the appearance of youth with mental health needs in the juvenile justice system is families' inability to access mental health care in their communities. Thus, juvenile justice officials must find ways to help youth with a host of needs that other systems before them have failed to meet.

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Mitigating the Harmful Qualities of Correctional Environments

As policy makers have come to acknowledge the prevalence of youth with mental health disorders and trauma histories in the juvenile justice system, they have begun to grapple with how and where to serve them effectively. Anyone who has spent much time in a locked juvenile justice facility recognizes that youth detention centers and correctional facilities (or “training schools”) are among the least equipped places to meet the mental health needs of youth. In fact, punitive correctional environments, complete with their hardware, isolation, and displacement of youth from their families and schools, often exacerbate symptoms and are poor environments in which to try to establish a therapeutic relationship. One-third of detained youth identified with depression developed their symptoms during their incarceration (Kashani et al. 1980), and preventing youth suicide is an ongoing concern in juvenile justice facilities (Hayes 2004). Detention of youth is not only the most significant factor increasing the odds of recidivism (Benda and Tollet 1999), but it also increases the probability that youth will end up deeper in the system, even when controlling for severity of the youth’s offense (Florida Office of State Courts Administrator 2003). Lenore Engel and her colleagues point out the important role that psychiatrists play in protecting youth at imminent risk of self-harm or with disabling and dangerous symptoms of major psychiatric disorder. Such youth should be treated in psychiatric settings rather than in detention or secure placement, and psychiatrists must be advocates for moving youth to appropriate treatment settings when juvenile facilities cannot provide for their safety and well-being.

In both detention and post-adjudication secure placement, mental health providers frequently encounter punitive and decidedly antitherapeutic practices among custody personnel. In many places, custody staff curse at youth and otherwise demean them. Often direct care staff lack training to help them understand the needs of youth in their care and see their roles more as security

guards than youth development specialists. Facilities that lack structured programming, effective behavior management systems, and solid staff training often rely on harmful punitive practices, such as isolation and physical and mechanical restraint, in order to control behaviors they do not understand or cannot manage. Mental health professionals are often asked to visit youth in isolation, and even sometimes when they are restrained, to check on their well-being and to ensure timely response to mental health crises. These are challenging environments in which to provide effective mental health care, but mental health professionals can play key roles in mitigating punitive environments in detention and placement facilities. Faye Taxman and her colleagues provide a stark assessment of the limited rehabilitative and therapeutic services provided in most placement facilities in their chapter examining services for youth in closed settings, finding that most fail to deliver evidence-based practices or treatments likely to improve the life prospects of youth. Meanwhile, Angela Wood and her colleagues describe the developments in correctional practice in more hopeful terms, outlining training approaches that can bring the respectful, therapeutic engagement strategies of motivational interviewing techniques to correctional settings. It is clear that programming in out-of-home placement facilities needs to catch up to the strides in research and program development that have occurred in community settings.

Mental health professionals working in correctional settings have opportunities to help custody staff understand more about the youth in their care. Custody staff training programs often fail to include key topics, including adolescent development, differing responses of kids with mental illness to strict rules and directions, effective strategies for working with youth with mental illness, the harms that excessive isolation and restraint can cause, understanding youth with developmental disabilities, trauma-informed care, and other behavioral health concepts. Mental health professionals can play key roles in educating custody personnel, both formally and informally, about these topics, but they must spend time where the youth live and seek out

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159 conversations with custody staff in order to
160 maximize these opportunities.

161 In many facilities, service contracts leave men-
162 tal health, education, and other professionals
163 working in separate silos. Facilities are more
164 likely to serve youth effectively when staff from
165 various disciplines collaborate to create behavior
166 management and intervention plans for youth
167 with special needs. Professionals governed by the
168 *Health Insurance Portability and Accountability*
169 *Act* (HIPAA 1996), the *Family Educational Rights*
170 *and Privacy Act* (FERPA 1974), and other confi-
171 dentiality protections must remain mindful of
172 their legal responsibilities, but can still find ways
173 to share limited, helpful information to coordinate
174 and improve services to youth and their families.
175 Interdisciplinary case planning and follow-up are
176 surprisingly absent from many youth detention
177 and correctional facilities, but can help establish
178 common goals for behavior management and
179 treatment of residents with special needs, and are
180 recommended practice (National Commission on
181 Correctional Health Care 2004). Where profes-
182 sionals believe that it would be valuable to share
183 information protected by confidentiality laws,
184 agencies can develop information-sharing agree-
185 ments and consents (Wiig et al. 2008). Agencies
186 must, of course, be ever mindful that what looks
187 to one agency like helpful flow of information to
188 better serve youth may look more like excessive
189 sharing of protected information to others (Soler
190 and Breglio 2010). In their chapter about education
191 for youth in correctional settings, Candace
192 Mulcahy and Peter Leone reinforce the need for
193 collaboration and effective communication among
194 educators, custodial personnel, and mental health
195 professionals—collaboration that is critical when
196 tailoring individual interventions and supports and
197 planning for youth reentry into the community.

198 In addition, informal discussions with individ-
199 ual staff in order to help them understand the
200 challenges presented by youth in their care are
201 opportunities for mental health professionals to
202 educate their colleagues, and can take place
203 without revealing confidential information.
204 Furthermore, mental health professionals can play
205 important roles in after-incident reviews to help
206 custodial staff and others understand, analyze,

207 and work to resolve the circumstances that may
208 have led to a youth's violent, self-harming, or oth-
209 erwise disruptive behavior. Those in positions to
210 negotiate mental health contracts and staffing
211 plans should not overlook these extra responsi-
212 bilities of formal and informal staff education and
213 collaborative planning along with screening,
214 assessment, direct treatment, and crisis interven-
215 tion functions when estimating staff capacity and
216 cost. They should also provide for adequate staff-
217 ing to work with youth on their substance abuse
218 problems. As Sarah Feldstein and her colleagues
219 point out in their chapter on serving dually diag-
220 nosed youth, there is a significant gap between the
221 needs of dually diagnosed youth and the resources
222 and treatment available through juvenile justice
223 programs today. In many facilities, we see little if
224 any attempt to address substance abuse needs of
225 youth unless the facility specializes in drug treat-
226 ment. The functions described above should be
227 considered integral to the work of mental health
228 providers in detention and correctional settings,
229 and are invaluable to help mitigate the harsh reali-
230 ties of many facilities.

231 Preventing Juvenile Justice from 232 Becoming the De Facto Mental Health 233 System for At-Risk Youth

234 A critical question policy makers face is just how
235 comprehensive mental health treatment should be
236 in pre-adjudication detention centers, where the
237 main function is to hold youth safely pending
238 adjudication (Migdole and Robbins 2007). As a
239 general matter, federal law requires that juvenile
240 justice facilities meet youths' mental health needs
241 and keep them safe from harm in accordance with
242 accepted professional judgment, practice, or stan-
243 dards (*Youngberg v. Romeo* 1982; *Estelle v. Gamble*
244 1976; *Bowring v. Godwin* 1977). Individual state
245 laws provide additional mandates as well. In recent
246 U. S. Department of Justice investigations and liti-
247 gation about conditions in state and local juvenile
248 detention facilities, agencies have been required to
249 provide mental health services in the following
250 areas: suicide risk assessment and response

(Marion County Agreement 2008), screening, assessment, treatment plans and services (Maryland Agreement 2007), response to crisis, coordination with other staff to meet youths’ needs, medication management, tracking lab results, counseling to ameliorate target symptoms of identified mental illness, and collaboration with other staff to develop behavior modification plans and care for suicidal youth (Los Angeles County Agreement 2004). Recent private litigation has included similar requirements as well as reentry planning (*Jerry M. v. District of Columbia* 2007).

Many authors in this handbook cite data from detention centers reporting rates of youth who meet the criteria for a mental health disorder as high as 70% (see, e.g., Teplin et al. 2002). While not all youth who could be diagnosed with a disorder need treatment, given these reported rates of youth who could be diagnosed with a mental health disorder, one might conclude that juvenile detention centers should be the locations for the most sophisticated and comprehensive treatment available. After all, there is a clear need among the population and the opportunity to provide significant care while youth are “captive audiences” required to be there. However, if detention-based services exceed what is available in the community, judges and court staff seeking to help youth may be more likely to incarcerate them in order to get them the help they need, sometimes regardless of the youth’s actual risk to the community. Striking the balance between ensuring that the juvenile justice system does not become a “portal to care” and meeting the mental health needs of incarcerated youth is challenging. For detailed guidance about appropriate mental health care in a detention setting, readers may find useful the standards developed by the Annie E. Casey Foundation to guide jurisdictions wishing to assess their detention facility conditions, *Detention Facility Self-Assessment: A Practice Guide to Juvenile Detention Reform* (Annie E. Casey Foundation 2006). As Tom Grisso has noted in his insightful piece on the progress and perils of the juvenile justice and mental health movement, the obvious long-range solution is to improve community mental health services for youth and in the short term to be wary of

innovations that may draw youth into the juvenile justice system for care (Grisso 2007). And as John Chapman explains in his chapter on court clinics, courts can support community-based service development by referring youth for assessment and treatment in the community rather than in detention where possible.

Protecting Youth from Self-Incrimination

Despite strict legal requirements of confidentiality in most circumstances, many jurisdictions have not taken adequate steps to protect the information shared in therapeutic relationships. Some states have found ways to protect youths’ treatment records from becoming evidence in their delinquency or criminal proceedings. However, in most states, the risk that information shared with psychologists, psychiatrists, and others may be used against them in delinquency and criminal proceedings compromises the pretrial relationship between mental health service providers and their clients in court and detention settings (Rosado and Shah 2007). Mental health professionals in states without protections from self-incrimination in mental health treatment must navigate their responsibility to provide care, the desire to protect the trusting relationships they work to establish with clients, and the prospect that they could be called as witnesses. In walking this tightrope, some choose to limit their record-keeping in hope that their subpoenaed files may not be appealing to prosecutors, or they avoid topics that could lead to self-incrimination in their conversations with clients.

Mental health professionals and others should place a high priority on promoting legislative change to allow effective pre-adjudication screening, assessment, and supportive care without the risk that the information will wind up in court. Given that some youth wait months or years for court proceedings to conclude, especially those charged in adult criminal court, youth should be able to develop effective therapeutic relationships free from the worry of undesirable exposure of

343 their thoughts and shared experiences. Mental
 344 health practitioners have the opportunity to share
 345 their concerns about the way the lack of self-
 346 incrimination protections compromises their
 347 work, and can bring together representatives
 348 across disciplines to work toward change in their
 349 individual states.

350 **Movement Toward Community-Based**
 351 **Care**

352 Ideally, youth with psychiatric disorders would
 353 have their needs met outside of locked correc-
 354 tional environments. Some communities are
 355 beginning to build solid continuums of alterna-
 356 tives to detention and secure placement, and to
 357 divert youth with mental health needs from the
 358 juvenile justice system altogether. Promising
 359 work is occurring to help law enforcement offi-
 360 cials identify youth with mental health needs and
 361 refer them for care (National Center for Mental
 362 Health and Juvenile Justice 2009). Other commu-
 363 nities have focused on helping schools provide
 364 on-site mental health services or behavior inter-
 365 ventions to keep school-based misconduct from
 366 resulting in arrest (National Center for Mental
 367 Health and Juvenile Justice 2009; Leech 2009).
 368 Some communities are finding ways to divert
 369 youth to mental health care after arrest but before
 370 they are formally processed in the courts (National
 371 Center for Mental Health and Juvenile Justice
 372 2009). Jean Adnopo and her colleagues in their
 373 chapter describe the Intensive In-Home Child
 374 and Adolescent Psychiatric Service (IICAPS)
 375 treatment model, which Connecticut courts are
 376 using as a preferred in-home mental health inter-
 377 vention for delinquent youth with mental health
 378 needs and those at risk of out-of-home placement
 379 or hospitalization.

380 National statistics indicate that jurisdictions
 381 are recognizing the value of community-based
 382 services. Out-of-home placements have declined
 383 over the past few years from a high of 109,000 in
 384 2000 to below 81,000 in the latest data set from
 385 2008 (Sickmund 2010). A touchstone of this
 386 change is the increased investment many com-

387 munities are making in community-based, evi-
 388 dence-based practices, such as Multisystemic
 389 Therapy, Functional Family Therapy, and
 390 Multidimensional Treatment Foster Care, which
 391 Paul Boxer and Sara Goldstein describe in their
 392 chapter on best practices in treating juvenile
 393 offenders.

394 “Evidence-based” has become the watchword
 395 for funding priorities, but not everyone under-
 396 stands the term in the same way, as Nancy Guerra
 397 and Kirk Williams discuss in their chapter on
 398 evidence-based practices. Some are just looking
 399 for “proven effective” programs or programs
 400 with some measurable amount of success, while
 401 others find anything less than the rigorous require-
 402 ments of random assignment of youth to experi-
 403 mental and control groups, sustained effect and
 404 replicability—the hallmarks of the Blueprints for
 405 Violence Prevention programs—to be insuffi-
 406 cient (Center for the Study and Prevention of
 407 Violence 2010). As several authors in this hand-
 408 book point out, while the name-brand Blueprints
 409 programs provide a package of services, individ-
 410 ual strategies identified as effective by Lipsey
 411 and colleagues may be incorporated in programs
 412 that have not themselves been rigorously tested
 413 (Lipsey et al. 2000). There is still much to be
 414 learned to determine programs’ effectiveness for
 415 particular populations, such as girls or members
 416 of individual racial and ethnic groups who may
 417 respond differently to in-home vs. out-of-home
 418 interventions.

419 Advocates have begun to lay out the argu-
 420 ments for legislators, agency directors, and others
 421 to understand how beneficial and cost-effective
 422 these services can be so that they can invest in
 423 productive forms of care and restructure state
 424 funding systems to incentivize keeping kids close
 425 to home (Justice Policy Institute 2009). Mental
 426 health professionals can be important contribu-
 427 tors to decisions juvenile justice agencies and
 428 courts make about where, how, and for whom to
 429 establish new programs to serve youth effectively,
 430 and they must be at the forefront of developing
 431 new programs that can be studied and become
 432 “evidence-based.”

433 The shift that has begun to emerge toward
 434 more community-based and evidence-based care

435 has been supported and fuelled by some signifi- 483
 436 cant juvenile justice reform initiatives over the 484
 437 past several years. The Annie E. Casey 485
 438 Foundation’s Juvenile Detention Alternatives 486
 439 Initiative (JDAI) has grown from a handful of 487
 440 pilot sites in 1992 to over 125 sites in 30 states 488
 441 and the District of Columbia. The initiative brings 489
 442 together collaboratives of juvenile justice stake- 490
 443 holders, mostly at the county or parish level, to 491
 444 gather and analyze data about their incarcerated 492
 445 youth populations and implement policy, practice, 493
 446 and other changes to reduce reliance on secure 494
 447 confinement while improving public safety and 495
 448 reducing racial and ethnic disparities. JDAI has 496
 449 recently begun to move toward statewide applica- 497
 450 tions (Annie E. Casey Foundation 2011). Since 498
 451 2005, the John D. and Catherine T. MacArthur 499
 452 Foundation’s Models for Change Initiative has 500
 453 worked with leaders in states that have initiated 501
 454 juvenile justice reforms and that are likely to 502
 455 influence national reform. The Models for Change 503
 456 Action Networks in Juvenile Indigent Defense, 504
 457 Disproportionate Minority Contact, and Mental 505
 458 Health/Juvenile Justice have created peer learning 506
 459 networks and served as laboratories for innova- 507
 460 tion. States involved in the Mental Health/Juvenile 508
 461 Justice Action Network have developed new
 462 diversion strategies, develop training for juvenile
 463 justice personnel on mental health related issues,
 464 and improved involvement of youths’ families in
 465 mental health and juvenile justice programs (John
 466 and Catherine T. MacArthur Foundation 2011).

467 Through both of these initiatives, and with the 509
 468 help of federal funding, some communities have 510
 469 begun to make strides in reducing racial and ethn- 511
 470 ic disparities at various points where youth have 512
 471 contact with the juvenile justice system. As 513
 472 Kimberly Kempf-Leonard notes in her chapter 514
 473 discussing race and sex disparity in juvenile jus- 515
 474 tice processing, the juvenile justice system cre- 516
 475 ates a “cumulative minority disadvantage.” Youth 517
 476 of color receive harsher dispositions than white 518
 477 youth, even for similar offenses, and the overrep- 519
 478 resentation of youth of color in the system grows 520
 479 greater at each progression deeper into the 521
 480 system (National Council on Crime and 522
 481 Delinquency 2007). In 1988, the Juvenile Justice 523
 482 and Delinquency Prevention Act (JJDP) first 524
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 526

required states to “address” disproportionate 483
 minority confinement (JJDP 1988), and then 484
 made it a condition of federal funding in 1992 485
 (JJDP 1992). In 2002, Congress required that 486
 states address disproportionality at all contact 487
 points with the juvenile justice system (JJDP 488
 2002). Despite the imprecise wording of this 489
 requirement, some communities have advanced 490
 beyond studying and writing reports about the 491
 problem to finding real solutions. These jurisdic- 492
 tions develop strategies that target their individual 493
 points of overrepresentation of youth of color and 494
 the myriad factors that can cause disparities, 495
 often reducing the numbers of youth of color 496
 securely detained or placed (Szanyi 2008–2011). 497
 The diverse stakeholder groups that have been 498
 the driving forces behind racial and ethnic dis- 499
 parities reduction work and the JDAI and Models 500
 for Change initiatives more broadly have, in the 501
 best cases, involved representation from the men- 502
 tal health community. Mental health profession- 503
 als who wish to contribute to broadscale systems 504
 reform in their communities would do well to 505
 seek out existing collaboratives in their commu- 506
 nities or spearhead new initiatives to promote 507
 data-driven reforms. 508

Valuing and Involving Families 509

Juvenile justice professionals have come to 510
 appreciate the central role that families must play 511
 in their children’s rehabilitation. Families often 512
 feel shut out of decision making about their chil- 513
 dren and their needs, and demonization of par- 514
 ents by some juvenile justice officials can lead to 515
 a lack of trust and communication. Juvenile jus- 516
 tice agencies committed to the core value of 517
 meaningful family involvement have begun to 518
 foster growth of youth-family team decision 519
 making for case planning, expansion of opportu- 520
 nities for families to visit their children in secure 521
 facilities, increased promotion of cultural compe- 522
 tence, and improved information and records 523
 sharing with parents and guardians about their 524
 children’s care. Pennsylvania has engaged in 525
 statewide efforts to involve families more fully in 526

527 planning and implementation of treatment and
 528 aftercare, communicate respect, and improve
 529 communication, visitation and transportation
 530 (Pennsylvania Family Involvement Committees
 531 2009). The Texas Youth Commission has an
 532 expansive, clearly written Parents’ Bill of Rights
 533 that outlines a broad range of parents’ rights to
 534 communicate with their children and facility
 535 staff, to access information, and to be involved in
 536 treatment decisions (Texas Youth Commission
 537 2008). The document does flag a bit on informed
 538 consent for medical care, stating only that parents
 539 have “The right to discuss your child’s health
 540 condition with a licensed healthcare professional
 541 and to be informed if there are significant medi-
 542 cation changes.” However, it compiles and prom-
 543 ises to parents a broad array of rights not seen in
 544 other jurisdictions.

545 The challenge of obtaining parent and guard-
 546 ian as well as youth informed consent for treat-
 547 ment in juvenile justice settings poses hard
 548 questions. What does consent mean in a coercive
 549 world in which you or your child is in custody?
 550 Although strides have been made in individual
 551 jurisdictions, parents whose children are incar-
 552 cated do not have full information about their
 553 behavior, responses to particular circumstances,
 554 trouble they may be having with individual youth
 555 or staff, or a host of other details they might nor-
 556 mally factor into weighing treatment recommen-
 557 dations. In addition, parents may be fearful that
 558 refusing to consent might get their children in
 559 trouble, or they may not know what their options
 560 are in a system where they cannot just make an
 561 appointment and bring the child elsewhere for a
 562 second opinion. Mental health professionals in
 563 contact with families to discuss their children’s
 564 care and obtain informed consent should remain
 565 aware of these factors and take extra care to
 566 ensure that parents and guardians have enough
 567 information to provide meaningful consent.

568 Sandra McPherson in her chapter on forensic
 569 practices points out additional challenges with
 570 obtaining youths’ informed consent. These
 571 include youths’ limited comprehension, lack of
 572 trust of adults in confinement settings, ethical
 573 questions of off-label prescribing where risks
 574 and benefits are unknown, and the limited ability

of adolescents to understand sophisticated expla- 575
 nations of probability. Practitioners working with 576
 youth must take the time and care necessary to 577
 explain their recommendations, answer ques- 578
 tions, anticipate questions youth do not know 579
 how to ask, and check to see if youth understand 580
 during discussions seeking informed consent. 581

**Contributions of Brain Development 582
 Research 583**

584 Many important developments for youth charged
 585 with crimes have come about in recent years as
 586 understanding of adolescent brain development
 587 has made its way from the research realm into
 588 court decisions, legislative debate, and policy
 589 deliberations about the nature of youth offender
 590 culpability (Soler et al. 2009). As Jeffrey Shook
 591 notes in his discussion of juvenile life without
 592 parole sentences, the Supreme Court’s recent
 593 decisions, first finding the juvenile death penalty
 594 unconstitutional (*Roper v. Simmons* 2005), and
 595 then invalidating life without parole for youth
 596 whose crimes did not include murder (*Graham v.*
 597 *Florida* 2010), have provided new opportunities
 598 for advocates to push back the most draconian
 599 sentences for youth tried in the adult system.

600 Baptiste Barbot and Scott Hunter explain in
 601 their chapter on developmental changes in ado-
 602 lescence how further understanding of the neuro-
 603 biological and psychosocial underpinnings of the
 604 “storm and stress” of adolescent development
 605 may help shape justice system response to juve-
 606 nile offending. Elizabeth Scott and Laurence
 607 Steinberg offer a “developmental model,”
 608 informed by our understandings of brain devel-
 609 opment, as a new option to respond to youth
 610 crime and reduce adult court transfer. Under this
 611 model which recognizes adolescents’ lesser cul-
 612 pability, most youthful offenders would remain
 613 in the juvenile justice system, where the chances
 614 of receiving some rehabilitative care are greater
 615 than in the adult system (Scott and Steinberg
 616 2008). This option holds promise of more effec-
 617 tive approaches to youth crime, since we know
 618 from research that trying and sentencing youth in

619 adult court makes us all less safe (Redding 2010).
 620 The translation of brain development and other
 621 influential research into practice is a key contri-
 622 bution that the mental health field continues to
 623 make to juvenile justice.

mental health practice. Meeting youth in the 663
 juvenile justice system at the intersection of 664
 crisis, consequences, and opportunity brings with 665
 it the possibility of making a great difference in 666
 their lives. 667

624 **Conclusion**

625 The more that juvenile justice decision makers
 626 incorporate an understanding of youths’ develop-
 627 mental and mental health needs into policy, train-
 628 ing, and practice, the greater the likelihood of
 629 successful outcomes for youth. Forensic mental
 630 health practitioners can play a key role in shaping
 631 policy and practice while providing individual
 632 mental health services in both community-based
 633 and locked settings. Opportunities abound for
 634 psychologists, psychiatrists, and clinical social
 635 workers to educate juvenile justice personnel in
 636 formal and informal settings in order to help
 637 reduce the punitive atmosphere of many locked
 638 facilities. At the same time, the goal should be to
 639 serve youth in the least restrictive environment
 640 necessary for public safety.

641 Balancing adequate information sharing with
 642 the need to protect youth from self-incrimination
 643 is a particular challenge for mental health profes-
 644 sionals that could be solved through legislative
 645 change. Valuing families and finding ways to
 646 incorporate them more fully into decisions about
 647 their children is a core goal to be pursued as well.
 648 As juvenile justice reformers seek to improve the
 649 effectiveness of juvenile justice interventions
 650 while reducing unnecessary use of confinement,
 651 the mantras of the field today include closer
 652 to home, more humane, trauma-informed, and
 653 evidence-based. Many resources and new solu-
 654 tions to promote those goals are found in this
 655 handbook. And, as many authors note, many
 656 more resources and solutions are still waiting for
 657 mental health practitioners and researchers to
 658 collaborate, innovate, develop, and evaluate them.

659 Mental health professionals committed to
 660 working with court-involved youth are essential
 661 to juvenile justice today, despite the many barriers
 662 and challenges this environment imposes on

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Developmental Changes in Adolescence and Risks for Delinquency

2

Baptiste Barbot and Scott R. Hunter

Adolescence is a critical developmental period considering the quantity and intensity of related changes (e.g., biological and psychosocial), which may represent, in themselves, risks for present and future delinquency. It is indeed well established that the age-crime curve peaks during adolescence (e.g., Landsheer and van Dijkum 2005) and that the rate and severity of offences occurring during this period are strong predictors of later offences (e.g., Overbeek et al. 2001). Furthermore, the number of juvenile offences is extremely high in the USA, with 2.11 million juveniles arrested in 2008, a rate of about 2.4% of 10- to 17-year olds. Among these, 96,000 juveniles were arrested for violent crimes, including 1,280 murders (Sickmund 2010; Puzanchera et al. 2010). Despite the frequency of juvenile delinquency, young offenders are rarely taken into consideration in the literature on normative adolescent development, and it would be consequently incorrect to assume that delinquency precludes youth from experiencing processes that are typical during this developmental period (e.g., Knight et al. 2009). Accordingly, the ways in which the justice system responds to juvenile

offending should be informed by the lessons of developmental science (Steinberg 2009).

The concept of “storm and stress” has been suggested (Rousseau 1762/1962), operationalized (Hall 1904), and revised (e.g., Arnett 1999) to describe the tumultuous change inherent in normative adolescence, and also to suggest pathways to delinquency. In this chapter, we build upon this concept by analyzing the developmental changes of adolescence as a fundamental context for the emergence of a range of behavior and outcomes that may include delinquency. Such contextualization could help to understand how “normative” experiences of rule breaking may persist into a delinquent identity. Complementing Steinberg’s (2009) review on adolescent development and its implications for the treatment of juveniles in the justice system, we examine neurobiological and psychosocial changes of adolescence as vulnerable contexts for the emergence of delinquency. First, we introduce the key characteristics of adolescent development in terms of neurobiological and psychosocial changes. Second, we describe how this natural developmental process can lead to maladaptive adjustment and behavior, ranging from “typical” manifestations of adolescent behavior to more troubling outcomes such as delinquency and psychopathology. Third, we examine more deeply the neurobiological factors that may be involved in the emergence of such outcomes. Finally, we review the major aspects of emerging identity that may result in internal conflicts, maladaptive

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63 behaviors, and delinquency. We conclude by
 64 underlining the advantages of contextualizing
 65 delinquency in neurobiological and identity
 66 changes, and by hypothesizing that developmental
 67 asynchronies may explain individual differences
 68 in experiencing storm and stress. Understanding
 69 these developmental changes individually thus
 70 provides insight into the emergence of juvenile
 71 delinquency in adolescence. Taken together, they
 72 offer new perspectives for delinquency theory
 73 and research with implications for tailored inter-
 74 ventions, grounded in adolescent development.

75 **Developmental Storm** 76 **in Adolescence**

77 Several volumes on adolescent development
 78 would be necessary to describe the quantity, the
 79 intensity, and the complex interaction of the
 80 changes occurring during this period of life, and
 81 how these changes may represent specific vulner-
 82 abilities for developing adolescents. In modern
 83 societies, adolescence is indeed often character-
 84 ized as a period of “storm and stress” (e.g., Hall
 85 1904) or “developmental storm” (e.g., Cloutier
 86 2005), as the intensity and rapidity of the changes
 87 experienced by youth are significant and widely
 88 observed. Across all these changes, the task of
 89 adolescence is above all the formation of an iden-
 90 tity, which is triggered by environmental, social,
 91 pubertal, and neurobiological changes. These
 92 neurobiological changes, specifically, lead to
 93 increased cognitive capacity, which allows the
 94 new meta-reflexive questions of identity forma-
 95 tion. The multitude of adolescent changes also
 96 results in behavioral manifestations such as risk
 97 taking,¹ impulsivity, and emotional disturbance.
 98 In this section, we introduce the key psychosocial
 99 and neurobiological transformations of adoles-
 100 cence in order to better understand the emergence
 101 and peak of delinquency during this period of
 102 life, as further explored in the next section.

¹The tendency to engage in behaviors that have the poten-
 tial to be harmful or dangerous, yet at the same time provide
 the opportunity for some kind of outcome that one per-
 ceives as positive (e.g., the thrill of driving at unsafe speeds,
 or the feelings of euphoria from taking a new drug).

Adolescent Neurobiological Development

103 Puberty represents the onset of adolescence, and
 104 the mechanistic and outward physical changes
 105 involved have been widely studied and reported
 106 in the literature. However, the human brain
 107 undergoes substantial development during ado-
 108 lescence, and until recently the specific develop-
 109 mental changes occurring in the brain were
 110 opaque. While there is still much to learn,
 111 researchers have identified two neurobiological
 112 systems that are particularly important in regulat-
 113 ing behavior during adolescent development: the
 114 socioemotional system and the cognitive control
 115 system (Casey et al. 2010; Steinberg 2008).
 116

117 The socioemotional system processes social
 118 and emotional information and compels individ-
 119 uals to act in ways that maximizes pleasure and
 120 minimize displeasure. Due to the system’s role in
 121 reinforcing pleasurable behaviors, one of its
 122 major components is commonly referred to as the
 123 reward pathway or reward center, and it is par-
 124 ticularly important when considering the risk
 125 versus reward considerations that are a key fea-
 126 ture of risky decision making (Steinberg 2008).
 127 The other system, the cognitive control system, is
 128 generally responsible for executive functioning,
 129 including response inhibition, affective control,
 130 planning, weighing risks and rewards and simul-
 131 taneous consideration of multiple sources of
 132 information—and these are critical features for
 133 identity formation, as reviewed below. These two
 134 systems, the socioemotional system and the cog-
 135 nitive control system have been observed to mature
 136 substantially during adolescence, but they do not
 137 develop at exactly the same time. As a whole, the
 138 socioemotional system develops rapidly during
 139 early adolescence likely triggered by puberty, and
 140 is undistinguishable from adults by middle adoles-
 141 cence (age 15–16). While the cognitive control
 142 system also shows gains in early adolescence, its
 143 development is more gradual than the socioemo-
 144 tional system, and only reaches the final stages of
 145 maturation as late as early adulthood (age 18–24)
 146 (Casey et al. 2010; Steinberg 2009).
 147

148 This developmental lag of the cognitive control
 149 system, described as a temporal gap (e.g., Steinberg

2009), is the typical neurobiological context of adolescent behavior. The lack of inhibition from the developing cognitive control system results in a brain that is highly susceptible to social and pleasurable influences, has decreased capacity to plan ahead, and weigh the consequences of risky behavior. This temporal gap is analogous to how a growing adolescent's body can develop disproportionately, resulting in an awkward teenage look; similarly, the asynchronous development of neurobiological systems predisposes adolescents to characteristic behaviors, such as risk taking and impulsivity. Adolescents' greater susceptibility to peer influence and decreased capacity to plan for the future are additional factors that influence risk taking and impulsivity and can be explained by this temporal gap of developing brain systems.

The specific cellular changes that occur in the developing brain and ultimately lead to the formation of an adult brain are complex and there is still much to be discovered; however, underlying cellular changes can be inferred from observations made at the anatomical level. Brain development in late childhood and adolescence involves a gradual decrease in total gray matter and an increase in total white matter (Giedd 2004). The gray matter is distributed along the outer portion of brain structures and it primarily contains neuron cell bodies that project onto other cells both within the gray matter and also to other regions of the brain. The decrease in gray matter corresponds to maturation because neurons of the gray matter are thought to undergo synaptic pruning, which results in improved coordination and specialization of neurons for specific cognitive tasks (Gogtay et al. 2004). The white matter differs from gray matter in that it does not contain cell bodies, and is primarily made up of the myelinated (i.e., long and fast) connections between brain regions. The volume of white matter continues to increase linearly before stabilizing in adulthood, suggesting that connections between cortical and deep brain regions continue to increase until early adulthood when the brain has established the network of communicating neurons between its regions (Paus 2005). Such studies demonstrate that it is not until early adulthood (age 18–22) that the human brain is anatomically

stable over time (i.e., fully developed). The increasing specialization of neurons and improving interconnectivity of brain regions, occur in both neurobiological systems, the socioemotional system, and the cognitive control system. The emerging interconnectivity between these developing brain systems is a possible mechanism to explain individual behavioral tendencies, including risk-taking and impulsivity (Casey et al. 2010). The brain maturation that occurs during adolescence is also responsible for cognitive changes that allow new meta-reflexives questions involved in the process of identity formation.

Adolescent' Psychosocial Development and the Quest for Identity

Adolescence is a fragile period of "crisis," which is a crucial time for identity development. Erikson (1968) used the term "crisis" to refer to a time of fragmentation and conflict, and to describe how adolescent development happens through contradictions and uncertainties about the self. Indeed, the adolescent's quest for identity refers to the new question "Who am I?" allowed by the new development of the brain (see previous section), major environmental changes, and the new dynamic of the need for affiliation/socialization and individuation. The formation of identity in adolescence is the pursuit of a feeling of self-sameness and existential continuity across contexts and situations (Erikson 1968). This is reached through a complex dynamic between two aspects of identity: the personal and the social. The personal aspect of identity refers to the need for individuation, or need to be unique, independent, while the social aspect involves the search for the feeling of belonging to a social group (cf. Tajfel 1982) and being accepted by a group of peers. This dynamic makes the balance between "self" and "others" a developmental challenge (e.g., Kroger 2003). This quest for identity is also compelled by an essential adaptation to a "new" body (i.e., puberty and other biological changes), and changes in cognitive functioning (i.e., access to abstract reasoning) allowing new abilities in self-representation

(e.g., Harter 2003), as well as for interpreting and interacting with the social world. At the same time, identity development occurs during a period of the first significant decisions of life, which are often required due to environmental and societal demands imposed on youth (e.g., such as the choice of a school curriculum that will determine one's future career opportunities). These commitments and commitments in general strongly contribute to the adolescent's self-image, since they define social categories that serve as a source of self-esteem (cf. Bosma 1994, Tajfel and Turner 1986).

Among different theoretical approaches, the identity status paradigm (Marcia 1966) has been used for decades to empirically describe identity formation in adolescence (e.g., Berzonsky and Adams 1999; Kroger et al. 2010; Zimmermann et al. 2010). In his early work based on the Eriksonian perspective of identity, Marcia (1966) focused on the outcome of the identity crisis in adolescence. He realized that adolescents' ability to formulate their commitments—an essential aspect for defining the self—depended on whether or not they experienced a period of “crisis,” or exploration of many possible commitments, which may lead to doubts and uncertainties about the self. For Bosma (1994), the amount of exploration involved in achieving the commitments reflects on the stability and flexibility of the sense of identity. Indeed, commitments have a social significance and provide a definition of the adolescent to him/herself (e.g., Bourne 1978; Kroger 2003). Therefore, the intensity of the commitments reveals the strength of the adolescent's sense of identity (Bosma 1994). Accordingly, Marcia (1966) constructed a model of four “identity statuses” based on an adolescent's level of exploration and commitment in significant ideological and interpersonal domains of life (e.g., future profession, leisure activities, politics, religion) (see Table 2.1). As described later, each identity status is related to various levels of psychosocial maturity,² and can explain adolescent decision making and delinquency.

²Psychosocial maturity has been defined as the capacity of the individual to function adequately on one's own, to make decisions without excessive reliance on others, to contribute to social cohesion, and to interact adequately with others (e.g. Greenberger and Sorensen 1974).

Table 2.1 The identity statuses paradigm (adapted from Marcia 1980)

		Exploration ^a	
		Low	High
Commitment ^a	Low	Diffusion	Moratorium
	High	Foreclosure	Achievement

^aLevel (low or high) of exploration of commitment and corresponding identity statuses

Identity achievement status has been described as the goal (or ideal) of a developmental trajectory because it characterized adolescents who have explored different areas of life and then committed themselves through personal choices in these domains. Therefore, this status is often described as the most mature developmental configuration in Western societies (e.g., Waterman 1999). Since commitments are grounded in their experience, identity achievers (i.e., adolescents in identity achievement status) are able to articulate the reasons for their choices. They are also described as intrinsically motivated (Waterman 2004) and open to new experience (Clancy and Dolliger 1993). Conversely, *Identity-diffusion status* is an identity structure resulting from a lack of exploration associated with a lack of commitment in significant domains. In other words, diffuse adolescents do not attempt to commit, which reflects a low level of psychosocial development and often a less mature identity (e.g., Waterman 1999). Identity-diffusion is associated with negative outcomes such as low intrinsic motivation (Waterman 2004), lack of self confidence (Dunkel 2000), higher conformism (Adams et al. 1985), and more risk for alcohol and drug abuse (Jones and Hartmann 1984). The *Moratorium status* describes adolescents in a period of wide exploration, a quest for identity with intense questioning about possible commitments. The Moratorium identity is per se, the period of identity “crisis” discussed above. In their narrative, adolescents in Moratorium describe a lot of dilemmas, internal conflicts, and often anxiety about themselves and their future (e.g., Yoder 2000). Cognitively, Moratorium's intense exploration is consistently associated with greater divergent thinking (Barbot 2008). While adolescents in this status show more

emotional disturbance and higher anxiety than other statuses, they also show higher openness to experience (Clancy and Dolliger 1993). Conversely, the *Foreclosure-status* is characterized by very strong commitments that do not result from a period of exploration, but rather a deep internalization of parental and social values. These strong commitments leave little opportunity for exploration and reconsideration. Foreclosed adolescents are generally extrinsically motivated and dependant on relevant external forces for guidance and decision making (e.g., Archer and Waterman 1990; Marcia 1980). They attach great importance to preserve their identity through rigidly held beliefs and inflexible values (e.g., Berzonsky and Sullivan 1992; Dollinger 1995). On the other hand, they may be less inclined to take risks (Jones and Hartmann 1988) and to be open to experience (Clancy and Dolliger 1993). By protecting their commitment and their identity, these adolescents may have higher self-esteem than Moratorium and Diffuse adolescents (e.g., Cramer 1995), possibly for defensive reasons (Marcia 1980).

Confirming that the Diffusion status is a less mature configuration, whereas Achievement is more mature, evidence from numerous longitudinal studies indicates a prevalence of identity Diffusion in the beginning of adolescence, and the highest rate of Achievement in late adolescence (e.g., Kroger et al. 2010; Meeus et al. 1999). As an illustration, a recent meta-analyses of 124 longitudinal studies using Marcia's paradigm (Kroger et al. 2010) indicated that about two-thirds of the identity development trajectories started at age 14 with either a Diffusion (36%) or Foreclosure (28%) status, whereas Achievement (15%) and Moratorium (22%) statuses were less frequent. The reverse pattern was found in late adolescence, but the highest rate of Achievement is in fact more prevalent beyond adolescence (47% among 30- to 36-year olds), also suggesting that identity development does not necessarily end in adolescence (Kroger et al. 2010).

While these differences in identity status distribution suggest a direction of change from Diffusion to Achievement (e.g., Marcia 1980, 1993; Waterman 1999), the developmental

sequence in forming identity during adolescence is, however, multi-phasic (e.g., Matteson 1975) and not hierarchical, with a variable number of periods of stability, "regressions," and "progressions." Thus, throughout adolescence, identity does not develop linearly between the Diffusion status and the Achievement status. Conversely, it may be constantly explored and reconsidered (e.g., Crocetti et al. 2008), in particular when adolescents face new events of life or have to make new commitments.

The concept of *Identity confusion* proposed by Erikson (e.g., Erikson 1970) is useful to understand how this developmental task of identity formation is a difficult process which may lead to internalizing or externalizing problems. Identity confusion reflects the state in which the individual fails to resolve identity crisis and does not have a strong feeling of identity. According to Erikson (1970), a state of identity confusion, often seems to be accompanied by all the neurotic or near-psychotic symptoms to which a young person is prone on the basis of constitution, early fate, and malignant circumstance. Correspondingly, Marcia (1980; see also Archer 1989) advanced that each identity status is associated with both protective and risks factors for psychopathology (e.g., phobia, depression, anxiety) and other psychosocial problems (e.g., drug abuse, delinquency), except perhaps in the case of identity achievement, which would more likely be associated with only protective factors. According to Marcia's (1980) review, the protective factors associated with Identity Achievement include autonomy, reflection, self-esteem, post-conventional moral reasoning, mature intimacy, cultural sophistication, and an internal locus of control. Conversely, risk-factors mostly associated with Diffusion and Foreclosure include authoritarianism, pre-conventional and conventional moral reasoning, an external locus of control, less self-directedness, stereotyped interpersonal relationships, a preference for cognitive simplicity or disorganized cognitive complexity, and impulsivity. In a later section, we review what makes the process of identity formation a particularly vulnerable process for the development of delinquency.

421 **From Developmental Storm**
 422 **to the Perfect Storm: Risks Inherent to**
 423 **Adolescent Development**

424 At the inception of adolescent development as an
 425 area of scientific study, the term “storm and
 426 stress” was used to characterize the chaos, pas-
 427 sion, energy, and tumult that was more often
 428 observed in adolescence than in other age groups
 429 (e.g., Hall 1904). The “storm and stress” issue
 430 has been explicitly considered in relation to ado-
 431 lescent normative development to describe ado-
 432 lescents’ typical tendency (a) to question and
 433 contradict their parents (adolescence is a time
 434 when conflict with parents is especially high,
 435 which is associated with a tendency to be rebellious
 436 and to resist adult authority), (b) in their mood
 437 disruptions (adolescents tend to be more volatile
 438 emotionally and to experience more extremes
 439 and swings of mood, including more frequent
 440 episodes of depressed mood), and (c) in their pro-
 441 pensity for reckless and antisocial behavior (they
 442 have higher rates of reckless, norm-breaking,
 443 and antisocial behavior) (Arnett 1999). Indeed,
 444 adolescence has long been associated with height-
 445 ened rates of antisocial, norm-breaking, and
 446 criminal behavior, particularly for boys. Hall
 447 (1904) included this as part of his view of adoles-
 448 cent storm and stress, suggesting that “a period of
 449 semi-criminality is normal for all healthy [adoles-
 450 cent] boys” (Vol. 1, p. 404). While this idea is still
 451 accepted, as suggested by international guidelines
 452 on adolescent delinquency (United Nations 1990),
 453 adolescents do vary a great deal in the extent to
 454 which they participate in reckless and antisocial
 455 behavior (Arnett 1999).

456 If adolescence is expected to be a time of
 457 storm and stress for all, there may be adolescents
 458 whose serious problems go unrecognized and
 459 untreated, while adolescents who are experienc-
 460 ing normal difficulties may be seen as pathologi-
 461 cal and in need of treatment (Arnett 1999).
 462 Similarly, startling statistics on psychiatric symp-
 463 toms, mortality, crime, and drug abuse, should
 464 not be misconstrued to suggest that all adoles-
 465 cents are criminals, or even that all adolescents
 466 are greatly affected by storm and stress. However,

epidemiological data identify adolescence as the 467
 most common time of life for psychiatric illness 468
 to emerge (Kessler et al. 2005), and adolescents 469
 have been observed to have higher rates of 470
 depressed mood than either children or adults 471
 (Petersen et al. 1993), which is consistent with 472
 common observations of adolescent storm and 473
 stress. US mortality statistics also reinforce the 474
 notion that adolescence is a time of storm and 475
 stress as accidents, homicide, and suicide are the 476
 three leading causes of death for 15- to 19-year- 477
 olds (Heron 2007), which is also the case world- 478
 wide. Indeed, the leading causes of death for all 479
 countries combined in ages 15–19 are road traffic 480
 accidents (11.6%), self-inflicted injuries (7.3%) 481
 and violence (6.2%). Furthermore, in the 20–24 482
 age group, deaths from HIV/AIDS become the 483
 second leading cause of mortality (8.3%) (Patton 484
 et al. 2009), in large part a consequence of the 485
 increased risky sexual behavior that occurs in 486
 adolescence. 487

Just as disquieting are studies suggesting that 488
 “extreme forms” of storm and stress (such as 489
 delinquency) are associated with mental disor- 490
 ders (e.g., Fazel et al. 2008). A number of US 491
 studies report that nearly 70% of incarcerated 492
 youths and 50% of youths on probation screen 493
 positive for at least one mental disorder, and in 494
 those that screened positive, rates of comorbidity 495
 were as high as 80% (Teplin et al. 2002; 496
 Wasserman et al. 2002, 2005). Setting out to fur- 497
 ther estimate the disease burden of mental health 498
 in incarcerated youths, a recent meta-analysis on 499
 the international prevalence of mental disorders 500
 among juveniles in correctional facilities included 501
 data from 25 studies from eight countries for a 502
 total of 13,778 boys and 2,972 girls (mean age 503
 15.6 years, range 10–19 years) (Fazel et al. 2008). 504
 Results are summarized in Table 2.2. The investi- 505
 gators state that they limited their analysis to psy- 506
 chotic disorders, major depression, and ADHD 507
 due to their treatability, and to conduct disorder 508
 because of its prognostic value. Substance abuse 509
 prevalence was also excluded due to the substan- 510
 tial influence of reporting and ascertainment bias. 511
 While these data offer a limited view of disease 512
 burden, they have external validity that far 513
 exceeds individual studies in a field with limited 514

t2.1 **Table 2.2** Aggregated prevalence of juvenile psychopa-
 t2.2 thology in correctional facilities compared with commu-
 t2.3 nity estimates

	Correctional facilities		Community estimates ^a (%)
	Boys (%)	Girls (%)	
t2.6 Psychotic disorder	3.3 ^b	2.7 ^b	0.3
t2.7 Major depression	10.6 ^b	29.2 ^b	5
t2.8 ADHD	11.7 ^b	18.5 ^b	3
t2.9 Conduct disorder	52.8 ^b	52.8 ^b	4
t2.10 PTSD	10.9 ^c	14.7 ^c	1

t2.11 ^aUS data (Costello et al. 2005)

t2.12 ^bFazel et al. (2008)

t2.13 ^cUS data (Abram et al. 2004)

515 epidemiological data. Nonetheless, to offer a more
 516 complete picture, the table also includes findings
 517 in Post-Traumatic-Stress-Disorders (PTSD) preva-
 518 lence from a recent large US study of 532 males
 519 and 366 females from a single urban area (Abram
 520 et al. 2004). For comparison, the median US-wide
 521 community prevalence of the same disorders are
 522 also listed (as reported by Costello et al. 2005),
 523 but similar to reports on disease prevalence in
 524 incarcerated youth, the reviewers caution that
 525 remarkably few rigorous epidemiological surveys
 526 reporting the general prevalence of mental disor-
 527 ders in adolescents have been carried out, hence
 528 the lack of precision in the numbers reported.

529 Table 2.1 clearly shows that the burden of
 530 mental illness in delinquent adolescents is high
 531 (with rates of psychotic disorder, ADHD, conduct
 532 disorders and PTSD above ten times greater than
 533 for the community estimates; and two to six times
 534 higher rates for major depression). In other words,
 535 incarcerated adolescents tend to present much
 536 higher risks for psychopathology (Teplin et al.
 537 2002). However, it should be noted that incarcer-
 538 ated youths represented only approximately 35%
 539 of all delinquency cases in 2007 (Puzzanchera
 540 et al. 2010). Therefore, these epidemiological data
 541 may disregard possible other prevalent diseases of
 542 adolescents who are not detained as well as those
 543 who evade the juvenile justice system and/or the
 544 mental health care system. Thus, it appears that
 545 storm and stress in adolescence is sometimes
 546 much more severe than the three keys aspects usu-
 547 ally mentioned in the literature and reviewed
 548 above: conflict with parents, emotional distur-
 549 bance, and antisocial behaviors.

550 Although contemporary views of adolescence's
 551 storm and stress have attempted to revise, or
 552 reconsider it (e.g., Arnett 1999), the concept still
 553 presents a limited view of the risk involved in
 554 adolescence. Nor does it take into account the
 555 important consideration of complex interaction
 556 of risk and resilience factors that go far in
 557 accounting for which adolescents are most likely
 558 to have difficulty (for review see Loeber 2008).
 559 Of course, many adolescents proceed through and
 560 emerge from this developmental stage without
 561 any great conflict or negative outcomes.

562 Thus, typical adolescent changes are expressed
 563 as a broad range of outcomes. Most adolescents
 564 experience the typical storm and stress as
 565 described above. Others experience storm and
 566 stress to a more "extreme" degree: at one extreme,
 567 albeit rare, is total absence of storm and stress; at
 568 the other extreme is severe storm and stress,
 569 including delinquency and psychopathology that
 570 may be comorbid. Given that storm and stress is
 571 exclusively an adolescent phenomenon, it is reason-
 572 able to situate it in the unique developmental
 573 specificities of this period of life. Accordingly,
 574 the degree of storm and stress expressed may be
 575 rooted in how one experiences the most salient
 576 changes of adolescence: neurobiological changes
 577 and identity formation.

578 As identity formation is the key developmen-
 579 tal task of adolescence, this difficult process may
 580 indeed be particularly associated with various
 581 degrees of storm and stress expressions, includ-
 582 ing delinquency in the extreme. In a later section,
 583 we will describe different approaches in psychol-
 584 ogy suggesting that delinquency in adolescence
 585 can be understood as a consequence of identity
 586 formation issues that adolescents face—espe-
 587 cially dealing with emerging personal, social,
 588 gender, and ethnic identity—and delinquency is
 589 in most cases, a way of coping maladaptively
 590 with such identity issues. Typical manifestations
 591 of storm and stress can also be understood in this
 592 light. For instance, conflicts emerging from the
 593 contradictions between the need for affiliation
 594 (being part of a social group) and the need for
 595 individuation (need for autonomy) represent a
 596 developmental process that is easy to relate to the
 597 typical manifestations of storm and stress

described above: conflicts with parents and “emotional disturbance.” While conflict with—or detachment from—parents reflects the developmental need for individuation and autonomy (e.g., Steinberg 1990), it is only one aspect of larger changes in the adolescent’s social environment. Interpersonal development also includes a necessary investment in the sphere of peers, which is a key influence in identity development and psychosocial development in general. In other words, the fundamental elements of storm and stress—conflicts with parents, emotional disturbance, and antisocial behavior—can be understood in terms of the psychosocial changes related to identity formation in adolescence. By extension, delinquency, as an extreme expression of storm and stress, can also be understood in these terms.

Just as significant is the neurobiological development that underlies the typical behavioral changes observed in adolescence. Recent research efforts in this domain offer a new perspective to understand typical manifestations of storm and stress as well as more serious forms of antisocial behavior and delinquency. For instance, risk taking and impulsivity are features of adolescence that are easy to relate to the underlying developmental trajectory of the adolescent brain: the rapid development of the socioemotional system means that adolescents have a highly active reward pathway (strongly connected to risk-taking) for which the cognitive control system has not yet developed the adult levels of inhibitory strength to prevent impulsivity. This neurobiological context predisposes an adolescent to risky and impulsive behaviors as well as affective dysregulation, all of which contribute to typical expressions of storm and stress, and may lead to rule breaking and delinquency. In the same vein, the temporal gap between these two neurobiological systems leaves adolescents more susceptible to external influence including anti-social peer influence. Furthermore, this gap may account for a relative disregard for future consequences, which along with peer influence, is implicated in adolescents’ serious risk-taking. More broadly, these neurobiological changes underlie the development of new cognitive capacities that enable the adolescent’s new interpretations and interactions with the world, engaged in the considerations of identity formation.

To sum up, delinquency can be situated as an extreme expression of storm and stress, grounded in inevitable neurobiological development and identity formation inherent to adolescence. Neurobiological and identity changes are indeed among the most salient in adolescent development, and are two complementary components in the process of becoming an adult. While neurobiology and identity perspectives are quite separate in the literature, they are not mutually exclusive and both provide insights to understand the range of adolescents’ behaviors. Neurobiological changes help, for example, to understand the propensity for risky behaviors, impulsivity, and emotional lability that emerge in adolescence. At the same time, the identity formation process provides further insights in that it guides the expression of these behaviors (e.g., break the law in the need for exploration, or to integrate into a peer group), and such maladaptive behaviors may crystallize into a persistent delinquent identity. Taken together, identity formation and neurobiological development provide a complementary view to elucidate “normative” storm and stress as well as more serious delinquent behaviors. Indeed, recent and successful interdisciplinary approaches such as social neuroscience (Cacioppo et al. 2007) devoted to understanding how biological systems implement social processes and behavior, have proved to be promising to elucidate, inform, and refine theories of social behavior (Cacioppo et al. 2007). Extending this approach to the study of delinquency, by situating how neurobiological changes and identity formation processes results in delinquency, could offer a new light to understand the phenomena. In the following sections, we explore this developmental contextualization in depth by considering separately these two key aspects of development.

Neurobiological Development and Risks for Delinquency

Until recent decades our understanding of adolescent brain development was largely informed by the limited information gathered from post-mortem and behavioral studies, but advances in

692 research and especially neuroimaging have
 693 accelerated our understanding. Such advances
 694 have in turn shed new light on behavioral studies,
 695 offering analyses that go beyond observations of
 696 behavioral tendencies by proposing etiological
 697 neurobiological foundations of adolescent behav-
 698 ior. As introduced earlier, the model of adolescent
 699 brain development we describe here involves the
 700 coordinated development of two neurobiological
 701 systems, the socioemotional system, and the cog-
 702 nitive control system. We begin by describing
 703 each system in some detail and then consider how
 704 the differential timing of development of the two
 705 systems predisposes adolescents to risk taking (or
 706 reward seeking) and impulsivity, both of which
 707 are important features of adolescent behavior that
 708 may lead to delinquency. We also relate peer influ-
 709 ence and adolescents' future planning to the neu-
 710robiological model of adolescent development, as
 711 these two psychosocial factors are particularly
 712 relevant to delinquent youth (Steinberg 2008).

713 **The Socioemotional System: Reward** 714 **Susceptibility and Risk-Taking**

715 The increased emotionality of adolescents is
 716 rooted in the rapid neurobiological development
 717 of the socioemotional system (Steinberg 2008).
 718 Anatomically, this system is contained within deep
 719 brain structures and as such it is often character-
 720 ized as subcortical, but certain cortical areas have also
 721 been implicated. Specific locations include the
 722 amygdala, ventral striatum, orbitofrontal cortex,
 723 medial prefrontal cortex, insula, and superior
 724 temporal sulcus. In addition to accounting for the
 725 neural basis of social attachment and emotional
 726 impulses, the system also contains the develop-
 727 mentally important reward pathway, which has a
 728 central role in adolescent risk taking. Understanding
 729 adolescent patterns of risk taking provides some
 730 explanation for the entire range of risky behaviors
 731 exhibited in adolescence, including potentially
 732 delinquent behaviors.

733 The generally increased risk-taking behavior
 734 among adolescents is popularly attributed to a
 735 teen's sense of invincibility or a decreased
 736 perception of potential risks. This idea, however,
 737 is inconsistent with a body of research that

738 describes the opposite: contrary to the popular
 739 belief that increased risk taking in adolescence
 740 results from adolescents' sense of invincibility or
 741 a decreased awareness of potential risk, studies
 742 show that perception of risk is actually observed
 743 to be at its highest in early adolescence and is still
 744 typically higher in middle/late adolescence than
 745 in adulthood (Millstein and Halpern-Felsher
 746 2002). In fact, the notion of auto-invincibility is
 747 actually more frequent in adulthood than any
 748 younger age. It is therefore somewhat surprising
 749 that while adolescents are generally more aware
 750 of potential risks than adults, they nonetheless
 751 engage in more risky behavior. The explanation
 752 for this is based on a risk-reward paradigm of
 753 decision making, supported by research into
 754 reward sensitivity and reward seeking. As we dis-
 755 cuss below, increased risk taking appears to have
 756 more to do with adolescents' heightened sensitiv-
 757 ity to intense rewards than to their perception of
 758 risk (Galvan et al. 2007; Steinberg 2008).

759 The neurobiological basis of the relationship
 760 between reward seeking and risk taking rests
 761 within an important component of the socioemo-
 762 tional system, the reward pathway. Activation of
 763 this pathway is associated with pleasurable feel-
 764 ings about one's self, and dopamine is the chief
 765 neurotransmitter involved. Animal models have
 766 suggested that a rapid decline in dopamine recep-
 767 tors occurs at the onset of puberty (Sisk and Foster
 768 2004; Sisk and Zehr 2005; Teicher et al. 1995).
 769 With fewer receptors to transmit signal, greater
 770 stimulation is required to activate the neurons,
 771 thus compelling adolescents to seek more intense
 772 behavioral and emotional rewards, which are the-
 773 orized to cause release of high levels of dopamine
 774 that, in turn, activate the brain reward system,
 775 even with its reduced number of receptors. This
 776 phenomenon has implications for adolescent risk
 777 taking, as such high-intensity rewards are often
 778 also associated with great risk (e.g., driving
 779 90 mph on the highway at night, engaging in sex-
 780 ual activity with an unknown partner, stealing
 781 something that is really wanted). Thus, much of
 782 the risk taking observed in adolescents, including
 783 rule breaking involved in delinquent behaviors,
 784 may actually be explained by a neurobiological
 785 compulsion to seek rewards intense enough to
 786 activate the brain's attenuated reward system.

787 Numerous fMRI studies examining the activity
 788 of socioemotional brain structures further the
 789 hypothesis of how altered function of the reward
 790 pathway in adolescence results in greater risk tak-
 791 ing. In agreement with the theorized process of
 792 stimulation from intense rewards, these studies
 793 describe increased brain activity during reward
 794 processing, the time immediately after rewards are
 795 received, but they also note a heightened activity
 796 during reward anticipation, the time immediately
 797 before reward, when reward is uncertain. Both of
 798 these observations were noted to be stronger in
 799 early and middle adolescence and became indis-
 800 tinguishable from adults by late adolescence
 801 (Casey et al. 2008; Ernst et al. 2005, 2006; Galvan
 802 et al. 2006), suggesting that for at least the reward
 803 pathway, adult levels of development are achieved
 804 after age 16. More recent studies have as well con-
 805 cluded that early and middle adolescents have
 806 greater anticipation for and response to high-
 807 intensity rewards (Forbes et al. 2010; Van
 808 Leijenhorst et al. 2010). While this neurobiologi-
 809 cal tendency to highly anticipate and respond to
 810 rewards is typical of most adolescents, the indi-
 811 vidual manifestations of these general neurobio-
 812 logical changes differ across individuals. These
 813 individual differences account for the varied
 814 behaviors of some adolescents who engage in very
 815 little reward seeking and risk taking, whereas oth-
 816 ers engage in more risk taking and are likely to
 817 become delinquent.

818 Further evidence of heightened reward sensi-
 819 tivity in adolescence relative to other age groups
 820 has been widely observed in laboratory compari-
 821 sons of adolescents and adults. Overall, children
 822 and early adolescents are more sensitive to rewards
 823 than to losses, but by late adolescence individuals
 824 behave similarly to adults and are more sensitive
 825 to losses (Cauuffman et al. 2010; Crone et al. 2005;
 826 Hooper et al. 2004). More precisely, adults appear
 827 more conservative in a gambling task³ because the

³The Iowa Gambling task in which individuals are given four decks of cards from which they are told to choose at will with the goal of winning the most money. Unknown to participants, two of the decks have high value rewards, but also many losses, and thus result in a net loss; whereas the other two decks contain lower value rewards but result in a net gain.

influence of their recent experience with loss 828
 outweighs the influence of their experience with 829
 reward; whereas in adolescents, the influence of 830
 experience with reward outweighs the influence 831
 of experience with loss. This increased sensitivity 832
 to reward has also been associated with specific 833
 pubertal changes (for review see Dahl 2004). For 834
 example, a recent study comparing reward-related 835
 brain activity in adolescents in early versus late 836
 pubertal stages, found a relationship between 837
 reward-response and testosterone levels in both 838
 boys and girls (Forbes et al. 2010). Such evidence 839
 of a relationship between adolescents' reward 840
 sensitivity and the hormonal changes that occur in 841
 puberty supports the idea of a physiological, neu- 842
 robiological basis for the increased risk taking 843
 observed in adolescence. While adolescents are, 844
 for example, more likely than adults to drive reck- 845
 lessly, to drive while intoxicated, to use varied 846
 illicit substances, to have unprotected sex, and to 847
 engage in both minor and more serious antisocial 848
 behavior (Arnett 1999), the degree to which ado- 849
 lescents engage in this behavior varies widely by 850
 individual. The reasons for these individual dif- 851
 ferences could be explained not only by differ- 852
 ences in the function of the socioemotional system 853
 (and in particular, the reward pathway), but also 854
 by the interaction of this socioemotional system 855
 with the cognitive control system. 856

**Cognitive Control System: Improved 857
 Cognitive and Affective Control 858**

As adolescents mature beyond puberty, their 859
 reward-seeking behavior decreases as another 860
 neurobiological system, the cognitive control sys- 861
 tem itself matures and exercises greater control 862
 on behavior. This system is generally localized to 863
 cortical regions and is recognized as a top-down 864
 control system of the brain's more internal socio- 865
 emotional system. Anatomically, the cognitive 866
 control system is composed of the lateral prefrontal 867
 and parietal cortices and includes connections 868
 to the anterior cingulate cortex. The development 869
 of these regions is delayed relative to the socio- 870
 emotional system, and this delay is a central pro- 871
 cess of the changing adolescent brain—see the 872

873 next section. This normal delayed development of
 874 the cognitive control system has been confirmed
 875 by both primate studies and human postmortem
 876 studies indicating that the prefrontal cortex, a key
 877 region associated with cognitive control, is actu-
 878 ally one of the last brain regions to mature
 879 (Bourgeois et al. 1994; Huttenlocher 1979). These
 880 late changes that continue to occur in humans
 881 after age 16 and progress well into early adult-
 882 hood are the primary neurobiological basis for
 883 which others, such as Steinberg (2009), have
 884 argued that even late adolescents are developmen-
 885 tally immature, and their particular immaturities
 886 often play an important role in the motivation of
 887 delinquent acts and criminal decision making.

888 The specific changes to occur in the prefrontal
 889 cortex and cognitive control system include syn-
 890 aptic pruning and continued myelination (Paus
 891 2005), which respectively increase the efficiency
 892 of neuronal communication and facilitate trans-
 893 mission of nerve impulses. As these develop-
 894 ments occur and neural connections are improved,
 895 there is more coordinated activation of cortical
 896 areas (Brown et al. 2005; Durston et al. 2006).
 897 These developmental changes may manifest
 898 as improved executive functioning, including
 899 response inhibition, planning, weighing risks and
 900 rewards and simultaneous consideration of mul-
 901 tiple sources of information. Additional develop-
 902 ments of this system include improved connections
 903 between cortical regions and more internal
 904 structures (Steinberg 2009). In other words,
 905 these late stages of brain development improve
 906 cognitive control of the structures implicated in
 907 the socioemotional system. This interconnect-
 908 edness between systems is the neural basis for
 909 improved coordination of affect and cognition, a
 910 hallmark of brain maturity. Conversely, any delay
 911 in development of the cognitive control system
 912 would result in affective dysregulation and
 913 greater impulsivity. Most adolescents indeed
 914 demonstrate such a delay as part of typical devel-
 915 opment, whereas in others, there may be a more
 916 profound delay that could contribute to a pro-
 917 longed period of risk for delinquency.

918 The capacity of the cognitive control system
 919 to regulate behavioral impulses can be analyzed
 920 in studies examining impulsivity in adolescence.

921 The trajectory of impulsivity, or the propensity to
 922 act without considering the consequences of
 923 one's actions, differs from reward-seeking in that
 924 impulsivity steadily decreases with age, and does
 925 not peak in adolescence as do risk-taking and
 926 heightened reward-seeking (Galvan et al. 2007;
 927 Steinberg et al. 2008). The age-related decline in
 928 impulsivity has been demonstrated in the labora-
 929 tory with the Tower of London task⁴ (Berg and
 930 Byrd 2002). Younger children take no more time
 931 before making their first move in complex sce-
 932 narios than in simpler ones. More simply put,
 933 children were observed to not pause and think
 934 before making their first move during more com-
 935 plex tasks. Impulsivity measured in this way
 936 decreases steadily with age. So while adolescents
 937 are less impulsive than children, they are none-
 938 theless still more impulsive than adults and
 939 this increased impulsivity in combination with
 940 their heightened reward sensitivity reasonably
 941 contributes to impulsive and risky behavior. Thus
 942 it is reasonable to consider that these behaviors
 943 occur within a spectrum of normal, in the context
 944 of an immature brain with a still-developing cog-
 945 nitive control mechanism. However, extreme
 946 impulsive and risky behaviors that are associated
 947 with delinquency can be better described in terms
 948 of the interaction between the two brain systems,
 949 particularly in the vulnerable period in adoles-
 950 cence where the brain's socioemotional develop-
 951 ment outpaces its cognitive control.

952 **Temporal Gap of Developing Brain** 953 **Systems and Immature Decision-** 954 **Making**

955 The behavioral effects of the developmental lag
 956 of the cognitive control system relative to the
 957 socioemotional system are demonstrated in a
 958 variety of studies describing adolescent decision
 959 making and planning. Short of making direct
 960 connections to the underlying developmental

⁴In this task participants have to arrange objects with the goal of using a minimum number of moves and as quickly as possible. Typical measures include time to first move, total competition time and number of moves.

961 neuroscience, these studies nonetheless provide
 962 vivid examples of adolescents' social, emotional,
 963 and cognitive vulnerabilities that peak in middle
 964 adolescence and then decrease in late adolescence
 965 and into early adulthood, a pattern that is consis-
 966 tent with the underlying neurobiological develop-
 967 mental changes. These vulnerabilities include
 968 increased reward sensitivity and impulsivity, and
 969 the relevance of these particular adolescent fea-
 970 tures to delinquency has already been empha-
 971 sized. As Steinberg (2009) noted, two additional
 972 psychosocial features of adolescence, a height-
 973 ened response to peer influence and immature
 974 future-orientation are of particular concern in
 975 delinquent adolescents. Studies focusing on each
 976 of these features arrive at conclusions consistent
 977 with principals of neurobiological development,
 978 suggesting that as adolescents mature, improved
 979 cognitive control not only effects to attenuate
 980 reward seeking and impulsivity, but more impor-
 981 tantly, to dampen social influences and promote
 982 goal-directed future planning.

983 For the large portion of adolescents who
 984 commit crimes but do not persist in adulthood
 985 (i.e., adolescence-limited antisocial behavior), it
 986 has long been hypothesized that the imitation of
 987 higher-status peers is a major motivation for
 988 delinquent acts (Moffitt 1993). In support of this
 989 assertion is the observation that adolescents are
 990 far more likely than adults to commit crimes in
 991 groups (e.g., Zimring 1998). This observation
 992 can be widely related to identity formation (see
 993 next section). While peer influence can be pro- or
 994 antisocial as well as neutral, antisocial peer influ-
 995 ence is of particular interest in considering the
 996 underlying causes of juvenile delinquency. All
 997 forms considered, the impact of peer influence on
 998 behavior decreases over time for boys and girls
 999 after reaching peak levels around age 15
 1000 (Steinberg and Monahan 2007). In a remarkable
 1001 laboratory demonstration (Gardner and Steinberg
 1002 2005), participants were randomly assigned to
 1003 perform a simulated driving exercise designed to
 1004 measure risk taking, either alone or in a group
 1005 with two other similar-age peers. Individually,
 1006 risk taking declined slightly with age, but within
 1007 all three age groups risk taking was greater
 1008 when the exercise was performed in groups.

Furthermore, this group effect on risk taking was
 by far the greatest for adolescents, while young
 adults (i.e., college age) demonstrated interme-
 diate levels of risk taking in groups compared
 with the adult group (Gardner and Steinberg
 2005). While research into the neural founda-
 tions for the decreasing peer influence that is
 thus observed in late adolescence and early
 adulthood is limited, such studies can nonethe-
 less be described by the neurobiological model:
 it is the limited development of interconnections
 between the socioemotional system and the cog-
 nitive control system that leave adolescents more
 susceptible to peer influence (Grosbras et al.
 2007; Paus et al. 2008).

In addition to peer influence, adolescents also
 differ from adults in their future orientation,
 defined as their ability to plan for the future as
 well as their perception of how their current posi-
 tion (in society, employment, etc.) relates to their
 plans for the future. Future orientation figures
 prominently in adolescents' engagement in anti-
 social behavior, because it impacts the value one
 assigns to the risk that may occur when making a
 decision. Earlier it was noted that adolescents
 may in fact be more perceptive than adults of the
 risk inherent in certain situations. However,
 adults generally exceed adolescents in their abil-
 ity to coordinate their cognitive and emotional
 awareness of potential future negative conse-
 quences. Studies have shown that the develop-
 ment of future orientation continues through
 adolescence and into early adulthood. Specifically,
 consideration of future consequences, concern
 for the future and ability to plan ahead, all
 increase with age (Greene 1986; Nurmi 1991).
 These observations have furthermore been cor-
 related to neurobiological studies that have
 reported associations between future orientation
 and age-related differences in the cognitive con-
 trol system (Cauffman et al. 2005).

Additional insight into differences in adult
 and adolescent future orientation is also provided
 by a consideration of adolescents' relatively lim-
 ited life experience. Not only do adolescents have
 fewer memories to rely upon when considering
 future consequences, but they also perceive future
 time differently in that they are less able to

1057 perceive the proximity of the future, and are
 1058 therefore less likely to heavily weigh future con-
 1059 sequences. Five years of time, for example, rep-
 1060 represents a full third of a 15-year-old's life but only
 1061 represents a fifth of a 25-year-old's, and given the
 1062 relative paucity of episodic or autobiographical
 1063 memory before school age (Nurmi 1991), such
 1064 relative differences in perception of time are even
 1065 more significant. Thus, 5 years into the future
 1066 reasonably seems much farther away to a 15-year-
 1067 old than a 25-year-old, and so long-term conse-
 1068 quences of present-day decisions are likely to
 1069 seem more immediate with increasing age.
 1070 Additionally, while it may be true that adoles-
 1071 cents are highly aware of potential risks, is it
 1072 likely that their relative inexperience with nega-
 1073 tive outcomes means that they lack the emotional
 1074 aversion to negative consequences that is elicited
 1075 by negative memories. It is important to consider
 1076 adolescents' life experience as well as their devel-
 1077 opmental status in order to understand how they
 1078 perceive the future, more importantly, the extent
 1079 to which they understand the future consequences
 1080 of their present actions.

1081 The ability to plan for the future and realistically
 1082 consider future consequences is a highly complex
 1083 cognitive task that requires a high level of inte-
 1084 gration of the cognitive control system and the
 1085 socioemotional system. For most adolescents,
 1086 future orientation proves challenging as their
 1087 brains are still developing the connections
 1088 between regions responsible for executive func-
 1089 tioning and episodic memory. Furthermore, by
 1090 middle adolescence, the socioemotional system
 1091 is largely developed, and so while adolescents
 1092 may experience social and emotional impulses
 1093 similarly to adults, their still-developing cog-
 1094 nitive control system means they are less able to
 1095 coordinate these impulses when planning and
 1096 making decisions (Steinberg 2009). Future orien-
 1097 tation only becomes more difficult to achieve
 1098 when adolescents are influenced by any number
 1099 of social influences that aggravate normative def-
 1100 icits most adolescents already face. Exposure to
 1101 violence, for example, can contribute to notions
 1102 of uncertainty about the future, and unstable rela-
 1103 tionships can increase emotionality, making
 1104 coordination of socioemotional impulses and

executive functioning all more difficult (Nurmi 1105
 1991). Such disturbances of the complex cog- 1106
 nitive processes in future orientation provide some 1107
 insight into how social and environmental risk 1108
 factors for delinquency interact with the norma- 1109
 tive neurobiological "deficits" of the adolescent 1110
 brain (cf. Robbins and Bryan 2004). Indeed, 1111
 delinquency and other extreme expressions of 1112
 storm and stress can be better understood when 1113
 the trajectories of brain development are viewed 1114
 in complement with the psychosocial develop- 1115
 mental process of adolescence. 1116

1117 Identity Development as a Risk 1118 Factor for the Emergence 1119 of Delinquency and a Delinquent 1120 Identity

1121 Little is known about identity development among 1121
 juvenile delinquents; however, an increased under- 1122
 standing of this important developmental mile- 1123
 stone has implications, notably for rehabilitation 1124
 efforts (Grier 2000). For decades, identity theorists 1125
 have described failure in identity crisis resolution 1126
 as a possible cause for maladaptive adjustment 1127
 and identity-confusion (e.g., Erikson 1968). Such 1128
 maladaptive development can lead to the emer- 1129
 gence of a "delinquent identity," which is in fact 1130
 a superposition of several aspects of identity 1131
 (United Nations 2003). For instance, and as we 1132
 will review closer more extensively throughout 1133
 this section, research on ego-identity has shown 1134
 that diffusion status (Berzonsky 1989; Marcia 1135
 1966) is associated with delinquency (Grier 1997, 1136
 2000), as well as alcohol abuse (Jones and 1137
 Hartmann 1988) and substance abuse (Jones et al. 1138
 1989). Issues with emerging ethnic-identity may 1139
 lead minority youth to be more aware of racial 1140
 discrimination (Lee et al. 2010). Incidentally, 1141
 perceived racial discrimination has also been 1142
 associated with delinquency (e.g., Anderson 1143
 1999), and this perception may mediate the link 1144
 between ethnic-identity and delinquency. Gender 1145
 identity, fully developing and expressed during 1146
 adolescence, may also be associated with "gen- 1147
 dered" roles predisposing more or less to delin- 1148

quency (Walklate 2003). Indeed, due to gendered stereotypes, males are more inclined to break the rules and be involved in delinquent behaviors. Largely, authors focusing on social identity have also emphasized that several young people may need to pursue their “delinquent reputations” as a means to assert their identity (cf. Emler and Reicher 1995). Complementary, psychodynamic models of adolescent development have explained violent behaviors and delinquency in adolescence as an attempt to restore a menaced identity (e.g., Jeammet 2009). Finally, protective and risk factors for delinquency identified in the literature (e.g., Shader 2003) have also been recognized as strong mediators of identity development (e.g., Yoder 2000), substantiating the relationship between delinquency and identity development. These factors include gender, parental involvement and monitoring, peer support, economic status, or attitude toward school. In this section, we review four aspects of identity (personal, social, ethnic, and gender) which may be related to the emergence of delinquency and its possible crystallization into a delinquent identity.

1173 **Personal Identity and Delinquency**

1174 Few researches using Marcia’s Identity-status
1175 paradigm have linked the diffusion status with
1176 delinquency and other behavioral problems (e.g.,
1177 Grier 1997, 2000; White and Jones 1996; Jones
1178 et al. 2003). Grier examined identity status among
1179 a group of African American male juvenile delin-
1180 quents. She found a high prevalence (i.e., 74%)
1181 of the sample to be of diffused identity status; a
1182 far greater rate than any previous developmental
1183 study among adolescents across age groups (cf.
1184 Kroger et al. 2010). Likewise, White and Jones
1185 (1996) indicated that detainees with a diffuse
1186 identity are younger at the time of their first
1187 arrest, and show greater number of total arrests
1188 than individuals having other identity status.
1189 These findings suggest that diffused adolescents
1190 are at higher risk for recidivism. Consistently,
1191 Grier (2000) concluded that a diffused identity
1192 pattern may put individuals at risk for further
1193 criminal activity. Conversely, Jones et al. (2003)

1194 indicated that Foreclosed adolescents were
1195 unlikely to recidivate, use drugs, and they
1196 reported fewer previous offenses. More recently,
1197 Crocetti et al. (2008) examined the process of
1198 “reconsideration of commitment,” an identity
1199 process referring to the comparison between cur-
1200 rent commitments and other possible alternatives,
1201 which can lead to diffusion or in most cases in
1202 changes in identity structure. They found this
1203 process to be related to psychosocial problems,
1204 both internalizing (e.g., depressive and anxiety
1205 symptoms) and externalizing (e.g., involvement
1206 in delinquent behaviors).

As identity status reflects the level of psycho-
social maturity, it can also be stated that identity
status is related to criminal decision making,
because psychosocial immaturity is often con-
nected to criminal decision making (e.g., Fried
and Reppucci 2001; Steinberg and Cauffman
1996). According to Greenberger and Sorensen
(1974), psychosocial maturity is indeed strongly
related to the “success” of identity. Individuals
who know who they are, what they believe, what
they want, and who have a sense of their worth as
persons, will be better able to function adequately
on their own than individuals without a clear
and stable identity. Viewed in light of Marcia’s
paradigm, Greenberger’s idea suggests that iden-
tity Achievement would be a protective configu-
ration for immature decision making, whereas an
unclear identity (i.e., diffusion and moratorium)
represents risk for immature decision making and
possibly even criminal decision making.

Thus, certain issues related to the process of
building one’s identity as a person (personal iden-
tity) could represent risk for delinquency and psy-
chosocial problems. Conversely, certain identity
states could be associated with protective factors
for such difficulties. This has implication for inter-
vention and rehabilitation efforts (cf. Archer
1994). Reaching such protective identity, however,
is not only a personal process but also has much to
do with the social and environmental context in
which the adolescent develops. Yoder (2000) iden-
tified cultural variables that constitute “barriers”
in the developmental process of exploration and
commitment. These barriers, including geographic
isolation, physical limitations, political restric-
1241

1242 tions, ethnicity, gender, age, and religion, can
 1243 affect optimal identity formation. The “social bar-
 1244 riers” take the form of encouragement or prohibi-
 1245 tion of certain practices, beliefs, or values within
 1246 the social group, which have a strong impact on
 1247 personal identity development. Ethnicity and gen-
 1248 der will also affect personal identity depending on
 1249 whether the individual belongs to the “dominant”
 1250 class or not. Therefore, the social side of identity
 1251 has to be taken into account when considering an
 1252 adolescent’s personal identity, psychosocial matu-
 1253 rity, and criminal decision making.

1254 **Social-Identity and the Emergence** 1255 **of a “Delinquent Reputation”**

1256 In the context of adolescent development, the
 1257 need for social affiliation can lead to maladaptive
 1258 decision making, which is mostly due to peer
 1259 influence. The neurobiological foundations of
 1260 this susceptibility to peer influence have been
 1261 described above. Psychosocially, the increased
 1262 significance of peers in adolescence likely makes
 1263 approval seeking especially important at this
 1264 stage of life in group situations (Steinberg 2009).
 1265 That is why, in certain subcultures (Miller 2008),
 1266 delinquency is sometimes viewed as “valoriz-
 1267 ing,” “desirable,” and “integrative” within a
 1268 social group, helping adolescents to assert them-
 1269 selves, their identity, and their membership of the
 1270 group (Emler and Reicher 1995; Oyserman
 1271 1993). Ultimately, adolescents can decide to pur-
 1272 sue their “delinquent reputation” through an affil-
 1273 iation to juvenile gangs, which constitute a
 1274 serious form of delinquency, facilitating transi-
 1275 tion into adult criminality (Chap. 36). Fortunately,
 1276 this extreme form of maladaptive affiliation is
 1277 not the common way of socializing in adoles-
 1278 cence: as said earlier, antisocial behavior may
 1279 indeed be a typical part of development which
 1280 tends to disappear spontaneously in most indi-
 1281 viduals during the transition to adulthood (United
 1282 Nations 1990). However, one would wonder why
 1283 it does not disappear in some cases, and why a
 1284 normative “semicriminality” (in reference to Hall
 1285 1904) could turn into deep-seated predispositions
 1286 to criminality (e.g., Steinberg 2009).

Emler and Reicher (1995) interpreted delin- 1287
 quency by asking about the social dynamics of 1288
 behavior and misbehavior. Their central thesis is 1289
 that conduct is motivated by reputation: the pur- 1290
 suit or avoidance of delinquent behavior is a 1291
 choice of social identity and moral reputation. 1292
 They developed the idea of “reputation manage- 1293
 ment” and examined the kind of reputation and 1294
 identity that is conveyed by delinquent action and 1295
 the advantages this may have for the actor. 1296
 Although delinquency can developmentally be 1297
 viewed as an “affiliative act” (within the social 1298
 group), the problem is to explain why many young 1299
 people choose to pursue their delinquent reputa- 1300
 tions (Emler and Reicher 1995). An important 1301
 element of the answer is that as the significance of 1302
 peers increases in early adolescence, resistance to 1303
 peer influence (particularly to deviant peers) 1304
 may or may not develop while transiting from 1305
 middle adolescence to adulthood. This could be 1306
 explained by both the “barriers” of identity for- 1307
 mation described above (e.g., strong community 1308
 pressure), as well as a certain neurobiological 1309
 context in which cognitive control functions lose 1310
 out to socioemotional affiliative impulses. 1311

1312 Recently, Monahan et al. (2009) examined 1312
 how individual variation in exposure to deviant 1313
 peers and resistance to peer influence affect 1314
 antisocial behavior from middle adolescence into 1315
 young adulthood (ages 14–22 years). Using data 1316
 from a longitudinal study of 1,354 serious juve- 1317
 nile offenders,⁵ they found evidence that antisocial 1318
 individuals choose to affiliate with deviant 1319
 peers, and that affiliating with deviant peers is 1320
 associated with an individual’s own delin- 1321
 quency—as already noted in the research litera- 1322
 ture. However, they indicated that these 1323
 complementary processes of peer selection and 1324
 peer socialization operate in different develop- 1325
 mental periods. In middle adolescence, both peer 1326
 selection and socialization serve to make peers 1327
 similar in antisocial behavior, but in the transition 1328
 to adulthood only peer socialization appears to be 1329
 important. Later (after age 20), the impact of 1330

⁵Participants were adolescents who have been convicted of a felony or similarly serious non-felony offense as a misdemeanor weapons offense, or misdemeanor sexual assault.

1331 peers on antisocial behavior disappears as
 1332 individuals become increasingly resistant to peer
 1333 influence, suggesting that the process of desis-
 1334 tance from antisocial behavior may be tied to
 1335 normative changes in peer relations that occur as
 1336 individuals mature socially and emotionally
 1337 (Monahan et al. 2009). Conversely, pursuing
 1338 one's delinquent identity may suggest that the
 1339 individual does not demonstrate the level of psy-
 1340 chosocial maturity necessary to individuate and
 1341 separate from peers. Furthermore, in the event of
 1342 a strong affiliation with a deviant peer group, this
 1343 normative and necessary task of disengagement
 1344 from the peers, may be all the more difficult. The
 1345 success of this task, requiring resistance to peer
 1346 influence, could also vary as a function of
 1347 other mediators such as gender and ethnicity
 1348 (cf. Gardner and Steinberg 2005).

1349 **Gender Identity and the Gendered** 1350 **Nature of Delinquency**

1351 It is well established that youth crime is dispro-
 1352 proportionately committed by young men (e.g.,
 1353 Snyder 2008), and several approaches have
 1354 attempted to determine the reasons for this over-
 1355 representation (e.g., Eadie and Morley 2003). For
 1356 instance, neurophysiological research has linked
 1357 testosterone levels to risk taking (e.g., Forbes
 1358 et al. 2010), suggesting a higher propensity for
 1359 risk taking not only in boys, but for individuals of
 1360 both sexes with relatively higher testosterone lev-
 1361 els. Alternatively, Heimer and De Coster (1999)
 1362 suggested that traditional gender definitions are
 1363 essential for understanding gender differences in
 1364 delinquency. They perceive adolescent delin-
 1365 quency and violent offending as a product of gen-
 1366 dered experiences, gender socialization, and the
 1367 patriarchal system in which they emerge. This
 1368 "product," which can be called "gender-identity,"
 1369 results in typical gender differences in delin-
 1370 quency. In general, girls who accept the tradi-
 1371 tional gender definition of femininity—often
 1372 equated with a high capacity for nurturance, a
 1373 tendency toward passivity rather than aggressive-
 1374 ness, and physical and emotional weakness (e.g.,
 1375 Burke 1989)—are less likely than other girls to

1376 offend, as reported by multiple indices of
 1377 delinquency (Heimer 1996). For the latter girls,
 1378 violent delinquency would be viewed as "doubly
 1379 deviant," violating the law as well as their beliefs
 1380 about femininity. Boys who accept traditional
 1381 gender definitions of masculinity—associated
 1382 with competitiveness, independence, rationality,
 1383 and strength (e.g., Burke 1989)—may be more
 1384 likely to use physical force and aggression
 1385 (Heimer 1996). Consistently, Horwitz and Raskin
 1386 White (1987) showed that females tend to display
 1387 higher rates of internalizing problems (i.e., psy-
 1388 chological distress), whereas males tend to exter-
 1389 nalize more with problems such as delinquency
 1390 and addiction problems. However for both gen-
 1391 ders, masculine identity is associated with higher
 1392 rates of delinquency. Thus, the development of a
 1393 masculine identity and acting out these stereo-
 1394 types about masculinity may make young men
 1395 more likely to engage in antisocial and criminal
 1396 behavior (Walklate 2003). In light of this
 1397 "gendered view" of delinquency seen through
 1398 social roles and identity, the serious problem of
 1399 antisocial and criminal behavior committed by
 1400 adolescent females (see Chap. 35) has to be stud-
 1401 ied more extensively. Indeed, a recent, and wor-
 1402 rying, increase in the prevalence of arrest rates
 1403 among this population (Snyder 2008) introduces
 1404 new social questions regarding identity forma-
 1405 tion in girls. For instance, possible profound
 1406 social changes may be contributing to this
 1407 increase in female delinquency: are social
 1408 changes in gendered experiences, gender social-
 1409 ization, and the patriarchal system, resulting in
 1410 new gendered differences in delinquency?

1411 Interesting results indicate that these gendered
 1412 differences in delinquency could be exacerbated
 1413 when adolescents are influenced by the peer
 1414 group—social environment would thus be an
 1415 aggravating factor. Gardner and Steinberg (2005)
 1416 measured risk preference by asking adolescents to
 1417 rate the cost–benefit ratio of certain risky decisions
 1418 (e.g., having sex without a condom, riding in a car
 1419 with someone who has been drinking, trying a new
 1420 drug that no one knows anything about, breaking
 1421 into a store at night and stealing something that
 1422 one really wants, and driving over 90 mph on the
 1423 highway at night). They observed that males,

1424 compared to females, assigned a greater weight to
 1425 the benefits of such risky decisions than to the
 1426 risks. They also observed that males assigned a
 1427 greater weight to the benefits of risky decisions
 1428 when in groups; younger males weighted the ben-
 1429 efits more than older males, and there were no dif-
 1430 ferences between older males and older
 1431 females—which could reflect the “protective
 1432 effect” of psychosocial maturity in reaching iden-
 1433 tity achievement. Taken together, these observa-
 1434 tions suggest that the perception of benefits to risk
 1435 taking is greatest when young adolescent males
 1436 (age 13–16) are in a group. With respect to identity
 1437 formation, these results are an example of how
 1438 gender and the presence of peers influence an indi-
 1439 vidual’s perceptions, with the likely consequence
 1440 of altering how one behaves. As we will review
 1441 now, ethnicity and ethnic identity are also factors
 1442 that may have similar influence on behavior.

1443 **Ethnic Identity and the** 1444 **Overrepresentation of Ethnic Minorities** 1445 **in Juvenile Detention Centers**

1446 Although ethnic minorities are often overrepre-
 1447 sented in the juvenile justice system, the particu-
 1448 lar identity issues that these minority adolescents
 1449 face receives little attention in the literature, and
 1450 have begun to generate empirical studies only
 1451 recently (e.g., Arbona et al. 1999; Caldwell et al.
 1452 2004; French et al. 2006; Lee et al. 2010).
 1453 However, a large body of research literature exists
 1454 about the more general race–crime relationship,
 1455 suggesting that even though there is empirical
 1456 evidence indicating a higher rate of offence among
 1457 minorities,⁶ much of the minority overrepresenta-
 1458 tion in prisons can be attributed to race group dif-
 1459 ferences in arrests for crimes⁷ that are most likely
 1460 to lead to imprisonment (e.g., Chambliss 1994).
 1461 Whether “differential involvement,” “differential
 1462 selection” or a “combined” approach (e.g., Feld
 1463 1999) is defended by researchers, ethnic-identity
 1464 is often thought to be related to perceptions of

discrimination (Lee et al. 2011) and racial 1465
 segregation specific to minority communities, 1466
 which is often viewed as a contributor of delin- 1467
 quency (Anderson 1999). 1468

In fact, racial identity and the engagement in 1469
 delinquent behavior, particularly violent acts, 1470
 maintain complex, gender-specific relationships, 1471
 in which violence and delinquency can be viewed 1472
 as a response to racial discrimination (Caldwell 1473
 et al. 2004). Indeed, Caldwell et al. (2004) study 1474
 suggested that experiences with racial discrimi- 1475
 nation explained violent behavior in young adults 1476
 over and above earlier adolescent risk factors for 1477
 violence. They indicated that among young adult 1478
 males for whom race was less central to their 1479
 identity, experience with racial discrimination 1480
 was associated with engaging in more types of 1481
 violent behaviors. Conversely, experiences with 1482
 racial discrimination may be less likely to be 1483
 associated with violence when it is balanced with 1484
 strong feelings of ethnic identity. This interaction 1485
 was not found for females. 1486

Thus, in some conditions, ethnic identity could 1487
 operate as a protective factor against delinquency. 1488
 More precisely, this mechanism has been 1489
 described as a “buffering effect” of ethnic identity 1490
 in the relation between minority discrimination 1491
 and negative outcomes such as delinquency and 1492
 violence (e.g., Sellers et al. 2006). Nevertheless, 1493
 Cadwell and colleagues’ (2004) study was con- 1494
 ducted among young adults—for whom identity 1495
 is supposed to be stabilized—and the develop- 1496
 mental period of adolescence with emerging eth- 1497
 nic identity could appear to be conversely a 1498
 vulnerable context, at risk for delinquency. 1499
 Indeed, during adolescence, the increasing meta- 1500
 cognitive abilities that result from cognitive mat- 1501
 uration make ethnic identity more salient and 1502
 increase perception of racial discrimination: ado- 1503
 lescents become highly aware of the evaluations 1504
 of their group made by the majority culture (Lee 1505
 et al. 2011; Dupree et al. 1997; Spencer and 1506
 Dornbusch 1990). Thus, the personal salience of 1507
 ethnicity affects the extent to which discrimina- 1508
 tion is perceived (Sellers and Shelton 2003) as 1509
 indicated by research showing that adolescents 1510
 who more extensively explore their ethnic 1511

⁶“Differential involvement” explanation of youth crime.

⁷“Differential selection” explanation of youth crime.

1512 identity—which is an additional developmental
 1513 task for them—or for whom ethnicity is an
 1514 important part of their identity, are more likely to
 1515 perceive discrimination (Lee et al. 2011; Romero
 1516 and Roberts 1998; Sellers et al. 2003). As said
 1517 earlier, such discrimination is in most cases asso-
 1518 ciated with higher rates of delinquency.

1519 Beyond the social discrimination explana-
 1520 tions, Gardner and Steinberg’s (2005) study indi-
 1521 cated that minority adolescents take more risks in
 1522 the presence of their peers than white adolescents
 1523 do. However, in individual situations, minority
 1524 and non-minority adolescents performed simi-
 1525 larly. The observed increased susceptibility to
 1526 peer influence for minorities disappeared in adult-
 1527 hood, and minority adults actually observed a
 1528 slightly greater resistance to peer influence than
 1529 non-minority adults. This adolescence-limited
 1530 susceptibility likely suggests that group affilia-
 1531 tion and acceptance holds a greater influence on
 1532 ethnic minorities, and thus the social aspects of
 1533 identity formation may be more significant for
 1534 minority youth. Furthermore, the fact that minor-
 1535 ity adults are less susceptible to peer influence
 1536 may be a sign of a more mature identity forma-
 1537 tion that has resulted from a more extensive iden-
 1538 tity-exploration in adolescence.

1539 Furthermore, models of ethnic-identity pro-
 1540 cess such as Phinney’s (1990), suggests that
 1541 minority ethnic groups must resolve basic con-
 1542 flicts that occur as a result of their membership in
 1543 a non-dominant group. They must resolve the
 1544 stereotyping treatment of the dominant group, as
 1545 well as negotiate a bicultural value system. For
 1546 individuals from the dominant group, these issues
 1547 may not be salient since ethnicity is usually
 1548 unconscious, because societal norms have been
 1549 constructed around their racial, ethnic, and cul-
 1550 tural frameworks (Chávez and Guido-DeBrito
 1551 1999). This additional identity issue for youth of
 1552 ethnic minorities consists of the integration of a
 1553 sense of ethnic identity into their larger personal
 1554 identity (Phinney 1989). This specific issue could
 1555 be related to supplementary identity conflicts that
 1556 may result in negative outcomes such as delin-
 1557 quency or substance abuse.

Conclusion

1558

Juvenile delinquents are a worrying population
 not only for their maladaptive behaviors and the
 consequence of their offences for society, but
 also because they appear to accumulate difficul-
 ties in terms of identity issues and psychiatric
 problems, which may lead them to persist in
 such antisocial behaviors beyond adolescence.
 Indeed, 70% of juvenile delinquents meet one or
 more criteria for the diagnosis of psychopathol-
 ogy (Teplin et al. 2002) and a high proportion of
 this population is of Diffusion identity status
 (Grier 1997), an identity configuration associ-
 ated with low psychosocial maturity (e.g.,
 Waterman 1999) and other negative outcomes
 such as alcohol and drug abuse (Jones and
 Hartmann 1988). Given the frequency of such
 outcomes in this population, it is likely that the
 identity configuration of most delinquent ado-
 lescents could be a more profound form of iden-
 tity Diffusion (cf. Erikson’s notion of identity
 confusion and extended definitions of identity
 Diffusion, such as Archer and Waterman 1990)
 than the form that most individuals experience
 at some point in their life. Beyond the possible
 aggravating effects of identity-related factors
 such as ethnicity, gender, and community, which
 can restrict the exploration and commitment that
 is essential to achieve an identity, the specific
 reasons for the emergence of delinquency in the
 developmental context of adolescence remain
 complex. The particular trajectory of the most
 serious cases, when maladaptive behaviors per-
 sist and crystallize into a delinquent identity, is
 a process that must be further investigated in
 order to be better prevented. Indeed, while
 nearly all adolescents engage in rule-breaking
 as part of the process of exploring limits, reflect-
 ing the adolescent’s normative “semicriminal-
 ity” suggested by Hall (1904), the problem is to
 understand why a number of adolescents exceed
 these adolescence-limited experiences, and ulti-
 mately commit to “deep-seated criminality”
 (Moffitt 1993).

1601

1602 In this chapter, we explored two salient aspects
1603 of adolescent development (i.e., neurobiological
1604 changes and identity formation) that are useful to
1605 contextualize normal expressions of storm and
1606 stress, as well as more serious forms of antisocial
1607 behavior that may emerge in adolescence. We
1608 proposed the idea of a continuum of storm and
1609 stress experience in adolescence, ranging from
1610 “no manifestation” of storm and stress, to
1611 “extreme expression” of storm and stress leading
1612 to both internalizing and externalizing problems
1613 such as delinquency. Individual differences in the
1614 degree of experiencing storm and stress may
1615 result from these typical changes of adolescence
1616 that are neurobiological development and identity
1617 formation. While risk taking and impulsivity
1618 are hardly new characteristics of adolescence,
1619 understanding these behaviors in the context of
1620 neurobiological development can be extremely
1621 helpful to researchers and clinicians alike, who
1622 aim to better understand the most severe cases,
1623 when risk taking and impulsivity result in antisocial
1624 or delinquent behavior. In the same way that
1625 misbehavior in toddlers must be dealt with in an
1626 age-appropriate manner, the evaluation of and
1627 response to such behavior in adolescents will be
1628 most effective if we consider the recent scientific
1629 advances that have improved our understanding
1630 of adolescent brain development. Additionally,
1631 identity formation has been described as the most
1632 important task of adolescence, and better situat-
1633 ing the emergence of delinquency and related
1634 maladaptive behavior into this necessary and
1635 complex task, provides essential context to better
1636 understand the persistence of delinquency beyond
1637 adolescence, which has implications for delin-
1638 quency theory, prevention, and intervention.

1639 To sum up, knowledge of neurobiological
1640 changes is useful to understand adolescent sus-
1641 ceptibility to the key aspects of storm and stress:
1642 impulsivity, risk taking, and emotional distur-
1643 bance. Knowledge of identity formation provides
1644 useful insight to understand how these behavioral
1645 and psychological specificities may be expressed
1646 as outcomes of identity issues. Ultimately, iden-
1647 tity development may sustain the experience of
1648 storm and stress into the formation of a delinquent
1649 identity. In our examination of identity formation

and neurobiological development, we have 1650
emphasized the quantity, intensity, and variety of 1651
the changes occurring during adolescence, and 1652
have underlined how these changes may represent 1653
risks for delinquency in themselves. On an indi- 1654
vidual basis, however, it is obviously impossible 1655
to predict an adolescent’s trajectory, whether he 1656
or she is on the path to delinquency, and whether 1657
the antisocial behavior will be persistent or not. 1658
An individual’s trajectory is indeed determined 1659
by a multitude of factors, including genetic 1660
endowment, life events, psychosocial and envi- 1661
ronmental conditions, and other numerous factors. 1662
Nevertheless, situating maladaptive behaviors 1663
in the context of neurobiological development 1664
and identity formation, processes unique to ado- 1665
lescence, is essential to understanding the 1666
emergence and persistence of delinquency. Such 1667
contextualization may also prove helpful in 1668
grounding new, tailored, developmentally 1669
informed interventional approaches that may 1670
improve the effectiveness of rehabilitation efforts. 1671
Further research is needed to integrate these key 1672
aspects of development and to better understand 1673
them as foundations for delinquency. While iden- 1674
tity formation and neurobiological development 1675
have each been extensively studied (and more 1676
rarely linked, independently, to delinquency), 1677
there is a lack of research exploring the interac- 1678
tions, overlaps, antecedents, and consequences 1679
between them. Such research is needed to identify 1680
possible incongruence, or developmental asyn- 1681
chronies (i.e., relative to “gaps”) between neuro- 1682
biological and identity development that may be 1683
associated with patterns of vulnerability for delin- 1684
quency. It is likely that the particular interactions 1685
of brain and identity development, when accom- 1686
panied by certain social or environmental 1687
demands, result in cumulative risks for the emer- 1688
gence of antisocial and delinquent behaviors. 1689

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The “Why(s)” of Criminal Behavior in Juveniles: The Long and the Short of It

Elena L. Grigorenko

The USA and the Russian Federation have been competing with each other for what appears to be the rather dubious leadership in having the highest number of prisoners per 100,000 people (Walmsley 2008), with the USA being a clear first (756 in 2008), and Russia—the leader of a cluster (629 in 2008) formed primarily by developing nations (e.g., Rwanda—604, St. Kitts and Nevis—588, Cuba—531, U.S. Virgin Islands—512, with the rest of the countries falling below and far below 500; 59% of the countries had less than 150 prisoners per 100,000 people). This trend is replicated in the juvenile justice systems as well, with USA and Russia detaining and/or incarcerating the largest number of juveniles per capita in the world.

There are, of course, a number of complex dynamic characteristics of the justice systems in the USA and Russia captured by these numbers. For example, per capita costs for detention, corrections, and rehabilitation (collectively and individually) vary dramatically in these countries and around the world. They also vary dramatically for adults and juveniles (much higher for the latter). Yet, regardless of these complex dynamics, both “leaders” of this number race,

the USA and Russia, have been searching for ways to decrease these numbers, both to save costs and to approach the world average of incarceration and detention.

To achieve this goal, it seems absolutely necessary to have a plan on how such a decrease might happen. There are multiple parallel and overlapping processes that should shape the formation of this plan, involving legal, financial, political, social, cultural, and many other factors. One such group of factors has to do with understanding what triggers the criminal (hereafter used synonymously with antisocial) behavior for which people end up being detained and incarcerated. Understanding the “why” of criminal behavior might help both prevent it and influence the judicial system in finding effective alternatives to incarceration.

In any society, criminal behavior assumes the presence of an interaction effect between an individual and society: for behavior to be labeled as “criminal,” an individual is assumed to have committed an act that is illegal, as defined by a given society. Clearly, there is a lot of variation between societies in what is recognized as criminal and what is not, but one common denominator is violent offences. It is notable that a substantial portion of people committing violent offences commit them repeatedly; thus, in the USA the re-arrest rate for violent offenders over a period of 3 years has been estimated at 59.6% (<http://www.ojp.usdoj.gov/bjs/reentry/recidivism.htm>). These data, arguably, indicate

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64 that a significant amount of violent crime is
 65 committed by a fairly limited group of individu-
 66 als; indeed, although there are no specific statis-
 67 tics, isolated studies indicate that a large portion
 68 of all crimes (up to 50%) appear to be committed
 69 by a relatively small number of individuals, per-
 70 haps as small as 10% of all offenders (Wolfgan
 71 et al. 1972). It has also been stated that many
 72 “career criminals” start early, interacting for the
 73 first time with the judicial system as juveniles.
 74 Yet, there is a substantial number of individuals,
 75 especially among juveniles, who engage in the
 76 desistance process, diverting from crime in the
 77 course of life trajectories; in fact, desisting and
 78 aging out of crime appear to be a common rule
 79 rather than an exception (Sampson and Laub
 80 2005). The complex dynamics of predisposition
 81 for criminal behavior, engagement in criminal
 82 acts, and possible commitment to or diversion
 83 from criminal behavior throughout the lifespan
 84 is directly related to the question of the etiology
 85 of crime.

86 The task of understanding the etiology of
 87 criminal behavior has been central to many sci-
 88 entific disciplines, including psychology and
 89 psychiatry. In recent comprehensive overviews
 90 of these literatures, it has been concluded that the
 91 manifestation and duration of antisocial behavior
 92 are driven by substantial and dynamic interactive
 93 co-contributions of genetic and environmental
 94 factors that are often difficult to disentangle
 95 (Craig and Halton 2009; Ferguson 2010; Moffitt
 96 2005; Steinberg 2009; Tremblay 2010; Viding
 97 et al. 2008). To extrapolate a number of main
 98 conclusions from these reviews, the “why” (or,
 99 rather “why(s)”) of criminal behavior are multi-
 100 ple, heterogeneous, and not very well understood.
 101 And yet the field keeps paying a tremendous
 102 amount of attention to these “why(s),” because it
 103 is believed that as soon as we find answers to
 104 them, we will know how to prevent and remedi-
 105 ate criminal behavior. Whether this belief is
 106 grounded or not is an important question on its
 107 own that is not going to be discussed here. The
 108 purpose of this review is to delineate, in broad
 109 strokes, what is known about the “why(s)” of
 110 criminal behavior in juveniles.

General Considerations

111

112 Before engaging in this discussion, I would like
 113 to clarify three important aspects of this review.
 114 First, it is limited in scope; its intention is to be
 115 illustrative, not comprehensive. In other words, it
 116 comments on major themes in the literature, but
 117 does not claim to cover them exhaustively or
 118 even list all of them. The selection of these themes
 119 is driven by the main assumption of this review,
 120 namely, that juvenile criminal behavior is, gener-
 121 ally speaking, a manifestation of broken pro-
 122 cesses of social learning (or faulty learning). This
 123 position is close to and partially derived from the
 124 well-known developmental perspectives on dis-
 125 ruptive behavior in childhood that are rooted in
 126 models of social learning and disease onset
 127 (Tremblay 2010). Here, juvenile criminal behav-
 128 iors are viewed as deviations from the normative
 129 developmental process, by which the acquisition
 130 of social norms occurs through learning how to
 131 control what is considered to be socially undesir-
 132 able behaviors that impeach the rights of others—
 133 that is, impulsivity, aggression (overt and covert),
 134 and rule breaking. Correspondingly, the point of
 135 this review is to outline sources of difficulties that
 136 have been identified by research and marked as
 137 junctions of social learning, where it can be
 138 derailed or slowed down. In the literature, these
 139 sources are typically subdivided (although the
 140 division is artificial) into internal and external fac-
 141 tors. The internal here are represented by “risky
 142 genes,” i.e., sources of neurophysiological varia-
 143 tion that, for example, may predispose an individ-
 144 ual to impulsive and aggressive behavior. External
 145 factors here are “risky environments,” i.e., sources
 146 of contextual variation that, for example, may trig-
 147 ger impulsive and aggressive behavior.

148 Second, although not exclusively, a vast
 149 majority of juvenile offenders meet the criteria
 150 for one or more developmental disorders charac-
 151 terized by disruptive behavior, such as conduct
 152 disorder (CD), oppositional defiant disorder
 153 (ODD), and attention deficit hyperactivity disor-
 154 der (ADHD). Here I will not attempt to differen-
 155 tiate between them in fine-grain detail, and,

156 following the literature (Gunter et al. 2010), refer
157 to them as antisocial spectrum disorders.

158 Third, in this review, I omit a discussion of the
159 psychological indicators that capture traits predis-
160 posing for criminal behavior. Although references
161 will be made throughout to temperament, personal-
162 ity, and cognitive indicators traditionally associated
163 with antisocial behavior and violence, these refer-
164 ences are cursory. The review is focused on “risk
165 factors” that have been marked by research as
166 either causal or associated with the derailed social
167 learning that is thought here to underlie criminal
168 behavior in juveniles. Thus, although this over-
169 view, as many others, presents data from both
170 schools of thought on the causes of crime—one
171 focused on the role of individual differences and
172 the other focused on structural and contextual vari-
173 ables that predispose a young individual to crime—
174 it primarily focuses on those factors that are charged
175 (at least potentially) with explanatory power with
176 regard to the “why” questions of juvenile crime.

177 The Long of It

178 Since the work of Sir Francis Galton (Galton 1869,
179 1883), the field has developed an approach to
180 approximate, at least roughly, whether and to what
181 degree causal factors underlying behavior (or a
182 particular behavior) can be attributable to heritable
183 factors. This approach, in brief, assumes that all
184 variance in behavior can be viewed as 100%, a
185 portion of which is heritable (i.e., “received” from
186 parents through genetic material) and can be cap-
187 tured through so-called heritability estimates,
188 while everything else (i.e., everything that is not
189 transmitted through genetic material) can be cap-
190 tured by environmentality estimates. A century
191 and a half of the application of this approach,
192 regardless of its many complexities, has resulted
193 in the realization that it is difficult (virtually impos-
194 sible) to find a behavior which is either completely
195 heritable or completely not. A large field, referred
196 to as quantitative genetics, is focusing—with much
197 more analytical and computing sophistication than
198 the nineteenth century permitted—on appraising
199 the heritability of human behavior. Criminal

behavior itself and its precursors and associates
enjoy much of the attention of this field.

Specifically, a great deal of work has been
done on antisocial behavior, defined as a quanti-
tative trait (measured in a number of different
ways), which is distributed in the general popula-
tion. According to summaries of this work,
aggressive behavior is moderately heritable, with
environment—shared, i.e., specific to two or
more relatives, and nonshared, i.e., specific to an
individual—also playing an important role (Burt
2009; Rhee and Waldman 2002, 2011). Specifics
of these estimates vary between studies depend-
ing on design and sample size, age and gender of
the sample, definition and measurement of anti-
social behavior, and its subtypes.

Similar results, in general terms, have been
obtained in studies of other related traits (Viding
et al. 2008). To illustrate, heritable factors have
also been stated to be important for the trait of psy-
chopathy (Taylor et al. 2003), especially its cal-
lous-unemotional dimension (Viding et al. 2005).
Yet, environmentality is never negligible in all of
these studies (Burt 2009; Burt et al. 2010).

Also of note is that different manifestations of
the antisocial-spectrum disorders and related
traits share common genetic etiology, at least to a
certain degree (Bornovalova et al. 2010). Shared
genetic factors are thought to underlie comorbid-
ity between CD and ODD (Dick et al. 2005), CD
and ADHD (Christiansen et al. 2008; Monuteaux
et al. 2009; Rhee et al. 2008; Tuvblad et al. 2009),
ADHD and violent behavior (Retz and Rösler
2009), and antisocial behavior and psychopathy
(Forsman et al. 2010).

Thus, the “long of it” is that both heritable and
nonheritable factors have been found to be impor-
tant in the etiology of antisocial behavior. But
what, specifically, are these factors?

The Short of It

The short of it lies in the fact that there appear to
be many risk factors for antisocial behavior and
yet not a single one emerges to be deterministic.
All these risk factors are probabilistic and may

244 contribute to an eventual confrontation between
 245 a young person and society that results in an act
 246 of antisocial behavior—crime. As stated above,
 247 these risk factors are considered obstacles to
 248 social learning. These factors—risky genes, risky
 249 environments, and their interactions—will be
 250 discussed in this section.

251 **Risky Genes**

252 There are many ways to seek evidence of the role
 253 of variation in DNA in the manifestation of human
 254 behaviors. Among those are investigations of dif-
 255 ferent types of DNA variation by genotyping and
 256 sequencing. With regard to studies of the connec-
 257 tions between DNA variation and antisocial
 258 behavior, the two most widely used methods are:
 259 (1) a whole-genome search of the regions harbor-
 260 ing potential gene-candidates for a disorder or a
 261 behavior¹; and (2) an investigation of specific
 262 gene-candidates, in which a particular gene is
 263 selected on the basis of an a-priori hypothesis and
 264 the involvement of this gene with a particular
 265 phenotype is tested by means of inferential statis-
 266 tics. Both methods are aimed at investigating the
 267 relevance of the structural variation in DNA and
 268 genes to individual differences in behavior. With
 269 the first method, researchers scan the whole
 270 genome in an attempt to identify a limited num-
 271 ber of regions that appear to be co-segregating
 272 among relatives with a disorder or trait, and then
 273 investigate these regions to identify specific genes
 274 that contribute to the disorder/trait. With the sec-
 275 ond method, researchers capitalize on ideas
 276 developed in animal research or pharmacological
 277 research and attempt to investigate genetic vari-
 278 ability in a gene hypothesized to be relevant to the
 279 disorder or trait of interest. The first method uti-
 280 lizes both linkage and association statistical anal-
 281 yses, whereas the second method uses only the
 282 association paradigm.

¹To carry out such searches, typically, the genome is covered with a large set of highly polymorphic, multi-allelic (so-called short tandem repeat polymorphisms, or STRPs) or di-allelic (so-called single nucleotide polymorphisms, or SNPs) genetic markers.

283 **Regions in the Genome**

284 A number of studies should be mentioned here. 284
 285 The first study (Dick et al. 2004) has a distinct 285
 286 feature: the probands in this study were identified 286
 287 postfactum. Specifically, in typical whole- 287
 288 genome scans, a sample of participants is ascer- 288
 289 tained through a proband possessing a disorder of 289
 290 interest. After such probands are identified, their 290
 291 relatives are included in the study. In this particu- 291
 292 lar case, the probands were identified through a 292
 293 different study for a different phenotype, specifi- 293
 294 cally, the phenotype of alcoholism used in the 294
 295 Collaborative study on the Genetics of Alcoholism 295
 296 (COGA). Thus, probands with alcoholism were 296
 297 recruited and their family members were invited 297
 298 to participate. All consenting participants older 298
 299 than 18 were administered a semi-structured clin- 299
 300 ical assessment that permitted a retrospective 300
 301 diagnosis of conduct disorder; this phenotype 301
 302 was then used in subsequent analyses. The results 302
 303 of this genome scan identified six regions of the 303
 304 genome, for both categorical and continuous phe- 304
 305 notypes, which produced suggestive but not, 305
 306 strictly speaking, statistically significant results. 306
 307 These regions were 19p13.12 and 19q12, 2p11.2, 307
 308 12q13.13, 3q12.3, and 1q32.1.² A different group 308
 309 of researchers recruited a sample of adolescents 309
 310 treated for substance abuse and delinquency and 310
 311 their siblings (Stallings et al. 2005). These inves- 311
 312 tigators reported significant evidence for linkage 312
 313 at 9q34 and suggestive evidence at 3q24-25 and 313
 314 17q12. In yet another sample, a group of adults 314
 315 with CD and Antisocial Personality Disorder and 315
 316 their family members, no significant evidence for 316
 317 linkage was established, but suggestive signals 317
 318 were reported on chromosomes 2 and 3 (Ehlers 318
 319 et al. 2008). Two studies investigated CD and 319
 320 related problems using data from the International 320

²To acknowledge specifics of chromosomal architecture, a special nomenclature was introduced. In this nomenclature, the first number indicates the number of a particular chromosome (e.g., 1), the letter signifies a particular chromosomal arm (*p* for short, and *q* for long arms; e.g., 1q points to the long arm of chromosome 1), and subsequent numbers designate a specific cytological band in which a marker or a signal of interest resides (e.g., 1q32.1, where 32.1 is a specific cytological location on the long arm of chromosome 1).

321 Multicenter ADHD Genetics project. Again, no
 322 statistically strong findings were generated, but
 323 there were interesting signals at 3p25-24 and
 324 9p24 (Anney et al. 2008) and 20p12 (Sonuga-
 325 Barke et al. 2008). In summary, there are three
 326 relevant observations here. First, no whole-
 327 genome scan has yet been conducted where the
 328 sample was ascertained directly through indica-
 329 tors of antisocial behavior. Second, because these
 330 samples are characterized by such a diversity of
 331 ascertained schemes in different samples (i.e.,
 332 probands with alcoholism, substance abuse, and
 333 ADHD were recruited and antisocial behavior
 334 was evaluated only subsequently), it is, perhaps,
 335 of no surprise that there is little overlap in the
 336 findings between these studies.

337 Candidate Genes

338 Research with humans and with animal models
 339 has identified a number of likely types of proteins
 340 that are associated with antisocial behavior.
 341 Correspondingly, there is research on the sources
 342 of genetic variation that are associated with vari-
 343 ations in these proteins. Thus, the following
 344 groups of genes have been investigated as the
 345 structural genetic bases for antisocial behavior:
 346 (1) neurotransmitters and (2) "other" genes.

347 Neurotransmitter Signaling Pathways

348 When neurotransmitter signaling pathways are
 349 studied, a number of proteins establishing such
 350 pathways should be considered. First, there are
 351 the specific neurotransmitter ligands themselves
 352 (e.g., dopamine (DA), serotonin (5HTT), γ -amin-
 353 obutyric acid (GABA)). Second, for a postsynap-
 354 tic signal to originate, it should be received by a
 355 particular protein known as a receptor. There are
 356 ligand-specific, committed receptors (e.g., dop-
 357 amine has five types of different receptors,
 358 DRD_{1-5}) and receptors able to bind one or more
 359 types of ligands. Third, there are proteins that are
 360 needed to transport the remaining ligand from the
 361 neuronal cleft; these proteins are called transport-
 362 ers, and, once again, there could be neurotrans-
 363 mitter-exclusive or multifunctional transporters.
 364 Finally, there are molecules that participate in
 365 both the synthesis and degradation of neurotrans-
 366 mitters (e.g., monoamine oxidase, which is a

367 protein that metabolizes serotonin, dopamine, 367
 368 and norepinephrine). All these systems of genes 368
 369 and proteins are naturally interactive: together, 369
 370 they assemble pathways for the transmission of 370
 371 the neural signal and their constant interaction is 371
 372 essential to the functionality of these pathways. 372

373 To illustrate, consider an example of interac- 373
 374 tive events characteristic of dopamine transmis- 374
 375 sion. In brief, DA activates the five types of 375
 376 dopamine receptors (DRD_{1-5}), each of which is 376
 377 controlled by its own genes. The D_4 receptor is 377
 378 controlled by the gene DRD_4 . Variation (i.e., 378
 379 polymorphic allelic differences in the population) 379
 380 in DRD_4 has been associated with externalizing 380
 381 and antisocial behaviors (Bakermans-Kranenburg 381
 382 and van Ijzendoorn 2006; Faraone et al. 2001; 382
 383 Holmes et al. 2002; Munafò et al. 2008; Young 383
 384 et al. 2002). In addition, polymorphisms in the 384
 385 genes coding for two other receptors, D_2 and D_5 , 385
 386 were associated with antisocial behavior in alco- 386
 387 holism (Lu et al. 2001) and substance abuse 387
 388 (Vanyukov et al. 2000), respectively. In synaptic 388
 389 clefts, DA is deactivated by reuptake via its trans- 389
 390 porter, the protein coded by the $DAT1$ (also 390
 391 known as $SLC6A3^3$) gene. There is evidence that 391
 392 genetic variation in this gene might be related to 392
 393 the manifestation of behavior problems (Kuikka 393
 394 et al. 1998; Yang et al. 2007) and antisocial per- 394
 395 sonality disorder in alcoholics (Reese et al. 2010). 395
 396 DA is broken down by catechol-O-methyl trans- 396
 397 ferase (encoded by the $COMT$ gene), monoamine 397
 398 oxidase (controlled by the $MAOA$ and $MAOB$ 398
 399 genes), and metabolized to norepinephrine by 399
 400 dopamine beta-hydroxylase precursor (encoded 400
 401 by the $D\beta H$ gene). There are substantial bodies 401
 402 of literature connecting $COMT$ (Craddock et al. 402
 403 2006; Thapar et al. 2005), $MAOA$ (Kim-Cohen 403
 404 et al. 2006; Prom-Wormley et al. 2009; Tikkanen 404
 405 et al. 2009), $MAOB$ (Oreland et al. 2007), and 405
 406 $D\beta H$ (Cubells and Zabetian 2004) to psychopa- 406
 407 thology in general and conduct problems in par- 407
 408 ticular. Finally, the activity of DA-converting 408

³There is a consistent nomenclature for genes coding for proteins functioning as neurotransmitters. All such genes have the SLC6 (solute carrier family 6) abbreviation in them and then a letter indicating type and number of the associated protein (e.g., A3).

409 enzymes is itself controlled by genes. For example,
 410 monoaminergic activity is regulated, among other
 411 things, by a transcription factor AP-2 beta (Berggard
 412 et al. 2005; Damberg et al. 2001), encoded by
 413 the *TFAPβ2* gene. Genetic variation in *TFAPβ2*
 414 has been associated with behaviors engaging
 415 monoaminergic mechanisms (Damberg 2005).

416 Evident from the above, the literature has
 417 numerous examples that connect criminality
 418 itself and its behavioral correlation features (e.g.,
 419 aggression) to different allelic variants at particu-
 420 lar polymorphisms in particular genes. In addi-
 421 tion to the genetic variation that is associated
 422 with the turnover of dopamine, polymorphisms
 423 in a number of other neurotransmitter-related
 424 genes were associated with antisocial behaviors
 425 and related traits. For example, specific variants
 426 in the serotonin (5-HT) transporter gene, *5-HTT*
 427 (or *SLC6A4*) have been associated with violent
 428 behavior (Retz et al. 2004), conduct disorder
 429 (Cadoret et al. 2003; Sakai et al. 2006), behavior
 430 disinhibition (Twitchell et al. 2001), antisocial
 431 behavior in alcoholism (Ishiguro et al. 1999),
 432 antisocial personality disorder in alcoholics
 433 (Reese et al. 2010), and violent suicide (Courtet
 434 et al. 2001). In addition, polymorphisms in other
 435 serotonin or serotonin-related genes, the gene
 436 coding for tryptophan hydroxylase (*TPH1*), a
 437 protein participating in the biosynthesis of sero-
 438 tonin (Hill et al. 2002), and serotonin receptors
 439 [*HTR1B* (Soyka et al. 2004) and *HTR2A* (Hill
 440 et al. 2002)] were shown to be statistically-
 441 significantly or suggestively associated with anti-
 442 social behavior in alcoholism. In addition,
 443 variation in *HTR1B* has been associated with
 444 aggressive behavior (Jensen et al. 2009).

445 Conduct disorder has also been associated with
 446 one of many GABA receptor proteins, receptor A_2
 447 (*GABRA2*); this finding was obtained on the same
 448 sample described above, the COGA sample (Dick
 449 et al. 2006). In addition, using principal compo-
 450 nent analyses of a number of variables indicative
 451 of externalizing behaviors, the same group, using
 452 almost the same sample of individuals, re-analyzed
 453 markers obtained through their previous genome
 454 scan (see above) and identified an additional region
 455 of interest, 7q21.11-7q33. Having explored this
 456 region, they established an association between

457 this combined externalizing factor and polymor- 457
 458 phisms in the muscarinic acetylcholine receptor 458
 459 M_2 gene (*CHRM2*). 459

460 Moreover, externalizing symptoms have been 460
 461 associated with genetic variability in adrenergic 461
 462 neurotransmission. Specifically, a single poly- 462
 463 morphism in the gene *ADRA2A*, coding for one 463
 464 of the adrenergic receptor proteins,⁴ was found to 464
 465 be associated with oppositional defiant conduct 465
 466 and other disorders (Comings et al. 2003). 466

467 Other Genes 467

468 Only a limited number of studies have investi- 468
 469 gated structural variability in genes other than 469
 470 those directly related to neuronal signaling. One 470
 471 such study, based on specific hypotheses gener- 471
 472 ated in the animal literature, investigated poly- 472
 473 morphisms in one of the protein kinases, C 473
 474 (PKC), an enzyme that has the capacity to regu- 474
 475 late other proteins by chemically adding phos- 475
 476 phate groups to them (i.e., phosphorylating them). 476
 477 There are three large subtypes of PKCs, α , β , and 477
 478 γ —all expressed in different tissues and having 478
 479 different functions. PKC- γ is present solely in the 479
 480 brain (abundant in the cerebellum, hippocampus, 480
 481 and cerebral cortex) and spinal cord and has been 481
 482 reported (as summarized in Schlaepfer et al. 482
 483 2007) to be engaged in such functions as synaptic 483
 484 formation, long-term potentiation and depres- 484
 485 sion, and modulation of neurotransmitter recep- 485
 486 tors (e.g., GABA_A). A group of researchers has 486
 487 associated genetic variability in the gene coding 487
 488 for PKC- γ (*PRKCG*) with behavior disinhibition 488
 489 (Schlaepfer et al. 2007). 489

490 Because of the predominance of males among 490
 491 individuals demonstrating antisocial behavior, 491
 492 researchers have investigated the genes located 492
 493 on the X chromosome. In particular, variation in 493
 494 the androgen receptor gene (*AR*)—a gene that 494
 495 codes for the protein that functions as a steroid- 495
 496 hormone activated transcription factor—has been 496
 497 associated with externalizing (conduct and oppo- 497
 498 sitional defiant) disorders (Comings et al. 1999). 498

⁴These proteins are functional in the regulation of neu-
 499 rotransmitter release from sympathetic nerves and from
 500 adrenergic neurons in the central nervous system.

499 In summary, the picture is rather diverse:
 500 There are many candidate genes whose variation
 501 has been associated with antisocial behavior and
 502 related traits (Gunter et al. 2010). Each of these
 503 variants might have been or is considered as a
 504 risk indicator. Yet, given the "balance" of replica-
 505 tions and nonreplications of findings, not a single
 506 variant is recognized as a causal factor of antisocial
 507 behavior.

508 Risky Environments

509 As mentioned above, antisocial behavior is
 510 defined in contrast to pro-social or social-values-
 511 oriented behavior; thus, its definitions always
 512 include reference to social principles, values, and
 513 norms and a society's capacity to install, support,
 514 and promote them—that is, an outcome of social
 515 learning. There are multiple models in the litera-
 516 ture that investigate the emergence of antisocial
 517 behaviors in the context of the relationships
 518 between an individual and society (e.g., Glueck
 519 and Glueck 1968; Hirschi 1969). One such model
 520 differentiates these relationships into age-specific
 521 bands, arguing that through these intrapersonal
 522 bands, maturing individuals accept and internal-
 523 ize their ties to each other and society (Sampson
 524 and Laub 1990, 1993). Specifically, this model,
 525 referred to as a revised age-graded theory of
 526 informal social control (Sampson and Laub
 527 2005), stresses the importance of parents (i.e.,
 528 parenting styles and attachment characteristics),
 529 peers, religion, and the school system in *child-*
 530 *hood and adolescence*, and the importance of
 531 participation in vocational training, military ser-
 532 vice, higher education, and the labor force in
 533 *young adulthood*. It also emphasizes the impor-
 534 tance of forming family and other close relation-
 535 ships, and participating in social and religious
 536 institutions in *young adulthood*.

537 Neighborhoods and Schools

538 A variety of socio-demographic characteristics
 539 appear to be predictive of antisocial behavior
 540 (Shaw et al. 2000). More juvenile crime is associ-
 541 ated with inner-city areas characterized by dilapi-
 542 dation, hostility and disorganization, and high

residential mobility (Kroneman et al. 2004; 543
 Sampson et al. 1997). Moreover, risky neighbor- 544
 hoods have been reported to amplify the impact 545
 of individual predispositions on delinquent con- 546
 duct (Lynam et al. 2000). In addition, levels of 547
 neighborhood poverty are positively associated 548
 with other behavior indicators that themselves 549
 are risk factors for conduct problems [e.g., teen- 550
 age pregnancy and high-school drop-out (Brooks- 551
 Gunn et al. 1993; Sommers and Baskin 1994)]. 552
 However, it appears that direct influences of risky 553
 neighborhoods are modified by characteristics of 554
 the community itself (Browning et al. 2004) and 555
 by family variables (Gorman-Smith et al. 1996). 556
 In addition, children and youth with antisocial 557
 behavior tend to come, disproportionately, from 558
 low-SES neighborhoods (Offord et al. 1986) and 559
 minority backgrounds (Chapman et al. 2006; 560
 Kilgore et al. 2000). Moreover, children with 561
 antisocial behavior tend to attend schools charac- 562
 terized by high rates of crime, and problematic 563
 relationships between faculty and students 564
 (DeWit et al. 2000; Hadley-Ives et al. 2000; 565
 Kilgore et al. 2000; Loukas and Robinson 2004; 566
 Shafii and Shafii 2003). There is also evidence 567
 that, in contrast, schools with well-formulated, 568
 consistent, and sustained rules are characterized 569
 by low rates of students' delinquent behaviors 570
 (Gottfredson 2001; Gottfredson et al. 2005). 571

572 Family

573 Low SES, parental unemployment, low parental 574
 education, and dependency on welfare benefits 575
 have been reported to be associated with antisocial 576
 behavior and conduct problems in juveniles 577
 (Velez et al. 1989). Low SES (e.g., welfare sta- 578
 tus) is not only characteristic of children with 579
 conduct disorder as a group (Loeber et al. 1995), 580
 it is also associated with an earlier onset of the 581
 disorder (Loeber et al. 1998). These relationships, 582
 however, appear to be of a complex nature, with 583
 the general link between SES and delinquency, in 584
 particular, being conditioned on family social 585
 practices (Dodge et al. 1994).

In addition, family size (Farrington 1992, 586
 1993; Newson et al. 1993), birth order (Warren 587
 1966), and sibling influences (Reiss and 588
 Farrington 1994) have been observed to be related 589

590 to antisocial behaviors, delinquency, and conduct
591 problems. However, these associations also
592 appear to be multifaceted and multidirectional
593 (Cote et al. 2002).

594 Although the factors mentioned above are
595 important, the bulk of the literature, however,
596 linking family variables and juvenile delinquency
597 is clustered into three main groups: (1) child rear-
598 ing, especially maltreatment and abuse; (2) mari-
599 tal conflicts and family structure; and (3)
600 individual characteristics of parents as a source
601 of both genetic and environmentally negative
602 influences. These three bodies of literature are
603 quite substantial and cannot be comprehensively
604 reviewed here. Correspondingly, only selected
605 findings are highlighted. With regard to child
606 rearing practices, parental rejection (McCord
607 1979; Robins 1978), harsh or punitive discipline
608 (Haapasalo and Pokela 1999), and reduced or
609 absent parental supervision (Stern and Smith
610 1999) are considered to be reliable predictors of
611 juvenile delinquency. Early child maltreatment
612 (Smith and Thornberry 1995), physical abuse
613 (Malinosky-Rummell and Hansen 1993), sexual
614 abuse (Feiring et al. 2007), and psychological
615 abuse (Haapasalo and Moilanen 2004) all predict
616 later delinquency. Parenting practices resulting in
617 child maltreatment are of great cost to society:
618 their total costs are estimated at \$20 billion direct
619 (Bess 2002) and over \$69 billion indirect per year
620 (Fromm 2001).

621 Domestic violence and parental conflict are
622 also reliable predictors of delinquent behaviors
623 (Buehler et al. 1997). Incomplete family struc-
624 ture (Fergusson et al. 1994; Velez et al. 1989),
625 divorce (Kolvin et al. 1988), and bad marital
626 relationships (Cui et al. 2007) are all considered
627 to be risk factors for delinquency with their inde-
628 pendent direct predictive powers, but none of
629 these effects are deterministic and there is evi-
630 dence for the modifying impact of various pro-
631 tective factors (Hart et al. 2007). Of note are also
632 multifarious reciprocal relationships between
633 the childrearing environment and child problem
634 behavior, such that growth in conduct problems
635 in children appears to impact subsequent paren-
636 tal behaviors (Patrick et al. 2005; Stattin and
637 Kerr 2000).

638 Last, but not least, specific characteristics of
639 parents themselves are reliably predictive of
640 delinquent outcomes (Lipsey and Derzon 1998).
641 First and foremost, specific forms of psychopa-
642 thology in parents are predictive of these same
643 types of psychopathology in children. Thus, par-
644 ents with antisocial personality disorder (Frick
645 et al. 1992) and various conduct problems
646 (Faraone et al. 1991; Lahey et al. 1988; Lipsey
647 and Derzon 1998) tend to have children who
648 demonstrate similar delinquent behaviors.
649 Second, there is a substantial amount of cross-
650 over in the familial transmission of psychopa-
651 thology. Specifically, psychiatric conditions such
652 as substance abuse (Loeber et al. 1995) and
653 maternal depression (Dumas and Wahler 1985;
654 Loeber et al. 1998; Zahn-Waxler et al. 1990) are
655 associated with conduct problems in children.

656 Peers

657 The tradition of considering peer influences in
658 the early onset of antisocial behavior extends
659 itself to the classic sociological paradigm of
660 symbolic interactionism, which, in the frame-
661 work of social learning theory (Akers 1998),
662 asserts that criminal behavior arises as a product
663 of a learning process based on interactions in
664 close peer networks (Sutherland 1947). There is
665 a substantial amount of data supporting this
666 assertion and indicating, specifically, that having
667 delinquent peers is, indeed, one of the strongest
668 correlates of juvenile delinquency (Dishion and
669 Patterson 2006; Elliott and Menard 1996; Haynie
670 2001; Keena et al. 1995; Patterson et al. 1991;
671 Warr 2002), although the strength of association
672 varies depending on the level of internal and
673 external constraints (Cass 2007; Piquero et al.
674 2005) and the quality of the friendships (Piehler
675 and Dishion 2007).

676 Along with the literature on delinquent peer
677 pressures as one of the main correlates of crimi-
678 nal juvenile activity, there is a growing body of
679 literature on other risk and protective factors
680 associated with the ability to submit to or resist
681 peer pressure. Among the risk factors are chaotic
682 and disorganized school environments (Payne
683 et al. 2003), poor teacher–student relationships
684 (Welsh et al. 1999), low school adjustment and

685 attachment, lack of interest in and engagement
686 with extra-curricular activities, and the absence
687 of positive mentor-like authorities (Osgood et al.
688 1996). Among the protective factors are strong
689 moral values (Akers 1998), strong social ties to
690 family members and nondelinquent peers (Heimer
691 and De Coster 1999), disapproval of criminality
692 (Mears et al. 1998), and the quantity and quality
693 of parent monitoring (Svensson 2003).

694 It is notable that many researchers comment
695 on the complex nature of these relationships,
696 which exhibit multiple reciprocal connections as
697 well as cumulative (both additive and interactive)
698 effects associated with the enhanced impact of
699 multiple factors if they occur simultaneously,
700 whether in risk or protective contexts (Lansford
701 et al. 2003; Liu 2004; Simons et al. 2001).

702 Risky Interactions

703 As evident from the discussion above, the litera-
704 ture contains long "laundry" lists of risk factors,
705 many of which work in concert. For example,
706 although parents create environments for their
707 children, they also pass along genes to their chil-
708 dren, thus, forming multi-directional associations
709 between the genes that predispose them for par-
710 ticular behaviors (e.g., antisocial behaviors) and
711 particular parenting styles (e.g., neglect and
712 abuse), as well as between their genes and the
713 genes they have passed along to their children
714 (e.g., risk genes for conduct disorder), so that
715 children's genes, in turn, can trigger particular
716 reactions from their parents (e.g., harsh discipline
717 in response to disobedience), and so forth. In
718 other words, these associations soon become
719 quite difficult to disentangle; collectively, they
720 form the context of and potential for antisocial
721 behavior. Thus, as is always the case in the social
722 sciences, the studies of risk factors have gener-
723 ated some "good leads" (Rutter et al. 2003, p.
724 1092), but are far from being decisive or deter-
725 ministic in terms of their findings' etiological or
726 interventional power. The discussion below,
727 stressing the role of combinations of these factors,
728 illuminates even better their probabilistic nature.
729 It examines three types of such combinations:

(1) of various genetic risk factors; (2) of various 730
environmental risk factors; and (3) of various 731
environmental and genetic factors. 732

Gene-by-Gene Interactions 733

734 It is possible to hypothesize that there might be 734
non-linear interactions between various specific 735
genes or variants within these genes (so-called 736
epistatic interactions) predisposing for the mani- 737
festation of conduct problems. There is a large 738
literature on the role of epistatic interactions in 739
medicine, especially in studies of cancer 740
(Fijneman 2005). Research on the concept of 741
gene-gene interaction is still limited (Comings 742
et al. 2000a, b; Grigorenko et al. 2008), but testi- 743
fies to the substantial importance of such interac- 744
tions for the understanding of the genetic texture 745
of the predisposition for antisocial behaviors. 746
Thus, it is possible that an accumulation of risk 747
factors (e.g., co-presence of structural DNA poly- 748
morphisms, each of which has been associated 749
with conduct disorder) might result in the forma- 750
tion of non-linear higher-order effects of impor- 751
tance to the development and manifestation of 752
conduct problems. Again, pointing to the medical 753
literature, it appears that the co-existence of such 754
"risky" genetic variants is not characterized by 755
simple additive effects, but rather by various non- 756
linear outcomes. 757

Environment-by-Environment 758 Interactions 759

760 Numerous studies have been designed to bring 760
together different environmental effects that had 761
previously been considered in isolation. For 762
example, both family and school factors are 763
important, and the literature indicates differential 764
developmental outcomes when family and 765
schooling indicators are considered interactively. 766
Specifically, there is evidence in the literature 767
that learning gains as conditioned by school sizes 768
are greater for students from disadvantaged fami- 769
lies than families with higher incomes (Lee and 770
Smith 1997). There is also evidence of non-linear 771

772 relationships between social capital at home and
773 students' ability to benefit from social capital at
774 school (Crosnoe 2004).

775 Similarly, the interaction between indicators
776 of family and peer environments has been shown
777 to be important (Simons et al. 2001). Specifically,
778 although no direct association was found between
779 oppositional/defiant behavior during childhood
780 and a trajectory of increasing involvement with
781 deviant peers and delinquency during adoles-
782 cence, early oppositional/defiant behavior under-
783 mined effective parenting practices. Lack of
784 positive parenting, consequently, predicted an
785 increased engagement with deviant peers and
786 delinquency during adolescence. Interaction
787 effects also appear to be important for the activa-
788 tion of protective factors. Specifically, it has been
789 shown that problems in the parent-child rela-
790 tionship can be countered by positive affiliation
791 and support from friends, relatives, and other
792 significant adults (Call and Mortimer 2001).
793 There is evidence in the literature that such fam-
794 ily factors as low cohesion are differentially
795 associated with low social competence and self-
796 worth only in adolescents without a best friend
797 (Gauze et al. 1996). Likewise, high-quality
798 friendship was reported to be a protective factor
799 negating the association between child abuse and
800 subsequent low self-esteem (Bolger et al. 1998).
801 Thus, it is possible that the co-occurrence of
802 specific peer relationships, whether dyadic
803 (Buhrmester and Furman 1987; Laub et al. 1998)
804 or group (Ladd 2006; Lansford et al. 2003), and
805 early negative family experience can differenti-
806 ate behavioral outcomes in an interactive manner
807 (Criss et al. 2002).

808 Although the literature on conduct disorder
809 does not yet contain plentiful examples of inter-
810 actions between environmental factors, there is
811 strengthening support for the use of statistical
812 models that are capable of capturing non-linear
813 interactions (Ousey and Wilcox 2007). This argu-
814 ment is particularly strong in sociology and crim-
815 inology (Agnew et al. 2002; Agnew and Raskin
816 White 1992; Sampson and Laub 1993), where the
817 research shows that what were previously perceived
818 as deterministic "main effect" variables appear to
819 demonstrate time- and context-sensitivity, rising

and falling in their importance during particular 820
developmental stages of the life span. 821

Genes by Environments Interactions 822

823 Recently, the field has seen a surge of studies 824
investigating interactions between genes (or spe- 825
cific genetic variants, alleles) and environments. 826
The essence of a gene-by-environment interac- 827
tion study is to capture differences in susceptibil- 828
ity to specific environments that are related to 829
differences in genotypes. Although the impor- 830
tance of these interactions was hypothesized long 831
ago (Cadoret et al. 1983; Cloninger et al. 1982), 832
the field has only recently begun to systemati- 833
cally test this hypothesis with both measured 834
genetic variants and measured environments. The 835
intensification of this line of inquiry was trig- 836
gered by a study that investigated the interaction 837
between the presence of the risk genetic variant 838
in the promoter⁵ region of the MAOA gene and 839
the presence of child maltreatment in a large 840
sample of males (Caspi et al. 2002). The results 841
showed the differentiation between developmen- 842
tal outcomes: a combination of the low-MAOA 843
allele and severe maltreatment characterized the 844
child-abuser group, with 85% of the participants 845
demonstrating some antisocial outcomes; the 846
other study groups (low- vs. high-MAOA allele 847
vs. no, probable, or severe maltreatment) did not 848
show the frequency to be nearly as high. This ini- 849
tial study was well received and a chain of stud- 850
ies followed, both attempting to replicate the 851
original finding and to apply the methodology to 852
other risk genes and other risk environments. 853
Thus, in addition to numerous studies of the 854
MAOA-promoter variant and maltreatment (for a 855
review see Kim-Cohen et al. 2006), there are also 856
other studies investigating different interactions 857
with regard to the outcome of antisocial behavior. 858
Specifically, there is evidence that differentiates 859
the outcome of depression in maltreated children 860
with regard to the promoter variant in the serotonin

⁵ A regulatory region of DNA generally located upstream of a gene (i.e., outside of the gene, prior to its first coding unit); this region generally promotes transcription of the gene.

861 transporter gene (*5-HTT*) and the availability and
 862 quality of social support (Kaufman et al. 2004).
 863 There is also evidence for the role of the interac-
 864 tion between the *COMT* variants (val158met)
 865 and birth weight (Langley and Thapar 2006). In
 866 addition, it has been shown that the presence/
 867 absence of specific alleles in the dopamine trans-
 868 porter gene (*DAT1* or *SLC6A3*) and the presence/
 869 absence of maternal rejection differentiate depres-
 870 sion outcomes in incarcerated juvenile offenders
 871 (Haefffel et al. 2008).

872 The number of studies of gene-by-environ-
 873 ment investigations is mushrooming but the tex-
 874 ture of results varies, resulting in new findings
 875 and both replications and nonreplications of old
 876 findings. There are interpretations of the result
 877 variability (replications and nonreplications) as
 878 largely statistical or design artifacts (Eaves 2006;
 879 Risch et al. 2009), indicators of small effect sizes
 880 (Salanti et al. 2006) and the imprecision of the
 881 methodology used in these studies (Wallace
 882 2006). Yet, the premise of these types of research
 883 makes infinite sense, since it differentiates the
 884 behavioral expression of specific genetic risk fac-
 885 tors in the context of specific risk environments.

886 Inquiries into co-acting risk factors becoming
 887 more and more powerful in the context of discus-
 888 sions on the role of epigenetic effects in the
 889 development and manifestation of antisocial
 890 behavior (Cohen 2010; Gunter et al. 2010;
 891 Tremblay 2010). Epigenetic effects refer to
 892 changes in gene expression resulting from meth-
 893 ylation and acetylation and other types of chro-
 894 matin remodeling and histone modification.
 895 These processes are heritable, but are impacted
 896 by environmental factors that can both trigger
 897 and reverse them. They are thought of as the pos-
 898 sible biological basis of the environmental impact
 899 on the genome and might be the substrate of
 900 gene-environment interactions that are captured
 901 statistically. There is now a growing literature
 902 that suggests the role of epigenetic regulation in
 903 antisocial behavior. For example, it has been
 904 demonstrated that patterns in the methylation of
 905 the dopamine transporter gene *DAT1* (*SLC6A3*)
 906 are altered in alcohol dependence and associated
 907 with craving (Hillemacher et al. 2009), and that
 908 the methylation of the MAOA gene is associated

with nicotine and alcohol dependence in women 909
 (Philibert et al. 2008). 910

911 Concluding Thoughts

912 This discussion has unfolded around a number
 913 of observations. First, it appears that an effective
 914 reduction of the number of prisoners requires an
 915 understanding of the causality of detention and
 916 incarceration, which is directly, although not
 917 completely, related to an understanding of the
 918 etiology of antisocial behavior. Second, as per
 919 other positions in the field, juvenile delinquency
 920 here is viewed as an outcome of faulty learning,
 921 specifically, social learning that went astray.
 922 Third, it is clear that the understanding of the eti-
 923 ology of antisocial behavior is directly related to
 924 the understanding of the risk factors that can
 925 derail social learning. The long and the short of
 926 it is that there are many factors of various natures
 927 that can derail learning; none are deterministic,
 928 but all are probabilistic, with non-negligible
 929 probabilities. Thus, it is important to continue to
 930 catalog them and understand the magnitude of
 931 these probabilities so that, eventually, they can
 932 be negated. Negating the impact of these risk
 933 factors is one certain way to decrease the num-
 934 bers of individuals being detained or incarcer-
 935 ated in the prison system.

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Race and Sex Disparity in Juvenile Justice Processing

Kimberly Kempf-Leonard

This chapter describes the distribution of youths in juvenile justice systems in the USA based on sex and race. If children all shared the same experiences equally, the proportion of youths in the juvenile justice system in one demographic group would mirror that of the general population. That is not the situation now, nor has it ever been. Instead, there are very clear differences based on race, ethnicity, and gender in the prevalence and reasons that children become involved in juvenile justice, and in the type of experiences they have during the process. These disparities should be considered within the context of the distinct system of justice for children that exists in the USA. This chapter describes what is known about race and gender differences in juvenile justice and why they exist, and recommends how official decision makers might intervene with youth more equitably in the future.

Juvenile Justice Processing

Juvenile justice is a unique feature of the American system of justice that originated more than a century ago. The Progressive reformers who worked to establish a separate juvenile court and residential facilities intended for the system

to treat children very differently from the way in which adults are processed in criminal justice (Platt 1977; Rothman 1978; Tanenhaus 2004). The mission was to create a largely informal system in which all decisions by juvenile justice officials address ways in which best to help the individual youths overcome their current problems. The legal doctrine of *parens patriae* was adapted from England's chancery courts to direct officials to act as a surrogate parent. Of course, then as now, there was no single agreed upon best parenting technique, so interventions and services provided to youths varied widely.

In working to provide for "the best interests" of the youth, there was no official role for legal advocates; attorneys are not necessary when everyone is doing what is best for the child. Similarly, to safeguard against public shaming, proceedings are not transcribed and remain private. Official records also are not openly accessible, and are often purged when children involved with juvenile justice reach adulthood. Treatment and opportunities for learning and reform are the primary interventions; just deserts punishment and retribution are inconsistent with the juvenile justice objective.

The original juvenile justice systems developed distinctively on a state-by-state basis, but shared many of the same features. The "best interests of the child" objective was implemented nationwide. However, it is inevitable that any system in which legal decisions are based on individualized criteria and can result in severely

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62 restricting personal liberties, problems are likely
 63 to develop. This was true of juvenile justice, and
 64 finally recognized by the U.S. Supreme Court in
 65 the 1960s. In a series of decisions, but most
 66 importantly *In re Gault* (1967), the Court subse-
 67 quently required all juvenile justice systems to
 68 address equity concerns and to add some, but
 69 not all, elements of due process that are requi-
 70 site of criminal justice systems (Bernard 1992;
 71 Feld 1999).

72 The federal government became more involved
 73 in juvenile justice with passage of the Juvenile
 74 Justice and Delinquency Prevention (JJDP) Act in
 75 1974 (42 U.S.C. sec. 5601–5640 [1983]). As a
 76 condition of federal funding, the main provisions
 77 of the JJDP Act required states: (1) to remove
 78 from secure confinement all youths without
 79 alleged crimes, meaning those with status offenses,
 80 abuse, and dependency referrals; and (2) to pro-
 81 vide all youths with sight and sound separation
 82 from adults in jails. Compliance with these man-
 83 dates was particularly difficult because there were
 84 many status offenders but few alternatives to
 85 secure facilities, especially in rural jurisdictions.
 86 The obstacles for officials diminished somewhat
 87 when the JJDP Act was amended in 1980 to enable
 88 states to continue to receive funding even if they
 89 could not meet the deinstitutionalization require-
 90 ments, but were taking steps in that direction or
 91 had non-offending youths in custody for violating
 92 a court order. In 1988, another amendment made
 93 it mandatory for states to identify the level of
 94 minority overrepresentation in detention and resi-
 95 dential facilities and to take steps to understand
 96 and reduce racial disparities (42 U.S.C. sec. 5633
 97 (a) (16) [Supp. 1993]). Congress reauthorized the
 98 JJDP Act in 1992, and provided a challenge grant
 99 incentive for states to develop gender-specific
 100 programming to help girls more effectively.

101 Today’s juvenile justice systems continue to
 102 operate largely at local and county levels accord-
 103 ing to state rules, but with more federal regula-
 104 tion, some funding, and minimal oversight. The
 105 process also remains largely informal and
 106 unstructured, allowing local officials to dictate
 107 judgments based on social history and the best
 108 interests of the child in some cases, while pursu-
 109 ing punitive sanctions and public safety interests

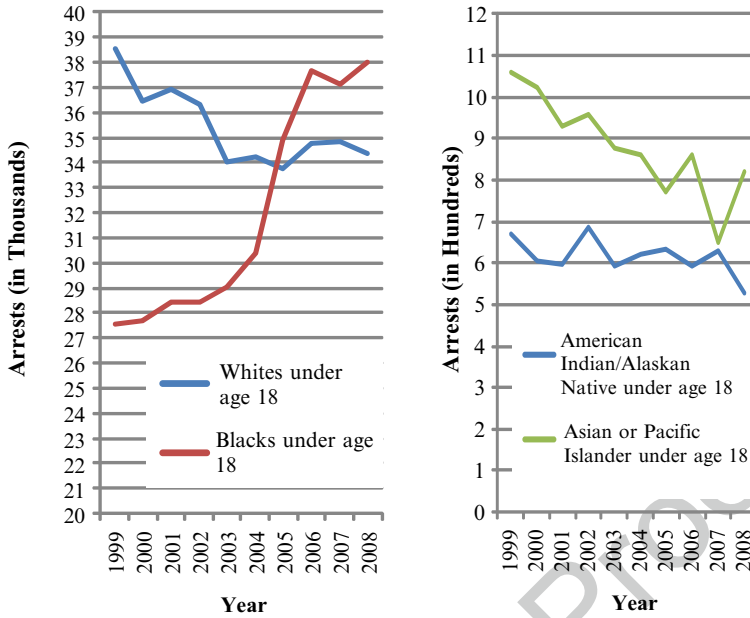
110 in other cases based on severity of the offense.
 111 The services and interventions available to juve-
 112 nile justice decision-makers, and information
 113 about their relative effectiveness in achieving the
 114 goals intended, are still very limited, particularly
 115 in rural and less affluent jurisdictions. As such,
 116 officials develop their own routine practices, or
 117 establish their “going rate” for processing juve-
 118 niles. Often these discretionary practices result in
 119 disparate treatment by race and sex.

Race and Ethnicity 120

Distribution in Juvenile Justice 121

122 Approximately one-quarter of the U.S. popula-
 123 tion is younger than age 18, which is generally
 124 how juvenile status is defined. The race distribu-
 125 tion is estimated at 80.7% White, 13.3% Black,
 126 4.9% Asian, and 1.1% Native American
 127 (Puzzanchera et al. 2009). Ideally, race and eth-
 128 nicity groups would be defined with greater dis-
 129 tinction, but that is not yet possible in national
 130 statistics or those of most states. Among all juve-
 131 niles arrested during 2008, the race distribution is
 132 66.4% White, 30.9% Black, 1.2% Asian, and
 133 1.5% Native American (Crime in the U.S., Table
 134 43 2008). These national FBI data show that
 135 Black youths are arrested at much higher levels
 136 than expected based on their presence in the
 137 population.

138 Figure 4.1 shows the arrest patterns by race for
 139 violent index crimes, including murder, forcible
 140 rape, robbery, and aggravated assault, for the past
 141 decade. Two charts with different scales are shown
 142 because the arrest patterns for Native Americans
 143 and Asians would disappear due to their small
 144 overall numbers in comparison to the far larger
 145 number of arrests for Whites and Blacks. The
 146 trend lines indicate that violent crime has declined
 147 among White, Native American, and Asian youths,
 148 but increased among Blacks. Violent crime
 149 increased dramatically among African American
 150 youths by 15% in 2005, having gradually increased
 151 in the preceding years. The specific arrest rates by
 152 race are shown in Table 4.1.



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Fig. 4.1 Race trends in juvenile arrests for violent index crimes, 1999–2008

t1.1 **Table 4.1** Number and percent change in juvenile arrests for violent index crimes by race

Year	Whites under age 18		Blacks under age 18		American Indian/ Alaskan Native under age 18		Asian or Pacific Islander under age 18	
	Arrests	% Change	Arrests	% Change	Arrests	% Change	Arrests	% Change
1999	38,529		27,551		670		1,061	
2000	36,450	-5.4	27,690	0.5	605	-9.7	1,022	-3.7
2001	36,927	1.3	28,427	2.7	595	-1.7	928	-9.2
2002	36,297	-1.7	28,448	0.1	686	15.3	959	3.3
2003	34,012	-6.3	29,012	2.0	592	-13.7	877	-8.6
2004	34,232	0.6	30,416	4.8	620	4.7	860	-1.9
2005	33,780	-1.3	34,897	14.7	632	1.9	771	-10.3
2006	34,737	2.8	37,650	7.9	591	-6.5	859	11.4
2007	34,810	0.2	37,151	-1.3	631	6.8	649	-24.4
2008	34,360	-1.3	38,005	2.3	527	-16.5	820	26.3

t1.2
t1.3
t1.4

153 Figure 4.2 shows the arrest patterns, and
 154 Table 4.2 shows the rates, for serious property
 155 crimes used in the FBI index to measure crimes,
 156 including burglary, larceny, theft, motor vehicle
 157 theft, and arson. White youths show large
 158 declines, especially from 2003 to 2006, with an
 159 increase in the last 2 years. Property crime is
 160 fairly stable among Black youths until recent

increases in 2007 and 2008. Native American
 youths show a gradual decline with a big drop
 during 2006, followed by an increase in 2007.
 Asian youths also had a dramatic decline fol-
 lowed by an increase during the same years.

Table 4.3 shows major crime categories
 recorded routinely as part of the Uniform Crime
 Reports for arrests of juveniles under age 18 in

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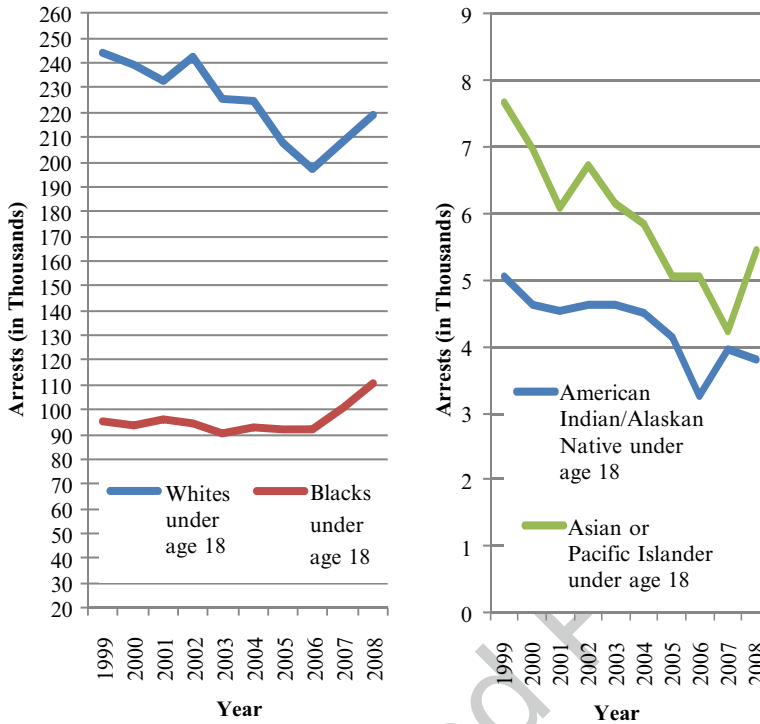


Fig. 4.2 Race trends in juvenile arrests for property index crimes, 1999–2008

Table 4.2 Number and percent change in juvenile arrests for property index crimes by race

Year	Whites under age 18		Blacks under age 18		American Indian/ Alaskan Native under age 18		Asian or Pacific Islander under age 18	
	Arrests	% Change	Arrests	% Change	Arrests	% Change	Arrests	% Change
1999	243,759		95,344		5,057		7,684	
2000	238,988	-2.0	94,018	-1.4	4,615	-8.7	6,985	-9.1
2001	232,448	-2.7	96,337	2.5	4,545	-1.5	6,100	-12.7
2002	242,250	4.2	94,679	-1.7	4,625	1.8	6,726	10.3
2003	225,612	-6.9	90,682	-4.2	4,618	-0.2	6,140	-8.7
2004	224,354	-0.6	93,033	2.6	4,498	-2.6	5,858	-4.6
2005	207,414	-7.6	92,089	-1.0	4,153	-7.7	5,067	-13.5
2006	197,225	-4.9	91,806	-0.3	3,246	-21.8	5,064	-0.1
2007	208,693	5.8	100,962	10.0	3,959	22.0	4,232	-16.4
2008	218,889	4.9	110,322	9.3	3,801	-4.0	5,458	29.0

the U.S during 2008, the most recent year in which these data are available. White youths are arrested for the majority of offenses. However, given that white youths are 80.1% of adolescent population, they are underrepresented in every type of offending. In contrast, Black youths are represented far above their 13.3% of the population.

The majority of arrests for robbery, murder, non-negligent manslaughter, and violent index crimes involve Black youths. Native Americans are underrepresented in all crime categories. Asian youths are arrested equal to their distribution in the population, with the exception of their higher levels for running away.

t3.1 **Table 4.3** Juvenile arrest types by race, 2008

t3.2	Arrests under age 18				
t3.3	Percent	Percent	Percent American	Percent Asian/	
t3.4	White	Black	Indian/Alaskan Native	Pacific Islander	
t3.5	Total offenses	66.4	30.9	1.2	1.5
t3.6	Murder and non-negligent	39.9	58.5	0.5	1.1
t3.7	manslaughter				
t3.8	Forcible rape	61.9	36.7	0.8	0.6
t3.9	Robbery	31.3	67.2	0.3	1.2
t3.10	Aggravated assault	55.7	42.2	0.9	1.1
t3.11	Burglary	63.0	35.1	0.8	1.1
t3.12	Larceny-theft	65.8	31.2	1.2	1.8
t3.13	Motor vehicle theft	52.3	45.1	1.3	1.4
t3.14	Arson	77.3	20.1	1.0	1.6
t3.15	Violent index crime	46.6	51.6	0.7	1.1
t3.16	Property index crime	64.7	32.6	1.1	1.6
t3.17	Curfew and loitering	63.1	34.8	0.8	1.2
t3.18	law violations				
t3.19	Runaways	66.1	27.1	1.9	4.8
t3.20	Violent crimes are offenses of murder, forcible rape, robbery, and aggravated assault				
t3.21	Property crimes are offenses of burglary, larceny-theft, motor vehicle theft, and arson				
t3.22	Adapted from Crime in the U.S., Table 43				

183 As these arrest data show, Black youths are
 184 disproportionately represented in juvenile justice.
 185 This overrepresentation of minority youths has
 186 become a national policy issue. Congress has
 187 taken steps to provide a financial incentive “car-
 188 rot” to encourage states to take steps to reduce
 189 inequity in the distribution of race in juvenile jus-
 190 tice. The next section describes the current status
 191 of the disproportionate minority contact (DMC)
 192 initiative, including issues to identify disparity
 193 and the current understanding of why this over-
 194 representation persists.

195 **Understanding Disproportionate**
 196 **Minority Contact with Juvenile Justice**

197 Although inequity by race in the national over-
 198 view of juvenile justice is disappointing and high-
 199 lights the importance of continued attention to
 200 minority overrepresentation, it does not identify
 201 whether the problem is widespread in the country
 202 or concentrated in specific states. To understand
 203 this context, there have been concerted efforts to
 204 assess DMC in nearly every state. Most state-
 205 level findings show minority groups, mainly

Blacks, but often followed by Latinos and Native
 Americans, with higher involvement in juvenile
 justice (Bishop 2005; Feyerherm 1993; Hamparian
 and Leiber 1997; Hsia et al. 2004; Hsia and
 Hamparian 1998; Lauritsen 2005; Leonard et al.
 1995; Pope and Leiber 2005; Sickmund 2004).
 No regional patterns of disparity have been iden-
 tified (Sickmund 2004). There are likely to be
 changes in these race patterns because of rapid
 growth in Latino populations which in parts of
 the USA. do, or soon will, outnumber White pop-
 ulations. The smaller Asian populations also are
 increasing quickly with immigration. Although
 official categorization of race and ethnicity is
 imprecise, the evidence is compelling that minor-
 ities, particularly some youths of color, are dis-
 proportionately involved in juvenile justice.

Next, it is important to explain why disparities
 occur. This requires not only that Black or other
 minority youths be compared to White youths,
 but also that such assessments be based on youths
 who are similarly situated in all ways except their
 race. This extends to family and personal values,
 beliefs, and lifestyles (Lauritsen 2005; Patterson
 2006). Definitions of similarly situated youths
 also include qualities related to opportunities,

232 contextual traits, and other indicators of social
 233 capital. Poverty, for example, is one social status
 234 that is unevenly distributed by race in the U.S. to
 235 the extent that Blacks and some Latino groups
 236 are much more likely to appear among “the
 237 underclass” (Currie 1985) or “the truly disadvan-
 238 taged” (Wilson 1987). In comparison to White
 239 youths who more often enjoy a privileged status,
 240 opportunities for success are more often blocked
 241 for disadvantaged poor minority youths (Edelman
 242 et al. 2006; Patterson 2006).

243 Poor Americans also are concentrated within
 244 geographic areas, reflecting patterns of immigra-
 245 tion, segregation, and jobs in the region. One
 246 result of this “spatial mismatch” between resi-
 247 dents and social capital is a structural disadvan-
 248 tage for Black youths to access the resources, or
 249 “collective efficacy” necessary for their success
 250 (Jargowsky et al. 2005; Morenoff et al. 2001;
 251 Sampson et al. 1997).

252 Another feature of poor neighborhoods is dis-
 253 proportionate police patrolling and more calls for
 254 service by neighborhood residents. The unequal
 255 distribution of police services should lead us to
 256 expect more youths from poor neighborhoods to
 257 become targets of police intervention. Indeed,
 258 historical accounts suggest that this always has
 259 been one reason for minority overrepresentation
 260 in juvenile justice—even when most urban youths
 261 were from recent immigrants and White (Bernard
 262 1992; Feld 1999; Schlossman 1974; Tanenhaus
 263 2004). Policing patterns and referrals to juvenile
 264 court are not the only stage at which racial dis-
 265 parity exists. Differences exist across all stages,
 266 including victims reporting crimes, police patrol,
 267 arrest and referral decisions, intake screening,
 268 detention, prosecution or filing of a petition,
 269 adjudication, and final case disposition.

270 For each stage, Feld (1999: 284) explains
 271 why differential treatment works: “...offenders,
 272 defined as ‘similar’ on the basis of their present
 273 offense or prior record, can receive markedly dis-
 274 similar dispositions because of their differing
 275 ‘needs.’ Because individualized justice of the
 276 juvenile court classifies youths on the basis of
 277 their personal circumstances, then in a society
 278 marked by great social, economic, and racial
 279 inequality, minority youths consistently find

280 themselves at a disadvantage.” The lack of clearly
 281 defined legal objectives and informal procedures
 282 is *how* disparate decision making can prevail in
 283 juvenile justice.

284 If the system is intended to provide just des-
 285 erts punishment to juvenile offenders, then
 286 minority overrepresentation would indicate that
 287 minority youths are judged as having the most
 288 heinous offenses and thus, to be more deserving
 289 of punitive responses. Serious violent crimes,
 290 particularly murder and robbery, carry the most
 291 severe punishments in criminal justice. They are
 292 also those in which media portrayals more often
 293 depict as culpable young African American and
 294 Latino youths living in inner cities (Feld 1999,
 295 2005; Lauritsen 2005). As shown in Table 4.5,
 296 these are precisely the offense categories in which
 297 police arrest Black youths at the highest levels.
 298 Alternatively, if interventions to treat “the best
 299 interests of the child” guide decision making,
 300 then juvenile justice officials justify the longest,
 301 most intensive services going to the youths most
 302 in need, which again are disproportionately poor
 303 youths of color (Frazier and Bishop 1995: 32).

304 At each decision, some youths move forward
 305 within the juvenile justice system while others’
 306 cases are dismissed and they leave. If progression
 307 and attrition are evenly distributed, then there is
 308 no change in the race distribution anywhere in
 309 the system. However, generally disparity wors-
 310 ens as youths proceed through a series of deci-
 311 sions during juvenile court hearings to disposition
 312 of their cases. There are two considerations to
 313 understand this process of cumulative minority
 314 disadvantage. First, picture juvenile justice sys-
 315 tems working something like building a giant
 316 disparity snowball. Adolescents self-report
 317 offending that is fairly similar by race (Lauritsen
 318 2005). However, police officers, either acting on
 319 their own while on patrol or in response to citizen
 320 complaints, arrest minority youths at an elevated
 321 rate. High proportions of minority youths at the
 322 intake screening may serve to confirm precon-
 323 ceptions of court officials—they are influenced
 324 erroneously by media depictions of criminals as
 325 much as the general public (Decker and Kempf
 326 1993)—who respond in similar patterns. It is in
 327 this sequence of decisions that the DMC snowball

328 becomes larger. As a result, it is not uncommon
 329 to find a very large Black majority of youths
 330 housed in residential placement facilities follow-
 331 ing a series of police and court decisions.
 332 However, the explanation is not as straightfor-
 333 ward as it appears, because many well done
 334 empirical studies of racial disparity do *not* iden-
 335 tify race as a factor in juvenile court decision
 336 making (Bishop 2005).

337 Second, to understand how it is possible that
 338 race is *not* a significant factor in juvenile justice
 339 decisions that *do* result in large race disparities,
 340 again we must consider the sequential process
 341 that tends to be influenced by similar factors. If
 342 an early stage, such as arrest, is marked by dif-
 343 ferential treatment that makes it less likely for
 344 minority youths than Whites to be released, then
 345 the total group of youths which proceeds to the
 346 next stage is substantively different than the
 347 original group. At the next stage, for example,
 348 White youths might be more serious offenders or
 349 more in need of services than Black youths who
 350 are more diverse in terms of offenses and per-
 351 sonal traits. This differential selection process
 352 results in comparisons of youths who differ by
 353 race, but who also are not similarly situated in
 354 other ways. (Leonard and Sontheimer 1995).
 355 In these circumstances, it is the offense or per-
 356 sonal traits, not race, that affects the second-stage
 357 decisions.

358 Official classification of race and ethnicity by
 359 juvenile justice systems is imprecise, and unable
 360 to distinguish cultural variations. Minority groups
 361 are defined by their smaller enumeration within
 362 the general population. Demographic changes
 363 will soon make Hispanic subgroups the majority
 364 in many parts of the USA. However, understand-
 365 ing why race and ethnicity affect decisions in
 366 juvenile justice processing cannot be explained
 367 merely by skin color, language, and cultural heri-
 368 tage. Patterns of immigration, segregation, and
 369 job creation affect opportunities for communi-
 370 ties, families, and youths to achieve success.
 371 Such opportunities always have been and remain
 372 unequal in our country (Hawkins 2003; Omi and
 373 Winant 1994). We know patterns of offending
 374 and arrest are linked to opportunities, and com-
 375 plicate our ability to explain DMC with juvenile

justice systems. Hopefully soon, definitions of 376
 minority status will relate less about small 377
 numbers and more about limited opportunities 378
 and restricted social status. 379

Gender 380

Distribution in Juvenile Justice 381

Boys and girls are about evenly distributed within 382
 the general population, but 70% of the juvenile 383
 arrests in 2008 involved boys and only 30% 384
 involved girls. The overrepresentation of boys has 385
 been a stable feature of arrests for violent crimes, 386
 as shown in Fig. 4.3 and Table 4.4. Among boys, 387
 there was a dramatic decline in violence between 388
 1996 and 2001, with more gradual leveling off in 389
 recent years. The pattern is similar among girls, 390
 although less pronounced in the figure because of 391
 their overall smaller number of arrests and because 392
 many of the percent changes for girls are not as 393
 large as those experienced by boys. 394

Figure 4.4 shows the arrest trends for property 395
 index offenses. Again the overall relationships 396
 indicate a decline in offending. Again the declines 397
 are more dramatic for boys, particularly between 398
 1996 and 2001, but continuing throughout. In 399
 contrast to boys, property arrests involving girls 400
 show smaller declines and some increases, 401
 including 10% increases during each of the last 2 402
 years. The arrest rates are shown in Table 4.5. 403

Table 4.6 shows arrests by offense and sex for 404
 2008. The overwhelming majority of arrests of 405
 those under age 18 involve boys. Girls achieve 406
 more parity in arrests for larceny-theft, and con- 407
 stitute the simple majority of status offenses. 408

For overall rates of arrest, and most individual 409
 categories of crime, boys are overrepresented to 410
 such a high level that arrested girls are nearly 411
 eclipsed. It is only for theft and some status 412
 offenses, such as running away and truancy, that 413
 the arrests of girls come closer to reaching the 414
 level of equity comparable to their proportion of 415
 adolescents. These gender patterns have followed 416
 the same trends for many years, increasing dur- 417
 ing the 1990s then decreasing during much of the 418

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Fig. 4.3 Gender trends in juvenile arrests for violent index crimes, 1991–2008

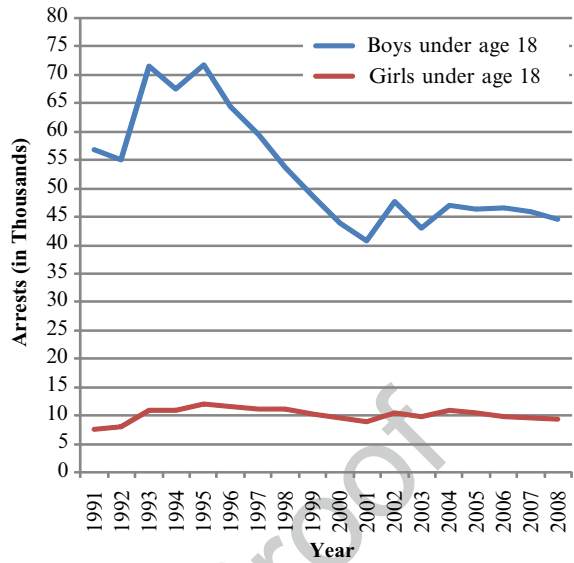


Table 4.4 Number and percent change in juvenile arrests for violent index crimes by gender

Year	Boys under age 18		Girls under age 18	
	Arrests	% Change	Arrests	% Change
1991	56,772		7,596	
1992	55,009	-3.1	8,035	5.8
1993	71,500	30.0	10,845	35.0
1994	67,473	-5.6	10,867	0.2
1995	71,727	6.3	12,124	11.6
1996	64,377	-10.2	11,655	-3.9
1997	59,452	-7.7	11,181	-4.1
1998	53,654	-9.8	11,101	-0.7
1999	48,550	-9.5	10,336	-6.9
2000	43,910	-9.6	9,712	-6.0
2001	40,817	-7.0	9,017	-7.2
2002	47,612	16.6	10,581	17.3
2003	43,111	-9.5	9,789	-7.5
2004	47,089	9.2	10,846	10.8
2005	46,426	-1.4	10,463	-3.5
2006	46,598	0.4	9,869	-5.7
2007	45,963	-1.4	9,688	-1.8
2008	44,519	-3.1	9,300	-4.0

evolving views about gender affected processing decisions by victims and police (Feld 2009a, b; Steffensmeier and Schwartz 2009)?

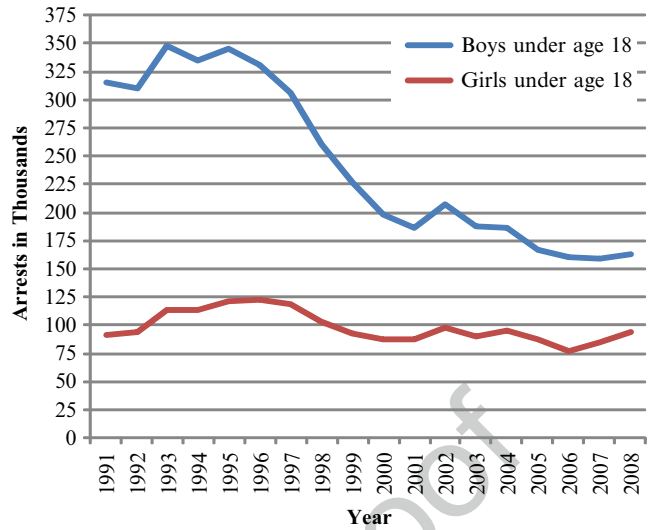
Understanding Potential Gender Biases in Juvenile Justice

Many scholars have attempted to explain juvenile justice disparities based on sex. Most of the attention on girls has focused on what happens after juvenile court decisions are completed, at the level and type of treatment and services girls receive in comparison to boys after final disposition decisions. There are fewer efforts to understand how gender differences occur at the front end of juvenile justice in arrest, referral, and juvenile court intake processing. Such system disparities may reflect actual behavioral differences, although self-reported adolescent behavior shows more gender similarities (Canter 1982; Figueira-McDonough 1985; Brener et al. 1999; Lauritsen et al. 2009).

To initiate juvenile justice involvement, parents, school administrators, and police are likely to respond differently to boys and girls based on gender stereotypes (Chesney-Lind and Shelden 1998; Krause and McShane 1994). Police officers

last decade. The rate of change has differed. From the peak of 71,727 arrests of boys in 1995, the number fell 38% to 44,519 in 2008. For girls, the decline was 23%, from 12,124 to 9,300. There is much speculation about reasons for these different rates of change: Are girls becoming “worse,” boys “better” (Lauritsen et al. 2009), or have

Fig. 4.4 Gender trends in juvenile arrests for property index crimes, 1991–2008



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Table 4.5 Number and percent change in juvenile arrests for property index crimes by gender

Year	Boys under age 18		Girls under age 18	
	Number	% Change	Number	% Change
1991	315,954		91,614	
1992	310,303	-1.8	94,541	3.2
1993	348,045	12.2	113,583	20.1
1994	334,872	-3.8	113,718	0.1
1995	345,710	3.2	121,198	6.6
1996	330,753	-4.3	123,119	1.6
1997	305,862	-7.5	118,180	-4.0
1998	261,190	-14.6	102,810	-13.0
1999	226,267	-13.4	92,770	-9.8
2000	198,858	-12.1	87,043	-6.2
2001	186,688	-6.1	87,931	1.0
2002	207,104	10.9	97,344	10.7
2003	188,423	-9.0	89,707	-7.8
2004	186,768	-0.9	95,603	6.6
2005	167,587	-10.3	87,312	-8.7
2006	160,167	-4.4	77,291	-11.5
2007	159,495	-0.4	84,649	9.5
2008	163,158	2.3	93,491	10.4

Table 4.6 Juvenile arrest types by sex, 2008

Arrest Type	Arrests under age 18	
	Percent boys	Percent girls
Total offenses		
Murder and non-negligent manslaughter	93.3	6.7
Forcible rape	98.7	1.3
Robbery	90.3	9.7
Aggravated assault	76.9	23.1
Burglary	86.7	13.3
Larceny-theft	55.5	44.5
Motor vehicle theft	83.5	16.5
Arson	88.1	11.9
Violent index crime	82.7	17.3
Property index crime	63.6	36.4
Other assaults	65.9	34.1
Curfew and loitering law violations	40.1	59.9
Runaways	43.9	56.1

Violent crimes are offenses of murder, forcible rape, robbery, and aggravated assault

Property crimes are offenses of burglary, larceny-theft, motor vehicle theft, and arson

Adapted from Crime in the U.S., Table 33

appear to decide on arrest based on fewer criteria for females than males, and evoke different objectives based on the girl's race (Visher 1983). Girls generally are viewed as vulnerable and more in need of protection than boys (McCluskey et al. 2003 :49), particularly related to sexuality (Chesney-Lind 1973; Schaffner 2008).

The decline in the gender gap in arrest rates may mean that the decisions of police officers changed in recent years, particularly for defining assault charges which cover a broad spectrum of behaviors (Blumstein 2000) and now include zero

463 tolerance of school disruptions (Feld 2009a, b).
 464 New mandatory arrest policies for domestic vio-
 465 lence also have affected adolescent girls (Gaarder
 466 et al. 2004). Beyond different types of police
 467 responses to domestic violence, another reason is
 468 that girls’ aggression often involves family mem-
 469 bers, whereas those who boys fight with tend not
 470 to be related (Hoyt and Scherer 1998; Bloom
 471 et al. 2002). Moreover, speculation exists that
 472 social norms about gender expectations have
 473 changed, making police, parents, and teachers
 474 less protective of girls and more willing to have
 475 them formally charged (Steffensmeier et al. 2005;
 476 Steffensmeier and Schwartz 2009).

477 In determining whether to process formally or
 478 divert youths from juvenile justice systems, gen-
 479 der again appears to play a role for intake offi-
 480 cers. For girls but not boys, while compiling
 481 social history information officers inquired about
 482 mental health problems (Johansson and Kempf-
 483 Leonard 2009), child abuse (Acoca 1998), and
 484 noted in case files comments about girls’ physical
 485 appearance, maturity, and sexuality (Rosenbaum
 486 and Chesney-Lind 1994).

487 Deciding which youth go to pre-hearing deten-
 488 tion, or custody in either a secure or non-secure
 489 setting prior to formal disposition of the case, is
 490 another important stage of juvenile justice in
 491 which differential treatment by gender exists.
 492 One reason for this is the problem in allocation of
 493 space for the small number of girls in contrast to,
 494 and separately from, the many more boys.
 495 Another reason involves the JJDP Act mandate to
 496 deinstitutionalize status offenders and others
 497 without criminal charges. Immediately following
 498 the passage in 1974 there was a decline in custo-
 499 dial detention, including a disproportionate
 500 reduction for girls (Krisberg et al. 1987; Feld
 501 1999, 2009a, b).

502 However, lobbying by the National Council of
 503 Juvenile and Family Court Judges led to the
 504 amendment in 1980 that continues to exist and
 505 enables judges to place status offending youth in
 506 secure custody if they violate a court order
 507 (Schwartz 1989). As a result, there is growing
 508 speculation that judges intentionally give status
 509 offenders orders they will fail or reclassify as law
 510 violations behavior that previously was defined

511 as a status offense. Given the higher level of 511
 512 representation of girls in status offense catego- 512
 513 ries, it is likely that more girls are held in custody 513
 514 because of these adaptations by judges to the 514
 515 JJDP Act requirements (Weithorn 1988; Bishop 515
 516 and Frazier 1992; Chesney-Lind and Shelden 516
 517 1998; Kempf-Leonard and Sample 2000; Feld 517
 518 2009a, b). Two prominent cases on detention pro- 518
 519 cedure, *NG v. Connecticut*, 382 F.3d225 (2nd 519
 520 Cir. 2004) and *Smook v. Minnehaha County* 520
 521 *Detention Center*, 457 F.3d 806 (8th Cir. 2006) 521
 522 involve strip searches prior to their detention for 522
 523 females accused of status offenses for whom 523
 524 there was no suspicion of contraband. In addi- 524
 525 tion, conditions experienced while in detention 525
 526 and inequitable access to treatment and services 526
 527 is sometimes more problematic for girls 527
 528 (Chesney-Lind and Shelden 1998; Belknap and 528
 529 Cady 2008; Schaffner 2008).

530 The evidence on final adjudication and court 530
 531 disposition decisions in juvenile justice show 531
 532 mixed results based on gender. The national pic- 532
 533 ture shows both that girls receive less restrictive 533
 534 interventions (Poe-Yamagata and Butts 1996) and 534
 535 that gender does not affect how cases are pro- 535
 536 cessed (Snyder and Sickmund 1995). In the past 536
 537 20 years, juvenile court processing has become 537
 538 more formalized, with a higher proportion of 538
 539 cases adjudicated, and this has disproportionately 539
 540 affected girls (Tracy et al. 2009). When controls 540
 541 are added statistically to equate “similarly-situ- 541
 542 ated” girls and boys, some studies show preferen- 542
 543 tial treatment for girls (Johnson and Scheuble 543
 544 1991; Kempf-Leonard and Johansson 2007), some 544
 545 findings show girls are disadvantaged (Bishop and 545
 546 Frazier 1992), but others report mostly gender 546
 547 neutral processing outcomes (Leiber 1994; 547
 548 Kempf-Leonard and Sample 2000).

549 Of course, small statistical differences may 549
 550 suggest important substantive concerns. For 550
 551 example, in my 2000 co-authored Missouri 551
 552 study, the same factors led to formal processing 552
 553 and out-of-home placement for girls and boys, 553
 554 with two exceptions. First, formal processing 554
 555 was more likely for girls but not for boys who 555
 556 had been abused or neglected. Second, the out- 556
 557 of-home placement was likely for girls with a 557
 558 single charge but number of charges made no 558

559 difference for boys. That child abuse and a single
560 charge can make a difference in how girls but not
561 boys are processed suggests some ways in which
562 gender bias results in differential treatment in
563 juvenile justice.

564 Within group differences also appear for juve-
565 nile court outcomes of girls. Girls from minority
566 groups are described as culpable and threatening
567 while similarly situated White girls are character-
568 ized as needing protection (Rosenbaum and
569 Chesney-Lind 1994; Miller 1994; Bridges and
570 Steen 1998; Steen et al. 2005). These types of
571 “racialized gender expectations” (Miller 1994)
572 have been documented for more than 100 years
573 (Odem and Schlossman 1991; Knupfer 2001;
574 Tanenhaus 2005).

575 Finally, at the concluding stages of juvenile
576 justice where the number of girls is the fewest and
577 the resources needed per youth are the most
578 expensive, there are many concerns about access
579 and quality of services. Corrections officials also
580 frequently report a dislike working with girls
581 (Baines and Alder 1996; Rasche 1999; Bond-
582 Maupin et al. 2002; Gaarder et al. 2004). According
583 to Schaffner (2008: 163), services for girls too
584 often conveyed “outdated, static framings of gen-
585 der, ignored the existence of transgender youth
586 altogether, and encouraged girls to conform to
587 archaic feminine identities that are not a part of
588 their reality, let alone, ... in their best interests.”

589 To address the treatment and services, particu-
590 larly in residential facilities but also in commu-
591 nity settings, the JJDP Act was amended in 1992
592 to require states to assess the adequacy of their
593 services for girls (Section 223 [a]8) of the JJDP
594 Act, as modified in 1992). Another federal initia-
595 tive provided challenge grant funding to states
596 that developed female-specific treatment pro-
597 grams and services (Bownes and Albert 1996).
598 Most projects funded under this initiative identi-
599 fied shortcomings but failed to offer much in the
600 way of advancements (Community Research
601 Associates 1997; Kempf-Leonard and Sample
602 2000; Bloom et al. 2002; MacDonald and
603 Chesney-Lind 2001; Kempf-Leonard et al. 2005).
604 Sadly, in a recent assessment of quality interven-
605 tion, none of 62 promising programs for girls
606 was identified as effective—even with some

607 reservations; only four programs were judged
608 somewhat worthy, but none of those programs
609 even remain in operation (Zahn et al. 2008).

610 Girls and boys are involved in juvenile justice
611 at significantly different levels, and there is evi-
612 dence to suggest that many of their experiences
613 and treatment they receive throughout the pro-
614 cess also vary. The gender focus in juvenile jus-
615 tice now targets girls, trying to understand their
616 underrepresentation in most offense categories,
617 their higher appearance among status offenders,
618 and their increasing presence in arrest and other
619 stages in recent years. Whether girls are worse or
620 better off than boys depends on the emphasis
621 placed on the juvenile justice mission. In a puni-
622 tive system, any group with less restrictive inter-
623 vention is viewed as getting preferential, lenient
624 treatment. However, generally fewer and less for-
625 mal interventions with girls can be seen as prob-
626 lematic in terms of traditional objectives that the
627 juvenile justice system should meet the best inter-
628 ests of the child because it suggests that officials
629 are not giving girls the same consideration to
630 receive services as they are giving boys. The key
631 to assessing disparity is making sure that compar-
632 isons are based on similarly situated youths
633 who differ only by sex.

634 Implications and Recommendations

635 This chapter has examined how race and sex are
636 distributed across important juvenile justice pro-
637 cessing decisions and explanations for why sub-
638 groups do not appear at the same levels as they
639 exist in the adolescent population. In understand-
640 ing how disparities occur, options include both
641 differences in behavior by youths and in treat-
642 ment by officials. The answers are not straight-
643 forward, and probably include some differences
644 from both sources. Many surveys of self-reported
645 behaviors show more similarities than differ-
646 ences, however, so at least some of the responsi-
647 bilities for subgroup variation must fall to
648 differential processing by juvenile justice offi-
649 cials. Our understanding of differential treatment
650 is hampered by a few obstacles that might be

651 overcome with two feasible changes to juvenile
652 justice systems.

653 First, we should reconsider the categories used
654 to distinguish race and sex. The way in which
655 subgroups are defined plays a critical role in
656 understanding differential treatment. In juvenile
657 justice, official records of race are based on broad
658 categories that distinguish only White, Black,
659 American Indian/Alaskan Native, and Asian/
660 Pacific Islander. Certainly the large White major-
661 ity includes considerable heterogeneity of youths.
662 Additionally, the fastest growing Latino ethnic
663 groups often are not separately identified. No
664 considerations about cultural heritage or values
665 that may affect behavior can be discerned from
666 such crude subgroups. Minority status is based on
667 statistical representation in the general popula-
668 tion of adolescents. Proportionality is determined
669 by comparing the presence of a group in juvenile
670 justice systems to that in the general population.

671 In a similar way, comparisons of girls and
672 boys are based solely on two biological catego-
673 ries of sex. Sex is not the same as gender, which
674 is socially constructed and varies within the pop-
675 ulation as well as by time and location, not sexu-
676 ality. It is gender and perceptions about sexuality
677 that drive a lot of the decision making in juvenile
678 justice, and both merit more understanding. The
679 importance of gender cannot be made more clear,
680 “every aspect of adolescence is imbued with the
681 implications of gender: youth development,
682 physical and mental health care; understanding
683 sexualities; mentoring; relating to family and
684 neighbors; education; and work” (Schaffner
685 2008: 156). Gender expectations drive percep-
686 tions of boys and girls, and every adult with
687 whom they interact. The evidence is compelling
688 that to understand delinquency and official
689 responses to it, we must move beyond seeing
690 gender simply as dichotomous (Heimer and
691 DeCoster 1999; Miller and Mullins 2009).

692 Independent assessment of race and sex also
693 are not as meaningful as examining the subgroups
694 defined by considering them together. Gender
695 norms and values can vary by race and ethnicity.
696 As such, behaviors and experiences need to be
697 evaluated within the demographic categories that
698 make a difference in youths’ lives. These sub-

699 groups need to be able to be distinguished in rou-
700 tine reporting of juvenile justice agencies.
701 Officials who work with youths also need to
702 receive routine training on the ways in which
703 opportunities are unevenly distributed across
704 these youths in their communities, and how inter-
705 ventions available within juvenile justice can or
706 cannot improve their lives.

707 Second, juvenile justice policies must be
708 revised to make the mission of the legal process
709 explicit. In showing how juvenile justice officials
710 tailor different legal objectives to justify deci-
711 sions that result in race or gender disparity, I do
712 not mean to imply that these professionals act
713 with malice or even intent to treat differently.
714 Most officials perceive themselves as the well-
715 intentioned Childsavers (Bernard 1992; Platt
716 1977) of today. It is the subjectivity of juvenile
717 justice processing that enables bias to occur in
718 subtle ways, such as different word choices,
719 emphasis or tone used to describe minority youths
720 or girls as more in need of help or more worthy of
721 blame (Bridges and Steen 1998; Inderbitzin 2005;
722 Steen et al. 2005). Instead of a subjective, infor-
723 mal process, standardized procedures should out-
724 line the best practices for deciding on interventions
725 that are tailored to assessment criteria which are
726 relevant and routinely recorded for youths.

727 These procedures should be based on statisti-
728 cally validated assessment and classification
729 instruments, including determinations of how
730 well they work for distinct demographic sub-
731 groups of youths. Because there may be unique
732 juvenile cases that do not fit general patterns, it is
733 important that some element of exception to rou-
734 tine processing exist to handle them. When many
735 exceptions to routine exist, a new pattern sug-
736 gests that the tools and the criteria on which they
737 are based should be re-assessed.

738 There are many advantages to be gained in
739 juvenile justice systems that adapt standardized
740 assessment and classification tools for important
741 decision stages (e.g., Gottfredson and Gottfredson
742 1980). The discretionary “going rates” that result
743 in arbitrary and capricious outcomes for youths
744 no longer exist. This is advantageous not only for
745 juveniles who otherwise feel treated unfairly, but
746 also for officials whose judgment is not subjective

747 and open to criticism. New employees also can
748 become skilled more quickly. The policy rather
749 than the administrator is held accountable.

750 With these two changes to juvenile justice systems,
751 American youths of every gender, color, creed
752 and heritage could experience a law that is just.

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769 Children: Confronting Racial and Ethnic
770 Differences in American Juvenile Justice* with
771 D.F. Hawkins (2005, University of Chicago
772 Press), *Continuity & Discontinuity in Criminal
773 Careers* with P. E. Tracy (1996, Plenum) and
774 *Minorities in Juvenile Justice* with C.E. Pope &
775 W.E. Feyerherm (1995, Sage Press), which
776 received the 1997 Gustavus Myers Award for
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Major Principles in a Minor Context: Forensic Practices Involving Adolescents

5

Sandra B. McPherson

Introduction

On March 12, 2008, Johanna Orozco appeared before the House and Senate of the Ohio Legislature. The teenage girl was lobbying to get a bill passed that would allow juveniles in abusive relationships to obtain court ordered protection, an option that has long existed for adults. Johanna's face was seriously disfigured when she was shot at point blank range by the former boyfriend who had raped her and against whom she was the listed witness in his upcoming criminal trial. She spoke also for a deceased 17-year-old Toledo teen who did not survive her attacker's assault. Orozco had hoped that the damage done to her face, even after extensive reconstruction, would convince legislators of the importance of the bill (Dissell 2008). On December 12, 2008, the bill died in the Senate after passing the House. Hopes of resurrecting it remain.

On February 17, 2009, the Cleveland Plain Dealer reported that, "Two former judges in Pennsylvania have admitted to receiving more than \$2.6 million in payoffs from companies that run private prisons for sending them minors for detention or disciplinary camps" (Pa. Judges 2009).

The above news stories illustrate in differing ways the reluctance of society to accord adoles-

cents with either the dignity afforded adults or the protection given to children. Such reports illustrate the ambivalent status occupied by adolescents in the society. Furthermore, outcomes of judicial decision making can be biased against the young offender. As early as 1981, Costello and Worthington detailed ongoing strategies by various states and groups that had the effect of punishing status offenders with less leniency than adult offenders might access, specifically referencing the tendency to place such juveniles in secure facilities rather than utilizing lesser levels, such as remand to their parents and assignment to intervention programs.

Ethical principles in psychiatry and psychology emphasize the dignity and worth of the individual and the duty of the professionals to respect and support persons who come to their attention. However, given that many in contemporary society view adolescence with ambivalence, sometimes even with fear and envy (see for example, King et al. 2006, for a psychoanalytic perspective), the general importance of the caretaking role can come to be diminished (Beck et al. 1985; Drysdale and Rye 2007). When the impact of that ambivalence is added into the ambiguities that exist in the forensic role in general, significant potentials exist for ongoing anomalies (Zerby and Thomas 2006). Furthermore, the legal context, with reference to adolescents, involves inconsistencies that also come into play. Thus, at 18, there is eligibility for admission to the Armed Services and there is vulnerability to capital punishment, but it is illegal to buy and consume

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66 alcohol until the individual reaches the age of 21.
 67 Adolescents are old enough to drive, though with
 68 varying constraints depending on the jurisdiction.
 69 They are able to marry with, and in some cases
 70 without, permission (but somewhat after they are
 71 biologically able to reproduce and are likely to be
 72 involved in some degree of sexual activity). They
 73 are variably legally constrained, depending on
 74 the issue, as to the exercise of decision making
 75 related to reproductive function, but it is gener-
 76 ally agreed that there is no effective external con-
 77 trol over their personal sexual decision making.
 78 In the criminal context, they have vulnerability to
 79 what are known as status offenses, in which they
 80 are held accountable for acts that would not be
 81 charged at the adult level.

82 Other distinctions pertain. Juveniles may or
 83 may not be considered competent, depending on
 84 whether it is to make personal decisions or to be
 85 compelled to stand trial. While exempted from
 86 capital punishment, as young as 14 they can be
 87 bound over to stand trial as adults and serve a
 88 long-term sentence, first in a youth facility and
 89 subsequently for many years in an adult prison.¹
 90 They can give assent to certain medical or psycho-
 91 logical procedures, but not consent. In a similar
 92 fashion, adolescents are entitled to confidentiality
 93 where privileged communication pertains, but that
 94 right can be waived by parents or guardians.

95 Forensic practice has as its defined goal to
 96 respond to some question raised within the context
 97 of the legal system and to provide some type of
 98 objective input, rather than functioning in the usual
 99 clinical role to care, protect, or respond to clients
 100 and their individual needs per se. The particulari-
 101 ties of forensic practice have led Ratner (2002) to
 102 characterize the forensic psychiatrist as a “double
 103 agent.” That appellation reflects the fact that the
 104 forensic practitioner often has a primary relation-
 105 ship to third parties rather than to a patient.

¹In a bizarre exception to the usual course of events, a juvenile sexual offender now age 37 has been in juvenile custody for 20 years. The California code allows individuals to be held under a category of a mental disorder that impairs control over dangerous behavior—but does not allow shift to adult facilities (McKinley 2009).

106 An additional confound is created out of the
 107 history of juvenile justice. Its development from
 108 a more paternalistic approach, which emphasized
 109 the welfare of the child and the difference of chil-
 110 dren from adults to the current more formal sys-
 111 tem, courtesy *In re Gault* (1967), has led to an
 112 emphasis on the rights of children and their access
 113 to due process. That reform, however, has been
 114 accompanied by an emphasis on holding children
 115 accountable and applying a more punishment ori-
 116 ented set of consequences (Grisso 1996). In the
 117 meantime, particularly as US society moved in
 118 conservative directions, current research has not
 119 supported either a purely welfare-oriented
 120 approach to juvenile justice, nor a more adult
 121 model with an emphasis on retribution as having
 122 a beneficial impact in terms of reduced recidi-
 123 vism (Denning and Homel 2008; Macleod 2006;
 124 Schwartz 2009; Soler et al. 2009).

125 In other words, the legal position of juveniles at
 126 the present time is one that itself shows an ongoing
 127 evolution and contains its own ambiguities. Within
 128 that context, such concepts as the standard of proof
 129 may be higher for adults than for children and the
 130 application of legal principles is not always con-
 131 sistent, even when based on articulated case law.
 132 For example, it has been found that judges weigh
 133 heavily any evidence brought to their attention as
 134 to risk levels or dangerousness, and any evidence
 135 of the presence of sophistication or maturity, and
 136 weigh much less, if at all, the notions of treatment
 137 amenability in making decisions to move juveniles
 138 to the adult system (Brannen et al. 2006). The *Kent*
 139 (1966) standards for juvenile transfer are thus not
 140 being followed in judicial functioning and often to
 141 the detriment of the juvenile. The ethical implica-
 142 tion for forensic practitioners involves the impor-
 143 tance of understanding this judicial potential and
 144 making some effort not only to document care-
 145 fully matters of cognitive competence and risk
 146 assessment, but also to include a knowledge base
 147 of interventions, along with empirically founded
 148 recommendations relative to the use of available
 149 resources in an instant case. In addition, when risk
 150 assessment is required, it could be viewed as an
 151 ethical obligation to provide judges with an under-
 152 standing of the insecurities associated with any
 153 conclusions (Borum 2006; Koocher 2006).

154 These legal and ethical problems that stem
 155 from the special status of adolescents and the
 156 evolution of standards and procedures in juvenile
 157 justice are even more complex when issues of
 158 mental illness also pertain (Grisso 2004).
 159 Diagnosis is more difficult due to developmental
 160 factors and interferences in cognition markedly
 161 impact the juvenile's situation when charged with
 162 offenses against the law. Matters of risk as well as
 163 capacity are complex (Farrar 2007; Redlich
 164 2007). In the meantime, availability and use of
 165 treatment facilities is also an issue in an arena
 166 where more punitive than restorative approaches
 167 to justice pertain (Macleod 2006).

168 Ambivalence is a breeding ground for inconsis-
 169 tency and sometimes for hidden agendas to
 170 play out in ways in which society fashions its
 171 institutions. Such has certainly been the case with
 172 racism in the society, which is less and less overt,
 173 but which remains in some very unexpected and
 174 covert places.² Thus, ethical practice involves
 175 dealing with system inequities and juvenile limita-
 176 tions in ways that do not offend against princi-
 177 pled practice. A further issue that raises some
 178 potential for controversy involves the degree to
 179 which the forensic practitioner may have some
 180 ethical obligation to address those inequities
 181 (O'Shaughnessy and Andrade 2008).

182 In the same way, some of the laws which are
 183 passed and which require forensic psychological
 184 work as part of implementation are highly ques-
 185 tionable as to their real impacts, at times leading
 186 to victimization of an already harmed population.
 187 The New York Family Court Act authorized pre-
 188 trial detention to juveniles if they posed a serious
 189 risk. Parents of a number of juveniles as a class
 190 raised a *habeas corpus* and 14th Amendment due
 191 process issue, which led to first the Federal District
 192 Court striking down the statute, and then the Court

193 of Appeals sustaining the federal district. The state
 194 appealed to the US Supreme Court, which reversed
 195 the lower courts, the reasoning being it was funda-
 196 mental fairness that protected both juveniles and
 197 society and that the existing appeals and *habeas*
 198 *corpus* options are sufficient to address any par-
 199 ticular case concerns; in effect, this decision
 200 treated juveniles as a special class making them
 201 particularly vulnerable to pretrial detention over
 202 what would be the case with adult criminals
 203 (*Schall v. Martin* 1984).

204 It is a fundamental concept that justice needs
 205 to be fairly and impartially applied, but it is
 206 equally fundamental that justice may be dis-
 207 pensed in unfair fashion and that specifically in
 208 the USA in both adult and juvenile settings, the
 209 minorities and the poor are at a disadvantage
 210 (Bishop 2005; Bray et al. 2006; Pewewardy
 211 2003). The inequities of the application of justice
 212 in the adult system led among other things to the
 213 ending of the death penalty for at least a short
 214 period in the USA, referencing *Furman v. Georgia*
 215 (1972).³ That same kind of patterning, however,
 216 is also found in studies of juvenile delinquency.
 217 Bishop (2005) pointed out that the juvenile jus-
 218 tice system has allowed substantial documenta-
 219 tion of disparities of procedure when it comes to
 220 white versus minority youth. Minorities get sent
 221 to the standard and nontreatment-oriented state
 222 facilities, whereas whites have a much higher
 223 potential for referral to specialized treatment
 224 facilities. Furthermore, simply at the point of
 225 entry, minorities are overrepresented in compari-
 226 son to whites in the population. Some would
 227 maintain that such overrepresentation is due to
 228 some intrinsic potential for law breaking that
 229 defines the groups, but there is no sound basis for
 230 accepting that prejudice and there is good evi-
 231 dence that individuals in positions of more power
 232 and substance in the society can obtain outcomes
 233 for their children that are more desirable.

234 The ethical issue that can be raised in forensic
 235 work goes to the obligation of the practitioner to

²The recent handling by police of a Harvard University professor who was apprehended in his home on the mistaken basis that he was breaking and entering when he forgot his keys became a national issue with dispute around whether the situation reflected profiling or the professor inappropriately refusing the officer's demand to leave his house after providing his identification (Goodenough 2009).

³The remedy of required mitigation hearings did not, however, reduce the racial and socioeconomic bias in capital justice (Amnesty International 2003; Lybnch and Haney 2000).

236 make available the same level of service to the
 237 high status and low status children who come to
 238 attention. As already indicated above, another
 239 issue, and one which raises a lot of complexities,
 240 is the degree to which the forensic practitioner
 241 may have some ethical obligation to address
 242 inequities in the system. Is it sufficient to serve
 243 equally well all persons, or is there some further
 244 requirement to intervene whenever possible when
 245 outcomes blatantly affront the fairness doctrine?
 246 Consider the following:

247 A white male teen from an upper income fam-
 248 ily attempted and almost succeeded in familial
 249 murder. His family immediately obtained experi-
 250 enced counsel and ultimately was able to protect
 251 him from any direct contact with the juvenile jus-
 252 tice system. A negotiated outcome sent the
 253 youngster into a private out-of-state treatment
 254 facility as recommended by mental health profes-
 255 sionals. Not long after, a second case involved a
 256 poor African American teen who killed the father
 257 who had abused his mother, restricted him from
 258 contact with her, and abused him throughout his
 259 growing up years. Pictures had been taken of that
 260 abuse which were found and presented to the
 261 Court. Nonetheless, despite recommendations
 262 for treatment, this youngster was sent into a state
 263 youth facility following an in-court lecture that
 264 emphasized his bad character and need for
 265 punishment.

266 **Implications of Ethics Code Content**

267 While there is a substantial and developing litera-
 268 ture, including empirical study of matters relevant
 269 to ethical forensic practice with juveniles, the
 270 codes themselves have little focus on this group.
 271 In Fisher’s (2003) review of the American
 272 Psychological Association (APA-PhD) ethics, she
 273 choose to include adolescents with children and
 274 families and to then reference all code sections
 275 which might be significant for that grouping.
 276 However, the psychological code consists of two
 277 sections: the aspirational and general principles in
 278 the ethics code (beneficence and non-maleficence,
 279 fidelity and responsibility, integrity, justice, and
 280 respect for people’s rights and dignity) and the

enforceable standards (American Psychological 281
 Association 2002). The first grouping, along with 282
 the Preamble, set forth the goals of ethical prac- 283
 tice, all of which have relevance for work with 284
 adolescents. The Preamble includes direct refer- 285
 ence to respect for and protection of civil and 286
 human rights. The mandate to do good and to do 287
 no harm requires that psychologists act to deal 288
 with and to reduce any conflicts of interest that 289
 are intrinsic in any situation, where they are called 290
 upon to play a role. Thus, if the goals of the insti- 291
 tution or legal system involve harm to the indi- 292
 viduals served by forensic psychologists, some 293
 concern and appropriate resolution is expected by 294
 the practitioner that will in fact minimize any nec- 295
 essary harm that carrying out the assignment 296
 requires. Furthermore, the psychologist has the 297
 duty to determine whether carrying out the assign- 298
 ment is itself ethically supportable. 299

Fidelity and responsibility go to the establish- 300
 ment of trust, which is often difficult and some- 301
 times impossible in some forensic situations, 302
 generally and specifically with respect to adoles- 303
 cents. Adolescents in the juvenile justice system 304
 may have within themselves and by function of 305
 their experience, barriers to involving in a trust 306
 relationship with adults who represent to them the 307
 establishment. The expectation of integrity is that 308
 psychologists will function on the basis of accu- 309
 racy and truthfulness and will meet the necessary 310
 scientific requirements of their work. However, 311
 with respect to the principle of justice, such areas 312
 are referenced as access by all to benefits of the 313
 system and to benefits of psychological applica- 314
 tions, and the freedom from being victimized by 315
 unjust practices or limitations of expertise. Finally, 316
 the respect for people’s rights and dignity specifi- 317
 cally references the importance of securing pri- 318
 vacy, confidentiality, and self-determination to all 319
 groups and mentions specifically age as one of 320
 the definers. It is noted that psychologists will 321
 neither knowingly participate in nor condone 322
 activity of others whose biases negatively impact 323
 the rights and dignity of a specified few. 324

In analyzing these principles for the required 325
 “ethical awareness,” Fisher (2003) took the posi- 326
 tion that psychologists need to be able to identify 327
 the interests of any with whom they work, and 328

329 know when a situation “threatens the welfare of
 330 individuals...” (p. 240). Additionally, she noted
 331 that the psychologist has obligations to identify
 332 and correct in areas when it comes to lack of
 333 trust, and is responsible to understand “group
 334 vulnerabilities that can lead to exploitation” and
 335 implement appropriate safeguards. However,
 336 these principles are considered unenforceable
 337 and cannot be cited as a basis for ethical lapse
 338 that leads to sanctions.

339 A review of the content of the enforceable
 340 standards, which follow the aspirational sections,
 341 indicated that while there is no specific section on
 342 practice with adolescents, there are multiple
 343 places where standards apply. Psychologists must
 344 be competent to work with adolescents if they are
 345 providing services to same. They must be able to
 346 cooperate with other professionals, including
 347 lawyers, social workers, and other representa-
 348 tives of institutions that may be involved in juve-
 349 nile cases. It is also expected that psychologists
 350 recognize and take appropriate steps to deal with
 351 conflicts between the institutions they serve and
 352 the ethical standards to which they are pledged
 353 (but there is no requirement for a resolution in
 354 which ethical standards prevail over institutional
 355 policy). They have a mandate to implement
 356 informed consent, which includes the responsi-
 357 bility of providing information about assessment
 358 or intervention procedures, in language the ado-
 359 lescent can understand. Since adolescents for the
 360 most part do not have the legal status to consent,
 361 psychologists also may be expected to obtain
 362 assent, which is based on an adolescent’s under-
 363 standing and rational agreement to some pro-
 364 posed procedure.⁴ Obviously, assessment
 365 procedures used should be normed and appropri-
 366 ately applied to adolescents and any representa-
 367 tions made to the legal system must rest on
 368 scientific and professional foundations that can
 369 pass peer scrutiny.

⁴What is not addressed is the potential dilemma when the adolescent understands but does not agree with a course of action and yet a decision is made by an adult or institution with the power to do so that requires compliance by the youth.

370 A review of the ethics followed by psychia- 370
 371 trists allows for some contrasts and consider- 371
 372 ations. The American Psychiatric Association 372
 373 (APA-MD) beginning in 1973 has periodically 373
 374 provided a document entitled *Principles of* 374
 375 *Medical Ethics with Annotations Specifically* 375
 376 *Applicable to Psychiatry*. The 2009 edition is 376
 377 based on the *AMA Medical Ethics Principles* 377
 378 published as of 2001.⁵ The psychiatric and medical 378
 379 documents referenced differ from the psycho- 379
 380 logical association productions in terms of brevity 380
 381 and generality. However, in terms of content, 381
 382 there is essential compatibility. As with the psy- 382
 383 chological association documents, the principles 383
 384 of medicine and the annotations specific to psy- 384
 385 chiatry make little or no mention of adolescents 385
 386 and only reference minors in a couple of places. 386

387 Referencing the basic principles of medical 387
 388 ethics, there is a preamble that states the physi- 388
 389 cian has, “...responsibility to patients first and 389
 390 foremost, as well as to society, to other health 390
 391 professionals, and to self.” The rest of the document 391
 392 is unequivocally based upon the assumption that 392
 393 the physician functions primarily to diagnose and 393
 394 treat patients. The actual principles are brief and 394
 395 reflect the need for competency, “...compassion, 395
 396 and respect for human dignity and rights.” It is 396
 397 required that professional standards be upheld, 397
 398 that there be respect for the law, but also, “... a 398
 399 responsibility to seek changes in those require- 399
 400 ments which are contrary to the best interest of 400
 401 the patient.” Respect for rights includes the impor- 401
 402 tance of maintaining confidentiality, but there is 402
 403 acknowledgment that the law may set some limits 403
 404 in that regard. The importance and necessity of 404
 405 study and continued education are noted. The 405
 406 physician is viewed as free to provide care at his 406
 407 or her own choice, “... except in emergencies ...” 407
 408 Section 7 requires that the physician, “... recog- 408
 409 nize a responsibility to participate in activities 409
 410 contributing to the improvement of the commu- 410
 411 nity and the betterment of public health,” and it is 411
 412 stated that the physician support, “... access to 412
 413 medical care for all people.” In the Annotations 413

⁵The AMA’s first ethics document was published in 1957, revised in 1980, and again in 2001.

414 section, a number of points are made that further
 415 define the way in which these standards are
 416 applied in the mental health specialty. Respect for
 417 human dignity and rights is expected to include
 418 avoidance of any exploitation, including that
 419 which may occur as a function of the emotional
 420 relationship that can occur when providing psy-
 421 chotherapy. In one of the two specific mentions of
 422 age, the psychiatrist is enjoined to "... not be a
 423 party to any type of policy that excludes, segre-
 424 gates, or demeans the dignity of any patient ..."
 425 Group identifications mentioned in this section
 426 include young age. Under Section 2, the point is
 427 made that the psychiatrist must practice within
 428 areas of professional competence, which would
 429 be applicable to providing services to adolescents.
 430 Section 3 raises an interesting issue in which it is
 431 stated that while a psychiatrist who behaves ille-
 432 gally may be found to have violated the ethics of
 433 his or her profession, in fact, if the illegal activity
 434 is itself not unethical, then the finding of a viola-
 435 tion of law would not necessarily lead to a finding
 436 of ethical violation. Specifically, it is stated,
 437 "Physicians lose no right of citizenship on entry
 438 into the profession of medicine." That statement
 439 references the "right to protest social injustices."
 440 This provision specifically recognized the impor-
 441 tance of acting to change laws which have non-
 442 beneficial impacts upon the population being
 443 served and has direct relevance for some of the
 444 dilemmas which can present in forensic psychia-
 445 try generally and specifically in the provision of
 446 services to adolescents.

447 In a second reference to minors, the seventh
 448 point under Section 4 cautions that the psychia-
 449 trist must use "careful judgment" in deciding to
 450 involve "parents or guardian in the treatment of a
 451 minor" and references insuring that the minor has
 452 proper access to confidentiality. Most of the rest
 453 of the document is devoted to the procedures that
 454 exist for addressing ethical questions and issues
 455 and the necessary hearings and investigations that
 456 might be undertaken in the case of an ethical
 457 charge. However, there is an Addendum I entitled
 458 *Guidelines for Ethical Practice in Organized*
 459 *Settings*. Guidelines, of course, are not standards
 460 and are not enforceable as such. Consistently,
 461 "This Addendum ... is intended to clarify existing

462 ethical standards ..." This document recognizes 462
 463 that the psychiatrist may find him or herself in a 463
 464 role which conflicts with the interest to an organi- 464
 465 zation to which duty is owed. The basic principle 465
 466 that is presented is that in the obligation to reduce 466
 467 such conflicts when they occur, the focus has to 467
 468 be upon the needs of the patient. 468

469 Finally, it can be noted that at the end of this 469
 470 document there is an index. However, that index 470
 471 references nothing in the way of forensic psy- 471
 472 chiatry per se and outside of the two items already 472
 473 mentioned, references nothing in the way of ado- 473
 474 lescents or children. Of significant importance, 474
 475 however, is that in many respects the document 475
 476 supports more firmly and directly the importance 476
 477 of dealing with social issues than does the psy- 477
 478 chological ethics. It specifically disallows any 478
 479 involvement in torture procedures without any 479
 480 equivocation, and of course, it does not allow 480
 481 participation in execution, which is no longer rel- 481
 482 evant in the case of practice with minors. 482

483 It is thus clear that in both psychiatry and psy- 483
 484 chology, ethical standards and guidelines have 484
 485 developed in the context of general practice and 485
 486 primarily reflect the issues that surface in work 486
 487 with adults. The application of these principles to 487
 488 practice involving children and adolescents essen- 488
 489 tially reflects extensions of work with adults. In 489
 490 some ways, an apt metaphor might reference 490
 491 medieval artistic style which pictured children as 491
 492 little adults compared to later drawings of chil- 492
 493 dren that reflect more accurately the different 493
 494 ratios characteristic for child and youth develop- 494
 495 mental phases. In a similar fashion, while the 495
 496 position of children in the legal system has under- 496
 497 gone a number of transformations, there has been 497
 498 no consistent foundation based on a realistic and 498
 499 empirically defensible and developmental per- 499
 500 spective.⁶ Not surprisingly, the ethical issues that 500
 501 pertain in the work with children are rendered 501
 502 complex, and when added to the special circum- 502
 503 stances of forensic practice, those issues become 503

⁶One exception that can be cited is *Roper v. Simmons* (2005) in which the American Psychological Association brief that was referenced in the decision emphasized developmental differences specifically noting neurological substrates to behavior.

504 particularly challenging. Some particularly trou- 502
 505 blesome areas illustrate the complexities. 503

506 As is well known, psychiatric practice involves 504
 507 the use of medication as an intervention. The 505
 508 practitioner has ethical obligations to obtain 506
 509 informed consent from individuals when propos- 507
 510 ing a specific course of medical treatment. 508
 511 However, juveniles may have substantial barriers 509
 512 to comprehension at necessary levels due to devel- 510
 513 opmental factors as well as ability or capacity 511
 514 factors. They also often present with special atti- 512
 515 tudinal and personality issues, not the least of 513
 516 which may be the already referenced trust issue 514
 517 with adults. Furthermore, the impact of chemical 515
 518 interventions is less predictable with developing 516
 519 organisms and has a limited empirical base com- 517
 520 pared to studies available on adults. Therefore, a 518
 521 fairly sophisticated appreciation of probability 519
 522 statements would be needed for an individual to 520
 523 give informed consent. The capacity of adults to 521
 524 make well-founded personal decisions, where 522
 525 probabilities are part of the equation has been 523
 526 demonstrated to be insecure and often signifi- 524
 527 cantly flawed (Mlodinow 2008). In addition, 525
 528 practice with adolescents can move to the level of 526
 529 consideration of off-label prescribing which brings 527
 530 in ethical questions due to unknowns as to risks 528
 531 and benefits (the research is primarily reflective 529
 532 of the adult population). For example, the prob- 530
 533 lems that emerged involving selective serotonin 531
 534 reuptake inhibitor (SSRI) antidepressants and 532
 535 juvenile suicide are instructive regarding the par- 533
 536 ticular hazards that can pertain (Dell et al. 2008). 534

537 Another area of difficult practice applications 535
 538 involves dealing with violence. Violence in the 536
 539 more general sense has also been addressed from 537
 540 a forensic/treatment perspective (O'Shaughnessy 538
 541 and Andrade 2008). Although forensic and treat- 539
 542 ment roles need to be kept separate in serving the 540
 543 juvenile population as well as with respect to 541
 544 adults (Greenberg and Shuman 1997), forensic 542
 545 reportage frequently includes the expectation that 543
 546 specific recommendations will be made for treat- 544
 547 ment purposes, particularly in cases of sexual 545
 548 offending or other violence (see below). It is also 546
 549 not uncommon that treating doctors may be called 547
 550 upon to provide the courts with opinions as to 548
 551 response to treatment with implications for future 549

552 status of the young person. When such testimony 550
 553 is provided, the treating professional may be 551
 554 impermissibly moving into a forensic role. It is 552
 555 an ethical obligation to be aware as to why opin- 553
 556 ions may be sought and what the likely uses may 554
 557 be once they are rendered. (To make things even 555
 558 more complex, it is perhaps important to realize 556
 559 that the forensic/treatment dichotomy is not with- 557
 560 out its critics. Heltzel (2007) provided a rationale 558
 561 for not making hard and fast distinctions in this 559
 562 area; Greenberg and Shuman (2007) provided 560
 563 rebuttal. None of these authors considered the 561
 564 additional problems that may pertain in the case 562
 565 of forensic work with adolescents). 563

564 Assessment Issues 564

565 Developmental issues importantly impact 564
 566 responding to psychological assessment instru- 565
 567 ments. Adolescents in particular are known to 566
 568 give responses that in an adult context could indi- 567
 569 cate significant psychopathology, but are known 568
 570 to be part of the immature phase and not predic- 569
 571 tive of adult status, either as to diagnostic cate- 570
 572 gory or from a broader perspective of behavior 571
 573 and adjustment. Even the application of appropri- 572
 574 ately normed tools runs into some difficulty since 573
 575 the population is made up of members in the pro- 574
 576 cess of change and therefore that which is norma- 575
 577 tive may or may not be predictive for ultimate 576
 578 status (Butcher and Pope 2006; Friedrich 2006; 577
 579 Koocher 2006; Medoff and Kinscherff 2006). 578
 580 579

581 When the assessment focus involves neurop- 580
 582 sychological evaluation, issues of both normative 581
 583 insecurities and forensic impacts present. Of par- 582
 584 ticular importance is the ethical obligation to 583
 585 communicate accurately to the court system so 584
 586 that the use made of the information is consistent 585
 587 with its known value and meaning. There is par- 586
 588 ticular importance in this area that derives from 587
 589 the role played in brain-behavior relationships 588
 590 that reflect neurological immaturities (Wills and 589
 591 Sweet 2006; Wynkoop 2008). 590

592 Up until the passage of the Sexual Offender 591
 593 Registration and Notification Act of 2006 592
 594 (SORNA: Title I of the Adam Walsh Child 593
 595 Protection and Safety Act), evaluations of persons 594
 596 595

597 accused of sexual crimes included estimates of
 598 risk. Significant question has been and continues
 599 to be raised about the capacity of psychologists to
 600 make statements that have life-affecting outcomes
 601 on the basis of the current level of offender risk
 602 research and instrumentation (Caldwell et al.
 603 2008). Post SORNA, which has also been shown
 604 not to predict future recidivism, general or sexual
 605 (Caldwell et al. 2008), it is clear that adolescents
 606 are specifically being victimized by this particular
 607 legislation. Their capacity to respond to treatment
 608 is not given appropriate consideration and actu-
 609 ally may be negatively impacted due to the
 610 extended consequences involved which cannot be
 611 ameliorated by anything the adolescent accom-
 612 plishes (Douglas et al. 2008; McPherson et al.
 613 2008; Politzer 2009).

614 Ethical Issues in the Conduct 615 of Research

616 In recent years, there has been a significant
 617 amount of inquiry into and even some empirical
 618 work in the area of ethics and research with ado-
 619 lescents. Although forensic work with adolescents
 620 does not typically involve research, in some situ-
 621 ations such can be the case. Clearly, some of the
 622 ethical concerns that pertain in this area mirror
 623 the ethical issues found in direct forensic practice.
 624 To some degree, adolescents can be treated as a
 625 special case of vulnerable populations. However,
 626 there are both similarities and differences in that
 627 regard. There are also some interesting national
 628 or cultural differences that can pertain. Thus,
 629 the view of adolescents as a group significantly
 630 varies between the USA and the UK and is
 631 also reflected in the legal constraints that exist.
 632 Bogolub and Thomas (2005), in considering
 633 issues of the need for parental consent for research
 634 with foster children, developed the thesis that in
 635 the UK children were viewed as more independ-
 636 ent and competent than minors are considered to
 637 be in the USA, where a fiduciary relationship
 638 between parents and children is primary and the
 639 necessity for both parents' consent is the model.
 640 That latter perspective has been incorporated into
 641 statutory and regulatory requirements. In their
 642 work, the difficulty of having to obtain birth

643 parents' consent can lead to an inability to do the
 644 research since in the case of foster children, unless
 645 agency or guardian consent is permitted, there
 646 may be no reasonable access to birth parents and/
 647 or these persons may not themselves be able to
 648 provide an informed and best interest-based
 649 response to a request for participation of the
 650 children.

651 Some empirical findings in regard to capacity
 652 to consent exist with one study identifying that
 653 children from the age of nine onward, presuming
 654 no developmental disabilities, are capable of
 655 evaluating potential harm and benefit and can
 656 understand the right to withdraw (Bruzese and
 657 Fisher 2003). Nonetheless, questions remain as
 658 to whether adolescents are capable of projecting
 659 into the future from their limited personal experi-
 660 ences and therefore would be capable of giving
 661 consent as to the uses that will be made of
 662 responses they may provide, particularly in quali-
 663 tative research (Denzin and Lincoln 2003; Fisher
 664 2004; Nelson and Quintana 2005). Thus, from
 665 both a legal and normative viewpoint, the com-
 666 plexity of how to ethically proceed presents.

667 A special concern in regard to providing con-
 668 sent goes to the issue of payment as a way to
 669 motivate participation. Significant discourse and
 670 general disapproval of payment pegged to degree
 671 of risk in a procedure has been raised (Fernhoff
 672 2002; Iltis et al. 2008). In general, the sugges-
 673 tion is made that payment to children or parents
 674 should reflect such matters as the scientific or
 675 social value of the study, the validity issues, and
 676 a fairness aspect that would include payment for
 677 whatever degree of participation occurs prior to a
 678 decision to withdraw. Some guidelines exist from
 679 the American Academy of Pediatrics and from
 680 the Institute of Medicine panel recommendations.
 681 While there is general concern about payments
 682 for risk levels, only 43 or 53.1% of institutions
 683 surveyed by the Institute of Medicine had poli-
 684 cies in this area and not all disapproved the con-
 685 nection (Iltis et al. 2008). Drotar (2008) noted a
 686 continuing clear need for studies in the area of
 687 parental consent and child assent, and into the
 688 decision-making process that would facilitate a
 689 truly informed participation in that regard.

690 Another area of particular concern in research
 691 generally, but in the specific case of adolescence,

692 goes to whether participants should be informed
 693 as to the results of assessments conducted in the
 694 course of research where these results contain
 695 negative information that would affect personal
 696 decision making. Perhaps one of the more diffi-
 697 cult areas involves genetics research where out-
 698 comes influence probabilities of future potentials
 699 rather than identification of current condition
 700 (Geller 2005).

701 Finally, it is clearly in the interest of society to
 702 conduct research into the status of children in
 703 very special groups such as runaway adolescents
 704 and adolescents who come to the attention of the
 705 court. Many of the children may only be willing
 706 to participate in research with the understanding
 707 that their parents will not be contacted if indeed it
 708 would be possible to find them (Meade and
 709 Slesnick 2002). These authors developed a ratio-
 710 nale for self-consent in selected circumstances
 711 since the runaway population does not even have
 712 a surrogate parent such as is envisioned in the
 713 federal legislation in the USA that requires writ-
 714 ten consent (see Moolchan and Mermelstein
 715 (2002) for a discussion of Institutional Review
 716 Board waiver capacity when the welfare of the
 717 child is threatened by accessing the birth parent).

718 Ethical theories that emphasize the basis and
 719 goals of ethical decision making are relevant to
 720 the conduct of research. Such theories include
 721 some varying perspectives. Dutiful ethics implies
 722 an absolute value; discursive ethics approaches
 723 by asserting that a dialog between relevant par-
 724 ties leads to ethical procedure; varieties of utili-
 725 tarian ethics involve using the consequences of
 726 what is done as the basis for ethical decision
 727 making (Helgeland 2005). Applications of such
 728 theoretical foundations can lead to varying con-
 729 clusions. For example, as has already been indi-
 730 cated, in the UK there is a view of children as
 731 having more independence than is traditionally
 732 the case in the USA. Not dissimilarly, Helgeland
 733 (2005), reflecting a Norwegian viewpoint, looked
 734 at the area of marginal groups, including chil-
 735 dren, and suggested that the patriarchal view
 736 when considered from other than absolutist terms
 737 leads to a kind of protectionism that is not helpful
 738 to the so-called weak groups. In effect, the
 739 empowerment of adolescents, by involving
 740 them in meaningful ways in the decision-making

process, may be an important ethical posture in 741
 further developing guidelines for research (Beh 742
 and Pietsch 2004). 743

Emergent Models of Ethical Practice 744

In order to address the myriad issues that present 745
 in this area, models have been developed to assist 746
 practitioners in ethical analysis of emergent situa- 747
 tions. An elaborate set of recommendations that 748
 looked sequentially at confidentiality, informed 749
 consent, and self-determination as applied to vari- 750
 ous juvenile settings was developed by Strom- 751
 Gottfried (2008). A somewhat more concise 752
 approach has been provided by Koocher (2006) 753
 whose model addresses the ethical issues involved 754
 in forensic work with adolescents. His three-part 755
 process includes a preparation phase, a phase of 756
 actual conduct of the evaluation, and an interpre- 757
 tation phase at which point the data developed is 758
 applied to the legal context. Koocher then assigned 759
 different ethical considerations to the phases of 760
 the process if the forensic practitioner is to ade- 761
 quately deal with the full range of such concerns. 762
 Thus, the preparatory phase would importantly 763
 involve informed consent/assent in which defini- 764
 tion of roles and an explanation of the specifics of 765
 the practitioner's role, the limits to confidential- 766
 ity, and the rights of the youth in terms of partici- 767
 pation are provided. The adolescent should be 768
 made aware of the use to which the data will be 769
 put and who will control the outcome. Ethical 770
 issues that take place during the actual conduct of 771
 the evaluation pertain to the selection of instru- 772
 ments that are appropriate to the population, as 773
 well as involving the competence of the practitio- 774
 ner to work with this population. Finally, inter- 775
 pretation of the data requires an understanding of 776
 the developmental aspects that pertain to psycho- 777
 logical test responding, including unevenness, the 778
 meaning of findings, the findings of research with 779
 respect to longer-range prediction, and the like. In 780
 this model, information provided in written 781
 reports as well as in testimony needs to clearly 782
 indicate limits of confidence that pertain based on 783
 the level of empirical findings. 784

As already indicated, additional ethical issues 785
 emerge when cross-cultural factors come into play 786

787 and such factors need to be part of any application
 788 models. The particular problems of bias, both
 789 individual and systemic, are well documented,
 790 particularly with reference to the African-
 791 American population (see, for example, Barratt
 792 et al. 2007; Oral 2009).

793 Looking at a different culture, Velasquez et al.
 794 (2006) addressed in some detail the specific prob-
 795 lems that can present in the assessment of Latino
 796 youngsters, the ways in which the teen and/or par-
 797 ents need to be approached in an evaluative con-
 798 text, and the factors that will strengthen validity in
 799 applying evaluative techniques to this population.

800 **A Remaining Ethical Issue**

801 Although an anathema to some forensic practition-
 802 ers (but specifically referenced in the APA-MD
 803 annotated ethics), current events have importantly
 804 illustrated that there can be obligations for advoca-
 805 cy of change and for an individual practition-
 806 er’s responsibility to set limits on the degree to
 807 which he or she will serve the existing systems.
 808 Over an extended period of time, the APA-PhD
 809 was itself severely stressed by competing views
 810 as to whether psychologists should be involved in
 811 any roles *vis-a-vis* interrogations of detainees in
 812 the US controlled settings, especially referencing
 813 those considered coercive and/or torturous. If it
 814 was declared unethical to participate, there would
 815 be the potential that individual psychologists who
 816 decided to follow orders or who on their own
 817 continued participation would then be subject to
 818 ethical sanctions by APA-PhD. To further comp-
 819 plicate matters, the Psychological Association
 820 diverged from the Medical Association in not
 821 taking a firm and unequivocal stance prohibiting
 822 such involvement when the issue first presented.⁷

⁷Supportive of the concerns raised by this issue is that a review conducted by this writer of the APA Presidential Task Force on Psychological Ethics and National Security (PENS) memoranda revealed rationalizations that are not inconsistent with the position that the means justifies the ends, as well as reflecting a protective stance toward APA that itself illustrates the ethical dilemma of serving more than one master.

The above raises the question: At what point
 does the “double agent” status of forensics become
 insupportable from a moral and ethical stand-
 point? And it underlines the question of what obli-
 gations may exist in serving systems that harm
 human beings, referencing the need for awareness
 and activity when legal process and custodial
 practices cause damage to juveniles. One way to
 approach answers to such a question is to look at
 what the hazard points may be for crossing ethical
 boundaries. In considering juvenile justice, it is
 necessary to have an ongoing awareness that
 adolescents are a vulnerable population, limited as
 to constitutional rights as well as personal cogni-
 tive potentials, and often manifesting preexisting
 social emotional alienation from adult society. It is
 argued that the usual cautions that have been cre-
 ated to protect the adult population must be aug-
 mented by the kinds of specific care that are also
 necessary when dealing with other special needs
 subgroups of the population. It is also asserted that
 particularly in this arena, there may be times when
 the forensic practitioner may find him or herself in
 the unenviable position of having to move in direc-
 tions of advocacy for system change or withdrawal
 of service as the only ethical options.

Conclusion

A serious confound has developed over the years.
 The law has changed to enhance basic legal rights
 for the juvenile and in effect the young defendant
 may exercise many of the rights of adults.
 Whether this status is advantageous, however, is
 not at all clear (Grisso and Schwartz 2000). For
 example, research has looked at whether having a
 right to a jury, which has been proposed, is likely
 to enhance the fairness of the juvenile system;
 however, results have not clearly supported same
 (Feld 1993; Mahoney 1985). Research into deci-
 sion making has documented that the juvenile’s
 capacities for managing at what may be essen-
 tially adult levels vary dependent on situational
 and individual factors. Further, while there is
 support for involvement and decision-making
 responsibility as an enhancer of status and poten-
 tial positive outcomes in many situations, in the

868 case of the juvenile justice system, that increased
869 status is not infrequently accompanied by increas-
870 ing application of retributive justice approaches
871 and long-term punitive outcomes that last well
872 into the youth's maturity if not forever.

873 Forensic practice involving adolescents takes
874 place in an arena where the knowledge base is
875 shifting, the legal constraints vary and change,
876 and the nature of the population being served
877 includes ongoing alterations of functional capac-
878 ity along with vulnerability to prejudice and sys-
879 tematic bias from multiple social sources. If
880 ethical practice is to be other than an oxymoron,
881 the requisite degree of vigilance is high indeed.

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Uncorrected Proof

Juveniles and Criminal Responsibility Evaluations

6

Charles L. Scott and Matthew Soulier

Forensic Case Vignette

Joe is a 17-year old-male who has been charged with the attempted murder of three police officers. Because of the seriousness of his offense, Joe has been transferred to adult court. Joe has no prior arrest history or any legal involvement in the juvenile or adult legal system. Although Joe was described as “outgoing and friendly” during his elementary school years, during his high school years he was noted to become extremely withdrawn and aloof. He stopped socializing with others and by the time he was age 16, he was failing all of his classes.

Six months prior to the crime, Joe started exhibiting bizarre behavior in his home. For example, his parents described that he was spending hours on the computer investigating stories about alien invaders from space and would frequently yell out the word “Pogil Pilog Pogil Pilog” for no apparent reason. When his mother asked him why he was chanting this phrase, he told her that he had to communicate in these “secret words” so that the “space invaders” wouldn’t know “his plans to fight them.” His parents became increasingly concerned and forced

him to go to an outpatient psychiatric evaluation. During the evaluation, Joe communicated marked delusional beliefs about a group of “fake policeman” who had been taken over by “non humans.” He stated that he had seen the “fake policeman” but would not elaborate further. He reported that these “fake policeman” were put into place so that they could facilitate the “takeover of the world” when their fellow space invaders came to earth. He elaborated that this world “take over” by the aliens would involve the murder of “all government leaders” and “millions of innocents.” When asked, Joe said that he did not have any thoughts of hurting himself or others nor did he exhibit an inability to take care of himself. He was released to his parent’s care with a prescription of an atypical antipsychotic with a follow up appointment scheduled in 5 days. Two days later, Joe walked into his local police station and began firing a gun while screaming nonsensical words. The flying bullets struck three policemen, seriously injuring all three. Joe’s defense attorney requests a mental health practitioner to evaluate his client’s “mental state at the time of the offense.”

Introduction

The forensic vignette above illustrates the type of case where a psychiatric evaluation will likely be requested to assist the defense team in understanding their client’s mental state at the time of

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59 an offense. Forensic practitioners may be asked
 60 to evaluate a juvenile's mental state at the time of
 61 an alleged offense for the purpose of the deter-
 62 mining the degree, if any, of criminal responsibil-
 63 ity. A criminal act is composed of two components:
 64 *actus rea* (guilty act) and *mens rea* (guilty mind
 65 or criminal intent). Under English common law, a
 66 youth's age played a significant role in whether
 67 they were considered blameworthy for illegal
 68 acts. Children less than age 7 were deemed inca-
 69 pable of forming criminal intent. This defense,
 70 also known as the infancy defense, held that these
 71 very young children were not criminally respon-
 72 sible due to developmental immaturity. Juveniles
 73 between the ages of 7 and 14 were also presumed
 74 incapable of committing crimes though the gov-
 75 ernment had the right to rebut this presumption.
 76 In contrast, juveniles 14 and older were treated as
 77 adults in regards to evaluating sanity at the time
 78 of an alleged offense (Fitch 1989).

79 With the emergence of juvenile courts in the
 80 USA during the late 1880s, the focus on troubled
 81 youth was rehabilitation, not punishment. Be-
 82 cause the juvenile court movement empha-
 83 sized treatment interventions necessary to curb
 84 delinquent behavior, the use of an insanity
 85 defense was rarely necessary and therefore rarely
 86 used. In fact, four states have actually denied the
 87 extension of the insanity defense used in their
 88 adult criminal justice system to their own juve-
 89 nile court system (Taylor 2001).

90 In the USA, juvenile crime increased dramati-
 91 cally during the late 1980s until it peaked in 1994
 92 (Snyder 2008). The American public was con-
 93 fronted with graphic images in the media of vio-
 94 lent young children, many of whom appeared
 95 armed and ready to kill. The belief that our juve-
 96 nile justice system was effective in managing
 97 these violent offenders was rapidly vanishing. In
 98 its place was a growing get tough attitude toward
 99 juveniles highlighted by the phrase, "If you do
 100 the crime, you do the time." Society was fed up.
 101 Something had to be done.

102 In response to this emerging skepticism
 103 regarding the juvenile court's ability to rehabili-
 104 tate wayward youth, numerous states passed laws
 105 with more punitive approaches to address juvenile
 106 delinquent behaviors. A common thread running

107 through the fabric of these new statutes was a
 108 push to remove the protective veil of juvenile
 109 court and expose youth to the consequences of
 110 their acts in both the juvenile and adult criminal
 111 justice system. With the increasing numbers of
 112 youth transferred to adult court and the societal
 113 pressure to hold juveniles criminally culpable,
 114 forensic mental health expert should prepare
 115 for an increasing number of requests to evaluate
 116 if a juvenile's sanity at the time of the alleged
 117 offense.

118 This chapter provides the forensic examiner
 119 with an overview of various tests of insanity, how
 120 to prepare for the sanity evaluation, how to con-
 121 duct the sanity evaluation, and how to formulate
 122 the sanity opinion. In many situations, a juvenile
 123 may have a significant mental illness that does
 124 not meet the legal definition of insanity as defined
 125 by his or her jurisdiction. Therefore, this chapter
 126 also reviews the legal doctrines of "diminished
 127 capacity" and "guilty but mentally ill." Both of
 128 these additional legal concepts are important to
 129 consider when evaluating the relationship, if any,
 130 of a mental disorder on a criminal act.

131 Insanity Tests

132 Insanity is a legal, but not psychiatric, term. The
 133 insanity evaluation determines whether the juve-
 134 nile is so mentally disordered that he or she is not
 135 blameworthy or criminally responsible for the
 136 behavior. In contrast to competency to stand trial
 137 (CST) evaluations that focus on a defendant's
 138 *present* mental capacity as related to their under-
 139 standing and participation in the legal process, an
 140 insanity evaluation involves a retrospective eval-
 141 uation of a person's past mental state *at the time*
 142 of their alleged offense.

143 The most common test of insanity in the USA
 144 is known as the M'Naughten standard that was
 145 developed in 1843 following the trial of Daniel
 146 M'Naughten. Mr. M'Naughten was found not
 147 guilty by reason of insanity after he attempted to
 148 assassinate the prime minister of Britain and
 149 instead shot his secretary Edward Drummond.
 150 Queen Victoria, angered by the legal outcome in

151 this case, ordered her 15 Law Lords to draft a new
152 standard of criminal responsibility. The new stan-
153 dard recommended by the Lords was as follows:

154 To establish a defence on the ground of insan-
155 ity, it must be clearly proved that at the time of
156 the committing of the act, the party accused was
157 labouring under such a defect of reason, from the
158 disease of the mind, as not to know the nature and
159 quality of the act he was doing, or if he did know
160 it, that he did not know he was doing what was
161 wrong (M’Naughten’s Rule 1843).

162 This test is often referred to as the *right/wrong*
163 *test* or *cognitive test* because of its emphasis on
164 the defendant’s ability to know, understand, or
165 appreciate the nature and quality of their criminal
166 behavior or the wrongfulness of their actions at
167 the time of the crime.

168 A second insanity test used in some jurisdic-
169 tions is known as the *irresistible impulse* test. In
170 essence, this test asks the evaluator to determine
171 if the juvenile’s mental disorder rendered them
172 unable to refrain from their behavior, regardless
173 if they knew the nature and quality of their act or
174 could distinguish right from wrong. A major criti-
175 cism of this test has been the broadness of its
176 scope. In other words, because a defendant did
177 not refrain from a particular criminal behavior,
178 mental health clinicians could use this decision to
179 act criminally as evidence that the juvenile could
180 not resist an impulse, thereby concluding that all
181 criminal behavior not resisted by the youth equals
182 insanity. Despite its current unpopularity as a
183 measure of criminal responsibility, this test sur-
184 vives, in part, as both Virginia and New Mexico
185 combine the irresistible impulse test with the
186 M’Naughten test (Giorgi-Guarnieri et al. 2002).

187 A third test used in only two jurisdictions in
188 the USA is known as the *Durham rule* or *product*
189 *test* (Durham v. United States 1954). This insan-
190 ity test derived from a D.C. Circuit case where
191 Judge Bazelon allowed a finding of insanity if the
192 defendant’s unlawful act was a “product of a
193 mental disease or defect.” As with the irresistible
194 impulse test, the product test expanded those eli-
195 gible for a finding of insanity and rapidly fell out
196 of favor. It is currently used in only two jurisdic-
197 tions in the USA, New Hampshire and the Virgin
198 Islands (Giorgi-Guarnieri et al. 2002).

199 A final test of insanity was developed in 1955
200 by the American Law Institute (ALI) when for-
201 mulating the Model Penal Code. This test states:

202 A person is not responsible for criminal con-
203 duct if at the time of such conduct as a result of
204 mental disease or defect he lacks substantial
205 capacity either to appreciate the criminal of his
206 conduct or to conform his conduct to the require-
207 ments of the law (ALI Model Penal Code 1985;
208 Giorgi-Guarnieri et al. 2002).

209 This test involves both a cognitive arm
210 (“appreciates the criminality of his conduct”) and
211 a volitional arm (ability to conform behavior).

212 Preparing for the Sanity Evaluation

213 When preparing for an evaluation of a juvenile’s
214 criminal responsibility, the expert should first
215 clarify if he or she is court appointed or retained
216 by the defense or prosecution. Although the
217 examiner should always strive for honesty and
218 objectivity regardless of the retaining party, opin-
219 ions rendered by a psychiatrist hired by the
220 defense are not always disclosed to other parties.
221 Prior to conducting the evaluation, the defense
222 attorney should be notified of the impending
223 interview. In some situations, the defense attor-
224 ney may request to be present during the assess-
225 ment and may obtain a court order allowing them
226 to do so. If this situation occurs, the evaluator
227 should request that the defense counsel not inter-
228 rupt the examination or instruct the defendant
229 how to respond to questions.

230 Second, the evaluator should request the exact
231 language of their jurisdiction’s insanity statute. In
232 addition, relevant case law interpreting the state
233 statute may provide further guidance to the exam-
234 iner regarding exactly how that particular juris-
235 diction defines criminal responsibility. Third, it is
236 important to understand how mental disorders or
237 defects are statutorily defined. The exact defini-
238 tions of mental disease and mental defect are usu-
239 ally found in either case law and/or statutes. The
240 examiner should carefully review if any disorders
241 are prohibited from consideration for the insanity
242 defense. Diagnoses commonly excluded include
243 voluntary intoxication with alcohol or other drugs,

t1.1 **Table 6.1** Collateral records to consider in a juvenile
t1.2 sanity evaluation

t1.3 • Juvenile’s account of crime to police or other
t1.4 witnesses

t1.5 • Audio or videotaped statements from juvenile

t1.6 • Witness and victim statements

t1.7 • 911 calls (if available)

t1.8 • Videotape of crime or crime scene (if available)

t1.9 • Juvenile hall and/or jail booking and treatment
t1.10 records following the juvenile’s arrest

t1.11 • Prior psychiatric records

t1.12 • Prior psychological testing

t1.13 • Prior drug and alcohol treatment records

t1.14 • Prior medical records

t1.15 • Any writings from juvenile that may reflect his or
t1.16 her mental state or motive

t1.17 • Computer hard drive and communications where
t1.18 appropriate

t1.19 • Juvenile rap sheet and records of prior arrests/
t1.20 dispositions and/or convictions

t1.21 • Prior juvenile confinement records and/or jail
t1.22 records

t1.23 • Prior educational records

t1.24 • Prior work records

244 personality disorders, and adjustment disorders.
245 Psychotic disorders, such as schizophrenia,
246 schizoaffective disorder, or mood disorders with
247 psychotic features are the most common diagnoses
248 that qualify for an insanity defense. Although
249 some youth in early adolescence may demonstrate
250 premorbid symptoms of a significant thought disorder,
251 they may not meet formal diagnostic criteria for a
252 DSM-IV thought disorder, thereby making it difficult
253 for them to meet the mental disorder requirement of
254 an insanity defense. The examiner should carefully
255 evaluate if the juvenile has a developmental disability
256 (such as mental retardation) as cognitive impairment
257 may represent a qualifying disorder or defect for
258 purposes of conducting the insanity analysis.

260 Fourth, the examiner should review collateral
261 records that may assist in evaluating the mental
262 state of the juvenile at the time of the offense. If
263 the juvenile or juvenile’s legal guardian refuses
264 to sign a release for records, the expert can request
265 the court to order the release of records important
266 in conducting the insanity evaluation. Collateral
267 records that may assist in the sanity evaluation
268 are noted in Table 6.1.

The forensic expert should pay particular attention
to those records that describe the juvenile’s
mental state close to the time of the crime. Specific
areas to review in the collateral records include:

- Juvenile’s exact statements before and after
the offense.
- Juvenile’s various offense accounts to police
and others.
- Presence of any mental health symptoms near
the time of the offense, particularly psychotic
symptoms such as paranoia, delusions, and/or
hallucinations.
- Presence or absence of substance use prior to
the offense.
- Presence of conduct disorder and/or antisocial
personality traits or disorder.
- Presence of a rational alternative motive rather
than a psychotic motive.
- History of a similar offense indicating a possible
pattern of delinquent and/or criminal
behavior.
- History of malingering psychiatric symptoms
before or after the offense.

In addition to collateral records, other evaluator’s
opinions may also assist in reviewing the consistency
of the juvenile’s presentation and account of the
crime. However, the examiner should first determine
if any prior psychological examinations are prohibited
from their review. Finally, the examiner may find it
helpful to take a detailed social background history
from family members and individuals who know the
juvenile with particular attention regarding the
youth’s mental state in the days and hours prior
to the crime.

Conducting the Sanity Evaluation 304

The forensic expert should evaluate the juvenile
as soon as possible in order to assess the defendant’s
mental state close to the time of the crime and to
minimize the risk that they will learn how to
malingering mental illness (Resnick and Noffsinger
2004). Prior to conducting the sanity assessment,
the evaluator should carefully consider discussing
with the referring party if an

313 assessment's of the youth's CST is also warranted,
 314 depending on the youth's age and/or circum-
 315 stances of the case. As with CST evaluations, the
 316 forensic evaluator should explain to the defen-
 317 dant the nature and purpose of the interview. The
 318 *AAPL Practice Guideline for Forensic Psychiatric*
 319 *Evaluation of Defendants Raising the Insanity*
 320 *Defense* provides the following quoted language
 321 to explain the limits of nonconfidentiality to an
 322 adult defendant which is also appropriate when
 323 evaluating a juvenile:

324 I am a physician and psychiatrist who has been
 325 asked [by the court or the prosecuting attorney]
 326 to answer three questions:

- 327 1. What was your mental state at the time of
- 328 the crimes you have been charged with
- 329 committing?
- 330 2. Did you have a mental disorder?
- 331 3. At the time of the crime you are charged with
- 332 committing, were you so mentally ill that the
- 333 court should find you not criminally responsible?
- 334 (Giorgi-Guarnieri et al. 2002, p. S20).

335 After providing the initial informed consent,
 336 the evaluator usually conducts a standard mental
 337 health evaluation that includes an assessment of
 338 any underlying medical and/or biologic condi-
 339 tions, a review of psychological issues, and social
 340 factors relevant to the juvenile. Key areas to
 341 review include past psychiatric history and prior
 342 hospitalizations, family psychiatric history, edu-
 343 cational history, any history of learning disabili-
 344 ties, mental retardation, or special education,
 345 medical history, substance use history, and the
 346 juvenile's social and relationship history, particu-
 347 larly as related to any of the crime victims.

348 The examiner must give particular attention to
 349 obtaining the juvenile's account of the crime in
 350 an open-ended manner that does not suggest to
 351 the defendant what he or she should say. For
 352 example, the evaluator might say, "What hap-
 353 pened on the day of the offense? Tell me every-
 354 thing that you remember happened starting with
 355 the day before this happened." The evaluator
 356 should ask the juvenile to describe his or her
 357 thoughts, feelings, and exact behaviors before,
 358 during, and after the alleged crime. After obtain-
 359 ing the juvenile's initial account, the evaluator
 360 may need to ask more detailed specific questions

Table 6.2 Sample questions to help evaluate mental state at time of offense

• What was your relationship to the victim [if the crime involved a victim]?	t2.3
• When did you first have the thought to do your offense?	t2.5
• Did you prepare for this? If so, how?	t2.7
• Had you ever tried to do this before? If so, what stopped you or why did it not work out?	t2.8
• What did you do immediately following this offense?	t2.10
• Why did you take those particular actions following the offense?	t2.12
• Prior to your committing this crime, did you know that this was against the law?	t2.14
• At the time that you did this crime, did you know it was against the law?	t2.16
• Would you have done this if a police officer was near or at the scene? If yes, why? If no, why not?	t2.18
• Would you have done this if someone unexpected arrived at the scene? If yes, why? If no, why not?	t2.20
• Is there anything that made you think what you did was a right thing to do? If so, what?	t2.22
• When was the last drink of alcohol or use of any other drugs you took prior to this crime?	t2.24
• Were you experiencing any type of mental health symptom at the time of the crime? If so, what? When did these symptoms start? When did these symptoms end? [The examiner may need to ask specific questions regarding the presence of hallucinations, delusions, paranoia, or other mental health symptoms.]	t2.26

361 to evaluate the juvenile's sanity. In addition, the
 362 examiner should clarify with the defendant any
 363 inconsistent offense accounts that he or she has
 364 provided either during the interview or to other
 365 individuals (Resnick and Noffsinger 2004).
 366 Questions an evaluator should consider asking to
 367 help obtain the juvenile's account of the crime
 368 are listed in Table 6.2.

369 The evaluator will also need to consider the
 370 possibility that the juvenile may malingering psychi-
 371 atric symptoms in an attempt to avoid criminal
 372 prosecution. The examiner should be particularly
 373 familiar with characteristics of faked hallucina-
 374 tions or delusions (Resnick 1999). The use of
 375 psychological tests designed to assess malinger-
 376 ed psychiatric symptoms may also be useful.
 377 However, the evaluator should be careful in using
 378 psychological testing that is age appropriate and
 379 should also appreciate that psychological tests do

380 not specifically evaluate the juvenile's mental
381 status at the time of the crime. Therefore, a find-
382 ing on a psychological test that a juvenile is not
383 currently malingering symptoms does not neces-
384 sarily mean that he or she is not feigning symp-
385 toms about their mental state in the past.

386 The Sanity Opinion

387 There are three important areas to review when
388 rendering an opinion on a juvenile's criminal
389 responsibility. First, the evaluator must establish
390 if the juvenile had a mental disease or defect at
391 the time of the crime. The expert should deter-
392 mine what mental disorders qualify for consider-
393 ation of insanity after reviewing the governing
394 statute and relevant case law. Even if a defendant
395 meets the jurisdictional criteria for a mental dis-
396 order or defect, having a mental disorder does not
397 equate with the legal definition of insanity.

398 Second, the evaluator must determine the rela-
399 tionship, if any, between the mental illness or
400 defect and the alleged crime. Understanding the
401 motivation behind the youth's actions is a critical
402 component of the insanity evaluation. The evalu-
403 ator should obtain the juvenile's account of the
404 crime in great detail by asking the youth to
405 describe their thoughts, feelings, and exact behav-
406 iors before, during, and after the alleged crime. It
407 is important that the evaluator consider all ratio-
408 nal, rather than psychotic, motives for the criminal
409 offense. For example, if an adolescent commits an
410 armed robbery solely to obtain money for a drug
411 purchase, the fact that they are depressed will
412 unlikely establish a sufficient relationship between
413 their mental state and their criminal behavior for
414 purposes of the insanity defense.

415 Finally, the examiner must apply the relevant
416 insanity test when evaluating the relationship
417 between the person's mental disorder and their
418 alleged acts. Under a M'Naughten test of insanity
419 (i.e., cognitive standard), the evaluator reviews if
420 the juvenile knew what they were doing or under-
421 stood that their actions were wrong, even if they
422 had a qualifying mental disorder. In those juris-
423 dictions that utilize some form of the M'Naughten

424 test, the examiner should carefully review if the
425 juvenile meets the criteria for each component of
426 this test according to the precise governing lan-
427 guage (Giorgi-Guarnieri et al. 2002).

428 In some states, the defendant must be so
429 impaired from a mental illness that they are
430 unable to know the nature and quality of their
431 actions and/or are unable to distinguish right
432 from wrong. In general, an individual would have
433 to be extremely impaired to not be aware of or
434 know his or her actions. For example, an attorney
435 might argue that a psychotic girl who irrationally
436 believed that she was squeezing a pillow when
437 she was actually choking her 3-year-old sister
438 was so mentally impaired that she did not know
439 what she was doing (i.e., nature and quality of her
440 act) and was therefore insane.

441 The more easily met component of the
442 M'Naughten test involves whether the defendant
443 was able to know or distinguish right from wrong
444 at the time of the offense. In general, there are
445 two broad categories related to a defendant's
446 knowledge of the "wrongfulness" of their behav-
447 ior: (1) legal wrongfulness and (2) moral wrong-
448 fulness. Jurisdictions vary as to whether both
449 types of wrongfulness are allowed for consider-
450 ation when determining a defendant's sanity.

451 An assessment of a person's understanding of
452 the legal wrongfulness of their actions involves
453 determining if they understood *at the time of the*
454 *crime* that what they did was against the law.
455 Resnick (2007) has provided examples of poten-
456 tial behaviors to help evaluate if a person under-
457 stands the wrongfulness of their behavior that are
458 outlined in Table 6.3.

459 In some jurisdictions, a juvenile may be found
460 insane if his or her mental disorder resulted in their
461 being unable to know or understand that their
462 actions were *morally* wrong, even if they knew
463 that society would legally sanction their actions.
464 When evaluating whether a juvenile's mental dis-
465 order rendered them unable to know or understand
466 the moral wrongfulness of their conduct, the exam-
467 iner should specifically ask if there was any reason
468 he or she thought their actions were morally just-
469 ified at the time of the offense. Consider the cir-
470 cumstances of JG, a 16-year-old girl whose
471 schizophrenic illness causes her to believe that she

t3.1 **Table 6.3** Evidence that may indicate a juvenile’s knowl-
 t3.2 edge of legal wrongfulness (Resnick 2007)

t3.3	A. <i>Efforts to avoid detection</i>
t3.4	• Wearing gloves during a crime
t3.5	• Waiting until the cover of darkness
t3.6	• Taking a victim to an isolated place
t3.7	• Wearing a mask or disguise
t3.8	• Concealing a weapon on the way to a crime
t3.9	• Falsifying documents (passport or gun permit)
t3.10	• Giving a false name
t3.11	• Threatening to kill witnesses
t3.12	• Giving a false alibi
t3.13	B. <i>Disposing of evidence</i>
t3.14	• Wiping off fingerprints
t3.15	• Washing off blood
t3.16	• Discarding a murder weapon
t3.17	• Burying a victim secretly
t3.18	• Destroying incriminating documents
t3.19	C. <i>Efforts to avoid apprehension</i>
t3.20	• Fleeing from the scene
t3.21	• Fleeing from the police
t3.22	• Lying to the police

472 has been chosen by Buddha to rid the world of
 473 evil. She also has the delusional belief that the
 474 local postman is spreading anthrax through his
 475 delivery of mail throughout the town. As a conse-
 476 quence, she believes that hundreds of people will
 477 soon die if the postman is not stopped. Despite her
 478 numerous phone calls to the local police and local
 479 post office manager, she is told by law enforce-
 480 ment that the postmaster represents no threat and
 481 to stay away from him or she will be arrested. JG
 482 fears that many lives are at imminent risk with
 483 “increasing dosages of killer anthrax in the mail.”
 484 JG may have some understanding that the police
 485 would view her killing of the postman unlawful,
 486 particularly as she has been told by local law
 487 enforcement to have no contact with the postman.
 488 However, due to her psychosis, JG may neverthe-
 489 less believe that her killing of the postman is mor-
 490 ally justified to save the lives of others.

491 The insanity standard in some jurisdictions
 492 requires an analysis of the individual’s ability to
 493 refrain from his or her actions or to conform their
 494 conduct to the requirements of the law. This analy-
 495 sis focuses on how the person’s mental disorder or
 496 defect affected, if at all, his or her ability or capac-
 497 ity to control their behavior. In this context, the

forensic examiner is evaluating if the juvenile had 498
 the ability to refrain from the behavior but chose 499
 not to. For example, evidence that the juvenile had 500
 the ability to refrain could include their stopping 501
 or delaying an illegal behavior when a witness is 502
 present or when a police car drives by the scene. 503

Diminished Capacity Evaluations 504

Unlike the insanity defence, which utilizes a 505
 specific test to evaluate one’s criminal responsi- 506
 bility, a diminished capacity defense examines if 507
 the defendant had the capacity to form the requi- 508
 site intent for the crime. To illustrate the differ- 509
 ence, a 17 year-old boy with Schizophrenia 510
 believes that his next-door neighbour is about to 511
 start World War III with nuclear weapons because 512
 his neighbor’s car license tag contains the num- 513
 ber three. As a result, this boy decides that he 514
 must kill his next door neighbor in order to save 515
 the entire planet. He carefully loads his .357 516
 magnum, waits for his neighbor to return home, 517
 calmly walks over to his neighbor’s house, rings 518
 the doorbell, and shoots the neighbor directly in 519
 the heart when the neighbour opens the door. 520

At trial, this boy may be found legally insane 521
 under a M’Naughten insanity test if it is proved 522
 that his Schizophrenia resulted in his belief that 523
 his actions were morally right thereby rendering 524
 him unable to distinguish right from wrong. This 525
 same boy, however, may *not* meet the standard 526
 for diminished capacity, *despite* his mental ill- 527
 ness, if proved that he purposefully walked over 528
 to his neighbor’s house with a loaded shotgun 529
 with the specific intent to kill the neighbour. 530
 Therefore, diminished capacity defenses are 531
 focused on the degree, if any, that a person’s 532
 mental disorder influenced their ability to form 533
 the specific intent to commit a crime. 534

Not all degrees of intent are viewed the same 535
 in the eyes of the law. Under a diminished capacity 536
 defense, the forensic expert evaluates if the defen- 537
 dant had a particular culpable state of mind. To 538
 illustrate, consider the case of MC, a 16-year-old 539
 boy who becomes intoxicated for the first time 540
 from alcohol while drinking with his best friend 541

542 BT. After consuming ten beers, he starts to argue
 543 with BT over a seemingly trivial matter and they
 544 become involved in a fistfight. MC repeatedly
 545 punches his friend in the face causing BT to have
 546 an unexpected fall that results in a severe head
 547 injury and subsequent death. MC is subsequently
 548 charged with first-degree murder, which in his
 549 jurisdiction is defined as the deliberate and pur-
 550 poseful taking of another human’s life.

551 Did MC have the level of specific intent as
 552 defined by that state’s penal code to deliberately
 553 and purposely cause his friend’s death? A suc-
 554 cessful diminished capacity defense in this case
 555 would demonstrate that due to MC’s marked
 556 intoxication, his level of consciousness was so
 557 impaired that he did not have the capacity to form
 558 the requisite intent. Even if his defense is suc-
 559 cessful, however, MC could still face charges that
 560 involve a lesser degree of intent, such as a charge
 561 of involuntary manslaughter.

562 The doctrine of diminished capacity is consid-
 563 ered controversial and not all states allow mental
 564 health testimony in this regard. A state’s decision
 565 to bar such testimony in regards to the effects of
 566 intoxication has been upheld by the U.S. Supreme
 567 Court in the 1996 case of *Montana v. Egelhoff*. In
 568 this case, James Egelhoff had been camping and
 569 partying with friends in the Yaak region of
 570 Northwestern Montana. During the course of the
 571 day he consumed psychedelic mushrooms and a
 572 substantial amount of alcohol. Later that evening,
 573 Mr. Egelhoff was found severely intoxicated in
 574 the back seat of a car with his two friends dead in
 575 the front seat as a result of a single gunshot wound
 576 to the back of the head. He was subsequently
 577 charged with two counts of deliberate homicide.
 578 At trial, Mr. Egelhoff was not allowed to present
 579 evidence regarding the impact of his intoxication
 580 on his specific intent to kill. After he was found
 581 guilty on both counts, he appealed his case to the
 582 US Supreme Court which upheld the trial court’s
 583 decision to exclude mental health testimony related
 584 to the effects of intoxication on Mr. Egelhoff’s
 585 specific intent (*Montana v. Egelhoff* 1996).

586 Likewise, testimony on the effects of severe
 587 mental disorders on *mens rea* may also be lim-
 588 ited. In the 2006 case of *Clark v. Arizona*, the US
 589 Supreme Court was asked to review an Arizona
 590 trial court decision that prohibited mental health

testimony regarding the impact of a psychotic 591
 disorder on a defendant’s ability to form the 592
 required specific intent to kill. Eric Clark was an 593
 undisputed paranoid schizophrenic who was 594
 charged with the first degree murder of a police 595
 officer in the line of duty. At trial, Clark was not 596
 allowed to present evidence regarding the impact 597
 of his psychosis on his alleged intent to kill. On 598
 appeal, the US Supreme Court upheld the trial 599
 court’s decision to prohibit at the guilt phase, any 600
 mental health testimony regarding Mr. Clark’s 601
 intent to kill the officer (*Clark v. Arizona* 2006). 602

Guilty but Mentally Ill

603
 Twelve states have enacted statutes that allow a 604
 jury to find a defendant guilty but mentally ill 605
 (GBMI). Although precise definitions vary, this 606
 verdict recognizes those defendants with a severe 607
 mental disorder who are found guilty but do not 608
 meet a legal test for insanity. Proponents of GBMI 609
 statutes assert that such verdicts protect the pub- 610
 lic from dangerous offenders with mental illness 611
 by allowing longer periods of incarceration than 612
 might occur if such defendants were found insane. 613
 Several concerns have been raised regarding 614
 GBMI statutes. These concerns include the poten- 615
 tial for jury confusion regarding the difference 616
 between sanity and GBMI, the lack of any mean- 617
 ingful difference in mental health treatment pro- 618
 vided to those who receive a GBMI verdict and 619
 those who do not (Melton et al. 2007). 620

Forensic Case Epilogue

621
 A forensic psychiatrist is court appointed to evalu- 622
 ate if Joe had a mental disorder, whether Joe had 623
 the specific intent to kill the police officers, and 624
 whether Joe met the state’s definition of insanity. 625
 The forensic psychiatrist requested a copy of the 626
 statutory definition of insanity which read, “The 627
 accused is not guilty by reason of insanity if at the 628
 time of the alleged offense they were suffering 629
 from a severe mental disease or defect that ren- 630
 dered them unable to know or understand the 631
 nature and quality of their acts or to distinguish 632

633 right from wrong.” Collateral records indicated no
634 use of any type of illegal substance or alcohol and
635 all serum and urine drug screens were negative for
636 alcohol or drugs. After reviewing the police reports
637 and prior psychiatric records, the psychiatrist
638 interviews Joe and learns the following:

639 Immediately after his return home, Joe began
640 preparing for the “final battle.” He realized that
641 his parents “were not yet enlightened” and so he
642 kept all of his preparations “top secret.” With all
643 of the money that he had saved, Joe purchased
644 \$500 dollars worth of “grape juice and Skittles”
645 so that he would have enough energy to “lead the
646 fight and save the world.” Joe saw lights in the
647 sky that night, which he interpreted meant the
648 invasion had started. He found the key to his
649 father’s gun cabinet and took out a .357 magnum
650 and two boxes of ammunition. After loading the
651 weapon, he dressed in black and loaded his back-
652 pack with grape juice and Skittles candy and
653 went searching for the “fake policeman” so that
654 he could “save the world.” Joe went to the local
655 police station and when he saw three “fake police-
656 man” inside the waiting area, he pulled out the
657 gun, began screaming “Pilog,” and started shoot-
658 ing. Multiple officers immediately came to the
659 scene and wrestled him to the ground.

660 The psychiatrist diagnosed Joe with
661 Schizophrenia, paranoid type. The psychiatrist
662 rendered an opinion that Joe did intend to kill the
663 police officers despite his suffering from symp-
664 toms of acute Schizophrenia. However, the psy-
665 chiatrist also opined the Joe was legally insane
666 under that jurisdiction’s test of insanity. In par-
667 ticular, the psychiatrist testified that although
668 Joe knew the nature and quality of his actions in
669 regards to shooting his gun at the “fake policeman,”
670 he also delusionally believed that his actions
671 were morally justified because he was “saving
672 the world from aliens.”

673 Summary

674 Insanity is a legal concept that requires an analysis
675 of the relationship, if any, of the juvenile’s mental
676 illness or developmental disability to the particu-
677 lar jurisdiction’s test for criminal responsibility.

678 Although many juveniles may be developmentally
679 immature, the lack of mature judgment and
680 impulse control alone is rarely sufficient for pur-
681 poses of avoiding criminal responsibility under
682 the insanity doctrine. The forensic expert must
683 understand the importance of applying the rele-
684 vant statute and case law when conducting this
685 forensic assessment. Key documents to review
686 include the police reports, juvenile’s statements
687 before, during, and after the offense, any drug
688 testing, subsequent jail records, and prior mental
689 health history. When possible, the evaluator
690 should review these records in advance of con-
691 ducting the evaluation so any disparities between
692 collateral sources of information and the forensic
693 interview can be clarified. The evaluator should
694 carefully outline his or her reasoning in formulat-
695 ing their opinion regarding the juvenile’s mental
696 state at the time of the offense. If the juvenile does
697 not meet the jurisdictional standard for insanity,
698 the evaluator may also consider whether the doc-
699 trines of “diminished capacity” and/or “guilty but
700 mentally ill” apply to the youth. This chapter out-
701 lines key principles important when assessing a
702 juvenile’s mental state at the time of their alleged
703 offense with practical guidelines on how to pre-
704 pare and conduct this unique evaluation.

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Uncorrected Proof

Author Queries

Chapter No.: 6 0001355102

Queries	Details Required	Author's Response
AU1	First author has been treated as the corresponding author. Please check if appropriate. Also, please check if the affiliation of the corresponding author is appropriate as typeset.	
AU2	The citation "Durham v. United States, 1960" has been changed to "Durham v. United States 1954". Please check if appropriate.	

Uncorrected Proof

Sentencing Juveniles to Life in Prison Without the Opportunity for Parole

Jeffrey J. Shook

In the 1980s and 1990s, almost every state enacted legislation easing the process of treating juveniles as adults (Bishop 2000; Shook 2005; Sickmund 2003; Torbet et al. 1996; Torbet and Szymanski 1998). Although states varied with regard to legislative approaches, these changes generally lowered the minimum age at which a juvenile could be treated as an adult, expanded the offenses for which a juvenile could be treated as an adult, revised transfer criteria to focus on more offense-based characteristics, shifted decision-making power from judges to prosecutors, and added new mechanisms to treat juveniles as adults (Torbet et al. 1996; Torbet and Szymanski 1998; Griffin 2008). Although the effects of these changes are complex, it is clear that they have subjected a broader group of juveniles to criminal court punishments (Bishop 2000; Shook and Sarri 2008). Whereas juvenile justice jurisdiction ends at age 21 in most states, this increased number of juveniles sentenced in the criminal court face the potential of receiving substantially longer sentences, including life without the opportunity for parole.

At the same time that more juveniles are now subject to adult sentences, scholars and advocates have increasingly called into question whether juveniles should receive the same punishments as

adults, particularly long or extreme sentences such as execution or life without the opportunity for parole. To argue that juveniles are less culpable than adults and less deserving of extreme sentences, these scholars and advocates have pointed to research on adolescent development that indicates that juveniles, as compared to adults, are more susceptible to external influences such as peers, are more impulsive and likely to seek thrills, and are more likely to exhibit short-sighted decision making (Steinberg and Scott 2003; Scott and Steinberg 2008). Further, this research suggests that an individual's character is not set in adolescence but that young people have tremendous room for change and growth (Steinberg and Scott 2003; Steinberg and Schwartz 2000; Grisso and Schwartz 2000). Research on adolescent brain development has largely confirmed findings from psychosocial research by showing that areas of the brain that govern planning, impulse control, and thinking ahead are still developing throughout adolescence and into early adulthood (Scott and Steinberg 2008). Thus, research findings from a variety of fields provide significant evidence that young people are different than adults and strongly suggests that developmental immaturity should mitigate against punishing young people the same as adults, particularly with regard to long or extreme sentences.

Over the last several years, the US Supreme Court has taken up two cases testing the limits of punishment for juvenile offenders in the criminal court. The first case, *Roper v. Simmons* (2005), found that the death penalty as applied to juve-

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niles violated the eighth Amendment's ban on cruel and unusual punishments. Written by Justice Anthony Kennedy, the Court's decision was based, in large part, on the diminished culpability of juveniles construed from findings from psychosocial and neuroscience research identifying developmental differences between juveniles and adults. The second case, *Graham v. Florida* (2010), found that the sentence of life without the opportunity for parole as applied to a juvenile convicted of a non-homicide offense violated the eighth Amendment's ban on cruel and unusual punishment. Also written by Justice Kennedy, the *Graham* decision confirmed the findings regarding the reduced culpability of juveniles and noted that since *Roper* "developments in psychology and brain science continue to show fundamental differences between juvenile and adult minds" (slip opinion, p. 17).

Despite the growing body of scientific findings regarding differences between juveniles and adults, and the Supreme Court's acceptance of these findings as evidence of the diminished culpability of juvenile offenders, sentencing policy and practice in most states does not reflect the idea that juveniles should be treated differently than adults when they are transferred to the criminal court. This is particularly striking when considering life sentences without the opportunity for parole (LWOP). These sentences, absent a pardon or commutation, relegate an individual to a life behind bars for an act committed as a juvenile and deny any opportunity to show that he or she has reformed. It is even more striking when considering that in many states, the sentence of life without parole is mandatory for crimes of murder, thereby denying any opportunity to provide mitigating arguments such as the developmental immaturity of an offender. In addition, many states employ transfer schemes that are automatic, or effectively automatic, further limiting the degree that developmental immaturity and other characteristics are considered as mitigating factors.

This chapter reviews the legal and policy landscape regarding LWOP sentences for juvenile offenders. A primary goal is to demonstrate that despite a growing body of evidence showing differences between juvenile and adults, opportunities

to consider the developmental immaturity of a young offender in the transfer and sentencing process are limited. Thus, many juveniles who receive sentences of life without the opportunity for parole do so with little consideration of mitigating factors such as developmental immaturity. The first part of the chapter presents a brief overview of the context of LWOP for juvenile offenders. The second part moves to an examination of waiver and sentencing schemes in order to identify when and how arguments regarding developmental immaturity enter into the processes through which juveniles are waived and sentenced to life without the opportunity for parole, focusing on how the lack or limitation of discretion constrains considerations of youthfulness. The third part considers these transfer and sentencing schemes in light of the *Roper* and *Graham* decisions. The chapter concludes with options for policy reform that incorporate the central holdings of *Roper* and *Graham* by acknowledging differences between juveniles and adults and the reality that many young offenders are likely to change.

Life Without the Opportunity for Parole for Juvenile Offenders

Currently, the USA is the only country that sentences juveniles to life without the opportunity for parole (JLWOP) and the majority of states (43) allow this sentence for juveniles (de la Vega and Leighton 2008; Human Rights Watch 2008).¹ Unfortunately, the exact number of

¹According to Human Rights Watch (2008), the 43 states that allow juveniles to be sentenced to life without the possibility for parole include the following: Alabama, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. The degree that the sentence is applied varies substantially across these states.

147 individuals serving life without the opportunity
 148 for parole sentences for a crime committed
 149 under the age of 18 is not fully known.² At
 150 present, advocates contend that more than 2,500
 151 individuals in the USA are serving LWOP for
 152 offenses committed as juveniles (Human Rights
 153 Watch 2008) including at least 73 who were
 154 under the age of 15 years old at the time of the
 155 offense (Equal Justice Initiative 2007).³
 156 Although the vast majority of juveniles sentenced
 157 to LWOP were convicted of murder, at
 158 least 129 juveniles were sentenced to LWOP
 159 for non-homicide offenses.⁴ Further, estimates
 160 suggest that approximately one-third of all
 161 murder offenders are serving JLWOP for felony
 162 murder and that in many cases there was an
 163 adult codefendant involved (Human Rights

Watch 2008).⁵ While in-depth information on
 the characteristics of many of these youth is not
 available, it is estimated that a substantial
 percentage of these youth did not have prior
 contact with the juvenile justice system and
 that many of these youth faced substantial dis-
 advantages growing up (Human Rights Watch
 2005).

Despite the fact that JLWOP is allowed in the
 majority of states, there has been some move-
 ment away from this practice in recent years as
 both Colorado and Texas have enacted legisla-
 tion abolishing JLWOP.⁶ There is also a lot of
 variation in the application of the sentence
 across states, as approximately two-thirds of all
 juveniles serving LWOP are estimated to come
 from five states—Pennsylvania, Michigan,
 Florida, California, and Louisiana (Human
 Rights Watch 2008). A fairly common attribute
 among the 43 states that do allow LWOP sen-
 tences for juveniles, however, is that the sen-
 tence is mandatory for at least one offense (most
 often first degree murder) in 25 of these states
 including four of the five states with the largest
 number of individuals serving JLWOP (Human

² Whether an individual is considered to be serving LWOP for a crime committed as a juvenile is typically defined based on the age of the individual at the time of the offense. State laws differ based on the age of juvenile court jurisdiction. Until recently, 37 states and the District of Columbia ended juvenile court jurisdiction at age 18, 10 ended juvenile court jurisdiction at age 17, and 3 ended juvenile court jurisdiction at age 16. Connecticut, however, recently raised its age of juvenile court jurisdiction to age 18 and efforts are underway in other states to also raise the age. Despite these differences across states, the definition of JLWOP typically includes everyone who was under the age of 18 years old at the time of the offense.

³ The findings of the Human Rights Watch report have been challenged in a number of ways. For example, The Sentencing Project released a report on LWOP in 2009 that identified considerably fewer juvenile LWOP cases than reported by HRW (1,755). The Sentencing Project has now identified approximately 2,400 cases (personal communication), a figure much closer to that reported by HRW. While it is beyond the scope of this chapter to determine the total number of juvenile LWOP cases, I have collected data on the number of such individuals in Pennsylvania and have found that there are at least 450 individuals serving LWOP for crimes committed as juveniles. These numbers are more consistent with those reported in the HRW report (444) than The Sentencing Project report (345).

⁴ This number was a subject of disagreement during the oral arguments in *Graham*, but in the decision Justice Kennedy affirmed that there are at least 129 juveniles serving LWOP for a non-homicide offense. All of these individuals will now be resentenced following the decision.

⁵ Although the specific number of juveniles serving LWOP for felony murder is not known, my findings from Pennsylvania are consistent with this estimate as more than one-third of all juvenile LWOP cases in Pennsylvania are serving their sentence for felony murder. Unlike First Degree Murder, a conviction for Felony Murder does not require that an individual committed or conspired to commit the act. A charge of Felony Murder requires that an individual be part of an underlying felony from or during which a murder occurred. In some cases, murders have occurred days after the juvenile ended his or her participation in the felony but the youth ended up being sentenced to life without the opportunity for parole for the murder under the felony murder statute.

⁶ Colo. Rev. Stat. Sec. 17–22.5-104(IV) (2009); Tex. Penal Code Ann. Sec. 12.31 (2010). Two other states also recently limited the sentence. Kansas eliminated the death penalty in 2004 and although the option of life without the possibility of parole was created for adults, it was explicitly precluded for juveniles (K.S.A. Sec. 21–4622 (2009)). Montana enacted legislation that prohibited mandatory sentences and limits on parole eligibility to individuals under the age of 18 (Mont. Code Ann. Sec. 46-18-222 (1) (2010)).

189 Rights Watch 2008, 2009).⁷ The mandatory
 190 nature of these sentences means that a judge can-
 191 not consider mitigating characteristics such as
 192 the developmental immaturity of an offender,
 193 the prior offending and juvenile justice system
 194 history of the offender, the mental health and sub-
 195 stance abuse histories of the offender, or the
 196 experiences of the offender while growing up,
 197 including prior instances of trauma such as abuse
 198 and neglect. Further, they reject the idea that an
 199 adolescent’s character is malleable and that young
 200 people change considerably across the life course.
 201 Instead, the sentence is automatic following con-
 202 viction for the offense attached to the mandatory
 203 sentence. Among the 25 states that have manda-
 204 tory life without parole sentences, in ten states
 205 the sentence is also mandatory for felony murder.⁸
 206 As noted previously, this means that many juve-
 207 niles sentenced to life without the opportunity for
 208 parole did not commit or intend to commit the
 209 murder but judges are unable to consider this fact
 210 in the sentencing process.

211 **Transfer and Sentencing Schemes**

212 Given the lack of discretion in LWOP sentences
 213 in many states, it is important to consider how
 214 juvenile offenders get to the criminal court.
 215 Despite the fact that many of the juveniles that
 216 receive LWOP sentences do so under mandatory
 217 sentencing schemes, there are points in the deci-

218 sion-making process, prior to sentencing, where
 219 characteristics of the offender can or will be
 220 considered. Primarily, this consideration comes
 221 during the decision to transfer or waive a juvenile
 222 to the criminal court. There are three main mech-
 223 anisms through which transfer occurs. The first—
 224 judicial discretion—typically involves a hearing,
 225 upon the motion of a prosecutor, in which a judge
 226 decides whether to transfer a juvenile based on
 227 statutorily enumerated criteria. In most cases, the
 228 presumption is upon the prosecutor to show that
 229 the youth is not amenable to treatment in the
 230 juvenile justice system and should be transferred
 231 to the criminal justice court. There are several
 232 variations of judicial discretion—mandatory or
 233 presumptive judicial discretion—that place the
 234 presumption upon the youth to show that he or
 235 she should remain in the juvenile court or require
 236 transfer based on the documentation of specific
 237 aspects of the offense and offender.

238 The second mechanism through which juve-
 239 niles are transferred to the criminal court is what
 240 is referred to as statutory exclusion. Juvenile
 241 codes grant jurisdiction to the juvenile court of
 242 all cases under a certain age, typically all indi-
 243 viduals under the age of 18 years old. Statutory
 244 exclusion mechanisms, however, exclude certain
 245 youth from the jurisdiction of the juvenile court
 246 based on specific characteristics. What this
 247 means is that jurisdiction over the case vests in
 248 the criminal court once these characteristics are
 249 established. Typically, all this involves is the
 250 decision to charge for an excluded offense and
 251 confirmation of age. Some of these mechanisms
 252 exclude all youth charged with a specific offense
 253 from juvenile court jurisdiction. For example, all
 254 individuals in Pennsylvania charged with murder
 255 are excluded from juvenile court jurisdiction,
 256 regardless of age. Other statutory exclusion
 257 mechanisms exclude youth based on a combina-
 258 tion of age and offense—individuals who are 16
 259 and older and are charged with murder in Iowa
 260 are excluded from the juvenile court’s jurisdic-
 261 tion. Other states include additional aspects of
 262 the offense—commission with a “deadly”
 263 weapon—in addition to age and offense charac-
 264 teristics for certain offenses listed in the statutory
 265 exclusion provision. Thus, there is a lot of varia-
 266 tion in statutory exclusion mechanisms across

⁷According to Human Rights Watch (2008), the 25 states that have mandatory LWOP for juveniles include the following: Alabama, Arkansas, Connecticut, Delaware, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, and Virginia. The mandatory sentencing in these provisions differ regarding what specific offense is subject to mandatory LWOP. In eight of these states, LWOP is limited to more limited situations such as when special circumstances or aggravating circumstances exist, or when the victim is a police officer or under a certain age. Those states include Connecticut, Hawaii, Idaho, Indiana, Illinois, New Jersey, Ohio, and Virginia.

⁸The ten states where LWOP is mandatory for felony murder include the following: Alabama, Iowa, Louisiana, Massachusetts, Michigan, Nebraska, New Hampshire, North Carolina, Pennsylvania, and South Dakota.

267 states.⁹ At the same time, these provisions share
 268 a common attribute in that they limit consider-
 269 ation of developmental immaturity or other char-
 270 acteristics of the offender that might be mitigating
 271 factors in a transfer decision.

272 The third transfer mechanism is referred to as
 273 prosecutorial discretion. Under prosecutorial dis-
 274 cretion provisions, both the juvenile and criminal
 275 courts have jurisdiction over an individual and it
 276 is up to the prosecutor to decide where to file a
 277 case. Similar to statutory exclusion mechanisms,
 278 prosecutorial discretion is often limited to a sub-
 279 set of cases based on age and offense characteris-
 280 tics. For example, in Michigan prosecutors have
 281 discretion to transfer youth to the criminal court
 282 when they are charged with a list of 18 offenses
 283 and are 14 years old or older at the time of the
 284 offense. States do vary substantially, however, as
 285 some provide prosecutors with discretion over a
 286 larger set of cases. Although these provisions pro-
 287 vide more opportunity for discretion, the decision-
 288 making process does not involve a hearing and
 289 occurs primarily within the prosecutor's office
 290 (Bishop 2004; Shook 2004). Further, existing
 291 research indicates that many prosecutors focus on
 292 a narrow set of characteristics and do not incorpo-
 293 rate other information, such psychological evalu-
 294 ations, into the decision-making process (Bishop
 295 2004; Bishop and Frazier 1991; Bishop et al.
 296 1989; Shook 2004). Thus, many scholars argue
 297 that these mechanisms differ considerably from
 298 judicial discretion provisions given the process
 299 and the role and expertise of the decision maker
 300 (Bishop 2000, 2004; Zimring 2000).

301 Traditionally, states have used judicial discre-
 302 tion mechanisms to transfer juveniles to the crim-
 303 inal court (Tanenhaus 2000; Feld 2000). As states
 304 enacted legislation over the last several decades
 305 easing the process of treating juveniles as adults;
 306 however, a primary area of legislative change
 307 was the adoption or extension of statutory exclu-
 308 sion or prosecutorial discretion provisions
 309 (Bishop 2000; Feld 2000; Torbet et al. 1996;
 310 Torbet and Szymanski 1998). Currently, 29 states

311 employ statutory exclusion provisions and 15
 312 states use prosecutorial discretion, although most
 313 states employ a mix of transfer mechanisms, even
 314 for the same offense (Griffin 2008; Sickmund
 315 2003; Torbet et al. 1996; Torbet and Szymanski
 316 1998).¹⁰ While many states maintain judicial dis-
 317 cretion provisions in addition to statutory exclu-
 318 sion or prosecutorial discretion, in many states
 319 the latter two mechanisms often cover the most
 320 serious offenses (e.g., murder, robbery, rape, seri-
 321 ous assaults). In other states, judges might have
 322 discretion over whether to transfer younger juve-
 323 niles charged with certain serious offenses
 324 whereas statutory exclusion or prosecutorial dis-
 325 cretion is employed for older offenders.
 326 Regardless of the specific ways in which states
 327 employ these waiver provisions, it is evident that
 328 for many serious and violent offenders there is
 329 relatively little consideration of mitigating fac-
 330 tors such as developmental immaturity in the
 331 transfer process (Bishop 2000; Shook 2005).

332 This latter point is important because, as noted
 333 previously, in 25 of the 43 states that allow juve-
 334 niles to receive LWOP sentences it is mandatory
 335 for at least one offense. In these 25 states, all but
 336 7 employ statutory exclusion or prosecutorial
 337 discretion provisions that include the offense of
 338 murder.¹¹ Further, in 9 of these 18 states LWOP is
 339 mandatory for both First Degree Murder and

⁹Statutory exclusion provisions often include a short or long list of offenses, particularly violent and serious offenses. Age or other characteristics included in the provision can also vary by offense. See Feld (2000) for a discussion of these provisions.

¹⁰The 29 states that have statutory exclusion provisions include the following: Alabama, Alaska, Arizona, California, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Montana, Nevada, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Washington, Wisconsin. The 15 states that have prosecutorial discretion provisions include the following: Arizona, Arkansas, Colorado, District of Columbia, Florida, Georgia, Louisiana, Massachusetts, Michigan, Montana, Nebraska, Oklahoma, Vermont, Virginia, and Wyoming. It is also important to note that some states exclude entire age groups from the jurisdiction of the juvenile court by ending jurisdiction at age 15 or 16 (Griffin 2008; Sickmund 2003; Torbet et al. 1996; Torbet and Szymanski 1998).

¹¹The 18 states that have both statutory exclusion or prosecutorial discretion provisions and mandatory LWOP for at least one offense include the following: Alabama, Arkansas, Florida, Idaho, Indiana, Iowa, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, North Carolina, Pennsylvania, South Carolina, South Dakota, and Virginia.

340 Felony Murder.¹² Thus, there is no consideration
 341 of an individual’s role in the offense in these
 342 states. Of the 18 states that have mandatory LWOP
 343 sentences and statutory exclusion or prosecutorial
 344 discretion provisions, ten do employ what are
 345 referred to as reverse waiver or decertification
 346 provisions which provide an opportunity for a
 347 juvenile to petition the court hold a hearing to
 348 determine whether he or she should be treated as
 349 a juvenile. Although these provisions vary across
 350 states, they generally provide a criminal court
 351 judge with the discretion to decide whether the
 352 individual should be treated as a juvenile or an
 353 adult. In most states, the hearing is held before the
 354 case is decided whereas in others it is held after a
 355 juvenile is convicted and involves a determination
 356 of whether the youth should be sentenced as a juve-
 357 nile or adult. What these mechanisms do, at least
 358 theoretically, is to serve as a safety valve within
 359 statutory exclusion or prosecutorial discretion
 360 provisions by providing a judge with the discre-
 361 tion to determine whether an individual should be
 362 treated as a juvenile or an adult.

363 Whether they do serve as a safety valve, how-
 364 ever, is questionable. Unfortunately, there is rela-
 365 tively little research on reverse waiver or
 366 decertification, particularly regarding murder
 367 offenders. One study that examined reverse
 368 waiver and included murder offenders found that
 369 individuals convicted of First and Second Degree
 370 Murder were more likely than other offenders to
 371 receive an adult as opposed to a juvenile sentence
 372 (Burrow 2008a, b). This finding is consistent with

¹²These states include the following: Alabama, Iowa, Louisiana, Massachusetts, Michigan, Nebraska, North Carolina, Pennsylvania, and South Dakota. In New Hampshire, LWOP is mandatory for felony murder but New Hampshire use a judicial discretion transfer provision. Pennsylvania is an example of a state that uses both statutory exclusion and mandatory sentences for felony murder. Under Pennsylvania law, all individuals charged with murder are considered to be adults. If convicted of either First or Second Degree Murder, LWOP is mandatory. First Degree Murder is defined as a criminal homicide committed by an intentional killing (18 Pa. Cons. Stat. Sec. 2502 (a) (1978)). Second Degree Murder is defined as a criminal homicide committed while defendant was engaged as a principal or an accomplice in the perpetration of a felony (18 Pa. Cons. Stat. 2502 (b) (1978)).

other research on transfer decisions. In a study of
 prosecutorial decisions to treat juveniles as
 adults, Shook (2011) found that juveniles charged
 with murder were much more likely than those
 charged with armed robbery or carjacking to be
 treated as adults. Studies of judicial waiver have
 also found that juveniles charged with more seri-
 ous offenses such as murder are also more likely
 to be transferred (Bishop 2000; Bishop and
 Frazier 2000). These studies point to the reality
 that for many youth charged or convicted of
 murder, reverse waiver or decertification provi-
 sions are not likely to serve as a safety valve.

In large part, the findings from reverse waiver
 and judicial discretion studies are consistent with
 the provisions themselves. The criteria in reverse
 waiver provisions often parallel the criteria in
 judicial discretion provisions and generally
 require a court to determine whether a juvenile is
 amenable to treatment in the juvenile court based
 on consideration of a variety of factors. These fac-
 tors include characteristics of the offense such as
 the seriousness of and youth’s involvement in the
 offense, protection of the community from future
 harm, the maturity of a juvenile, the prior history
 of the youth in the juvenile justice system, and
 other aspects of an individual or an individual’s
 history that might shed light on the question of
 amenability to treatment (Dawson 2000; Weatherly
 1990 summarizing criteria in *Kent v. United States*
 1968). One difference between many judicial dis-
 cretion and reverse waiver mechanisms is that
 under reverse waiver provisions the burden shifts
 to the youth to show that he or she should be
 treated as a juvenile. In most instances, the youth
 must establish the probability of rehabilitation
 beyond a preponderance of the evidence. This is
 particularly difficult in the case of serious offenses
 such as murder, especially given that juvenile
 court jurisdiction ends in most states at or prior to
 age 21. The question being asked in reverse waiver
 or decertification hearings, then, is often much
 different than whether an individual should be
 given an opportunity, at some future point, to
 demonstrate that he or she has been rehabilitated.

This last point is also a consideration under tra-
 ditional judicial discretion provisions. Regardless
 of which party (defense or prosecution) has the

burden of establishing amenability to treatment, or lack thereof, demonstrating that a juvenile charged with extremely serious offenses such as murder should be retained in the juvenile court is difficult. Although arguments regarding the reduced culpability and potential for change can be made, the limited time that the juvenile court has jurisdiction over these juveniles, especially older juveniles, is a strong argument against retaining them in the juvenile court, as it becomes extremely difficult to assert that such a youth is amenable to treatment. In many respects, this situation speaks to the broader flaw in mandatory LWOP policies for juvenile offenders—the stark choice between release at age 21 or LWOP. Not providing judges with an opportunity to assess mitigating factors nor to afford a sentence that provides a juvenile with a meaningful opportunity for release, at some point, neglects key differences between juveniles and adults and the role that these differences should play in the punishment of young offenders.

Roper and Graham

Providing a detailed analysis of legislative provisions in these states is beyond the scope of this chapter. Further, it is beyond the scope of this chapter to determine the exact number of youth who are transferred to the criminal court through statutory exclusion or prosecutorial discretion provisions and receive a mandatory LWOP sentence. Despite these limitations, it is clear from the previous discussion that many juveniles receive LWOP sentences with little opportunity for judges to consider factors such as the developmental immaturity of a juvenile. It is also evident that in states that provide some room for discretion, through judicial discretion or reverse waiver mechanisms, the question being asked is not necessarily the correct one. Whether a juvenile has the potential for change or is less culpable than an adult is not necessarily the same as asking whether a youth is amenable to treatment in the juvenile justice system, particularly when jurisdiction ends in most states at age 21.

The problem of mandatory sentencing becomes more evident when considered within the frame-

work set out by the Supreme Court in *Roper* and *Graham*. As mentioned previously, both cases considered limits on the punishment of juvenile offenders under the eighth Amendment's cruel and unusual punishment clause. In *Roper*, the court considered whether it was cruel and unusual to execute an individual who had committed an offense prior to the age of 18. In the late 1980s, the Supreme Court decided two cases (*Thompson v. Oklahoma* 1988; *Stanford v. Kentucky* 1989) addressing the death penalty for juveniles. In *Thompson*, the Court held that it was unconstitutional to execute someone who was less than 16 years old at the time of their offense. A year later in *Stanford*, however, the Court held that it was permissible to execute an individual who was 16 or 17 years old at the time of their offense because there was no national consensus that evolving standards of decency were against the punishment. *Roper* also relied on the evolving standards of decency, and found that since *Stanford* five states had abolished the death penalty for juveniles and that 30 of the 50 states did not allow for the execution of juveniles.

Similar to *Thompson*, the majority opinion in *Roper* went beyond the evolving standards of decency standard and applied its own judgment to the question under consideration. In doing so, the Court extended its reasoning from *Thompson* regarding differences in the culpability of juveniles and adults and the potential of young people to change. To make this determination, the Court relied heavily on an article published in 2003 in *The American Psychologist* by Laurence Steinberg and Elizabeth Scott, as well as amicus briefs submitted by the American Psychological Association, the American Medical Association, and other organizations. Based on this research, the decision in *Roper* was based on three differences that distinguish juveniles from adults: (1) "a lack of immaturity and underdeveloped sense of responsibility" that often leads to "impetuous and ill considered actions and decisions" (p. 569), (2) "juveniles are more vulnerable or susceptible to negative influences and outside pressures, including peer pressure" (p. 569), and (3) "the character of a juvenile is not as well formed as an adult" (p. 570).

514 These characteristics led the Court to assert that
 515 a juvenile is not as culpable or blameworthy as an
 516 adult, that they could not with reliability be classi-
 517 fied among the worst offenders, and that no peno-
 518 logical interests—deterrence, retribution,
 519 incapacitation, and rehabilitation—supported the
 520 execution of minors. Based on this assertion, the
 521 Court developed a categorical rule prohibiting the
 522 use of the death penalty for anyone under the age
 523 of 18 at the time of their offense. The adoption of
 524 a categorical rule was based, at least in part, the
 525 Court’s rejection of an individualized approach. In
 526 rejecting this type of approach, on the Court argued
 527 that “differences between juvenile and adult
 528 offenders are too marked and well understood to
 529 risk allowing a youthful person to receive the death
 530 penalty despite insufficient culpability” (*Roper v.*
 531 *Simmons* 2005, p. 573) and expressed concern that
 532 “an unacceptable likelihood exists that the brutal-
 533 ity or cold-blooded nature of any particular crime
 534 would overpower mitigating arguments based on
 535 youth as a matter of course, even where the juve-
 536 nile offender’s objective immaturity, vulnerability,
 537 and lack of true depravity should require a sen-
 538 tence less severe than death” (*Roper v. Simmons*
 539 2005, p. 573). Further, the majority decision stated
 540 that “It is difficult even for expert psychologists to
 541 differentiate between the juvenile offender whose
 542 crime reflects unfortunate yet transient immaturity,
 543 and the rare juvenile offender whose crime reflects
 544 irreparable corruption” (*Roper v. Simmons* 2005,
 545 p. 573). Thus, it was clear that the Court did not
 546 have confidence in the ability of the criminal jus-
 547 tice system to determine who should and should
 548 not receive the death penalty. The Court also turned
 549 to the “stark reality that the USA is the only coun-
 550 try in the world that continues to give official sanc-
 551 tion to the juvenile death penalty” (*Roper v.*
 552 *Simmons* 2005, 575) and the strict prohibition
 553 against the juvenile death penalty in a number of
 554 international treaties and conventions to justify its
 555 decision.

556 In addition to its direct effect of abolishing the
 557 death penalty for juvenile offenders, *Roper* was an
 558 extremely significant decision. Although it was
 559 consistent with numerous Supreme Court deci-
 560 sions that upheld differential treatment of young
 561 people in a variety of settings, *Roper* was the first

562 Supreme Court decision to address limits in the
 563 power of state to punish young offenders since
 564 *Thompson* and *Stanford*. This is important because,
 565 as discussed previously, nearly every state had
 566 enacted legislation easing the process of treating
 567 juveniles as adults over the last several decades,
 568 thereby increasing the potential punishments that
 569 young people can receive. By declaring that juve-
 570 niles are “categorically less culpable than adults,”
 571 the Court called into question sentencing schemes
 572 that treat juveniles the same as adults. While an
 573 important statement, the legal effect of *Roper* was
 574 unknown. Traditionally, the Supreme Court treats
 575 the death penalty differently and the effects of
 576 death penalty decisions often have limited applica-
 577 tion on other sentencing schemes. Thus, it was not
 578 clear whether the rationale and holding of *Roper*
 579 would apply beyond the death penalty.

580 That question, however, was answered in
 581 *Graham v. Florida* (2010). As noted previously,
 582 the issue under consideration in *Graham* was
 583 whether it was cruel and unusual punishment to
 584 sentence a juvenile convicted of a non-homicide
 585 offense to LWOP. Building upon its earlier analy-
 586 sis in *Thompson* and *Roper* that juveniles are less
 587 culpable than adults and are more capable of
 588 change, the Court held that sentencing juveniles
 589 convicted of non-homicide offenses to LWOP
 590 was cruel and unusual punishment. In confirming
 591 the analysis from *Roper*, the majority decision
 592 stated that “No recent data provide reason to
 593 reconsider the Court’s observations in *Roper*
 594 about the nature of juveniles. As petitioner’s
 595 amici point out, developments in psychology and
 596 brain science continue to show fundamental dif-
 597 ferences between juvenile and adult minds. For
 598 example, parts of the brain involved in behavior
 599 control continue mature through late adoles-
 600 cence” (slip opinion, p. 17). Based on the reduced
 601 culpability of juveniles and a long recognition
 602 that those “who do not kill, intend to kill, or fore-
 603 see that life will be taken are less deserving of the
 604 most serious forms of punishment than are mur-
 605 derers,” (slip opinion, p. 18) the Court held that
 606 “It follows that, when compared to an adult
 607 murderer, a juvenile offender who did not kill or
 608 intend to kill has a twice diminished moral culpa-
 609 bility” (slip opinion, p. 18).

610 In addition to its assertion of differences
 611 between juveniles and adults, the Court also con-
 612 sidered penological justifications for sentencing
 613 juveniles to LWOP. Given the severity of the sen-
 614 tence, life in prison without the possibility of
 615 release, the Court considered whether it met the
 616 goals of retribution, deterrence, incapacitation, and
 617 rehabilitation. Based largely on its determination
 618 that juveniles are less culpable than adults and
 619 have more potential for change, the Court found
 620 that “none of the goals of penal sanctions that
 621 have been recognized as legitimate – retribution,
 622 deterrence, incapacitation, and rehabilitation –
 623 provides an adequate justification” (slip opinion,
 624 p. 20). Further, the Court also employed interna-
 625 tional law as a basis to confirm its analysis.
 626 The Court concluded that the USA was the only
 627 country to sentence juveniles to LWOP for non-
 628 homicide offenses. Based on this determination,
 629 the Court stated that it “has treated the laws and
 630 practices of other nations and international agree-
 631 ments as relevant to the Eighth Amendment not
 632 because those norms are binding or controlling
 633 but because the judgment of the world’s nations
 634 that a particular sentencing practice is inconsis-
 635 tent with basic principles of decency demonstrates
 636 that the Court’s rationale has respected reason-
 637 ing to support it” (slip opinion, p. 31).

638 Similar to *Roper*, Justice Kennedy wrote the
 639 majority decision in *Graham* and four other
 640 Justices signed onto his opinion. Unlike *Roper*,
 641 however, another Justice (Chief Justice Roberts)
 642 concurred in the decision in *Graham* but wrote a
 643 separate opinion. While believing that the LWOP
 644 sentence was not proportional in the case of
 645 Terrance Graham, the Chief Justice did not believe
 646 that a categorical rule was warranted. Instead, he
 647 argued that decisions should be made using a
 648 “narrow proportionality” basis where an “offend-
 649 er’s juvenile status” is taken into consideration on
 650 a case by case basis in determining whether the
 651 punishment is proportional to the crime. In mak-
 652 ing this determination, Chief Justice Roberts
 653 argued that “*Roper*’s conclusion that juveniles are
 654 typically less culpable than adults has pertinence
 655 beyond capital cases, and rightly informs the case-
 656 specific inquiry I believe to be appropriate here”
 657 (slip opinion, p. 6). Based on the Chief Justice’s

658 analysis of *Graham*’s case, he concluded that 658
 LWOP was disproportionate. Similar to *Roper*, 659
 however, the Court rejected the individualized 660
 approach and issued a categorical rule that it is 661
 unconstitutional to sentence an individual con- 662
 victed of a non-homicide offense and under the 663
 age of 18 at the time of that offense to life without 664
 the opportunity for parole. It based this decision 665
 on the same rationale in *Roper*—the difficulty in 666
 determining whether a juvenile deserves such an 667
 extreme punishment and the risks inherent in hav- 668
 ing juries or courts make these decisions. The 669
 Court also based its rejection of an individualized 670
 approach on the argument that aspects of youth- 671
 fulness—mistrust, rebelliousness, impulsiveness, 672
 difficulty in weighing long-term consequences— 673
 limited the ability of young people to work effec- 674
 tively with their defense counsel.¹³ 675

676 Legal Effects of *Graham* on LWOP 676

677 Sentences 677

678 As with *Roper*, the direct effects of *Graham* are 678
 unknown outside of the reality that the 129 juve- 679
 nile non-homicide offenders serving LWOP need 680
 to be resentenced. Indeed, numerous questions 681
 about regarding what length of sentence is pro- 682
 portional for these individuals. Outside of the 683
 direct effects of the decision, substantial ques- 684
 tions arise regarding the application of *Graham* 685
 to other juvenile LWOP cases. Although *Graham* 686
 resoundingly confirmed the view under Supreme 687
 Court jurisprudence that juveniles are different 688
 than adults, and, therefore, should be punished 689
 differently, JLWOP is not necessarily unusual. 690
 As discussed previously, estimates indicate 691
 that approximately 2,500 juveniles are serving 692
 LWOP, and, as of 2004. These numbers differ 693
 considerably from what the Court considered in 694
 both *Roper* and *Graham*. Further, although 695

¹³On November 7th, 2011 the Supreme Court decided to hear two cases involving JLWOP. The cases are from Alabama and Arkansas and the questions that the Court will consider involve age, mandatory sentencing schemes, and felony murder. Oral arguments are set for March 20th, 2012.

696 some states are moving away from LWOP for
697 juveniles, a large majority of states still allow for
698 the sentence and many do still apply it in
699 practice.

700 Yet, there are a number of ways that Graham
701 could apply to JLWOP. One question that will be
702 considered legally is whether *Graham* applies to
703 individuals serving LWOP for felony murder. As
704 discussed previously, the majority decision stated
705 that a juvenile who “who did not kill or intend to
706 kill” had a “twice diminished moral culpability”
707 as compared to an adult. A conviction for felony
708 murder does not require that an individual killed
709 or intended to kill, only that the individual was
710 part of an underlying felony that resulted in a
711 killing. Thus, there a reasonable argument that
712 *Graham* applies to felony murder as well as other
713 non-homicide cases. Further, the question of
714 whether *Graham* is pertinent with regard to the
715 issue of mandatory LWOP sentences for juve-
716 niles is quite relevant. Mandatory sentences reject
717 the judgment of both *Roper* and *Graham* that
718 juveniles are different than adults because they
719 involve no consideration of aspects of develop-
720 mental immaturity or other factors that Court
721 found to necessitate that juveniles be treated dif-
722 ferently than adults with regard to punishments.
723 This question is even more salient under auto-
724 matic transfer schemes where there is also little
725 or no consideration of these factors. While there
726 are potential difficulties in advancing these argu-
727 ments, *Graham* has opened up avenues to chal-
728 lenge extreme punishments for young offenders.

729 Conclusion

730 Individuals sentenced to LWOP for crimes com-
731 mitted as juveniles are obviously convicted for
732 very serious offenses and the question of how
733 best to punish them has been around for a long
734 time. The *Roper* and *Graham* decisions are quite
735 instructive in this matter because they unequivocally
736 establish that young people are different
737 than adults and that denying their potential to
738 change through long or extreme sentences such
739 as LWOP is wrong. Yet, it is clear that this idea
740 has not been implemented in any systematic way

741 in criminal justice policy and practice. In fact,
742 legislative changes over the last several decades
743 have increased the number of juveniles subject to
744 adult punishments. Because state legislatures
745 have the primary authority to set these punish-
746 ments, absent a court decision striking down long
747 or extreme sentences for juveniles, it is up to leg-
748 islators to determine the appropriate level of pun-
749 ishment for young offenders.

750 When considering JLWOP or other extreme
751 sentences, *Roper* and *Graham* present several
752 policy options. One is similar to the framework
753 articulated by Chief Justice Roberts—
754 individualized decisions that account for consid-
755 eration of aspects of youthfulness. While this
756 approach would reduce some of the problems
757 posed by mandatory sentencing schemes, such as
758 no consideration of youthfulness, it also raises
759 many of the problems discussed previously with
760 regard to the ability of courts and juries to appro-
761 priately assess the diminished culpability of juve-
762 nile offenders and their potential for change. This
763 latter point is especially important because it
764 would require the court to determine the potential
765 or probability of rehabilitation when handing
766 down or assessing the sentence as opposed to at a
767 future point after an individual has had a period of
768 time to demonstrate that he or she has changed.

769 A second option, then, is to sentence a youth
770 to a period of time after which he or she has an
771 opportunity to demonstrate that he or she should
772 be released. This option is preferable, in large
773 part, because it does not deny young people the
774 opportunity to show that they have changed and
775 provides an opportunity to assess this change at a
776 future point instead of requiring decision makers
777 to predict the likelihood of change at the time of
778 sentence. Obviously, the period of time that a
779 youth must serve prior to parole eligibility is an
780 issue that would stoke much controversy, as
781 would the process of providing a “meaningful
782 opportunity for release” as necessitated in
783 *Graham*. There is, however, a growing body of
784 knowledge from fields like developmental psy-
785 chology, adolescent neuroscience, and criminol-
786 ogy that can contribute to this debate as states
787 increasingly consider the appropriate amount of
788 punishment for young offenders.

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Transfer to Adult Court: Enhancing Clinical Forensic Evaluations and Informing Policy

8

Debra R. Chen and Randall T. Salekin

Transfer to adult court is a complex issue that has not yet received sufficient research attention. Transfer raises many salient questions for mental health professionals working within the juvenile justice system such as what risk a youth may pose to the community, how (im)mature the youth's decision making is, as well as the chief question of whether youth can be reformed. These questions encapsulate the essence of all juvenile justice youth evaluations, but are at a heightened level of importance in transfer cases. Despite meager numbers of research articles on this topic, in the past decade, significant strides have made toward better understanding the transfer of juveniles to adult court. For instance, Melton et al. (2007) produced an informative chapter to address the issue of transfer to adult court where they focused on amenability to treatment assessments.

Ewing (1990) wrote one of the first journal articles on transfer evaluations and discussed how psychologists could provide information on the dangerousness, maturity, and amenability constructs that are widely believed to be central to transfer that are now codified in the majority of state statutes. Ewing articulated that mental health professionals are in a unique position to address issues regarding amenability and maturity and that mental health professionals may also be able

to provide information on risk for dangerousness. Kruh and Brodsky (1997) wrote an elegant review of the research on transfer constructs and underscored the need for additional research on these key concepts if mental health professionals were going to be able to, more accurately, inform the courts. Salekin and colleagues started the process of gaining further clarification of the constructs that guide transfer by conducting two prototypical analytic studies (Salekin et al. 2001, 2002). Highlighted in these two scientific investigations were the core items believed to underpin each construct as seen through the lens of juvenile court judges and forensic clinicians involved in transfer evaluations. Finally, Witt (2003) provided a rich example of a transfer evaluation elucidating how a juvenile transfer case could be properly conducted and interpreted.

Prior to the aforementioned set of manuscripts, very little was known about how to conduct transfer evaluations. For the most part, this remains true today. That is, few studies have examined the nature and quality of waiver evaluations as performed in everyday practice (Brannen et al. 2006) and until recently (Grisso 1998; Salekin 2004; Salekin and Grimes 2008), no professional literature offered a coherent or systematic model for performing such evaluations. Grisso (2000) noted that the guidelines for conducting transfer evaluations were so lacking that searches of indexes of leading textbooks on child and adolescent psychiatry and psychology turned up few scholarly chapters on the topic (Grisso 2000; Kalogerakis 1992;

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68 Melton et al. 2007; Schetky and Benedek 2002;
69 Weiner and Hess 2006).

70 The dearth of information and research on
71 best practice in this area runs counter to the
72 notion that clinicians have been conducting
73 transfer evaluations since the inception of the
74 juvenile courts (Melton et al. 2007). To put the
75 lack of research in perspective, there are numer-
76 ous articles and books available that describe,
77 evaluate, and critique other types of forensic
78 evaluations of adult defendants spanning from
79 articles on criminal responsibility, competence
80 to stand trial, risk for violence, as well as cus-
81 tody evaluations and evaluations of abuse and
82 neglect. Yet, little has been conducted on trans-
83 fer evaluations. Moreover, there is little known
84 about the training of individuals who conduct
85 transfer evaluations (Grisso 2000; Salekin and
86 Grimes 2008). Because we are familiar with tra-
87 ditional models for training in psychology, it is
88 likely that clinicians currently conducting these
89 evaluations have requisite education in some
90 areas of relevance (forensic psychology) but per-
91 haps not other areas (e.g., clinical child and
92 developmental psychology).

93 Taken together, Grisso (2000) has noted that
94 clinicians conducting transfer evaluations may
95 only be partially equipped for the task, have a
96 miniscule literature base from which to work,
97 and have few formal experts to whom they can
98 turn to obtain guidance. Moreover, the constructs
99 forensic clinicians are evaluating are often ill-
100 defined or not well understood (see Salekin et al.
101 2002). Seen from this perspective, and given the
102 large volume of transfer evaluations in most
103 courts and the importance of psychological infor-
104 mation to these decisions, the lack of information
105 in the literature about any aspect of the evaluation
106 in transfer cases is concerning and signals the
107 need for further research and theory on transfer
108 evaluations. Fortunately, progress is being made
109 in this area and an expanding research base is
110 available.

111 The goals of the present chapter are fourfold.
112 First, we briefly discuss the juvenile justice sys-
113 tem, fluctuations in violent crime, and the intro-
114 duction of additional mechanisms for transfer.
115 Second, we discuss the criteria for transfer to

adult court. Descriptions of criteria established 116
by the US Supreme Court, by individual states, 117
and by researchers and clinicians are provided. 118
Third, a goal of the present chapter is to provide 119
clinicians with current knowledge on how they 120
can aim for an assessment that can accurately 121
inform the courts about youth facing transfer. 122
Transfer decisions are legal ones and we do not 123
advocate offering ultimate legal opinions on 124
whether or not youth should be transferred. We 125
will provide guidelines for how clinicians can 126
avoid bias in their reporting of information so as 127
to avoid being harmful to adolescents and to be 128
able to offer recommendations for how the youth 129
can change. A fourth goal of the chapter is to 130
examine how the clinical evaluation of youth 131
might eventually help us shape policy for youth. 132
This goal is centered on how the juvenile justice 133
system could become even more developmen- 134
tally sensitive without ignoring the protection of 135
society. This portion of the chapter will discuss 136
the ramifications of transferring youthful offend- 137
ers to criminal court, including rates of recidi- 138
vism and the social life of these individuals in 139
prisons. 140

141 History of the Juvenile Court, Trends 142 in Violence, and Legislative Change

Juvenile courts were created in the USA in the 143
1890s to address the popular belief that children 144
and adolescents are developmentally different 145
than adults and therefore should be processed in 146
developmentally sensitive courts. However, in 147
the first quarter of the twentieth century, critics of 148
the juvenile justice movement suggested that the 149
juvenile court system was not appropriately puni- 150
tive toward serious younger criminals or that it 151
did not appropriately control crime, especially 152
for those who were violent and over the age of 153
16 years. Accordingly, by the mid-twentieth cen- 154
tury, juvenile laws were revised to include provi- 155
sions for the transfer of youthful offenders to 156
criminal court (Tanenhaus 2000). These revisions 157
were meant to serve as a safety valve to remove 158
severe juvenile offenders from the less severe 159

160 youthful offenders. In the late 1980s to late 1990s,
 161 there was a significant rise of violent youthful
 162 crime, with an increase of 70% of the number of
 163 youthful offenders arrested for violent offenses
 164 during that same decade (Jordan and Myers
 165 2007). Consequently, there was an increased
 166 public perception of the dangerousness of youth-
 167 ful offenders and society demanded greater crime
 168 control and harsher treatment of violent young
 169 offenders. In reaction, the juvenile justice system
 170 became more focused on crime control models
 171 with various states adding additional provisions
 172 for the transfer of offenders to criminal court
 173 (Woolard et al. 2005; Zimring 1998). These
 174 changes are reflected in the significant increase in
 175 the number of youthful offenders held in prisons
 176 from 1,600 in 1988 to 8,000 in 1998 (Austin et al.
 177 2000). As of mid-2008, approximately 3,500
 178 youthful offenders¹ were being held as adults in
 179 local jails and 6,400 youthful offenders were incar-
 180 cated in state prisons (West and Sabol 2009).

181 Despite ebbs and flows in the rate of violent
 182 crime in the US society and the varying rate of youth
 183 being transferred to adult court, the surges in vio-
 184 lence over past decades have left us with a number
 185 of mechanisms for transferring juveniles to adult
 186 court. Currently, every state allows for the transfer
 187 of youthful offenders to adult court (Redding 2010).
 188 Recent estimates indicate that as many as 200,000
 189 youthful offenders are being processed as adults on
 190 a yearly basis (Woolard et al. 2005). However, of
 191 that sum, approximately 8–10,000 of these offend-
 192 ers are processed by judicial waiver (Adams and
 193 Addie 2010), suggesting that the majority of these
 194 offenders are transferred by other mechanisms.

195 Mechanisms for Transfer 196 to (or Back from) Adult Court

197 There are currently four different mechanisms by
 198 which youthful offenders can be processed in
 199 adult court (summarized in Table 8.1). The first

200 mechanism is judicial waiver whereby a judge
 201 determines after a hearing if the offender should
 202 be transferred (this procedure is currently allowed
 203 in 45 states, Snyder and Sickmund 2006). The
 204 second mechanism is statutory exclusion which
 205 indicates that the state's laws allow for the auto-
 206 matic transfer of offenders of a certain age who
 207 performed a specific crime (e.g., a 16-year-old
 208 who committed first-degree murder) (currently
 209 allowed in 29 states). The third mechanism is
 210 prosecutorial discretion wherein prosecutors have
 211 the right to prosecute a case in either juvenile or
 212 criminal court because both courts can claim
 213 jurisdiction for that case (currently allowed in 14
 214 states). The minimum offender age range for
 215 transfer by judicial waiver, statutory exclusion,
 216 and prosecutorial discretion across the 50 states
 217 range from "no minimum" to 17 years, "no mini-
 218 mum" to 16 years, and "no minimum" to 17 years,
 219 respectively.

220 Depending on the state, the minimum age can
 221 depend on the nature of the crime, with laws
 222 allowing younger offenders (e.g., 12 years old) to
 223 be transferred if they are accused of more violent
 224 felonies against persons (e.g., murder) (see
 225 Snyder and Sickmund 2006). In general, there
 226 are several criteria which determine whether an
 227 offender will be transferred (a majority of which
 228 will be discussed later in this chapter); however,
 229 primary criteria include the offender's age and
 230 the severity of the offense. As demonstrated by
 231 Table 8.2, the minimum age at which an offender
 232 can be transferred is highly dependent upon the
 233 offense (e.g., if the crime was person, property, or
 234 drug related). The fourth mechanism by which
 235 juvenile offenders can be transferred to adult
 236 court is blended sentencing statutes, or extended
 237 jurisdiction statutes, which provide for a combi-
 238 nation of juvenile and adult components. The
 239 adult components of these sentences are usually
 240 enforced only if the offender violates the juve-
 241 nile component of their sentence or if they com-
 242 mit a new crime (Fagan 2008). Twenty-five
 243 states also provide for the reverse waiver, or
 244 decertification, of young offenders from adult to
 245 juvenile court. In these situations, the judge in
 246 the criminal court determines after a hearing that
 247 it is more appropriate to prosecute the case in

¹ For the purposes of this chapter, the term youthful offenders will be used interchangeably with the term juvenile offenders and refers to offenders aged 17 years and younger.

t1.1 **Table 8.1** Definitions of transfer mechanisms and the number of states in which they are currently
t1.2 allowed

t1.3	Transfer mechanism	Definition	No. of states
t1.4	Judicial waiver	Judge waives the offender after a hearing	45
t1.5	Statutory exclusion	Automatic transfer due to state law	29
t1.6	Prosecutorial discretion	Prosecutor chooses to charge an offender as an adult	15
t1.7	Blended sentencing	Juvenile and adult components to the sentence	18

t2.1 **Table 8.2** Minimum age criteria for certain offenses by state (Griffin 2008)

t2.2		Judicial waiver		Capital	Certain	Certain	Certain	Certain
t2.3	Judicial	for any criminal	Certain	crimes or	person	property	drug	weapon
t2.4	waiver	offense	felonies	murder	offenses	offenses	offenses	offenses
t2.5	State							
t2.5	Alabama	14	14	16	16		16	
t2.6	Alaska	NS	NS			16	16	
t2.7	Arizona	NS		14	15			
t2.8	Arkansas	14		14	14			14
t2.9	California	14	16		14	14	14	
t2.10	Colorado	12		12	12			
t2.11	Connecticut	14		14	14			
t2.12	Delaware	NS	NS	15	NS	16	16	
t2.13	D.C.	NS	16	15	15	15		NS
t2.14	Florida	14	14					
t2.15	Georgia	13	15		13	13	15	
t2.16	Hawaii	NS		14	NS			
t2.17	Idaho	NS	14	NS	NS	NS	NS	
t2.18	Illinois	13	13	15	13	15		15
t2.19	Indiana	NS	14	14	10		16	
t2.20	Iowa	14	14					
t2.21	Kansas	10	10					
t2.22	Kentucky	14		14				
t2.23	Louisiana	14			14	14	15	15
t2.24	Maine	NS		NS	NS			
t2.25	Maryland	NS	15	NS				
t2.26	Massachusetts				14			
t2.27	Michigan	14		14	14	14	14	14
t2.28	Minnesota	14		14				
t2.29	Mississippi	13	13	13	13			
t2.30	Missouri	12		12				
t2.31	Montana			12	12	16	16	16
t2.32	Nebraska			NS				
t2.33	Nevada	14	14	14	NS	14		
t2.34	New Hampshire	13		15	13		15	
t2.35	New Jersey	14	14	14	14	14	14	14
t2.36	New Mexico			15				
t2.37	New York			13	13	14		14
t2.38	North Carolina	13		13	13			
t2.39	North Dakota	14	16	14	14		14	
t2.40	Ohio	14		14	14	16	16	

(continued)

Table 8.2 (continued)

	State	Judicial waiver	Judicial waiver for any criminal offense	Certain felonies	Capital crimes or murder	Certain person offenses	Certain property offenses	Certain drug offenses	Certain weapon offenses
t2.42	Oklahoma	NS		NS	15	15	15	16	15
t2.43	Oregon	NS		15	NS	NS	15		
t2.44	Pennsylvania	14		14	NS	14	14		
t2.45	Rhode Island	NS	NS	NS	17	17			
t2.46	South Carolina	NS	16	14	NS	NS		14	14
t2.47	South Dakota	NS		NS					
t2.48	Tennessee	NS	16		NS	NS			
t2.49	Texas	14		14	14			14	
t2.50	Utah	14		14	16	16	16		16
t2.51	Vermont	10			10	10	10		
t2.52	Virginia	14		14	14	14			
t2.53	Washington	NS	NS						
t2.54	West Virginia	NS		NS	NS	NS	NS	NS	
t2.55	Wisconsin	14	15	14	10	NS	14	14	
t2.56	Wyoming	13	13						

t2.57 Note: Unless labeled as being specific to judicial waiver, the minimum ages provided apply to any transfer mechanism,
t2.58 with the exception of blended sentencing. Blank spaces indicate that the age is currently not addressed by state law and
t2.59 NS none specified

248 juvenile court than the adult court and then the
249 offender will be decertified, or returned, to the
250 juvenile court for processing.

251 **Criteria for Transfer**

252 In the landmark case *Kent v. United States* (1966),
253 the US Supreme Court established guidelines for
254 the judicial waiver of youthful offenders to criminal
255 court. The *Kent* case provided eight criteria
256 upon which transfer determinations should be
257 made. These criteria are: “(1) the seriousness of
258 the alleged offense to the community and whether
259 the protection of the community requires waiver;
260 (2) whether the alleged offense was committed in
261 an aggressive, violent, premeditated, or willful
262 manner; (3) whether the alleged offense was
263 against persons or against property, greater weight
264 being given to offenses against persons especially
265 if personal injury resulted; (4) the prosecutive
266 merit of the complaint, i.e., whether there is evidence
267 upon which a Grand Jury may be expected

to return an indictment; (5) the desirability of
268 trial and disposition of the entire offense in one
269 court when the juvenile’s associates in the alleged
270 offense are adults who will be charged with a
271 crime; (6) the sophistication and maturity of the
272 juvenile as determined by consideration of his
273 home, environmental situation, emotional attitude,
274 and pattern of living; (7) the record and previous
275 history of the juvenile, including previous
276 contacts with juvenile service programs, other
277 law enforcement agencies, juvenile courts and
278 other jurisdictions, prior periods of probation ...
279 or prior commitments to juvenile institutions;
280 and (8) the prospects for adequate protection of
281 the public and the likelihood of reasonable rehabilitation
282 of the juvenile (if he is found to have
283 committed the alleged offense) by the use of
284 procedures, services and facilities currently available
285 to the Juvenile Court” (pp. 566–567).
286

287 Although these *Kent* criteria were established
288 by the Supreme Court, states have been left to
289 decide on their own how these criteria should be
290 incorporated into the transfer process. Heilbrun
291 et al. (1997) reviewed statutes of the 50 states and

292 the District of Columbia and examined the statutes’
 293 provisions regarding the transfer of youthful
 294 offenders to criminal court. The investigators
 295 found that the following criteria were repeatedly
 296 important to the decision to waive an offender:
 297 (1) the offender’s treatment needs, (2) risk assess-
 298 ment, (3) characteristics of the offense, (4) sophis-
 299 tication–maturity, and (5) if the offender had a
 300 mental illness or intellectual disability. There is
 301 support that these five concepts can be narrowed
 302 further to include only three concepts: (1) poten-
 303 tial dangerousness, (2) sophistication–maturity,
 304 and (3) amenability to treatment (Ewing 1990;
 305 Salekin 2002; Salekin and Grimes 2008). In juve-
 306 nile court guidelines written by the National
 307 Council of Juvenile and Family Court Judges
 308 (NCJFCJ 2005) and published by the Office of
 309 Juvenile Justice and Delinquency Prevention
 310 (OJJDP), the NCJFCJ echoed that these three
 311 broad constructs encapsulate the necessary crite-
 312 ria in the decision to retain or waive jurisdiction
 313 of juvenile offenders. Although dangerousness
 314 has always been a factor to consider, maturity
 315 and amenability to treatment have more recently
 316 and increasingly, across the states, explicitly
 317 listed as criteria to consider in transfer decisions.
 318 Despite increasing consensus that maturity and
 319 treatment amenability are key constructs in
 320 understanding juvenile offenders, as mentioned,
 321 the defining features of each of these concepts
 322 have not been well understood. Because of the
 323 centrality of the constructs to transfer, each will
 324 be discussed below.

325 **Risk for Dangerousness**

326 Numerous legal and mental health scholars have
 327 acknowledged that the potential for dangerous-
 328 ness² is an important construct for juvenile court

²The prediction of future dangerousness can be either used to describe broad offending (general offending) or to describe prediction of future violence (Kruh and Brodsky 1997); clinicians would have to specify what estimates they were examining when providing estimates for dangerousness.

judges in their consideration in the decision to 329
 waive a youthful offender to adult court (Brannen 330
 et al. 2006; Heilbrun et al. 1997; NCJFCJ 2005). 331
 Despite its importance, researchers have noted 332
 that it poses challenges. Specifically, three chal- 333
 lenging issues arise with this concept including: 334
 (1) what is dangerousness, (2) how do we 335
 measure it, and, (3) to what extent does it have 336
 predictive merit? In the paragraphs that follow, 337
 we discuss how we define risk for dangerousness 338
 and three pertinent areas of research that may 339
 help clinicians better understand the risk that 340
 youth may pose to the community. These factors 341
 include developmental pathways to offending, 342
 psychopathy-like features, and prototypical 343
 items that are thought to be central to dangerous- 344
 ness. Many of the factors that make youth a 345
 potential risk overlap. 346

With respect to how to define risk for dan- 347
 gerousness, we recognize that there are likely a 348
 variety of ways in which the term can be 349
 defined. We, in this chapter, intentionally leave 350
 the term broad, because narrowing it further 351
 (e.g., risk for violence) may not accurately 352
 reflect the degree to which youth may be dan- 353
 gerous to the community due to their turbulent 354
 lifestyle (e.g., chronic offending, burglaries, and 355
 drug trade). We suggest where possible, clini- 356
 cians provide information regarding general 357
 reoffending rates and more specific rates for 358
 violent reoffending. It may be the risk for vio- 359
 lent reoffenses that is most pertinent to transfer, 360
 but providing both types of information (gen- 361
 eral and violent) offers a more comprehensive 362
 assessment of the youth’s potential disruptive 363
 behavior and consequent potential risk to 364
 themselves and the community. 365

**Developmental Pathways 366
 to Offending 367**

Developmental pathways to antisocial behavior 368
 may serve as one helpful informative source 369
 when examining a youth’s potential for future 370

371 offending. Moffitt's (1993) seminal antisocial
372 taxonomy paper described two trajectories for
373 youths presenting with antisocial behavior: ado-
374 lescence-limited and life-course-persistent anti-
375 social behavior. This model could be very
376 informative to those conducting transfer evalua-
377 tions. As the title implies, there is little continu-
378 ity in the antisocial behavior of individuals on
379 the adolescence-limited trajectory. These indi-
380 viduals demonstrate antisocial behavior during
381 adolescence and tend to have adequate interper-
382 sonal skills, average or better academic grades,
383 and stable mental health status. In comparison,
384 youth who fall in the life-course-persistent pat-
385 tern exhibit antisocial behavior consistently
386 early into and throughout their lives (e.g., bit-
387 ting in pre-school, petty crime during junior
388 high, to felony crimes as adults). These individu-
389 als' antisocial behavior presents itself across
390 situations (e.g., home, work, school) and has
391 been associated with negative life outcomes such
392 as addiction, unpaid debt, violent abuse, unstable
393 relationships, and homelessness (Sampson and
394 Laub 1990).

395 Over the past few decades, research has con-
396 tinued to show that the Moffitt (1993) taxonomy
397 has validity. For instance, Bersani et al. (2009)
398 examined the criminal careers of 4,600 offenders
399 at age 12. These youth were monitored, and it
400 was concluded that the early onset risk group was
401 significantly more likely to be convicted of a vio-
402 lent crime than the low-risk group during adoles-
403 cence. This finding demonstrated the potential
404 predictive power of the Moffitt taxonomy at least
405 in the short term. It should be noted, however,
406 that the two groups' probability of offending were
407 not different by the time the offenders were in
408 their mid-1920s (Bersani et al. 2009). In another
409 study, Piquero et al. (2001) followed the arrest
410 and incarceration rates of 272 18-year-old males
411 until the age of 33 and found that although 90%
412 of them averaged more than one arrest at the age
413 of 18, by the age of 28 years, 28% of the offend-
414 ers averaged more than one arrest (controlling for
415 time spent incarcerated). Lastly, in a discussion
416 of the Pittsburgh Youth Study, Farrington et al.

417 (2008) concluded that when protective and risk 417
418 factors are equally balanced in a group of youth- 418
419 ful offenders, the percentage of offenders who 419
420 went on to violently offend ranged from 3 to 6%. 420
421 However, when the number of risk factors was 421
422 higher than the number of protective factors, the 422
423 percentage of offenders who violently offended 423
424 in the future was dependent upon the difference: 424
425 11% for one risk factor, 33% for two risk factors, 425
426 52% for three risk factors, and 68% for four or 426
427 five risk factors. Loeber's (1990) early supposi- 427
428 tion that there are different developmental trajec- 428
429 tories children and adolescents can take in their 429
430 delinquency/criminal careers is supported by this 430
431 research. 431

432 There are a large number of risk trajectory 432
433 studies in the literature available to a clinician 433
434 considering risk assessment. Different methods 434
435 of analysis, such as growth modeling and latent 435
436 class growth analysis are now providing research- 436
437 ers with a varying number of descriptions of these 437
438 trajectories. These studies examine desisters, 438
439 moderate offenders, and severe offenders. In 439
440 addition, studies are beginning to examine the 440
441 moderators of developmental pathways (see 441
442 Barker et al. 2011). Many of these studies are 442
443 likely to provide a much clearer picture regarding 443
444 the various trajectories of youth when it comes to 444
445 reoffending. In deciding to use crime trajectories 445
446 to inform one's assessment, it is recommended 446
447 that the clinician be aware of the different life- 447
448 routes youth can take and what factors might 448
449 moderate the progression along a pathway. As an 449
450 extensive review of all of the pertinent studies is 450
451 outside the boundaries of this chapter, Table 8.3 451
452 provides just a few examples of the differences 452
453 found in these aforementioned, and other studies, 453
454 and is used here to provide an example of how 454
455 clinicians can cumulate recent data on develop- 455
456 mental pathways to inform their risk assessment. 456
457 These models can be informative to the courts if 457
458 clinicians can summarize this information to pro- 458
459 vide estimates of a youth's risk for reoffending to 459
460 the courts based on perhaps dozens of studies 460
461 with large numbers of youth in similar and dis- 461
462 similar contexts. 462

t3.1 **Table 8.3** Examples of risk trajectory studies

t3.2	t3.3	t3.4	t3.5	t3.6	t3.7	t3.8	t3.9	t3.10	t3.11	t3.12	t3.13	t3.14	t3.15	t3.16	t3.17	t3.18	t3.19	t3.20	t3.21	t3.22	t3.23	t3.24	t3.25
Study	Group/ class	Age of peak offending rate	Approximate rate of offending at peak age	Indication of desisting before/ around age of 20	Labeled as low, moderate, or serious offending	Chronic/ persister																	
Ezell and Cohen 2005	1	15	2.7	No	N/A	N/A																	
	2	15	2.7	Yes	N/A	N/A																	
	3	15	2.5	Yes	N/A	N/A																	
	4	18	1.25	No	N/A	N/A																	
	5	18	1	Yes	N/A	N/A																	
	6	25	2.5	No	N/A	N/A																	
Moffitt 2007	1	Adolescence	N/A	Yes	N/A	No																	
	2	Childhood	N/A	No	Serious	Chronic																	
	3	Childhood	N/A	No	Low	Chronic																	
Livingston et al. 2008	1	15	2.6	N/A	Serious	Chronic																	
	2	14	1	N/A	Moderate	N/A																	
	3	>16	1.25	N/A	Moderate	N/A																	
Kreuter and Muthen 2008	1	16	3	Yes	N/A	N/A																	
	2	18	2	Yes	N/A	N/A																	
	3	18	0.5	No	N/A	N/A																	
	4	16	0.5	Yes	N/A	N/A																	
	5	N/A	0.1	N/A	N/A	N/A																	
	6	N/A	0	N/A	N/A	N/A																	
van der Geest et al. 2009	1	20	1	Yes	Serious, nonviolent	N/A																	
	2	20	1	Yes	Serious, violent	N/A																	
Monahan et al. 2009	1	14	10	No	N/A	Persister																	
	2	14	10	Yes	N/A	N/A																	
	3	16	8	Yes	N/A	Desister																	
	4	N/A	N/A	No	Moderate	N/A																	
	5	14	2	Yes	Low	N/A																	

463 Psychopathic-Like Features

464 The research base for adolescent psychopathy
 465 has grown substantially in the last two decades
 466 (Salekin and Lynam 2010). In fact, there are
 467 now many more studies on this topic as research
 468 grows exponentially each year. This larger
 469 research base has shown that psychopathy in
 470 youth is predictive of later offending and that it
 471 is predictive of violent offending (for a compre-
 472 hensive review see Leistico et al. 2008).
 473 Researchers can look to meta-analytic studies in
 474 this area to gain information on the relation
 475 between youth psychopathy and antisocial
 476 behavior (see Leistico et al. 2008; Edens et al.
 477 2001; Forth and Book 2010). Researchers can

also examine individual studies regarding
 specific psychopathy measures not covered in
 meta-analytic studies. For example, psychopa-
 thy has been demonstrated to be a predictor of
 potential dangerousness when using the
 Antisocial Process Screening Device (APSD;
 Frick et al. 2003). Although research has shown
 that psychopathy may serve as part of a clinical
 evaluation for juvenile transfer, we do not sup-
 port the use of the term psychopathy without
 properly up-dating court personnel as to what it
 means in terms of its moderate stability, poten-
 tial treatment amenability and so forth (see
 Salekin and Grimes 2008; see also Andershed
 2010) Although consideration of psychopathy
 and antisocial behaviors as predictors of future
 serious recidivism may provide useful information,

495 it is critical that clinicians be very cautious that
 496 they do not use the term to limit a youth's life
 497 chances. This is because there are limitations as
 498 to what we know about the long-term life out-
 499 comes of youth with psychopathic characteris-
 500 tics (Salekin and Lynam 2010). Fortunately,
 501 research is expanding in this area and in future
 502 decades more resolution on this topic may be
 503 forth coming. At present, the best that can be
 504 expected is short-term prediction.

505 **Prototypical Items**

506 Researchers (e.g., Salekin et al. 2002) have
 507 attempted to better define the concept of future
 508 dangerousness through prototypical and factor
 509 analytic methods. It has been shown that clinical
 510 psychologists, forensic diplomats, and juvenile
 511 justice judges indicated that the following factors
 512 are related to potential dangerousness: (1) par-
 513 ticipating in serious and unprovoked violence;
 514 (2) demonstrating severe antisocial personality
 515 traits; (3) lacking in remorse, guilt or empathy;
 516 (4) having histories including violence against
 517 other persons; and (5) demonstrating a leadership
 518 role in the crime (Salekin et al. 2001; Salekin
 519 et al. 2002).

520 Relatedly, crime components have been inter-
 521 preted by judges to be indicative of the danger-
 522 ousness of an offender (NCJFCJ 2005; Sellers
 523 and Arrigo 2009). Therefore, certain components
 524 of the crime may serve to shed light on the dan-
 525 gerousness issue. There is evidence that elements
 526 of the crime can predict the transfer and decertifi-
 527 cation of youthful offenders (Burrow 2008a, b;
 528 Poulos and Orchowsky 1994). Specifically, the
 529 degree of violence, type of crime committed
 530 (e.g., homicide, robbery, or assault), and presence
 531 of a weapon (especially a firearm) are all signifi-
 532 cantly associated with the likelihood of a juvenile
 533 being transferred to adult court and to remain in
 534 adult court (Burrow 2008a, b; Harris 2008; Jordan
 535 and Myers 2007; Kurlycheck and Johnson
 536 2004; NCJFCJ 2005). Past crime components
 537 can be considered in conjunction with different
 538 criminal trajectories and potentially psychopathic

539 features, as discussed above, and may help in the
 540 development of a broader conceptualization of
 541 the offender's potential dangerousness.

542 There is some evidence of convergence among
 543 the methods mentioned above. Specifically, some
 544 research suggests that the majority of youthful
 545 offenders with psychopathic traits fall on the life-
 546 course-persistent trajectory (Moffitt 1993). The
 547 occurrence of the life-course trajectory in indi-
 548 viduals has a low base rate (Penney and Moretti
 549 2005) but the individuals that make up this
 550 group are thought to account for higher rates of
 551 offending. For example, in her review of the lit-
 552 erature examining the differential association of
 553 life-course-persistent offenders with serious and
 554 violent offending, Moffitt (2007) concluded
 555 that although life-course persistent offenders
 556 accounted for 10% of the offenders in one study,
 557 they accounted for 43% of the group's violent
 558 crime. The psychopathic youth are also more
 559 likely to offend violently which would fit with the
 560 life-course-persistent group analyses. Moreover,
 561 the individual items from prototypic studies are
 562 also likely to overlap with the key items that iden-
 563 tify more chronic offenders in pathway models as
 564 well as psychopathic features further illustrating
 565 this overlap in characteristics for high-risk youth
 566 (see Salekin 2004; Spice et al. 2010).

567 **Sophistication–Maturity**

568 Youthful offenders' level of sophistication and
 569 maturity has also been shown to be an important
 570 consideration for juvenile judges in their deter-
 571 mination to waive an offender (Brannen et al.
 572 2006; NCJFCJ 2005). Possible explanations for
 573 this construct's influence include the evidence
 574 that youthful offenders' sophistication–maturity
 575 can affect their criminal decision making and
 576 the likelihood for them to reoffend in the future
 577 (e.g., their future dangerousness) (Cauffman
 578 and Steinberg 2000; Cruise et al. 2008; Salekin
 579 and Grimes 2008; Spice et al. 2010). In addition,
 580 juveniles' ability to have insight into their posi-
 581 tion, which is a component of sophistication,
 582 can affect their amenability to treatment in a
 583 positive way (Salekin 2002; Salekin et al. 2002;

584 Slobogin 1999). Furthermore, as the percentage
 585 of transferred juveniles who are 15 years of age and
 586 younger increases (this percentage increased
 587 from 7 to 15% from 1985 to 2005) (Adams and Addie
 588 2009), the consideration of the sophistication–
 589 maturity levels of younger offenders may
 590 become increasingly important. For example,
 591 as more 13-, 14-, and 15-year-olds are evalu-
 592 ated for transfer, given their younger age, there
 593 may be an increased demand for consideration
 594 of how their sophistication and maturity levels
 595 may be similar to, or different from, those of
 596 adults.

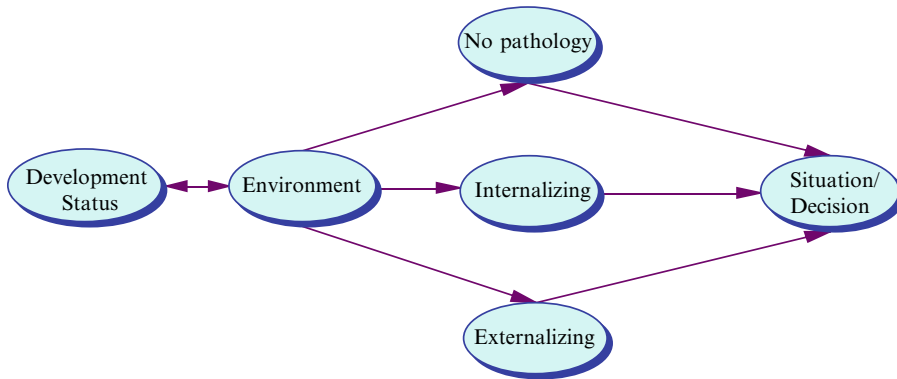
597 Researchers (e.g., Salekin et al. 2002) have been
 598 interested in determining the factors which are
 599 central to sophistication–maturity. Sophistication–
 600 maturity has been established to include the fol-
 601 lowing factors: (1) culpability and the ability to
 602 plan crimes, (2) criminal sophistication, (3) under-
 603 standing behavior norms, and (4) recognizing
 604 alternative plans (Harris 2008; NCJFCJ 2005;
 605 Salekin et al. 2001, 2002). Related to these four
 606 factors, foresight/future orientation and decision-
 607 making skills (cost benefit analysis) have been
 608 also been rated as integral to the sophistication–
 609 maturity construct (Salekin 2002). In addition to
 610 the amount of planning for and participation in the
 611 crime, Harris (2008) found in her survey of judges,
 612 prosecutors, and defense attorneys, that they also
 613 consider the offenders' remorse as indicative of
 614 their sophistication. Remorse is likely to be indica-
 615 tive of guilt and morality. Therefore, it is not sur-
 616 prising that it is also recommended that clinicians
 617 consider moral development in their court evalua-
 618 tions of sophistication–maturity (Salekin and
 619 Grimes 2008). However, this aspect of maturity
 620 overlaps with risk and amenability.

621 Ewing (1990) suggested that cognitive and
 622 emotional maturity should be considered as part
 623 of the sophistication–maturity construct. He
 624 postulated that evaluating offenders' intellectual
 625 abilities not only provided information regard-
 626 ing their general intellectual functioning, but
 627 also their attention and memory, perception,
 628 and speed of processing. He added that achieve-
 629 ment assessment could provide information
 630 regarding hindrances to the development of
 631 their sophistication–maturity. Moreover, the

632 offenders' emotional state and psychosocial
 633 development would also provide insight into their
 634 maturity (Ewing 1990; Harris 2008). Juvenile
 635 court and family court judges add that intellectual
 636 and developmental disabilities would be consid-
 637 ered as part of the sophistication–maturity con-
 638 struct (NCJFCJ 2005). In addition, Grisso et al.
 639 (1988) study also found that independence and
 640 self-reliance and less clinically defined factors,
 641 such as composure and knowledge of street sur-
 642 vival (being "streetwise"), loaded onto the
 643 sophistication–maturity construct.

644 Although sophistication–maturity is often
 645 treated as one construct, arguments have been
 646 made that separate consideration of different
 647 maturity factors is appropriate (Steinberg and
 648 Cauffman 1996; Steinberg et al. 2009). These
 649 models suggest that cognitive maturity, for exam-
 650 ple, might develop faster than social maturity.
 651 Alternately, however, maturity could be develop-
 652 ing at the same rate in individuals across broad
 653 classes of functioning (cognitively, emotionally,
 654 and socially), but the youth's setting may result in
 655 youth prioritizing some aspects of maturity (e.g.,
 656 social), less (see Steinberg et al. 2009). Thus,
 657 while there are various theories on the topic, there
 658 is not much data to support the notion for differ-
 659 ential rates of growth in maturity components
 660 (Fischer et al. 2009).

661 One of the potential problems with the matu-
 662 rity construct is that we do not have a great deal of
 663 data in terms of what it predicts within the juve-
 664 nile offender literature (although see Spice et al.
 665 2010). Fortunately, research is beginning to
 666 emerge on this topic (Cauffman and Steinberg
 667 2000; Salekin and Grimes 2008; Spice et al. 2010;
 668 Steinberg and Cauffman 1996; Steinberg et al.
 669 2009). The literature does provide some insight
 670 into adolescent maturity and delinquent behavior.
 671 For example, some research has shown that 8th,
 672 10th, and 12th graders who are more calm and
 673 responsible, and have better perspective-taking
 674 skills, are less likely to make antisocial decisions
 675 (Cauffman and Steinberg 2000). In addition,
 676 Cruise et al. (2008) have shown that male ado-
 677 lescent offenders with more perspective and
 678 temperance reported lower nonviolent delinquent
 679 behaviors and those with lower temperance lev-



this figure will be printed in b/w

Fig. 8.1 Model for maturity incorporating individual development, external factors, and presence of pathology

680 els reported significantly more violent delinquent
 681 acts. It has also been shown that psychosocial
 682 maturity can predict change in alcohol use, but
 683 not marijuana use, in 1,000 male serious juvenile
 684 offenders (Mauricio et al. 2009).³ Alternately,
 685 Spice et al. (2010) have shown that sophistica-
 686 tion–maturity can also be a risk factor if the matu-
 687 rity is not prosocial in nature. This point is also
 688 articulated by (Steinberg et al. 2009).

689 Despite the complexity of the construct, we
 690 contend that clinicians can provide information
 691 on the maturity of youth which should then help
 692 to inform, in context with other factors, legal
 693 decisions and treatment plans. Salekin and
 694 Grimes (2008) provided a model that captures
 695 multiple factors to be considered in such evalua-
 696 tions (see Fig. 8.1). This model suggests that
 697 clinicians consider the youth’s environment,
 698 developmental status, level of psychopathology
 699 and their predicament to determine their level of
 700 maturity. The maturity construct is so imperative
 701 to the notion of the juvenile justice system that

incorporating risk and amenability into the model
 is also necessary. In addition to considering the
 above model as part of an evaluation, following
 Ewing’s (1990) suggestion that offenders’ intel-
 lectual functioning and achievement levels be
 assessed can also be important. According to
 Ewing (1990), evaluations for transfer to criminal
 court can include the use of tests such as the
 Wechsler Intelligence Scale for Children—
 Fourth Edition (WISC-IV; Wechsler 2003), the
 Stanford–Binet 5 (SB5; Roid 2003), and/or the
 Woodcock–Johnson Test of Achievement, Third
 Edition—Standard Battery (WJ-III; Woodcock
 et al. 2001), all of which are well established and
 widely accepted. Furthermore, Ewing (1990)
 suggested that tests such as the Children’s
 Apperception Test (CAT; Bellak and Bellak
 1982) or the Thematic Apperception Test (TAT;
 Murray 1943) can help explore factors inside, or
 outside of the offenders’ awareness which can
 contribute to their maturity (e.g., internal or
 external locus of control).

³Clinicians may consider referring to a growing line of research examining fMRI research; efforts have been made to demonstrate that brain functioning in adolescents is different from that of adults. However, conclusions in this field often refer to culpability in areas where the science is not adequately designed to address culpability (see Aronson 2007). Therefore, we would argue that that best way for psychologists to assist the courts is to examine developmental maturity in the context of the other variables they believe to be pertinent.

Treatment Amenability

Amenability to treatment is another critical concept in transfer evaluations (NCJFCJ 2005; Salekin et al. 2001; Burrow 2008a, b). Because it is less frequently studied, researchers have used prototypical and factor analytic methods even more so in order to help better define this concept.

731 For instance, Salekin et al. (2001, 2002) found
 732 that similar factors loaded on the amenability to
 733 treatment concept: (1) responsibility and motiva-
 734 tion to change; (2) consideration and tolerance of
 735 others (e.g., able to tolerate frustration, caring
 736 toward others); (3) family cooperation (e.g., sta-
 737 bility of the offender's home); and (4) suscepti-
 738 bility to peer influence, prosocial behavior, and
 739 good court conduct (e.g., good court conduct,
 740 social competence). To help identify items which
 741 compose these four factors, Grisso et al. (1988)
 742 asked judges, referees/hearing officers, prosecut-
 743 ing attorneys, defense attorneys, intake and pro-
 744 bation officers, and mental health professionals
 745 working within juvenile courts across 30 states to
 746 identify items which they believed defined these
 747 concepts. They found the following factors to
 748 have more than 0.50 loading onto the "motivation
 749 to accept intervention" construct: (1) motivation
 750 to change behavior, (2) sense of guilt, (3) respect
 751 for the court, (4) receptiveness to adult assistance,
 752 (5) potential to change with treatment, (6) respect
 753 for authority, (7) insight into own problems, and
 754 (8) acceptance of decisions made by court work-
 755 ers. Their data also indicated that an unsocialized
 756 family and family's caring and resource capabil-
 757 ity loaded onto this construct. These findings
 758 suggest that core items may play a particularly
 759 important role in the decision to waive a juvenile
 760 to adult court. In addition, there is evidence that
 761 the results of previous treatment attempts consti-
 762 tute an important component of amenability of
 763 treatment concept (Howell 1997; NCJFCJ 2005).

764 Importantly, recent studies have shown that
 765 amenability can have a protective effect for ado-
 766 lescent offenders (see Leistico and Salekin 2003).
 767 For instance, Salekin et al. (2010a, b) discovered
 768 that youth high in motivation to change are less
 769 likely to offend three years after they are initially
 770 assessed for their amenability to treatment (i.e.,
 771 motivation to change). Spice et al. (2010) have
 772 shown that amenability is inversely associated
 773 with violent conduct disordered symptoms and is
 774 also negatively associated with transfer to adult
 775 court. These findings suggest that amenability
 776 may be important information to provide court
 777 personnel with as well as the specific statistics for
 778 how protective the variable may be.

779 Considering that one of the *Kent* criteria 779
 780 includes whether the offender can be "reasonably 780
 781 rehabilitated" through the Juvenile Court's cur- 781
 782 rent capabilities and available services (*Kent v.* 782
 783 *United States* 1966), courts determining transfer 783
 784 cases (see, e.g., *P.K.M. v. State* 1989) have 784
 785 stressed the importance of considering only cur- 785
 786 rently available resources in the decision to waive 786
 787 an offender. However, others, like Melton et al. 787
 788 (2007), have suggested that clinician recommen- 788
 789 dations regarding treatment amenability should 789
 790 include not only readily available interventions, 790
 791 but also available interventions that may be more 791
 792 difficult to establish, and a consideration of all 792
 793 treatments that may work, but are not currently 793
 794 accessible. Regardless of the information 794
 795 provided by an evaluation, however, state laws 795
 796 provide for the transfer of a juvenile if there is 796
 797 reason to believe that the juvenile court is unable 797
 798 to rehabilitate an offender (Heilbrun et al. 1997). 798
 799 Therefore, there is reason to believe that recom- 799
 800 mendations unrealistically beyond services avail- 800
 801 able to the juvenile court would be irrelevant to 801
 802 many juvenile court judges' decision to waive an 802
 803 offender (Grisso 2000; NCJFCJ 2005). 803

804 The definition of treatment in this context is 804
 805 also essential to the consideration of offender 805
 806 rehabilitation. Mulvey (1984) suggested that a 806
 807 variety of interventions could fall under the cat- 807
 808 egory of treatment and that statutes imply that 808
 809 there is an assumed general definition of treat- 809
 810 ment. He added that a few states have defined 810
 811 added qualifiers regarding treatment such as 811
 812 "treatment is not limited to the psychotherapy or 812
 813 mental health interventions" in the State of 813
 814 Virginia (p. 201). Grisso (2000) added that states' 814
 815 treatments include probation programs, rehabili- 815
 816 tation facilities, and mental health facilities run 816
 817 not only by the state's facilities but also other 817
 818 states' facilities as well. 818

819 Evaluation of amenability to treatment should 819
 820 include consideration of psychological disorders 820
 821 and the degree to which they are either amenable 821
 822 or resistant to change and greater detail on the 822
 823 disorder itself should be provided (Salekin and 823
 824 Grimes 2008). For example, psychopathy in ado- 824
 825 lescents may be linked with difficult and poten- 825
 826 tially disruptive behavior in treatment settings, 826

827 but there is research to show that progress can
 828 also be made with this group, including reductions
 829 in offending (Caldwell et al. 2006; Salekin
 830 2010; Salekin et al. 2010a, b). However, as mentioned
 831 earlier, specialized treatment may not be
 832 available in all juvenile justice systems. Therefore,
 833 evaluations should carefully consider needed
 834 treatments and whether they are currently or
 835 could be made available to the offender. In addition,
 836 it can be helpful to consider the offenders' motivation
 837 for change and the offenders' families' expectations
 838 of treatment as these factors have been shown to
 839 affect amenability to treatment. There is also some
 840 evidence that the offender's age should be considered,
 841 since developmental research and the courts tend to
 842 find younger offenders to be more amenable to
 843 treatment than their older counterparts (Loving
 844 and Patapis 2007). This does not, however, mean
 845 that strong efforts should not be made to treat
 846 older adolescents. Rather, while acknowledging
 847 that treatment may be difficult, strategies to
 848 facilitate prosocial development and transitions
 849 to young adulthood should be attempted.
 850

851 **Simultaneous Consideration** 852 **and Assessment of all Three Factors**

853 Once mental health professionals know the standard
 854 being evaluated, the criteria that underlie the
 855 standard, and the psychological concepts they
 856 will evaluate as well as the research that accompanies
 857 those constructs, they can proceed to the next
 858 stage of the evaluation which is to comprehensively
 859 assess the youth (Grisso 2000). On beginning the
 860 evaluation, it is key for the forensic expert to allow
 861 adequate time to gather and assess the data
 862 required for this complex undertaking. The first
 863 step is to review the relevant documents, including
 864 police, medical, psychiatric social, and school
 865 reports. A comprehensive developmental history
 866 including neighborhood, school, and home
 867 environment is critical. Contacting court personnel
 868 and teachers is essential. A broad perspective
 869 in gathering the information is important because
 870 context may be at least as relevant as personality
 871 and behavior. The specific nature of

872 the interview should be clearly articulated to the
 873 youth and the youth must be warned that confidentiality
 874 *will not* be preserved. The expectation of the report
 875 to the court and possible court testimony about the
 876 juvenile should be made explicit. Clinicians must be
 877 sensitive to the child comprehension and situation.
 878

879 Once these factors have been carefully dealt with,
 880 the transfer evaluation is likely to center on *Kent*
 881 criteria. Decision makers in the transfer process
 882 (likely to be judges or prosecutors) are likely to
 883 consider all three psychological constructs
 884 simultaneously as well as other factors. Some
 885 attention has been paid to the relative importance
 886 of each of these constructs on the decision to
 887 transfer an offender to adult court. Brannen et al.'s
 888 (2006) survey of juvenile court judges found that
 889 of the three constructs, potential dangerousness
 890 had the greatest impact on juvenile judges' decisions
 891 in transfer cases. Yet, assessment of risk for
 892 dangerousness, is as mentioned, an imprecise
 893 science. Nonetheless, this sentiment has been
 894 echoed in Sellers and Arrigo's (2009) review
 895 of decisions filed in decertification hearings
 896 that rely on dangerousness. In the six hearings
 897 they evaluated, the courts repeatedly acknowledged
 898 that when violent crimes were committed, the
 899 level of violence indicated degree of potential
 900 dangerousness. In addition, the courts' statements
 901 often referred to the necessity of providing for
 902 the protection of society from the dangerous
 903 juvenile offender in comparison to the needs of
 904 the individual. For example, the courts stated
 905 that in *Otis v. State* (2004) that "it could be
 906 inferred from the serious and violent nature
 907 of the offense that the protection of society
 908 demands that Otis be tried as an adult" (p. 607).
 909 In addition, the courts repeatedly confirmed
 910 that they were not required to equally weigh
 911 all factors and that there was no specific
 912 equation to use in arriving at a transfer
 913 conclusion. The authors concluded that often
 914 the dangerousness of the offender was serious
 915 enough to render the other two constructs' evidence
 916 of lesser import to the courts. Therefore, there
 917 is some evidence that the potential dangerousness
 918 factor is more heavily weighted as compared to
 919 the other two in juvenile transfer cases.

t4.1	Table 8.4 Risk sophistication treatment inventory (RSTI)
t4.2	constructs
t4.3	Risk for dangerousness
t4.4	Violent and aggressive tendencies (R-VAT)
t4.5	Planned and extensive criminality (R-PEX)
t4.6	Psychopathic features (R-PPF)
t4.7	Sophistication–maturity
t4.8	Autonomy (S-AUT)
t4.9	Cognitive capacities (S-COG)
t4.10	Emotional maturity (S-EMO)
t4.11	Treatment amenability
t4.12	Psychopathology-degree and type (T-PAT)
t4.13	Responsibility and motivation to change (T-RES)
t4.14	Considerate and tolerant of others (T-CAT)

920 Despite the weighted importance of potential
 921 dangerousness, clinicians are recommended to
 922 consider all three constructs for their evaluations.
 923 Traditionally, these factors have been evaluated
 924 by clinical interview alone. Grisso et al. (1988)
 925 provides a structure for the evaluations that might
 926 be used. This system entails traditional clinical
 927 interviewing. This system could also be coupled
 928 with appropriate psychological measures to aug-
 929 ment the traditional interviewing. With respect to
 930 measurement, the Risk-Sophistication-Treatment
 931 Inventory (RSTI; Salekin 2004) (see Table 8.4) is
 932 one instrument that has been shown to be reliable
 933 and valid and centers on the three constructs that
 934 appear to be salient in transfer cases (Salekin
 935 2004; Spice et al. 2010). The RSTI, through a
 936 semi-structured interview and a clinician rating
 937 form, examines youthful offenders' presenting
 938 problems, family history, relationships with non-
 939 family members, education and employment
 940 history, criminal history, developmental maturity,
 941 treatment history, and perceived level of respon-
 942 sibility for the crime they are accused of commit-
 943 ting. These items capture the items discussed as
 944 central components of the potential risk, sophisti-
 945 cation–maturity, and amenability to treatment
 946 concepts discussed earlier. Clinicians may also
 947 want to consider methods which examine these
 948 three concepts separately, although notably, there
 949 are very few measures to assess maturity or
 950 amenability, and these two constructs are quite
 951 important in juvenile cases.

952 Nonetheless, there are several actuarial and
 953 specialized scales that may also facilitate with the
 954 assessment. With respect to dangerousness assess-
 955 ments, a number of instruments have been designed
 956 to examine the chances of future criminal behavior
 957 (see, e.g., Borum and Verhaagen 2006; Mulvey
 958 and Iselin 2008). If one is interested in measuring
 959 youthful offenders' risk for violence there are sev-
 960 eral measures available including the structural
 961 assessment of violence risk for youth (SAVRY;
 962 Borum et al. 2005), the youth level of service/case
 963 management inventory (YLS/CMI; Hoge 2005),
 964 and, as mentioned, the RSTI (Salekin 2004;
 965 Leistico and Salekin 2003; Salekin et al. 2005;
 966 Spice et al. 2010). The YLS/CMI also assesses
 967 treatment needs, which overlap with the amena-
 968 bility concept. In addition, the SAVRY examines
 969 protective factors, which are also likely linked to
 970 amenability. Although many of these aforemen-
 971 tioned measures do not tap developmental matu-
 972 rity, a key juvenile offender concept.

973 If the evaluation is focused on more severe
 974 conduct disorders, clinicians may choose to use a
 975 measure of conduct disorder symptomatology or
 976 measures of psychopathy for its relevance to
 977 future dangerousness (see Salekin and Lynam
 978 2010; see also Grisso et al. 2005; Murrie et al.
 979 2004). The Psychopathy Checklist: Youth Version
 980 (PCL:YV, Forth et al. 2003) has been studied as a
 981 forerunner in this field (Book et al. 2006; Corrado
 982 et al. 2004; Edens et al. 2001; Gretton et al. 2004).
 983 In addition, it is not uncommon for juvenile jus-
 984 tice systems to administer risk assessment tools
 985 to juvenile offenders upon processing, the results
 986 of which can be incorporated as collateral data
 987 into clinical evaluations (Krysiak and LeCroy
 988 2002; Turner and Fain 2006). It should be noted
 989 that the use of risk assessment in youthful offend-
 990 ers as predictors of future violence is only moder-
 991 ately predictive of later offending (see, e.g.,
 992 Grisso and Appelbaum 1992; Meyers and
 993 Schmidt 2008; Welsh et al. 2008; Schwalbe et al.
 994 2007). It should always be acknowledged that a
 995 percentage of youth, even those at risk, do not
 996 reoffend despite a measure having some predic-
 997 tive capabilities.

998 Considerably less is available in terms of mea-
 999 suring maturity and treatment amenability aside

1000 from the RSTI (Salekin 2004; Spice et al. 2010).
 1001 As mentioned earlier, however, researchers may
 1002 want to augment their assessments with intelli-
 1003 gence and achievement tests as well as tests that
 1004 facilitate maturity and treatment amenability
 1005 questions. Ewing (1990) commented that clini-
 1006 cians may want to augment their assessments
 1007 with a CAT or TAT in that some constructs might
 1008 be better assessed through a youth's performance
 1009 on such a task. Researchers may also want to
 1010 develop future tasks that hone in on maturity
 1011 more directly.

1012 As with any forensic evaluation, the clinical
 1013 interview can be an invaluable tool for evalua-
 1014 tions for juveniles. Judges may request and
 1015 choose to examine this information when consid-
 1016 ering transfer or waiver to adult court. Interviews
 1017 can provide clinicians with flexibility in explor-
 1018 ing offenders' criminal and incarceration history,
 1019 treatment history, academic achievement and
 1020 school attendance, family dynamics and sup-
 1021 ports, peer relationships and influences, and his-
 1022 tory of antisocial behavior, all of which can be
 1023 central to the simultaneous assessment of risk
 1024 (Wiebush et al. 1995) and the assessment of psy-
 1025 chosocial maturity and amenability to treatment
 1026 (Salekin and Grimes 2008). Assessments that
 1027 include structured interviews are likely to glean
 1028 critical information regarding psychopathology.
 1029 Lastly, evaluations for transfer should include a
 1030 review of all relevant records, including police,
 1031 court, school, and medical records, as these docu-
 1032 ments can provide important third-party informa-
 1033 tion which can corroborate test results and
 1034 interview data.

1035 **Informing the Courts**

1036 Transfer evaluations can provide an opportunity
 1037 for clinicians to educate the court regarding the
 1038 importance of the constructs of sophistication–
 1039 maturity and amenability to treatment if the two
 1040 constructs are being underemphasized. As just
 1041 discussed, the courts are often primarily concerned
 1042 with offenders' risk for dangerousness (Brannen
 1043 et al. 2006). We understand and appreciate this

concern—we do not argue against the importance
 of keeping society safe. However, it is essential
 to evaluate an offender's potential risk trajectory
 in tandem with their sophistication, treatment
 needs, and treatment amenability. An emphasis
 of the constructs of sophistication–maturity and
 amenability to treatment can, hopefully, highlight
 a treatment model for the offender instead of a
 protection-from or punitive model. By providing
 a broader picture of youth, courts will be more
 aware of the developing adolescents' need for
 continued growth. In the next section, we offer
 our concluding comments and also raise some
 issues that require further thought if we are to
 continue to work toward a more developmentally
 sensitive model for handling youthful offenders.

Further Considerations and Concluding Remarks

If a new system were to be developed to handle
 youth who currently find themselves facing trans-
 fer, several issues need to be considered. First,
 several arguments could be justifiably made sup-
 porting the transfer of juvenile offenders to adult
 court. For example, there is no doubt that some
 juvenile offenders commit serious and violent
 crimes and that they should be appropriately con-
 tained and/or required to make some repayment to
 society. There are a small percentage of youthful
 offenders who pose a very serious threat to public
 safety (Scott and Steinberg 2008). In addition, it
 seems appropriate that there are situations when
 juvenile systems cannot adequately protect society
 from harm by some violent offenders. Arguments
 can be made that it is better to be more conserva-
 tive toward the incarceration of violent juvenile
 offenders than inappropriately liberal. In addition,
 there is evidence that in terms of specific crimes,
 juvenile transfer does have a specific deterrent
 effect (Winner et al. 1997). Furthermore, it can be
 important to remove violent offenders from the
 juvenile system so that less serious youthful
 offenders will not be negatively influenced by
 them as thus have an opportunity to rehabilitate.

However, there is also concern about thwart-
 ing the healthy development of youth. There is

1089 some research to show inequities in the processing
 1090 and handling of youth who are tried as adults
 1091 (e.g., lengthier times in the system) (Kurlychek
 1092 and Johnson 2004; Rudman et al. 1986; Redding
 1093 2003; Steiner 2009). In addition, the prison sys-
 1094 tem has not yet developed programming which
 1095 can guarantee the appropriate counseling and
 1096 educational interventions for and the safety of the
 1097 youthful offenders for whom they are responsible
 1098 (Austin et al. 2000; Bishop 2000; Torbet et al.
 1099 1996). As well, there are concerns about youthful
 1100 offenders' interaction with adult offenders which
 1101 could have negative impact on their prosocial
 1102 development (Flaherty 1980; Forst et al. 1989).
 1103 Moreover, there are concerns that the transfer of
 1104 juveniles to adult court does not serve as a deter-
 1105 rent for all youth (Bishop et al. 1996; Hahn et al.
 1106 2007; Lanza-Kaduce et al. 1995; Singer and
 1107 McDowall 1988; Steiner and Wright 2006;
 1108 Winner et al. 1997). As Austin et al. (2000) sug-
 1109 gested, our jail and prison systems are still strug-
 1110 gling with creating appropriate programming for
 1111 youthful offenders. Finally, although research
 1112 regarding the assessment of juveniles is sharpen-
 1113 ing, it remains clear that research regarding risk
 1114 assessment and the prediction of dangerousness
 1115 indicates only modest success. As such, we are
 1116 unable to predict with high levels of certainty
 1117 long-term serious and violent recidivism.
 1118 Therefore, one way to affect change is strongly
 1119 suggested that clinicians consider offenders'
 1120 sophistication–maturity and amenability to treat-
 1121 ment to predict long-term future recidivism in
 1122 conjunction with potential dangerousness and not
 1123 weigh only potential dangerousness as the most
 1124 important criteria. This would allow the courts to
 1125 more selectively determine which youth are truly
 1126 mature/immature and/or potentially most likely
 1127 to benefit (not benefit) from treatment.

1128 Moreover, it is recommended that forensic
 1129 evaluations for the transfer of juvenile offenders
 1130 to criminal court include information which
 1131 stresses the short-term accuracy of predictions of
 1132 future risk and the longer periods of assessment
 1133 become part of policy. Such policy is backed by
 1134 research which suggests that risk factors are best
 1135 predictive of recidivism during the offenders' next
 1136 developmental stage and not for the following 20

1137 or 30 years of the offenders' lives (Mulvey 2005).
 1138 Thus, it is recommended that after youthful
 1139 offenders are transferred to adult court, that eval-
 1140 uations for future risk for dangerousness be peri-
 1141 odically performed since there is the possibility
 1142 that the offenders would no longer fall in the
 1143 high-risk category as they might have been when
 1144 they were transferred (or even while they are
 1145 being considered for transfer). There is, of course,
 1146 the possibility that they will continue to be at
 1147 high-risk to violently recidivate. However, there
 1148 also is the possibility that their risk scores may
 1149 decrease from mid to late adolescence, as some
 1150 of the research suggests (Farrington et al. 2008).
 1151 Similar arguments could be made for measures of
 1152 sophistication–maturity and amenability to treat-
 1153 ment: the maturity and treatment amenability of a
 1154 young child or adolescent could be significantly
 1155 different from that of an older adolescent. This
 1156 underscores the importance of multiple assess-
 1157 ments of maturity across time for youth in cor-
 1158 rectional settings.

1159 Currently, there is no ideal situation which
 1160 provides for consideration of developmental
 1161 changes of youthful offenders facing transfer.
 1162 Individual consideration of each youth facing
 1163 transfer may provide an increased opportunity
 1164 for the justice systems to identify the individuals
 1165 who do fall into the small percentage of youthful
 1166 offenders who are violent and a serious danger to
 1167 society. In the alternative, a more developmen-
 1168 tally appropriate option would be to provide
 1169 blended sentences for all violent youthful offend-
 1170 ers, such that they will be evaluated at the begin-
 1171 ning of the juvenile component of their sentence
 1172 and at the end of the juvenile component. Having
 1173 two (or more) assessments of potential risk,
 1174 sophistication–maturity, and treatment amena-
 1175 bility, before and after serving a juvenile
 1176 sentence, may help inform whether imposing the
 1177 adult component of the blended sentence is
 1178 appropriate. For example, if offenders' risk
 1179 levels have lowered since their first assessment,
 1180 when they were first transferred to criminal
 1181 court, these changes can be considered before
 1182 the juvenile offender is potentially sent to prison.
 1183 This option can accommodate not only the sensi-
 1184 tivity required in the consideration of youthful

1185 offenders, but also the concern of the justice
 1186 systems for the general public's safety. These
 1187 developmentally appropriate systems would use
 1188 the constructs of risk, maturity, and amenability
 1189 to treatment to determine the treatment needs of
 1190 youth over time. In closing, there is currently no
 1191 optimal solution for how to handle difficult cases
 1192 but our hope is that through more accurate clinical
 1193 assessments and an evolving juvenile justice
 1194 system that a more effective system will ultimately
 1195 evolve to promote the prosocial development
 1196 of all youth.

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Need for and Barriers to Inclusion in Health Research of Justice-Involved Youth

9

Susan Bouregy, John Chapman,
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Recent estimates suggest that there are approximately 1.7 million referrals handled by juvenile courts nationally in 2007. Although some 78% of juvenile cases did not result in detention, the remaining numbers did remain substantial (Knoll and Sickmund 2010). In many jurisdictions youth are placed in custody when, as per a judge's decision, there are no other alternative solutions in the family or community that can meet the needs of the youth, safeguarding their own welfare and reducing re-offending (Clough et al. 2008).

However, there are problems inherent in the incarceration of young people. Minority youth, in particular, are overrepresented at every level of the juvenile justice system (Nofziger and Kurtz 2005; Piquero and Buka 2002; Redding and Arrigo 2005; Snyder 2005). For example, in 2003, although Black youth represented only 16% of the juvenile population in the US, they represented 45% of all juvenile arrests for violent

crimes (Snyder 2005). Such overrepresentation of ethnic minority groups is common not only in the US, but in other societies as well. For example, indigenous people of Australia are overrepresented in their criminal justice system (Australian Bureau of Statistics 2010) at a level that is 23 times higher than their non-Indigenous counterparts (Taylor 2006).

Further, it has been observed that various threats to adolescent health appear to occur more frequently among those in detention than among their peers in the general community (Copeland et al. 2007; Grisso 2008). Specifically, the majority of juveniles in custody meet criteria for psychiatric disorders other than conduct disorder (Domalanta et al. 2003; Teplin et al. 2002; Vermeiren et al. 2006; Wasserman et al. 2002, 2004). Detained juveniles show symptoms of a broad array of disorders including, but not limited to, Conduct Disorder, Oppositional Defiant Disorder, Attention Deficit Hyperactivity Disorder, Learning Disorders, and various types of Anxiety and Depression. There are estimates suggesting that these other disorders are seen in nearly 70% of female detainees and 60% of male detainees (Teplin et al. 2002); moreover, approximately 50% have two or more disorders (Vermeiren et al. 2006).

Such elevated rates of "problems" are characteristic of juvenile detainees not only in the domain of mental health, but also in other health domains. In general, children and youth in custody appear to be more vulnerable to a full spectrum of health concerns. Both retrospectively and

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60 prospectively, juvenile detainees tend to have
61 less access to routine health care, do not have up-
62 to-date immunizations, lack appropriate develop-
63 mental screenings, and seem not to seek
64 preventative health care services. It has been
65 observed that, as a group, juveniles in detention,
66 a priori and a posteriori of their placement in cus-
67 tody, frequently receive health care predomi-
68 nantly in acute situations and mostly through
69 emergency departments (Crosby et al. 2003).

70 Given the tremendous social costs associated
71 with high-risk youth (Cohen 1998), it is impera-
72 tive to improve the health and well-being of juve-
73 nile detainees, as well as to tangentially develop
74 the capacity of these youth to integrate effectively
75 into their old or new communities. Young people
76 entering the juvenile justice system represent a
77 unique and underserved segment of the popula-
78 tion. For them, entering a juvenile detention cen-
79 ter presents an opportunity (often rare and
80 sometimes the first) for screening, evaluation,
81 and a review of basic health care needs, from
82 dental to psychological, that may have been
83 neglected, the remediation of these needs, health
84 education, and consultation. Yet, given the public
85 costs of a day spent in detention, a question arises
86 of how to spend these costs most efficiently.
87 Which services, assessments, and interventions
88 will maximize outcomes and control expenses?
89 Only research can provide informed recommen-
90 dations on how to achieve this balance. Similarly,
91 to achieve the goal of improving the well-being
92 and strengthen the potential of juvenile detainees
93 requires a detailed understanding of the underly-
94 ing physical and mental health issues of these
95 children and youth. Armed with that understand-
96 ing, treatments programs can be developed and
97 their efficacy determined. To do so, however,
98 requires that youth in detention participate in
99 well-conceived and highly ethical research stud-
100 ies that can define the issues and identify reme-
101 diation strategies. Often, however, such research
102 is difficult to near-impossible to conduct.

103 Currently, the body of health research on juve-
104 niles in detention has been referred to as both
105 limited and inadequate (Grisso 2008). The litera-
106 ture contains references to a substantial need for
107 more information about multiple related issues,

108 including the epidemiology of health problems,
109 especially sexual and mental-health, in detention
110 centers (Wasserman et al. 2003; Williams et al.
111 2005), predisposing factors, screening strategies
112 and prospective studies of treatment outcomes
113 (Bailey et al. 2006; Desai et al. 2006; Fazel et al.
114 2008). Similarly, more research is needed even
115 on those aspects of health care in detention cen-
116 ters that are becoming standard modes of care
117 delivery. For example, screening and treatment
118 for sexually transmitted diseases (STDs) have
119 become standard features of health care in juve-
120 nile detention centers, but there are limited data
121 on the classification, etiology, and impact of STD
122 on children and youth in detention. Similarly,
123 other health problems may be identified and cared
124 for in detention (e.g., dental problems), but lim-
125 ited epidemiological data are available on the
126 many health problems impacting detained juve-
127 niles. A recent assessment of juvenile detention
128 centers (Gallagher and Dobrin 2007) found that
129 only a minority of the 726 detention centers sur-
130 veyed met the minimal standards of care proposed
131 by the National Commission on Correctional
132 Health Care (NCCHC). There is no doubt that
133 juveniles who enter detention centers are under-
134 served and at greater risk for health problems.

135 Yet, even though there is a recurring refrain
136 throughout the literature that more research is
137 needed in the field of juvenile psychology and
138 psychiatry, such research is still far from being
139 fully considered and realized. Quite to the con-
140 trary, it is rather more common to find difficulties
141 and roadblocks in realizing the goal of research on
142 this population. For example, it is notable that the
143 two major associations responsible for the accred-
144 itation of juvenile justice facilities demonstrate
145 differing attitudes and guidelines concerning the
146 conduct of research. This dichotomy occurs
147 despite both of these organizations having
148 expressed their principal support of research in
149 juvenile justice facilities. Specifically, the *NCCHC*,
150 points out (2001) that research in correctional set-
151 tings can be conducted if, in part, the project rec-
152 ognizes that consent is based on an understanding
153 of the risks and benefits of such participation and
154 the subject's knowledge that adequate care is
155 available outside the research protocol. In its 2004

standards, the NCCHC issued a standard that supports legitimate research interests while protecting participants, and refers to the Code of Federal Regulation as the appropriate oversight mechanism (2004). The *American Correctional Association* (ACA), standards, however, suggest (1991) that research activities related to programs, services, and operations be supported, while recommending that facility administrators review and approve research projects to ensure compliance with existing policies. Thus, in the former, the accent is on participants and their full realization of risks and benefits with a subsequent consent (or not) to participation. In the latter, there is an accent on administrative policies and rules, emphasizing the necessity (or desirability, to put it in softer language) for administrative approval of the research. These accents, although subtle, reflect institutional values and priorities, and their potential conflicts of interest, which trickle down the system all the way to the “grass-roots” level of research approval. This level of approval resides in the Institutional Review Boards (IRBs) at research institutions and correctional facilities, and is necessary for researchers to ethically gain access to juveniles in detention.

In this essay, the tension between the current pressure to use evidence-based approaches to the assessment and treatment of juvenile detainees, the need for research to generate such approaches, and obstacles that complicate the opportunities to generate such evidence is discussed. This discussion revolves around a number of issues that have arisen where, due to the developmental trajectories often loaded with risk factors, stress, and vulnerabilities that are common in the subpopulation of juvenile detainees, services are recognized as most needed, but research topics are perceived as sensitive and even problematic. As the literature on the legal, ethical, and scientific aspects of research with detained juveniles is not extensive, the discussion that follows is structured around three illustrations of specific facets of this literature. Although not comprehensive, the essay captures the extent of the problem and delineates some possible steps toward removing multiple barriers to providing evidence-based services to juveniles in detention.

Illustration One

As mentioned above, national studies have demonstrated the high incidence of mental health disorders in juvenile detention, with these rates tending to be higher for female than male detainees (Teplin et al. 2002). Estimates of the prevalence rates of serious mental health problems among children and youth in the general population are approximately 9–13%; among juvenile detainees these rates are 18–26% (Cocozza and Skowrya 2000; Grisso 2000; Teplin 2000). Moreover, juvenile detainees suffer a high prevalence of comorbid disorders (Lennings et al. 2003; Stathis et al. 2006). Screening of young people in CT detention centers is consistent with national findings suggesting that some 65% of young people have significant mental health problems (Desai et al. 2006). Post-traumatic stress disorder (PTSD) prevalence estimates for youths in juvenile justice services were found to range from 11 to 50%, two to eight times higher than among youth in the general population. In addition, 89% of children in CT detention centers report some exposure to trauma, with one in three youths reporting victimization trauma (Ford et al. 2000, 2008).

One cluster of such disorders is related to substance abuse, which is a known correlate of criminality, although mechanisms of this association might be different for males and females (Grella and Joshi 1999). It is also known that the risk of substance abuse is higher among persons who have been traumatized as compared to persons who do not have a history of trauma (Breslau et al. 2003; Chilcoat and Breslau 1998). Moreover, of note is that girls in detention are more likely than detained boys to have experienced severe neglect (Chesney-Lind and Sheldon 2004), out-of-home placement (Lewis et al. 1982; McManus et al. 1984), and sexual or physical abuse (Lord Zankowski 1988), regardless of their race and ethnicity (Chauhan et al. 2009). In this context, it is of particular importance that girls in detention have more severe drug-related (Holloway and Bennett 2007; Kim and Fendrich 2002) and other mental health problems (McManus et al. 1984; Weatherhead 2003), compared to their

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250 boy counterparts. Girls are also more vulnerable
 251 to relapse abusing substances (Grella et al. 2003).
 252 It has been suggested that for many girls sub-
 253 stance use and abuse is a coping strategy for
 254 escaping from stress (Nelson-Zlupko et al. 1995).
 255 Girls are more likely to identify substance use as
 256 a problem (Gearon et al. 2003; Peters et al. 1997),
 257 whereas boys are more likely to engage in con-
 258 current drug use, even when in detention or
 259 immediately prior to arrest (Kim and Fendrich
 260 2002). Also, gender differences are pronounced
 261 in differences in drug toxicity (Franconi et al.
 262 2007; Nicolson et al. 2010), behavior response to
 263 intoxication (Becker et al. 2001), exposure, addi-
 264 tion, treatment, and relapse (Wetherington 2007).
 265 The specifics of these biases among detained
 266 juveniles are different from those in the general
 267 population where men—male adolescents
 268 (Opland et al. 1995) and college students
 269 (McCabe et al. 2007)—have been observed to be
 270 generally more likely to report drug use and abuse
 271 than females. Thus, gender biases are prevalent
 272 in the literature on substance abuse among juve-
 273 niles in detention; yet, they are not understood as
 274 well as the reasons that these biases are different
 275 in the detained subpopulation compared to the
 276 general population. The smaller proportion of
 277 girls, compared to boys, in the juvenile justice
 278 system means that expenses per capita for ser-
 279 vices similar to those provided for boys are sub-
 280 stantially higher for girls (Feinman 1994). It has
 281 been stated that because of gender differences in
 282 the manifestation and causality of substance use
 283 and abuse, and the high per capita expenses for
 284 girls in detention, female juveniles experience
 285 more barriers to drug and other mental health
 286 treatment (Inciardi et al. 1993). Yet, this hypoth-
 287 esis has not been carefully verified.

288 Similarly, as a group, compared to their peers
 289 in the general population, juvenile detainees have
 290 a much higher death rate, with early detention,
 291 multiple detention and drug-related offences as
 292 indicators of high mortality risk (Coffey et al.
 293 2004). Approximately one in four juveniles who
 294 commit offenses report a previous suicide attempt
 295 (Howard et al. 2003). This issue of suicide
 296 attempts in custody is of particular concern. In
 297 the general population, suicide is recognized as

298 the third leading cause of death in children,
 299 adolescents, and youth (Eaton et al. 2006). It has
 300 been found that 8.8% of young people in the US
 301 have attempted suicide in the last 12 months
 302 (Hacker et al. 2006). Clearly, in the secure set-
 303 tings of detention, due to restrictions of means
 304 and activities, the rates of suicide are lower. Yet,
 305 as mentioned above, this subpopulation has
 306 higher rates of suicidal behavior risk factors as
 307 compared to the general population (Wasserman
 308 and McReynolds 2006). Hayes (2004) identified
 309 110 suicides which occurred in US juvenile
 310 detention centers between 1995 and 1999 noting
 311 that a majority were male, occurred within the
 312 first 4 months of confinement, were associated
 313 with histories of substance abuse, mental illness,
 314 and suicidal behavior. Moreover, although
 315 restricted and highly controlled, the conditions of
 316 confinement are stressful, and some juveniles
 317 find it extremely difficult to cope with detention
 318 and incarceration (Bonner 2006). Many young
 319 people in custody reflect on and reevaluate their
 320 lives (Champion and Clare 2006; Paton et al.
 321 2009) and revisit their views of morality
 322 (Kiriakidis 2008b); these “reflective” moments
 323 might generate feelings of worthlessness and
 324 increase susceptibility to suicide. An investiga-
 325 tion of detained juveniles who have attempted
 326 suicide has demonstrated that these individuals
 327 have fewer adequate coping mechanisms when
 328 confronted with stress (Chagnon 2007). Moreover,
 329 increased risk of suicide attempts in custody has
 330 been reported to be related to being a violent
 331 offender, being in residential care, the experience
 332 of being bullied in custody, contact with a psy-
 333 chologist in the community, the presence of a
 334 social worker for the family, and family history
 335 of alcohol abuse and suicide (Kiriakidis 2008a).
 336 Bullying behavior (e.g., teasing, threats, untrue
 337 rumors, name calling, and physical attacks) in
 338 detention is highly prevalent; 30–60% of detain-
 339 ees report that they have been subjected to bully-
 340 ing (Ireland and Ireland 2000; Ireland and Archer
 341 1996; Nagi et al. 2006; Power et al. 1997), and up
 342 to 60% report that they observed bullying most
 343 days or every day (Ireland and Archer 1996;
 344 Power et al. 1997). Bullying is reported by suicidal
 345 detainees more often than by their non-suicidal

346 detained peers. Moreover, it has been reported
347 that 34% of adult-incarcerated suicide victims
348 felt bullied before committing suicide (Blaauw
349 et al. 2001). It is thought that juvenile detainees
350 at risk for suicide attempts are characterized by
351 many risk factors that are also characteristic of
352 their suicidal peers in the general population
353 (Beautrais 2003; Daniel and Fleming 2005;
354 Hacker et al. 2006; Kim et al. 2005; Lieb et al.
355 2005; Sheras 2000). Yet, there are some distinct
356 characteristics of suicidal detained juveniles that
357 are shared by their suicidal peers living in the
358 general community—that is being bullied and
359 being violent (Kiriakidis 2008a). Moreover,
360 there have been reports connecting juvenile
361 detention and correction facilities with victim-
362 ization. Thus, it has been stated that between
363 2004 and 2007, various institutions of juvenile
364 custody processed more than 13,000 claims of
365 abuse (Mohr 2008). Moreover, in 2004 alone,
366 members of personnel of such institutions have
367 been accused of sexual abuse against juveniles
368 2,821 times (Mohr 2008).

369 Although elevated rates of mental-health prob-
370 lems among juvenile detainees are commonly
371 reported in the literature, the reasons for this ele-
372 vation are not understood. In general terms, three
373 hypotheses prevail: (1) mental health problems
374 lead to heightened rates of arrest, detention, and
375 incarceration; (2) arrest and placement in custody
376 elicit and/or magnify mental health problems; and
377 (3) mental health problems and arrest, detention,
378 and incarceration are related through other com-
379 mon risk factors (White et al. 2010).

380 To illustrate the first hypotheses, the literature
381 is replete with references to heightened rates of
382 affective disturbances (i.e., anxiety and depres-
383 sion) among juvenile detainees, but these phe-
384 nomena are not well understood (Hirschfield
385 et al. 2006; White et al. 2010). There are many
386 observations that juvenile detainees have a higher
387 likelihood than their peers in the general popula-
388 tion of being exposed to violence, both as wit-
389 nesses and as victims in their homes and
390 communities (Abram et al. 2004; Cauffman et al.
391 1998; McMackin et al. 2002; Ruchkin et al. 2002;
392 Steiner et al. 1997; Wood et al. 2002), as well
393 as in custody (Connell and Farrington 1996;

394 Ireland 1999, 2002). Moreover, detained juveniles
395 describe their lives as abundant in instability and
396 transition, and financial and parental deprivation
397 (Paton et al. 2009). Also, it is well known that
398 liability to depression is higher, at least double, in
399 females as compared to males, both in the gen-
400 eral population (Offord et al. 1987) and among
401 juvenile detainees (Teplin 1994). As per the first
402 hypothesis, affective disturbances in a particular
403 subgroup of the general population express
404 themselves in antisocial behavior. Unfortunately,
405 research indicates that the likelihood of trauma-
406 exposed juveniles who suffer from affective
407 disturbances receiving the appropriate treatment
408 while in detention is rather low; such low likeli-
409 hood has been associated with the inadequacy of
410 mental health screening, diagnosing, and serving
411 inside detention facilities (Glisson 1996; Pear
412 2003; Teplin et al. 2005a).

413 However, there is also evidence supporting
414 the second hypothesis. Thus, early research
415 (Kashani et al. 1980) has indicated that among
416 detained juveniles diagnosed with major depres-
417 sion, 38% reported an onset of symptoms after
418 being detained, though it is unknown whether
419 placement in custody increased the level of affec-
420 tive disturbances in these detainees or whether it
421 was already high. Recently, to investigate this
422 question, youths who were first placed in custody
423 at age 15 (treatment group) were matched with
424 control boys (no official arrest or reported con-
425 finement during adolescence); a propensity score
426 matching procedure generated 34 pairs for anxi-
427 ety and 37 pairs for depression. No differences
428 were found between the treatment and control
429 groups in levels of either depression or anxiety at
430 the age of 16. Yet, there appeared to be some
431 important “local dynamics” in affective regula-
432 tion across this year of development between the
433 ages of 15 and 16. Thus, it was reported that con-
434 finement might have been associated with an
435 increase in concurrent anxiety problems, whereas
436 being released from confinement might have
437 been associated with a decrease in depression
438 (Holman and Zeidenberg 2006; Kashani et al.
439 1980; White et al. 2010). Of note, however, is
440 that the number of studies aimed at understand-
441 ing the texture of causality between mental health

442 problems and custody is relatively small, so more
443 research is needed.

444 The third hypothesis seems to be the most
445 widely accepted in the literature. It is assumed
446 that juvenile detainees possess some inherent
447 vulnerability factors that are exacerbated by
448 poor developmental conditions; this “back luck
449 squared” is what leads to antisocial acts resulting
450 in arrest and detention. Being detained, in turn,
451 selectively impacts the already vulnerable system
452 further.

453 High rates of mental health disorders should
454 assume adequate treatment. Indeed, juveniles
455 in custody are presumed to receive a minimum
456 of psychiatric care (American Association of
457 Correctional Psychology 2000). However, accord-
458 ing to recent reports (The President’s New
459 Freedom Commission on Mental Health 2003;
460 U.S. Department of Health and Human Services
461 2000), detained juveniles are profoundly under-
462 served. Thus, even though it has been reported
463 that the majority, >70%, of detention centers exer-
464 cise screening for mental health disturbances
465 (Goldstrom et al. 2000), it has been observed that
466 only 15.4% of detainees receive treatment (Teplin
467 et al. 2005a). Further, among those who do receive
468 treatment, it has been stated to be distributed dis-
469 proportionately, with the needs of males, older
470 youths, and racial/ethnic minorities being met less
471 than those of females, younger detainees, and
472 non-Hispanic whites (Garland and Zigler 1994;
473 Lopez-Williams et al. 2006; Teplin et al. 2005a).

474 When causes of such a lack of services are dis-
475 cussed, two sets of reasons are typically consid-
476 ered. First, juvenile detainees, as a group, possess
477 many characteristics that have been associated, in
478 the general mental health literature, with lower
479 rates of treatment. Among these characteristics
480 are racial/ethnic minority status (Heflinger et al.
481 2006; McMiller and Weisz 1996), with African
482 American and Hispanic detainees having received
483 significantly fewer past services than non-His-
484 panic white youths (Angold et al. 2002; Cuffe
485 et al. 2005; Garland et al. 2005; Hazen et al.
486 2004; Lopez-Williams et al. 2006); poverty and
487 poor education (Buckner and Bassuk 1997;
488 Heflinger et al. 2006; Pumariaga et al. 1998);
489 small social networks (Harrison et al. 2004;

490 McKay et al. 1996); inadequate health insurance
491 and ineligibility for Medicaid (Flores et al. 2002;
492 Gresenz et al. 1998; Holl et al. 1995; Moffitt and
493 Slade 1997; Thomas et al. 2004), a lack of parity
494 between behavioral health disorders and general
495 medical conditions (U.S. Department of Health
496 and Human Services 1999); and a history of
497 arrest (Rogers et al. 2001; Teplin et al. 2002).

498 Second, individually, the juveniles themselves
499 have perceptions and attitudes toward treatment
500 that often are viewed as barriers in the pathway
501 of services. Specifically, it has been reported that
502 seeking services (Kim and Fendrich 2002; Lopez
503 2003) and staying in treatment (Ortega and
504 Alegria 2005) are determined by the individual’s
505 perceived need for treatment, which does not
506 appear to differ by race/ethnicity or gender
507 (Dembo et al. 2010; Fiorentine and Anglin 1994;
508 Kim and Fendrich 2002; Longshore et al. 1993).
509 The perceived need for treatment among juvenile
510 delinquents has been reported to be rather low
511 (Paton et al. 2009). Juvenile detainees report
512 being highly selective about whom they ask for
513 support, rarely seeking support from profession-
514 als even if they are extremely distressed (Paton
515 et al. 2009). In fact, the most common sources of
516 support for these troubled youth are peers and
517 family (Whitaker et al. 1990). Interestingly, girls
518 were reported to be less likely than their male
519 counterparts to participate in treatment (Anglin
520 et al. 1987; Finkelstein 1994). Beliefs that one’s
521 problems will go away or that one can handle
522 them on his/her own have also been associated
523 with lower levels of treatment (Abram et al. 2008;
524 Johnson et al. 2001). Low levels of perceived
525 need for treatment and associated beliefs are not
526 specific to juveniles in detention; they have been
527 reported as rather common among youth in the
528 general population (Samargia et al. 2006) and
529 other subpopulations in need of treatment (Flisher
530 et al. 1997; Johnson et al. 2001). Moreover, cur-
531 rent attitudes toward treatment have been reported
532 to be related to whether juveniles have received
533 services before (Garland et al. 2005; Hazen et al.
534 2004; Rosenblatt et al. 2000; Shelton 2002;
535 Timmons-Mitchell et al. 1997; Veen et al. 2010).
536 Prior services were associated with fewer con-
537 cerns about what others may think about them

538 and about affordability of services. Once again, 586
 539 these concerns are not specific to the population 587
 540 of juvenile detainees and are common among 588
 541 untreated youths (Flisher et al. 1997) and adults 589
 542 (Sareen et al. 2007; Wang 2006) with mental 590
 543 health needs in the general population. Yet, previ- 591
 544 ous experiences with services were reported to be 592
 545 associated with more skepticism about treatment 593
 546 and higher levels of beliefs that problems would 594
 547 go away without services (Abram et al. 2008). 595
 548 A number of qualitative studies (Allan 1998; 596
 549 Biering 2007; Paton et al. 2009; Ugarriza 2002) 597
 550 have identified specific barriers to seeking, deliv- 598
 551 ery, and receiving of services by juveniles in 599
 552 detention. These barriers include, but are not lim- 600
 553 ited to (a) limited appreciation by detainees of 601
 554 their own psychological needs, demonstrated by 602
 555 the detainees themselves and by the systems that 603
 556 serve them; (b) communication difficulties; and 604
 557 (c) detainees' denial of needing support. Given 605
 558 that juveniles typically do not have the capacity 606
 559 to seek services on their own (Ashley and Foshee 607
 560 2005; Samargia et al. 2006) and the fragmented 608
 561 nature of systems of care—child welfare, juve- 609
 562 nile justice, school sectors (Goldstrom et al. 610
 563 2000; U.S. Department of Health and Human 611
 564 Services 1999)—it is very important to coordi- 612
 565 nate efforts in delivering such services among 613
 566 various members of the social network of juve- 614
 567 niles (Pescosolido et al. 1998). In summary, 615
 568 although the prevalence of mental health disor- 616
 569 ders among juvenile detainees is high and the 617
 570 need for mental health services is omnipresent, it 618
 571 appears that detained children and youth do not 619
 572 view treatment as an accessible and effective 620
 573 resource (Abram et al. 2008).

574 This illustration stresses the quintessential 621
 575 meaning of the “double (or should it be referred 622
 576 to as multifold?) vulnerability” of juvenile detain- 623
 577 ees as research participants. Most of these young 624
 578 individuals arrive to detention having already 625
 579 been severely challenged by life. Their early 626
 580 development has been jeopardized by many of 627
 581 their families. Many of them suffer from physical 628
 582 and mental health disturbances to varying degrees. 629
 583 In addition, the environment of detention does 630
 584 not appear to be recognized as highly healing and 631
 585 therapeutic. Moreover, these individuals are in

the midst of legal proceedings, to which issues of 586
 confidentiality, integrity, and fairness are essen- 587
 tial. So, how can these young individuals even be 588
 considered for involvement in research? The 589
 answer to this question is that involving this sub- 590
 population of juveniles in research is absolutely 591
 critical for the development of the best treatments 592
 possible. As has been indicated in this essay, this 593
 group of young people is quite different from 594
 their general population counterparts and, given 595
 how costly it is for taxpayers to serve them, it is 596
 super-important to make sure that only effective 597
 (highly effective) and evidence-based assessment 598
 and treatment approaches, as shown in this par- 599
 ticular subpopulation in research settings, are 600
 exercised with these young people. 601

602 Illustration Two

603 Due to the fact that juvenile detainees, as a group, 604
 are particularly marked by experience and behav- 605
 ior associated with the transmission of STDs— 606
 specifically, their history of physical and sexual 607
 abuse, early sexual debut, multiple sex partners 608
 and partnerships in high-risk sexual networks, 609
 inconsistent use of condoms and contraception, 610
 and substance abuse (Kahn et al. 2005; Robertson 611
 et al. 2005; Teplin et al. 2003, 2005b)—they are 612
 considered to be at particularly high risk for STDs 613
 (Katz et al. 2004; Kelly et al. 2000). Yet, as indi- 614
 cated above, often these juveniles have no source 615
 of health care other than what may be provided 616
 through detention (Bauer et al. 2004; Feinstein 617
 et al. 1998), and they arrive at detention both 618
 untested (and undiagnosed) and untreated. 619
 Correspondingly, STD screening of juveniles in 620
 detention provides a rather unique opportunity to 621
 access this subpopulation of high-risk children and 622
 youth, who are otherwise hard to reach. Yet, quite 623
 surprisingly, it has been reported that less than half 624
 of the juveniles in surveyed detention centers were 625
 tested for STD at the time of being surveyed 626
 (OJJDP 1994; Teplin et al. 2003), despite the rec- 627
 ommendations from the NCHC and the ACA.

628 Researchers have offered a number of insights 629
 into the nature of this discrepancy (Miller et al. 630
 2009). In fact, many barriers to acting on the 631

631 recommendations from both the NCCHC and
 632 ACA, both to screen and treat, have been identi-
 633 fied. Specifically, providers have mentioned
 634 issues of procedural confusion (e.g., who collects
 635 specimens, how and when; how they are trans-
 636 ported to laboratories; how the results are com-
 637 municated back to the facilities; and how
 638 follow-up decisions are made), lack of resources
 639 (e.g., inability to screen all juveniles 24/7, inabil-
 640 ity to modify awarded contracts to reassign
 641 responsibilities for collecting specimens from
 642 medical to security personnel), lack of flexibility
 643 in providing services (e.g., inability to engage in
 644 sample collections on weekends), but, most
 645 importantly, explicit and implicit differences in
 646 the priorities and beliefs of the providers of secu-
 647 rity and medical services to this population. These
 648 discrepancies have arisen in a culture of providers
 649 who are mostly focused on issues of the detainees’
 650 transportation, release, and placement, which are
 651 addressed by security services who maintain no
 652 communication with medical services; this dis-
 653 connect, inevitably has impacted medical treat-
 654 ment delivery within and outside of detention
 655 centers. Yet, it has been shown (Miller et al. 2009)
 656 that high levels of screening, case yield, and
 657 treatment rates can be accomplished and sus-
 658 tained, even in the presence of many barriers.

659 Similar to STD, juvenile detainees are also at
 660 elevated risk for hepatitis C infection (van der
 661 Poorten et al. 2008). For example, it has been
 662 shown (Murray et al. 2003; Ogilvie et al. 1999)
 663 that Australian juvenile detainees are character-
 664 ized by very high rates of hepatitis C; specifically,
 665 their rate of hepatitis C was almost double the
 666 rate in those youth who are diverted from deten-
 667 tion to their communities. Moreover, Aboriginal
 668 adolescents were reported to have a rate seven
 669 times that of the national average. Although many
 670 risk factors are distinctive of detained juveniles—
 671 sexual promiscuity, social disadvantage and tat-
 672 tooning (Murray et al. 2003; Ogilvie et al. 1999;
 673 Van der Poorten et al. 2007)—the risk factors
 674 specific for hepatitis C include primarily use of
 675 injectable drugs and heroin. Especially alarming
 676 are high rates of new infection (Champion et al.
 677 2004; Dore et al. 2003a, b; Fox et al. 2005),
 678 indicating the likely practice of needle sharing

679 occurring while in custody. Simple measures, 679
 680 such as providing sterile injecting equipment 680
 681 (Weatherhead 2003), although highly effective 681
 682 from the public-health perspective, have been 682
 683 reported to be difficult to implement (van der 683
 684 Poorten et al. 2008). 684

685 This illustration stresses the importance of 685
 686 engaging in this research with a prior understand- 686
 687 ing of why, when both efficiency and effective- 687
 688 ness of treatment have been demonstrated, it is so 688
 689 difficult to disseminate and upscale this interven- 689
 690 tion to the status of “treatment as usual.” What 690
 691 elements of this intervention are critical for its 691
 692 success and what elements can be omitted? What 692
 693 are the outcomes of these interventions in terms 693
 694 of both gains to welfare of detained juveniles and 694
 695 reduction of the rates of repeated offences? 695
 696 Finally, what are some ways that treatment may 696
 697 be translated into prevention? And awareness and 697
 698 behavioral change activated so that infection can 698
 699 be avoided? 699

Illustration Three

700 At-risk youth represent a significant health-care 700
 701 concern in all jurisdictions of the USA, including 701
 702 the State of Connecticut (CT). In CT, within the 702
 703 population of juveniles as a whole, unintentional 703
 704 injuries are the leading cause of death, followed 704
 705 by malignancies in the 10–14 year old age group, 705
 706 and suicide in the 15–19 year old age group (State 706
 707 of Connecticut 2007). In addition to high mortal- 707
 708 ity, teens and young adults have extremely high 708
 709 rates of hospitalization for other reasons. 709
 710 Specifically, they demonstrate the highest hospi- 710
 711 talization rates for assault including fighting, 711
 712 stabbing, and firearms. Based on 2004 data, the 712
 713 rates of child maltreatment included more than 713
 714 24,000 substantiated petitions of abuse or neglect; 714
 715 there were 745 cases of substantiated child sexual 715
 716 abuse. Similarly, family or domestic violence 716
 717 rates were as high as 20,320 cases; of these 717
 718 there were 27 family violence homicides. 718
 719 Children were involved in almost 20% of the 719
 720 cases, and were in the household at the time of 720
 721 the violence in more than 20% of the incidents. 721
 722

723 Suicide among teens was reported at a rate of
724 8.3 per 100,000. Finally, the highest rate of self-
725 inflicted injury in CT between 2000 and 2004
726 was among the 15–19 year old age group, at the
727 rate of 67.6 per 100,000 (State of Connecticut
728 2008).

729 Along with these statistics for the overall juve-
730 nile population in CT, we can shed some light on
731 the healthcare of juvenile detainees in CT based
732 on some limited information collected from this
733 group. A random selection of detainees admitted
734 to detention in 2006 ($N=372$, representing close
735 to 20% of the unique admissions in that calendar
736 year) indicates an average age of 14.45 years,
737 with 70% male and 30% female detainees. Forty-
738 five percent of those admitted were Black, 30%
739 Hispanic, and 25% White; the proportion of other
740 ethnic/racial groups was negligible. Sixty-eight
741 percent of youth had some form of health insur-
742 ance, either state (36%) or private (33%).
743 However, 28% had no insurance or none that
744 could be ascertained. Surprisingly, insurance
745 was more often present in those families who
746 reported emotional problems among their chil-
747 dren, $X^2=24.1$, $p<0.001$. Additionally, we have
748 found that a large number of children have medi-
749 cation prescribed prior to admission to detention
750 (48%, Chapman personal communication). Of
751 the young people admitted to detention, 44% had
752 a general medical problem as reported by them
753 or their parent or guardian. Although no compar-
754 ative studies involving this subpopulation and
755 the subpopulation of non-detained justice-
756 involved juveniles are known to us, this frequency
757 appears to be elevated compared to the general
758 population of youth in the USA ([http://www.cdc.
759 gov/healthyyouth/healthtopics/index.htm](http://www.cdc.gov/healthyyouth/healthtopics/index.htm)). Most
760 common problems were respiratory problems
761 such as asthma (21% reported). Additionally, we
762 have found that a large number of children have
763 medication prescribed prior to admission to
764 detention (48%, Chapman personal communica-
765 tion). Five percent had been exposed to a conta-
766 gious disease in the prior year and 6.7% had
767 been hospitalized for a medical reason in the
768 prior year. An additional 11.9% had been in a
769 psychiatric hospital in the preceding year. Of
770 mental health problems reported by juveniles

771 themselves, anger was the highest at 13.2%, fol- 771
772 lowed depression at 8.9%, and attention deficit 772
773 disorder at 4.6%. A history of cerebral trauma 773
774 was noted in 6.3% of these young people. There 774
775 was a report of prior psychiatric treatment in 775
776 42.7% of young people detained. Prescriptions 776
777 for psychotropic medication had been written 777
778 prior to admission for 16.7% of detainees while 778
779 11.6% received a non-psychotropic medication, 779
780 excluding inhalers for respiratory problems, 780
781 which were prescribed to 9.7% of these children. 781
782 Of note is that these data are comparable to those 782
783 collected through national surveys of youth in 783
784 detention (Sedlak and McPherson 2010). Clearly, 784
785 research is needed to understand why the health 785
786 of children and youth who end up in detention 786
787 appears to be so much worse than their counter- 787
788 parts' from the general population. 788

789 Thus, these data describe a subpopulation of 789
790 US children and youth who are primarily minor- 790
791 ity males and females, with approximately half 791
792 having a physical and/or mental health problem 792
793 and substantial portion of whom are on medica- 793
794 tion. More than one third of these children and 794
795 youth are uninsured. Clearly these individuals as 795
796 a group would benefit from improved understand- 796
797 ing of the development and remediation of their 797
798 physical and/or mental health problems, includ- 798
799 ing the most efficacious approaches to these 799
800 problems in the context of the juvenile justice 800
801 system. 801

802 In considering the legal and regulatory factors 802
803 involved in research, it is worth noting that clini- 803
804 cal research is occasionally mentioned in laws, 804
805 specifically in the charges to different agencies of 805
806 government. These references generally are sup- 806
807 portive of research in concept. The CT General 807
808 Statute (CGS 46b-121m) mandates a review of 808
809 some sort of the programs serving juvenile 809
810 offenders provided by the Judicial Branch, so that 810
811 they may be evaluated on a number of issues 811
812 including compatibility with policies pertaining 812
813 to research in delinquency prevention and early 813
814 intervention (CGS 52-146g). Also, CT law 814
815 requires the Commissioner of the Department of 815
816 Children and Families to “Undertake, contract 816
817 for or otherwise stimulate research concerning 817
818 children and youths” (CGS 17a-6(h)). Similarly, 818

819 the state agency charged with mental health care,
 820 the Department of Mental Health and Addiction
 821 Services, is given the authority to “keep records
 822 and engage in research and the gathering of
 823 relevant statistics” (CGS, 17a-450(c)(a)(2). CT
 824 law recognizes a legitimate role for research in
 825 that statute, as it allows a mental health facility
 826 director to authorize a researcher to review
 827 detainees’ information, provided that records are
 828 not removed from the facility and that the
 829 researcher seeks to preserve the anonymity of the
 830 subject. It is important to note, however, that
 831 many of the statutory charges listed above are
 832 applicable to one agency but not another.

833 At the federal level, DHHS and the FDA rec-
 834 ognize that appropriate clinical care for children
 835 is more complex than scaling down adult regi-
 836 mens and therefore have taken steps to promote
 837 research that will identify the discrepancies in
 838 treating youth and adults. For example, NIH
 839 grant requests must include children in the
 840 research design unless exclusion can be justified
 841 on ethical or scientific basis (NIH Grants Policy
 842 Statement section 4.1.15.7). Likewise the 2007
 843 Pediatric Research Equity Act amended FDA
 844 regulations to encourage research on appropriate
 845 treatment and dosing regimens for pediatric pop-
 846 ulations. While these policies and regulations do
 847 not address the special case of detained pediatric
 848 patients, they are consistent with the need to
 849 address conditions that plague detained youth.

850 The dearth of research involving detained
 851 youth therefore does not stem from any lack of
 852 desire to assist this population, but rather from
 853 the fact that there are seemingly endless hurdles
 854 to initiating research, so many that the research is
 855 often abandoned before it is even fully conceived.
 856 Researchers generally hit the first impasse at the
 857 IRB, first at their home institutions, then in the
 858 organizations overseeing juvenile detention cen-
 859 ters. Most academic institutions apply the DHHS
 860 regulations for research involving human sub-
 861 jects (45CFR46) to all research under the institu-
 862 tion’s purview. Thus research proposing to target
 863 detained youth as participants is subject not only
 864 to the Common Rule requirements, but also to
 865 Subparts C and D for research involving prisoners
 866 and children, respectively. The special provisions
 867 for prisoners and children arose from the recog-

868 nition of the potential vulnerabilities of these 868
 869 populations. In particular, issues related to the 869
 870 ability of children and prisoners to provide 870
 871 voluntary informed consent free from coercion or 871
 872 undue influence. Public awareness of notorious 872
 873 examples of research involving children (Amdur 873
 874 and Bankert 2007) and prisoners (Hornblum 874
 875 1998) in research for reasons unrelated to the sci- 875
 876 entific integrity of the research but rather for the 876
 877 convenience or ease of continued access has led 877
 878 to both regulations and a cautious approach on 878
 879 the part of the IRB. In applying the subparts, the 879
 880 IRB often demands justification of why the 880
 881 research design requires that this vulnerable pop- 881
 882 ulation be included rather than using non-prisoner 882
 883 adults or at least youth who are not presently 883
 884 detained. IRBs that do not routinely review 884
 885 research related to the health and other concerns 885
 886 of detained youth are likely to consider most 886
 887 research as not necessitating inclusion of this 887
 888 doubly vulnerable population. IRB approval is 888
 889 further inhibited by the common lack of under- 889
 890 standing on the part of the research community of 890
 891 the vulnerabilities and special considerations that 891
 892 must be made for detained youth. For example, a 892
 893 key approval criterion for the IRB is that there be 893
 894 adequate protection of the privacy and confiden- 894
 895 tiality of the resultant research data. Researchers 895
 896 unfamiliar with the constraints of working in the 896
 897 prison or detention system are often ill prepared 897
 898 to adequately address confidentiality provisions 898
 899 and hence appear unqualified to conduct the 899
 900 proposed research. The microcosm of the IRB 900
 901 approval process is representative of one of 901
 902 several approvals that must be granted prior to 902
 903 initiating any research. 903

904 This illustration stresses the importance of 904
 905 considering both federal and local (state) situa- 905
 906 tion and guidelines in planning research involv- 906
 907 ing juvenile detainees. Although the national 907
 908 profile of the US subpopulation of juveniles in 908
 909 detention and residential placement is well 909
 910 described (Sedlak and Bruce 2010), each state 910
 911 introduces its own specific considerations into 911
 912 this profile. Moreover, although there are some 912
 913 general federal guidelines pertaining to doing 913
 914 clinical research in detention, these guidelines, as 914
 915 well as the regulations for services, are inter- 915
 916 preted locally. 916

917 **Concluding Comments**

918 This essay opened with a statement that deten- 964
 919 tion reflects, in many cases, the failure of com- 965
 920 munities to address the needs of their children 966
 921 and youth. It is important here to state that there 967
 922 is an incredible effort being put toward the 968
 923 development of various community structures 969
 924 that can provide alternatives to incarceration, 970
 925 such as diversion, and community-based treat- 971
 926 ments (Clough et al. 2008). Yet, these efforts, 972
 927 both in the US and worldwide, face a tremen- 973
 928 dous number of barriers. First, working with 974
 929 juvenile detainees is demanding and requires 975
 930 much expertise that is not necessarily available 976
 931 in each and every community. Second, not every 977
 932 community has suitable diversion (i.e., alterna- 978
 933 tive to detention and residential placement) 979
 934 options, and sometimes a diversion requires 980
 935 traveling to a neighboring (or semi-neighboring) 981
 936 community, which might not be possible for 982
 937 many clients of the juvenile justice system. 983
 938 Some of these barriers can be seen as insur- 984
 939 mountable—e.g., detoxification from petrol 985
 940 sniffing when no local detoxification services 986
 941 are available (Clough et al. 2008). Third, in all 987
 942 countries, the juvenile justice system is deliv- 988
 943 ered by the majority, reflecting its particular val- 989
 944 ues, and in highly diverse societies this inevitably 990
 945 creates barriers of culture and language, often 991
 946 resulting in miscommunication and partial 992
 947 understandings at all levels of service delivery 993
 948 to the juvenile offender. Fourth, diversion pro- 994
 949 grams tax both care-givers and communities, 995
 950 resulting, quite often, in exhaustion caused by 996
 951 the difficult behaviors of a diverted (i.e., kept in 997
 952 a community under specific court-ordered ser- 998
 953 vices rather than detained) juvenile. Although 999
 954 help is provided by appropriate diversion per- 1000
 955 sonnel (Lee et al. 2008), this support often is not 1001
 956 enough, so that tension escalates and a subse- 1002
 957 quent spiral of delinquency occurs. Fifth, conti- 1003
 958 nuity of services are critical, and these services 1004
 959 should include not only the immediate social 1005
 960 network of the juvenile (e.g., his/her probation 1006
 961 officer and other service-related practitioners), 1007
 962 but also police representatives, because it is typ- 1008
 963 ically police officers who make the first decision 1009
 1010
 1011
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about prosecution or diversion. Sixth, diversion 964
 programs require a tremendous amount of cohe- 965
 sion among the various stake-holders delivering 966
 them. It has been shown that for diversion pro- 967
 grams to succeed, they have to form active 968
 working networks and coalitions between vari- 969
 ous stake-holders and service providers within 970
 the communities. Yet, creating such networks is 971
 often a challenge on its own. There is research 972
 into factors that predict coalition effectiveness 973
 (Zakocs and Edwards 2006). The key factors 974
 appear to be diverse membership, member 975
 agency collaboration, leadership style, active 976
 member participation, formalization of rules of 977
 service and its delivery, and group cohesion 978
 (Riggs et al. 2008). 979

These “must(s),” above, are demanding of 980
 expertise, time, and funds. An example of such a 981
 “must to do it all” program is *Fast Track*—an 982
 early childhood intervention for conduct prob- 983
 lems, which is a comprehensive systemic inter- 984
 vention involving both children and their social 985
 network (i.e., parents and other significant adults). 986
 Although such systemic interventions are inevi- 987
 tably expensive, they have been stated (Foster 988
 et al. 2006) to be cost-effective when they target 989
 a subpopulation that is particularly costly to soci- 990
 ety when left untreated. It has also been noted 991
 (Foster et al. 2006) that, although there is a soci- 992
 etal willingness to pay for such costly interven- 993
 tion when they target early conduct disorder 994
 to prevent the subsequent criminal and violent 995
 behavior that are highly associated with early 996
 conduct problems, for a program to reach its pub- 997
 lic health potential, it has to overcome a number 998
 of barriers. For expensive programs, the most 999
 obvious barrier is the cost itself. To illustrate 1000
 (Foster et al. 2006), at any given time, the US 1001
 population includes approximately 2.1 million 1002
 5-year-olds. Given the estimate that about 5% of 1003
 these children are at risk for the development of 1004
 conduct disorder (Hinshaw and Anderson 1996), 1005
 an amount of \$6.72 billion would be needed to 1006
 deliver this intervention to at-risk children 1007
 throughout their childhood and adolescence (i.e., 1008
 for a 10-year period). These costs are comparable 1009
 with the costs of Early Head Start, and comparable 1010
 or smaller than programs developed for juvenile 1011
 offenders, such as boot camps of Multisystemic 1012

1013 Family Therapy (Aos et al. 2004). Of note is that
 1014 these costs are substantially lower than the costs
 1015 of detention and residential placement.¹ Yet, early
 1016 investment, i.e., investment in prevention, is
 1017 much different from an investment in remedia-
 1018 tion and correction, although the literature con-
 1019 tains examples of direct comparisons of the cost
 1020 effectiveness of a broad span of policy alterna-
 1021 tives, both preventive and remedial (Aos et al.
 1022 2004). Remediation and correction assume that
 1023 the crime has happened and there is no other
 1024 needed action but to respond to it. Taking people
 1025 off the street and locking them up to ensure pub-
 1026 lic safety, at least temporarily, is understood by
 1027 the public to mean tangible benefits in terms of
 1028 saved lives and protected property. Prevention
 1029 assumes that the crime might not happen, but it
 1030 does not guarantee it not happening, making it
 1031 difficult for decision makers to overcome the
 1032 mental barrier to investing in prevention. Pre-
 1033 ventation programs are designed to produce
 1034 public and private benefits over time; it is not
 1035 easy to identify the financial returns associated
 1036 with prevention. Yet, society recognizes and
 1037 accepts the responsibility of schooling its young.
 1038 It has been argued (Foster et al. 2006) that a pro-
 1039 vision of preventive support for troubled chil-
 1040 dren (e.g., children diagnosed with conduct
 1041 disorder) that can help them to avoid a lifetime
 1042 of failure is also important. But that, again, calls
 1043 for research, moreover, longitudinal research.
 1044 *Fast Track* requires a long-term multiyear invest-
 1045 ment—but how can such an investment be justi-
 1046 fied without research, both prospective and
 1047 retrospective?

1048 In conclusion, this analysis of the literature
 1049 only confirms the conclusions previously made
 1050 almost a decade ago (Cocozza and Skowrya 2000).
 1051 A large number of juveniles in detention require
 1052 physical and mental health treatment. In spite of
 1053 the substantial literature supporting this assertion,
 1054 the system still demonstrates a lot of shortcomings
 1055 in terms of assessments and services aimed at
 1056 maximizing the effectiveness and delivering such

1057 treatment. Yet, there has been notable progress
 1058 during the last decade, both in terms of the develop-
 1059 ment of adequate assessment tools and treatment
 1060 models, and debugging the implementation and
 1061 dissemination of evidence-based treatment pro-
 1062 grams and paradigms. Thus, much more is
 1063 needed—research, funding, policy—but appraisal
 1064 of the problem and public engagement with it
 1065 has been unfolding and progressing.

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¹For comparison, the costs of running state prisons in 2001 was estimated at \$38 billion (Bureau of Justice Statistics 2004).

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Toward Establishing Standards of Practice in Juvenile Forensic Mental Health Assessment

Kirk Heilbrun and David DeMatteo

Recent decades have witnessed substantial advances in the science and practice of the forensic mental health assessment (FMHA) of juveniles. Such evaluations may be conducted in the juvenile court to inform such legal decisions as diversion, competence to stand trial, adjudication and placement, and transfer into criminal court. They may also be conducted on adolescents in criminal court, on issues such as reverse waiver, competence to stand trial, and mental state at the time of the offense. For the purposes of this chapter, we will focus on the evaluation of adolescents in juvenile and criminal contexts, excluding family and civil issues such as child custody and personal injury. FMHA will be defined as “evaluation that is performed by mental health professionals as part of the legal “decision-making” process, for the purpose of assisting the decision maker or helping one of the litigants in using relevant clinical and scientific data” (Heilbrun 2001).

How are standards of practice and standards of care developed for juvenile FMHA? In the first section of this chapter, we describe and distinguish between these distinct (albeit related) concepts. Next, we will draw upon two sources providing a broad, integrative overview of

FMHA: (1) foundational principles (Heilbrun 2001) that have subsequently been expanded in scope (Heilbrun et al. 2009); and (2) the report by the National Research Council (2009) on the status of forensic science in the USA. Each of these sources will be reviewed in order to identify principles and recommendations that have distinctive application in juvenile FMHA; these will be termed *juvenile-specific*. Other principles and recommendations that apply comparably to juveniles and adults will be called *foundational*. Taken together, these sources and this analysis will provide a broad, integrated basis for standards of practice in juvenile FMHA. We conclude with a procedural precaution: standards of practice are developed and endorsed by a field, so the extent to which these recommended standards will be implemented remains to be seen.

The Nature of Standards of Practice and Care

As juveniles continue to come into contact with the criminal justice system at near historically high rates (see e.g., Puzanchera 2009), the number of FMHAs conducted with juveniles is likely to keep pace. Evaluations to assist courts to determine whether a juvenile’s case should be heard in adult court or family court, evaluations of a juvenile’s competence to stand trial, and evaluations to assist with placement decisions are several examples of evaluations routinely conducted with juveniles. Despite several advances in the

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field of juvenile FMHA over the past two decades, including the development of psychometrically sound forensic assessment instruments [e.g., Structured Assessment of Violence Risk in Youth (Borum 2006); Youth Level of Service/Case Management Inventory (Hoge and Andrews 2002)] and an accompanying body of research on juvenile risk and protective factors (e.g., Borum and Verhaagen 2006; DeMatteo and Marczyk 2005), several researchers have concluded that the quality of juvenile forensic assessment practice is inconsistent and often of questionable quality (e.g., Christy et al. 2004; Hecker and Steinberg 2002; Ryba et al. 2003).

Part of the variability seen in juvenile FMHAs likely stems from the evaluation preferences of forensic mental health professionals. Different evaluators use different assessment strategies and write reports that differ in both content and style. In other words, there are widely differing *standards of practice* among evaluators. However, it is also likely that some of the variability in quality may result from the relative lack of legal guidance as to what constitutes minimally satisfactory practice in juvenile FMHAs. In legal parlance, this is referred to as a *standard of care*. The absence of standards of practice and care have implications for the consistency and quality of juvenile FMHAs.

In this section, we first examine the important distinctions between standards of practice and standards of care, which are occasionally blurred in the literature. Next, we discuss the reasons behind the absence of standards of practice and care in juvenile FMHAs, and the benefits of establishing such standards. Finally, we will describe sources of authority that may contribute to the development of these standards, with a particular focus on standards of practice (which are often used to establish standards of care).

Standards of Practice vs. Standards of Care

Although the terms “standards of practice” and “standards of care” are occasionally used interchangeably, they are distinct concepts that differ

in four important respects. First, standards of practice are defined as either the customary way of doing things (i.e., the industry standard) or as “best practices” in a specific field (Caldwell and Seamone 2007). For example, evaluators in a particular geographic location may routinely conduct short juvenile placement evaluations that result in brief and conclusory reports, while evaluators conducting other types of evaluations may conduct lengthier evaluations and write reports with greater detail. By contrast, standards of care are judicial, legislative, or administrative determinations that establish minimally acceptable standards of professional conduct in a particular context (see American Law Institute, Restatement (Second) of Torts § 282 1965). As such, while standards of practice is a clinical/practice concept, standards of care is a legal concept.

Second, the standards of practice are internally established by the field itself. This can happen informally through the “adoption” of a particular practice as the customary way of doing things, such as the increased use of a psychological instrument that has been demonstrated to be psychometrically sound and relevant to a particular legal question in juvenile proceedings (e.g., risk of recidivism). Standards of practice can also be established more formally through the development of practice guidelines for practitioners, such as the *Specialty Guidelines for Forensic Psychologists* (Committee on Ethical Guidelines for Forensic Psychologists 1991). By contrast, standards of care are externally imposed by a court of law in the context of a specific dispute (e.g., a court decides that a clinician is liable in a negligence claim for failing to protect identifiable third parties from a serious threat of future violence; e.g., *Tarasoff v. Regents of the University of California* 1976), established by a legislature (e.g., state legislation defining psychologists as mandated reporters of child abuse), or enforced through administrative regulation (e.g., a regulation from a state licensing board identifying the minimum educational and training requirements for the independent practice of psychology).

Third, adherence to a standard of care is mandatory because such standards carry the force of law. Regardless of whether the standard of care is

155 established by a court, legislature, or administra- 200
 156 tive body, adherence is required. By contrast, 201
 157 adherence to standards of practice is an aspira- 202
 158 tional goal, but not mandatory. Standards of prac- 203
 159 tice articulated by a professional committee or 204
 160 organization may identify “best practices,” but 205
 161 adhering to such guidelines is often framed as 206
 162 strongly suggested rather than mandatory. 207

163 Finally, failing to adhere to a standard of care 208
 164 may constitute negligence and potentially expose 209
 165 one to civil liability (e.g., monetary fines) 210
 166 (American Law Institute, Restatement (Second) 211
 167 of Torts § 282 1965). By contrast, deviating from 212
 168 a standard of practice does not result in legal li- 213
 169 ability, although it may result in the imposition of 214
 170 sanctions from the profession itself (e.g., mone- 215
 171 tary fines or expulsion from professional organi- 216
 172 zations), or the imposition of sanctions by the 217
 173 discipline through an administrative law body, 218
 174 such as a state licensure board (e.g., limitations 219
 175 on the ability to practice independently). 220

176 **Absence of Standards and Benefits** 219 177 **of Establishing Standards** 220

178 When compared to adult FMHAs, relatively little 221
 179 attention has been paid to standards of practice in 222
 180 juvenile FMHAs. Although there have been sev- 223
 181 eral attempts to establish guidelines for improv- 224
 182 ing the quality of FMHAs, most of these efforts 225
 183 have been directed primarily at adult FMHAs 226
 184 (e.g., Grisso 2003; Melton et al. 2007). As such, 227
 185 those who conduct juvenile FMHAs lack the type 228
 186 of guidance that is available for many types of 229
 187 adult FMHAs. However, as will be discussed 230
 188 shortly, a set of foundational principles of FMHA, 231
 189 theoretically applicable to all types of FMHAs, 232
 190 may provide some guidance toward the establish- 233
 191 ment of standards of practice in juvenile FMHA, 234
 192 which would likely serve to improve the consis- 235
 193 tency and quality of juvenile FMHAs. 236

194 A standard of care is a required element of a 237
 195 negligence-based professional malpractice claim, 238
 196 along with the elements of breach of the standard 239
 197 of care, resulting damages, and a causal connec- 240
 198 tion between the breach and damages (see Dobbs 241
 199 et al. 1984). As such, the absence of a standard of

care has effectively managed to insulate forensic 200
 mental health professionals from malpractice lia- 201
 bility. Although certain behaviors are likely to 202
 result in a malpractice claim (e.g., breach of con- 203
 fidentiality, sexual misconduct with patients, fail- 204
 ing to report child abuse), it is safe to conclude 205
 that in the large majority of contexts forensic 206
 mental health professionals enjoy little risk of 207
 being sued for malpractice (see Melton et al. 208
 2007). There may be other reasons why forensic 209
 mental health professionals are not subject to 210
 malpractice claims, such as the disenfranchised 211
 nature of many of the juveniles (and their fami- 212
 lies) with whom the evaluators work and the 213
 granting of judicial immunity to expert witnesses 214
 (see Greenberg et al. 2007). Nevertheless, the 215
 absence of a standard of care is perhaps the great- 216
 est impediment to maintaining a malpractice claim 217
 against a forensic mental health professional. 218

219 The development of a standard of care would 220
 likely provide several benefits. First, such a stan- 221
 dard would help to ensure that forensic mental 222
 health professionals are providing minimally 223
 acceptable standards of professional conduct. In 224
 this regard, a standard of care would help to dif- 225
 ferentiate between conduct that is problematic, 226
 but does not fall below minimally acceptable 227
 standards, and more serious conduct that consti- 228
 tutes a legally remediable cause of action. Second, 229
 a standard of care would protect a party injured 230
 by professional misconduct by providing a legal 231
 remedy. Third, the defining of minimally accept- 232
 able standards of professional conduct would 233
 protect forensic mental health professionals from 234
 baseless allegations of professional misconduct. 235
 Finally, the development of a standard of care 236
 and the resulting ability of injured parties to seek 237
 justice in court would likely be viewed as a posi- 238
 tive step in the maturing of our profession. 239

239 **Establishing Standards of Practice** 240 240 **in Juvenile FMHA** 241

241 The relationship between standards of practice and 242
 care warrants some discussion. Although distinct 243
 concepts, one informs the other. Specifically, courts 244
 often look to standards of practice established by a

discipline when determining minimally acceptable standards of professional conduct in a particular situation. Therefore, standards of practice should ideally come before standards of care.

There are several sources of professional authority that can theoretically influence the development of standards of practice in juvenile FMHA (for a discussion, see Heilbrun et al. 2008). In this chapter, we will focus on two particular sources: foundational principles of FMHA that have been developed using multiple sources of authority, and broad recommendations for improvements in the practice of forensic science made by an interdisciplinary National Research Council committee.

Principles and Recommendations Relevant to Juvenile FMHA Standards of Practice

Foundational Juvenile FMHA Principles and Recommendations

There are some respects in which the forensic assessment of juveniles is comparable to other FMHA, with different populations and on different legal questions. For the purposes of this chapter, we have considered a broad set of FMHA principles (Heilbrun et al. 2009) and a number of recommendations for the promotion of forensic science (National Research Council 2009). Each of these documents contains a number of items that appear foundational for juveniles. As may be seen from reviewing each (see Tables 10.1 and 10.2), the majority of these principles and recommendations identify areas in which juvenile FMHA is comparable to that conducted with other ages and for differing legal questions. Among the FMHA principles, these include general items underscoring the importance of familiarity with relevant literature, honesty and impartiality (including control of evaluator bias), and effective (but not adversarial) presentation. The preparation stage encompasses the clarification of the evaluator's role (and avoidance of a dual role) as well as the financial arrangements, and using a model to guide data gathering, interpretation, and

communication. In the data collection stage, such foundational principles include the importance of multiple sources of information that are selected for relevance and accuracy—and obtaining such information under circumstances that are reasonably quiet, private, and distraction-free. Data should be interpreted while considering the possibility that the individual being evaluated is not reporting accurately, something that can be gauged through using both third party information and specialized assessment tools. The reasoning about findings can be influenced by the scientific model involving hypothesis testing and disconfirmation. Findings should be well supported and described in a way that does not change much during cross-examination; the “ultimate legal question,” if answered, should be addressed in a way that reflects awareness of its nonclinical and nonscientific components.

Additional principles that also appear foundational for juveniles involve communication: describing findings in a straightforward, clear, jargon-free fashion supported by the evidence obtained in the evaluation, so there is little substantive change on cross-examination. Using sections and subheadings in the report can help the reader distill the specific findings, and also help the expert to retrieve them during testimony. Such testimony should depend heavily on the findings of a thorough evaluation; preparation in advance for testimony with the attorney can facilitate effective presentation on direct examination. The expert should have sufficiently mastered the stylistic aspects of expert testimony, as maximally effective testimony combines substance with such style (Brodsky 1991, 1999, 2004).

The majority of the recommendations from the National Research Council (2009) report seem to apply as well to juveniles as they do to other populations, and for other legal questions, in the justice system. As may be seen in Table 10.2, the recommendations to develop best practice standards, certify scientist-practitioners, promote peer-reviewed research, support specialized education, provide funding for relevant research and education, establish model reports, and develop new technologies can all be applied in straightforward fashion to the assessment of juveniles.

Table 10.1 Revised FMHA principles (Heilbrun et al. 2009) and their juvenile equivalents			
	Updated principle of FMHA	Juvenile equivalent	
t1.3	<i>Generally</i>		
	Be aware of the important differences between clinical and forensic domains	Be aware of the important differences between clinical and forensic domains, which may be less pronounced because of the prioritization of rehabilitation in the juvenile system	t1.4 t1.5 t1.6 t1.7
	Obtain appropriate education, training, and experience in one's area of forensic specialization	Obtain appropriate education, training, and experience in one's area of forensic specialization and human development	t1.8 t1.9 t1.10
t1.11 t1.12	Be familiar with the relevant legal, ethical, scientific, and practice literatures pertaining to FMHA	Identical	
t1.13 t1.14 t1.15	Be guided by honesty and striving for impartiality, actively disclosing the limitations on as well as the support for one's opinions	Identical	
t1.16 t1.17 t1.18	Control potential evaluator bias in general through monitoring case selection, continuing education, and consultation with knowledgeable colleagues	Identical	
	Be familiar with specific aspects of the legal system, particularly communication, discovery, deposition, and testimony	Be familiar with specific aspects of the legal system, including communication, discovery, deposition, and testimony—particularly those which apply distinctively to the juvenile system	t1.19 t1.20 t1.21 t1.22
t1.23 t1.24	Do not become adversarial, but present and defend your opinions effectively	Identical	
t1.25	<i>In specific cases: preparation</i>		
	Identify relevant forensic issues	Identify relevant forensic issues, focusing particularly on the recurring issues of risk and rehabilitation (needs and amenability)	t1.26 t1.27 t1.28
	Accept referrals only within area of expertise	Accept referrals only within area of expertise, which should include human development as well as clinical and forensic expertise	t1.29 t1.30 t1.31
	Decline the referral when evaluator impartiality is unlikely	Decline the referral when evaluator impartiality is unlikely, including strong beliefs that would impair balancing public safety and rehabilitation for adolescents	t1.32 t1.33 t1.34
t1.35	Clarify the evaluator's role with the attorney	Identical	
t1.36	Clarify financial arrangements	Identical	
	Obtain appropriate authorization	Obtain appropriate authorization, which is somewhat more complex for adolescents who are younger than 18	t1.37 t1.38
t1.39 t1.40	Avoid playing the dual roles of therapist and forensic evaluator	Identical	
t1.41 t1.42	Determine the particular role to be played within forensic assessment if the referral is accepted	Identical	
t1.43 t1.44	Select the most appropriate model to guide data gathering, interpretation, and communication	Identical	
t1.45	<i>In specific cases: data collection</i>		
t1.46 t1.47 t1.48	Use multiple sources of information for each area being assessed. Review the available background information and actively seek important missing elements	Identical	
t1.49 t1.50	Use relevance and reliability (validity) as guides for seeking information and selecting data sources	Identical	
	Obtain relevant historical information	Obtain relevant historical information, with particular emphasis on the distinctive domains of family, school, and peers	t1.51 t1.52 t1.53

(continued)

Table 10.1 (continued)

	Updated principle of FMHA	Juvenile equivalent	
	Assess clinical characteristics in relevant, reliable, and valid ways	Assess clinical characteristics in relevant, reliable, and valid ways, accounting for less stability in personal characteristics because of developmental changes	t1.54 t1.55 t1.56
	Assess legally relevant behavior	Assess legally relevant behavior while compensating for developmental influences of instability of capacities	t1.57 t1.58
t1.59	Ensure that conditions for evaluation are quiet, private, and distraction-free	Identical	
t1.60	Provide appropriate notification of purpose and/or obtain appropriate authorization before beginning	Provide appropriate notification of purpose and/or obtain appropriate authorization before beginning, accounting for additional complexities when youth are not yet 18	t1.61 t1.62 t1.63
	Determine whether the individual understands the purpose of the evaluation and the associated limits on confidentiality	Determine whether the individual understands the purpose of the evaluation and the associated limits on confidentiality, gauging impact of developmental immaturity as well as clinical and cognitive deficits	t1.64 t1.65 t1.66 t1.67
t1.68	<i>In specific cases: data interpretation</i>		
t1.69	Use third party information in assessing response style	Identical	
t1.70	Use testing when indicated in assessing response style	Identical	
	Use case-specific (idiographic) evidence in assessing clinical condition, functional abilities, and causal connection	Use case-specific (idiographic) evidence in assessing clinical condition, functional abilities, and causal connection. "Clinical condition" includes developmental immaturity	t1.71 t1.72 t1.73 t1.74
	Use nomothetic evidence in assessing clinical condition, functional abilities, and causal connection	Use nomothetic evidence in assessing clinical condition, functional abilities, and causal connection. "Clinical condition" includes developmental immaturity	t1.75 t1.76 t1.77
t1.78	Use scientific reasoning in assessing causal connection between clinical condition and functional abilities	Identical	
t1.79	Carefully consider whether to answer the ultimate legal question. If it is answered, it should be in the context of a thorough evaluation clearly describing data and reasoning, and with the clear recognition that this question is in the domain of the legal decision maker	Identical	
t1.80	Describe findings and limits so that they need change little under cross-examination	Identical	
t1.81	<i>In specific cases: written communication</i>		
t1.82	Attribute information to sources	Identical	
t1.83	Use plain language; avoid technical jargon	Identical	
t1.84	Write report in sections, according to model and procedures	Identical	
t1.85	<i>In specific cases: testimony</i>		
t1.86	Base testimony on the results of the properly performed FMHA	Identical	
t1.87	Prepare	Identical	
t1.88	Communicate effectively	Identical	
t1.89	Control the message. Strive to obtain, retain, and regain control over the meaning and impact of what is presented in expert testimony	Control the message. Strive to obtain, retain, and regain control over the meaning and impact of what is presented in expert testimony. The judge may be more active in questioning the expert, adding questions that are not adversarial	t1.97 t1.98 t1.99 t1.100 t1.101

337 Indeed, these recommendations are largely forensic psychiatry (Wettstein 2005) to improve 340
338 consistent with what has been advocated in foren- the quality of practice in these respective areas. 341
339 sic psychology (Heilbrun and Brooks 2010) and The extent to which these recommendations will 342

t2.1 **Table 10.2** National Research Council (2009) forensic sciences report recommendations adapted for juvenile FMHA

t2.2	Report recommendation	Juvenile FMHA equivalent	
t2.3	Develop best practice standards	Identical	
t2.4	Certify scientist-practitioners	Identical	
t2.5	Promote peer-reviewed research and technical development	Identical	
t2.6	Improve forensic education and promote educational standards	Identical	
t2.7	Provide funding to support research, education, and practice	Identical	
t2.8	Provide funding for relevant state and local agencies	Identical	
t2.9	Develop and implement new technologies in FMHA	Identical	
t2.10	Establish standard terminology and model reports	Identical	
t2.11	Competitively fund peer-reviewed research on the scientific bases of validity of forensic methods	Identical	
	Develop and establish quantifiable measures of reliability and accuracy of forensic analyses	Develop and establish quantifiable measures of reliability and accuracy of forensic analyses, accounting for diminished stability of capacities resulting from developmental changes	t2.13 t2.14 t2.15 t2.16
t2.17	Publish reliability and validity data in good journals	Identical	
	Promote research on observer bias and human error in forensic examinations	Promote research on observer bias and human error in forensic examinations, including longitudinal research to minimize error resulting from developmentally induced instability of capacities	t2.18 t2.19 t2.20 t2.21
t2.22	Develop specialty tools	Identical	
	Develop quality improvement procedures to ensure best practice and minimize error	Develop quality improvement procedures to ensure best practice and minimize error, including longitudinal measures of capacity stability	t2.23 t2.24 t2.25
t2.26	Develop a national forensic science code of ethics; encourage individual societies to incorporate this code into their own ethics	Identical	
t2.27			
t2.28	Fund interdisciplinary graduate training	Fund interdisciplinary graduate training, including training in human development	t2.29 t2.30

343 actually succeed in improving practice will
 344 depend partly on how well practice standards can
 345 be developed to incorporate empirical evidence,
 346 a point addressed by several other recommenda-
 347 tions made in the NRC report (fund research on
 348 the validity of forensic methods; publish these
 349 data in good journals; develop specialty tools that
 350 have empirically supported reliability and valid-
 351 ity in the specific legal contexts in which they are
 352 applied).

353 **Juvenile-Specific FMHA Principles**
 354 **and Recommendations**

355 In additional to foundational principles and rec-
 356 ommendations, there are a number of points from
 357 each of these sources that were considered to
 358 have specific implications for juvenile assess-
 359 ment. These are described in the present section.

Be aware of the important differences between 360
clinical and forensic domains, which may be less 361
pronounced because of the prioritization of reha- 362
ilitation in the juvenile system. This distinction 363
may be less clear with juveniles than adults, given 364
the importance of rehabilitation in the juvenile 365
system. Two very important constructs in juve- 366
nile transfer/reverse transfer and adjudication/ 367
placement—reoffense risk and treatment needs/ 368
amenability—reflect the importance of assessing 369
what the youth needs and how s/he will respond 370
to risk-relevant interventions. 371

Obtain appropriate education, training, and 372
experience in one’s area of forensic specializa- 373
tion and human development. Those conducting 374
FMHA should be familiar with the relevant sci- 375
entific evidence and clinical issues associated 376
with juveniles, as well as the important aspects 377
of law. Perhaps the major difference between 378

- 379 juvenile and criminal FMHA involves the devel- 424
 380 opmental influences on adolescents. The level of 425
 381 developmental maturity affects a variety of 426
 382 aspects of the evaluation, including the stability 427
 383 of assessed characteristics and the cognitive and 428
 384 psychosocial judgment influences on the indi-
 385 vidual's functional-legal capacities (Steinberg
 386 and Scott 2003).
- 387 *Be familiar with specific aspects of the legal sys-* 429
 388 *tem, including communication, discovery, depo-* 430
 389 *sition, and testimony—particularly those which* 431
 390 *apply distinctively to the juvenile system. It is* 432
 391 *generally important to be familiar with the legal* 433
 392 *system when conducting forensic evaluations.* 434
 393 *But the juvenile system has several distinctive* 435
 394 *aspects that must be considered particularly.* 436
 395 *These include timeframes for completing evalua-* 437
 396 *tions (often shorter), rules of evidence affecting* 438
 397 *testimony (less formal), and preparation for testi-* 439
 398 *mony (incorporating the unexpected, including* 440
 399 *questioning by the judge).* 441
- 400 *Identify relevant forensic issues, focusing partic-* 442
 401 *ularly on the recurring issues of risk and reha-* 443
 402 *ilitation (needs and amenability). Risk and* 444
 403 *rehabilitation are two prominent forensic issues* 445
 404 *in juvenile FMHA. These recur across juvenile* 446
 405 *legal questions (e.g., transfer and reverse trans-* 447
 406 *fer, adjudication and placement). Accordingly,* 448
 407 *evaluators should be well aware of the scientific* 449
 408 *and professional literatures relevant to each, par-* 450
 409 *ticularly in the area of risk-needs assessment* 451
 410 *(Hoge and Andrews 2010). Specialized tools* 452
 411 *have been designed and validated to measure* 453
 412 *both risk and needs; these include the Youth* 454
 413 *Level of Service/Case Management Inventory* 455
 414 *(Hoge and Andrews 2002), the Structured* 456
 415 *Assessment of Violence Risk in Youth (Borum* 457
 416 *2006), and the Risk-Sophistication-Treatment* 458
 417 *Inventory (Salekin 2005).* 459
- 418 *Accept referrals only within area of expertise,* 460
 419 *which should include human development as well* 461
 420 *as clinical and forensic expertise. Forensic eval-* 462
 421 *uators should have substantial familiarity with* 463
 422 *criminal justice populations, relevant clinical and* 464
 423 *scientific issues, and applicable law to conduct* 465
- any kind of evaluation for the courts. The evalu- 424
 ation of adolescents in the juvenile system 425
 requires another level of expertise: knowledge of 426
 human development and its applicability to juve- 427
 nile FMHA (Grisso 1998; Grisso et al. 2003). 428
- Decline the referral when evaluator impartiality* 429
is unlikely, including strong beliefs that would 430
impair balancing public safety and rehabilitation 431
for adolescents. Various influences can limit an 432
evaluator's capacity for impartiality in FMHA. 433
 Such influences include financial, professional, 434
 and personal. One such influence that is particu- 435
 larly applicable to juvenile FMHA involves per- 436
 sonal and professional beliefs about adolescents 437
 that would make it difficult to balance the issues 438
 of risk and rehabilitation, offering a candid and 439
 well-supported opinion about each and accurately 440
 integrating these issues to yield an overall opin- 441
 ion about rehabilitation needs and amenability in 442
 the context of appraised risk. 443
- Obtain appropriate authorization, which is some-* 444
what more complex for adolescents who are 445
younger than 18. FMHA can be authorized by 446
court order or through the request of the defen- 447
dant's attorney. A court order provides sufficient 448
authorization for both adult and adolescent defen- 449
dants who are the subject of forensic assessment. 450
 Attorney-requested justification, however, can be 451
 slightly more complex in juvenile FMHA. 452
 Typically an attorney representing a juvenile 453
 serves as a proxy, providing permission for the 454
 youth to participate in the evaluation that would 455
 otherwise come from a parent or guardian. 456
 However, in cases where legal custody is shared 457
 by more than one parent or guardian, it could be 458
 important to clarify the implications of different 459
 views on retaining the attorney who would then 460
 provide such permission via proxy. 461
- Obtain relevant historical information, with par-* 462
ticular emphasis on the distinctive domains of 463
family, school, and peers. Juvenile FMHA, like 464
that conducted with adults, should incorporate 465
relevant aspects of that individual's history. 466
 Because adolescents are younger, however, the 467
 nature of the relevant history differs. Personality 468

- 469 and psychopathology are less fully developed. 513
 470 The important historical domains are family, 514
 471 school, peers, clinical functioning, and offending. 515
- 472 *Assess clinical characteristics in relevant, reli-* 516
 473 *able, and valid ways, accounting for less stability* 517
 474 *in personal characteristics because of develop-* 518
 475 *mental changes.* It is always important to assess 519
 476 individuals' clinical and personality functioning, 520
 477 whenever possible using measures that satisfacto- 521
 478 rily reliability and appropriate validity for this 522
 479 particular purpose. Some aspects of personality 523
 480 functioning (e.g., impulsivity, extraversion) tend 524
 481 to be fairly stable in adults. This is less true in 525
 482 adolescence, so the evaluator cannot be confident 526
 483 that a given characteristic, assessed in the present, 527
 484 was at the same level in the past (for evaluations 528
 485 requiring reconstruction) or will be at a compa- 529
 486 rable level in the future (for assessments involv- 530
 487 ing prediction). The impact of developmental 531
 488 change must be considered with adolescents. 532
- 489 *Assess legally relevant behavior while compen-* 533
 490 *sating for developmental influences of instability* 534
 491 *of capacities.* Legally relevant behavioral capaci- 535
 492 ties can also be unstable over time for develop- 536
 493 mental reasons. Evaluators must consider such 537
 494 developmentally influenced instability in the 538
 495 same way they account for potential change in 539
 496 personal characteristics and clinical symptoms 540
 497 with adolescents. 541
- 498 *Provide appropriate notification of purpose and/* 542
 499 *or obtain appropriate authorization before begin-* 543
 500 *ning, accounting for additional complexities* 544
 501 *when youth are not yet 18.* This was discussed 545
 502 earlier in this section under the principle of 546
 503 obtaining appropriate authorization. 547
- 504 *Determine whether the individual understands* 548
 505 *the purpose of the evaluation and the associated* 549
 506 *limits on confidentiality, gauging impact of devel-* 550
 507 *opmental immaturity as well as clinical and cog-* 551
 508 *nitive deficits.* It can be challenging under any 552
 509 circumstances to determine whether the individ- 553
 510 ual being evaluated has meaningfully understood 554
 511 the notification of purpose delivered before 555
 512 beginning the evaluation. It can be even more 556
 513 difficult with younger adolescents, particularly 557
 514 when developmental immaturity is combined 558
 515 with clinical symptoms or cognitive deficits. But 559
 516 the evaluator is well advised to be cautious with 560
 517 adolescents or children under the age of 14, seek- 561
 518 ing to determine whether a notification is not 562
 519 understood because the youth has not yet attained 563
 520 the cognitive and psychosocial maturity to mean- 564
 521 ingfully appreciate the nature and consequences 565
 522 of participating in FMHA. 566
- Use case-specific (idiographic) evidence in* 523
assessing clinical condition, functional abilities, 524
and causal connection. "Clinical condition" 525
includes developmental immaturity. There are two 526
 sources of evidence that the evaluator can apply 527
 toward measuring relevant clinical symptoms, 528
 functional-legal capacities, and the causal rela- 529
 tionship between symptoms and functional-legal 530
 deficits. The first is idiographic—the individual's 531
 own history serving as a frame of reference for 532
 how his or her present capacities, symptoms, and 533
 behavior compare to his or her potential in these 534
 areas. It can be difficult to use history as a mea- 535
 sure of the potential for cognitive or psychosocial 536
 maturity. It may be unclear how quickly an ado- 537
 lescent defendant will develop these relevant 538
 capacities, but they have not had them before. 539
- Use nomothetic evidence in assessing clinical* 540
condition, functional abilities, and causal con- 541
nection. "Clinical condition" includes develop- 542
mental immaturity. The second source of evidence 543
 for measuring developmental maturity involved 544
 comparing the adolescent defendant to others of 545
 comparable age, and assessing how they function 546
 in specific areas relevant to others of similar age. 547
 When cognitive and psychosocial judgment limi- 548
 tations are observed in youth younger than 14, it 549
 is likely that developmental immaturity is having 550
 an important influence on such deficits—and the 551
 impact of this influence increases in inverse pro- 552
 portion to the age of the youth being evaluated. 553
- Control the message. Strive to obtain, retain, and* 554
regain control over the meaning and impact of 555
what is presented in expert testimony. The judge 556
may be more active in questioning the expert, 557

558 *adding questions that are not adversarial.* There
 559 are times in juvenile court in which careful prep-
 560 aration for direct examination, as well as antici-
 561 pation of important areas for cross-examination,
 562 is confounded by direct questioning by the court.
 563 The forensic clinician cannot treat such questions
 564 as adversarial. This means that efforts to control
 565 the meaning and impact of testimony, which are
 566 appropriate in response to cross-examination, are
 567 not indicated in response to questions from the
 568 judge. Rather, the expert should attempt to answer
 569 the judge's questions as simply, directly, and
 570 completely as possible.

571 **Strengthening Forensic Science**
 572 **in the USA (National Research**
 573 **Council 2009)**

574 Despite the application of most of the recommen-
 575 dations in this report to juvenile forensic assess-
 576 ment in a foundational way, there appear to be
 577 four recommendations that can be modified
 578 somewhat for juvenile evaluations. These are dis-
 579 cussed in this section.

580 *Develop and establish quantifiable measures of*
 581 *reliability and accuracy of forensic analyses,*
 582 *accounting for diminished stability of capacities*
 583 *resulting from developmental changes.* Some of
 584 the challenges noted earlier with respect to devel-
 585 opmental immaturity—particularly gauging its
 586 impact on cognitive, clinical, and psychosocial
 587 judgment functioning—should be addressed
 588 through developing specialized measures of the
 589 different capacities needed for functioning on
 590 various legal questions. Further, such measures
 591 should measure the cognitive and psychosocial
 592 judgment aspects of maturity explicitly, and link
 593 them with potential deficits in functional-legal
 594 capacities. The “moving target” aspect of cogni-
 595 tive and psychosocial maturity adds to the chal-
 596 lenge of developing such measures. It would be
 597 necessary to norm them with a large sample over
 598 time, or at least stratify the validation samples
 599 according to age to create a meaningful estimate
 600 of how these capacities are likely to change
 601 through maturation.

Promote research on observer bias and human 602
error in forensic examinations, including longi- 603
tudinal research to minimize error resulting from 604
developmentally induced instability of capaci- 605
ties. This relates directly to the importance of 606
 research on developmental maturity for youth in 607
 the justice system, and the impact of such matu- 608
 rity on deficits in relevant functional-legal capaci- 609
 ties. Trying through clinical judgment to separate 610
 the influence of developmental immaturity, intel- 611
 lectual deficits, and clinical symptoms is very 612
 likely to lead to unfounded speculation. 613
 Structuring these judgments would help. The 614
 development of empirically supported special- 615
 ized forensic assessment tools, normed longitudi- 616
 nally, can reduce error, and the impact of human 617
 bias, considerably. 618

Develop quality improvement procedures to 619
ensure best practice and minimize error, includ- 620
ing longitudinal measures of capacity stability. 621
 This concerns the broader point about the impor- 622
 tance of ongoing feedback about quality that has 623
 the potential to improve all forensic assessment 624
 (Heilbrun and Brooks 2010; Wettstein 2005). But 625
 if researchers can investigate capacity stability 626
 longitudinally in adolescents, tracking how 627
 developmental maturity is likely to affect such 628
 capacities, then this should lead to the develop- 629
 ment of specialized tools to assist in the forensic 630
 assessment of adolescents. It should also yield 631
 criteria that can be used for “quality improve- 632
 ment,” allowing forensic administrators and pol- 633
 icy makers as well as researchers to investigate 634
 the accuracy of judgments about developmental 635
 maturity and predictions about how it will affect 636
 youths' capacities in the future. 637

Fund interdisciplinary graduate training, includ- 638
ing training in human development. Certainly 639
 some of the principles and recommendations dis- 640
 cussed in this chapter, considered as they relate to 641
 juveniles in particular, could be implemented 642
 more successfully with greater integration of the 643
 science of human development into graduate 644
 training in forensic psychology and psychiatry. 645
 This could be done more effectively with enhanced 646
 funding at different levels of such training. 647

648 Regardless of whether such funding becomes
649 available, however, a more intensive integration
650 of human development into training those who
651 will eventually conduct juvenile evaluations
652 seems a reasonable goal that should yield mean-
653 ingful improvement in this area.

654 Conclusion

655 We noted in the beginning of this chapter that
656 standards of practice are developed by the field,
657 not promulgated by authors of a single chapter. It
658 is worth repeating that caution. It is also useful to
659 observe that there are a number of ongoing proj-
660 ects at present that should contribute to recog-
661 nized standards of practice in forensic psychiatry
662 (including the development of practice guidelines
663 for different kinds of legal questions; see
664 Mossman et al. 2007) and forensic psychology
665 (e.g., the updating of the *Specialty Guidelines for*
666 *Forensic Psychologists*). These are noteworthy
667 projects that should be continued and expanded
668 as these fields grow.

669 Our strategy in this chapter has been some-
670 what different, however. Rather than attempt an
671 exhaustive list of projects and sources like these,
672 we have identified two broad, integrative docu-
673 ments that bring together law, ethics, science, and
674 practice. Further, we have considered these docu-
675 ments in adapted form, as they might apply to
676 juvenile forensic assessment both foundationally
677 and specifically. In doing so, we have identified
678 a number of areas—some broad, others highly
679 specific—for the fields of forensic psychiatry and
680 forensic psychology to consider as they move
681 toward a clearer articulation of practice standards
682 applicable to the FMHA of juveniles.

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Author Query

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AU1	First author has been treated as the corresponding author. Please check if appropriate.	

Uncorrected Proof

3 Robert D. Hoge

4 The assessment process involves the collection,
5 processing, and synthesis of information about
6 the individual. The outcome of the assessment is
7 generally expressed as a judgment or opinion
8 which may, in turn, be expressed as a categoriza-
9 tion (e.g., bipolar depression, autistic, high risk
10 for violent offending) or as a position on a quan-
11 titative scale (e.g., 76 percentile on measure of
12 spatial ability, 80% likelihood of reoffending).
13 Formal and informal assessments are conducted
14 in juvenile justice systems by police, prosecuting
15 attorneys, probation officers, mental health pro-
16 fessionals, and others, and these assessments are
17 used as the basis for important decisions about
18 the youth.

19 While the assessment process is critical to the
20 quality of decisions made about the youth, many
21 juvenile justice systems depend on badly flawed
22 assessment processes (Heilbrun 2001; Hoge
23 1999a, 2008; Hoge and Andrews 1996; Mulvey
24 and Iselin 2008). In some cases, no systematic
25 assessments are conducted. In other cases, the
26 assessments are carried out by unqualified indi-
27 viduals or reflect an absence of adequate standards
28 and procedures. Ample research now exists to
29 show that justice systems that depend on struc-
30 tured and validated assessment procedures are
31 more effective in producing reduced reoffending
32 rates than those that do not use these procedures.

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The use of standardized assessments constitutes 33
one of the most important of the principles of best 34
practice (Andrews and Bonta 2006; Grisso 2005b; 35
Hoge 1999a, 2008; Hoge and Andrews 1996). 36

Contexts and Purposes of Assessments

Table 11.1 provides an outline of the major deci- 37
sion areas encountered in juvenile justice systems. 38
These range from the initial police contact with 39
the youth to final discharge from the system. 40
Some of these decisions relate to legal issues 41
involving, for example, judgments about guilt or 42
innocence. Those are outside the scope of our 43
interest. However, many other decisions involve 44
assessments relating to the psychological func- 45
tioning of the youth or his or her circumstances. 46
For example, a decision of the police or prosecu- 47
tor to formally charge the youth may be affected 48
by judgments about the youth's cognitive abili- 49
ties or emotional maturity. Other decisions such 50
as waiver to the mental health system may involve 51
more complex diagnoses relating to the youth's 52
psychiatric status. Disposition or sentencing deci- 53
sions made by a judge or magistrate may be 54
affected by a probation officer's assessment of 55
the family circumstances of the youth. These are 56
all important decisions and highlight the impor- 57
tance of conducting careful and valid assessments 58
of the youth. 59
60

As suggested by the above examples, the focus 62
of assessments will vary. In some cases, the 63

t1.1 **Table 11.1** Major decision areas in juvenile justice systems

t1.2

t1.3 Pre-arrest diversion

t1.4 Arrest

t1.5 Criminal charge

t1.6 Pretrial detention

t1.7 Waiver to adult court

t1.8 Competency to stand trial

t1.9 Adjudication

t1.10 Sentencing/disposition

t1.11 Rehabilitative intervention planning

64 concern is with documenting the criminal history of the individual. In others, the concern is with describing or diagnosing internal conditions of the youth, relating, for example, to his or her emotional state or propensity for violence. In still other cases, the goal is the identification of problems existing with family circumstances, educational achievement, peer group associations, or substance abuse. Yet another focus may be on the attitudes and values of the young person.

74 Many decisions require that the assessment be expressed as an evaluation of risk for engaging in future criminal behavior (criminogenic risk). This may be a factor in decisions about pretrial detention or diversion. For example, programs designed to divert youth out of the criminal justice system without further processing are generally reserved for low-risk individuals. The risk level may also be a consideration in deciding on an appropriate disposition following a finding of guilt. This could, for example, be the basis for deciding whether custody or community supervision is the appropriate course of action.

87 Assessments may also focus on criminogenic needs. In this case, we are attempting to identify the risk factors that can be changed through interventions to reduce the probability of future offending. For example, association with antisocial peers is a risk factor, but is something we can influence and, to the extent that we succeed, we can reduce the risk level. Needs assessments are very important wherever risk management is a concern and where interventions or treatments are to be provided within the judicial action. A related focus of assessment is on strength or protective factors presented by the youth or his or

her circumstances. These are often relevant to decisions about dispositions assigned to the youth.

Under some circumstances, legal criteria may be available for guiding the assessment process. For example, specific psychiatric assessments may be indicated where decisions are to be made regarding competence to stand trial (Grisso 2003, 2005a). In still other cases, agency policy or professional standards may guide the assessment process. However, rules or regulations for the conduct of assessments are often not available, leaving open the possibility for decisions to be based on invalid or biased assessments (Grisso 2003, 2005a; Hoge 2008; Mulvey and Iselin 2008). Legal and ethical issues will be explored more fully later in the chapter.

Categories of Assessment Instruments 116

Two major bases for categorizing assessment instruments and procedures are available. These involve a distinction between screening and assessment tools and between clinical and standardized assessments.

Screening Versus Assessment Instruments 122

A distinction is sometimes made between screening and assessment procedures, although the line between these is not always entirely clear. Screening instruments are generally relatively simple measures designed for use with all individuals within a group. The purpose is to provide a preliminary indication of potential problems, with the understanding that more thorough assessments will be conducted where these are identified. The Massachusetts Youth Screening Instrument-Version 2 (MAYSI-2; Grisso and Barnum 2003), for example, is a self-report form used as a preliminary screening device for detecting emotional, behavioral, and psychological disturbances. It does not yield psychological diagnoses but does provide initial information about symptoms that may require more intensive assessments. Screening measures

of this sort generally do not require a high level of training or expertise for administration or interpretation.

Psychological assessments, on the other hand, involve more thorough analyses of psychological or behavioral functioning. This might, for example, involve a comprehensive evaluation of cognitive and personality functioning through the use of standardized tests and clinical interviews. This would be appropriate where signs of serious disorder are present or a decision relating to competency to stand trial is required. Many comprehensive psychological assessments will require the services of a mental health practitioner such as psychiatrist or psychologist.

However, as we will see below, other assessment procedures can be conducted by nonmental health professionals such as probation officers, youth workers, or teachers. For example, the How I Think Questionnaire (HIT; Gibbs et al. 2001) is a self-report measure of antisocial attitudes and values that can be used by a youth worker or probation officer as an evaluation tool. The Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge and Andrews 2002, 2010b), described in more detail below, is a comprehensive measure of criminogenic risk and needs that can be administered by a probation officer with specialized training.

Clinical Versus Standardized Assessments

Two general approaches to the conduct of assessments can be identified. Clinical assessments involve the unstructured collection of information and the interpretation of that information on the basis of past clinical experience. A probation officer, for example, might conduct an open-ended interview with a youth, interview parents, examine file information, and conclude that the youth is high risk for continued criminal activity. Some clinical assessments do involve a certain amount of structure, but clinical interviews are relatively unstructured and allow the assessor considerable latitude in collecting and interpreting information. Decisions within juvenile justice systems are

often based on clinical assessments (Mulvey and Iselin 2008; Wasserman et al. 2003).

Standardized assessments, on the other hand, represent more structured procedures for forming assessments. These are instruments or procedures with (a) fixed stimulus, response, and scoring formats; (b) yielding quantitative scores; and (c) for which normative and psychometric data are available. The Wechsler Intelligence Scale for Children-IV (WISC-IV; Wechsler 2004) and the Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A; Butcher et al. 1992) are examples of standardized psychological measures. Several standardized measures for assessing risk and need in juvenile offenders will be described later.

Mechanical or actuarial prediction represents a special form of standardized assessment procedures whereby the procedures yield a specific prediction regarding an outcome. We will examine some comprehensive risk/need assessment instruments later and see that they yield specific estimates of risk for reoffending.

It is customary to distinguish two forms of actuarial assessment (Bonta 1996). Static measures include only historical and invariant items (e.g., age at first arrest, number of convictions). Static/dynamic actuarial measures, on the other hand, include both static and dynamic risk factors. The latter are generally theoretically and empirically grounded and are potentially useful in evaluating risk for reoffending and in identifying need factors requiring intervention.

Still another form of assessment is referred to as guided professional assessment or structured professional judgment (Borum and Douglas 2003; Borum and Verhaagen 2006; Webster et al. 2002). This involves the use of clinical judgments within a structured framework. Risk and need items based on empirical research are defined within the measures, but the combination of the items and the formulating of an overall risk/need estimate are based on the discretion of the clinician. The items usually reflect static risk, need, and protective variables. Examples will be presented in a later section.

Considerable research is now available demonstrating that the use of standardized assess-

235 ments, particularly static/dynamic actuarial or
 236 guided professional assessments, is preferable to
 237 a dependence on clinical assessments (Borum
 238 and Verhaagen 2006; Dawes et al. 1993; Grove
 239 and Meehl 1996; Hoge 1999a, 2008). There are a
 240 number of reasons why these procedures yield
 241 more valid predictions of behavior. First, a broad
 242 assessment of the youth is encouraged by includ-
 243 ing all risk, need, and protective factors associ-
 244 ated with youth crime. The assessor is discouraged
 245 from focusing only on a narrow range of factors.
 246 Second, and related, the use of the standardized
 247 assessments discourages a dependence on sim-
 248 plistic stereotypes. For example, instead of view-
 249 ing the youth as a “14-year-old male” or a
 250 “Hispanic female,” the assessor is encouraged to
 251 consider the full range of characteristics of the
 252 youth and his or her circumstances. Third, the use
 253 of a structured instrument assists the professional
 254 in synthesizing the information collected.

255 **Examples of Assessment Instruments**
 256 **and Procedures**

257 This section will provide an overview of the
 258 major categories of assessment instruments and
 259 procedures relevant to juvenile justice settings.
 260 More thorough discussions may be found in
 [A]261 Grisso (1998a, b), Grisso et al. (2005), Hoge
 262 (2008), and Hoge and Andrews (1996, 2010a).

263 Two broad categories of assessment instruments
 264 can be identified. The first includes measures
 265 developed for general application but relevant to
 266 assessment in juvenile justice settings and the
 267 second includes instruments and procedures spe-
 268 cifically developed for forensic application.

269 **General Application Measures**

270 A large number of personality tests, structured
 271 interview schedules, rating/checklist, and attitude
 272 measures have been developed that have proven
 273 useful in assessing juvenile offenders.

274 The MMPI-A (Butcher et al. 1992) and Reynolds
 275 Adolescent Depression Scale (RADS) are two
 276 examples of the many standardized personality

277 tests useful in the psychological assessment of
 278 adolescent offenders. These tests generally require
 279 special training in scoring and interpretation.

280 Structured interview formats designed for
 281 assessing behavioral and emotional pathologies
 282 may also play a role in forensic assessments.
 283 Examples include the Diagnostic Interview
 284 Schedule for Children (DISC; Shaffer 2000) and
 285 Child and Adolescent Functional Assessment
 286 Scale (CAFAS; Hodges 2000).

287 Standardized rating and checklist measures
 288 have also proven very useful in these assess-
 289 ments. These may serve as screening tools for the
 290 preliminary identification of problems or as part
 291 of more intensive psychological assessments.
 292 The parent, teacher, and youth forms of the Child
 293 Behavior Checklist (CBCL; Achenbach and
 294 Rescorla 2001) have proven invaluable in identi-
 295 fying behavioral pathologies in youth. More
 296 focused rating instruments such as the MAYSI-2
 297 (Grisso and Barnum 2003) and Aggression
 298 Questionnaire (AQ; Buss and Warren 2000) may
 299 also be useful. Some of the rating/checklist mea-
 300 sures are only suitable for use by mental health
 301 professionals, but others can be used by proba-
 302 tion officers, teachers, or youth workers with
 303 some training in scoring and interpretation.

304 **Forensic Assessment Instruments**

305 This category includes instruments and proce-
 306 dures specifically developed for assessments in
 307 juvenile justice systems. Some of these are spe-
 308 cialized measures designed for evaluating legally
 309 relevant considerations. Examples include the
 310 MacArthur Competence Assessment Tool-Criminal
 311 Adjudication (MacCAT-CA; Poythress et al.
 312 1999), Risk-Sophistication-Treatment Inventory
 313 (Salekin 2004), and Instruments for Assessing
 314 Understanding and Appreciation of Miranda
 315 Rights (Grisso 1998b). Further discussions of
 316 these instruments may be found in Grisso (1998a),
 317 Grisso et al. (2005, and Melton et al. 2007).

318 Several standardized self-report measures of
 319 antisocial attitudes, values, and beliefs are available,
 320 including the Criminal Sentiments Scale-Modified
 321 (CSS-M; Simourd 1997) and HIT (Gibbs et al.

Measure	Reference
Arizona Juvenile Risk Assessment Form	Ashford et al. (1986)
Early Assessment Risk Lists for Boys and Girls	Augimeri et al.(2001) and Levene et al. (2001)
Estimate of Risk of Adolescent Sexual Offense Recidivism	Worling and Curwen (2001)
Hare Psychopathy Checklist—Youth Version	Forth et al. (2003)
Juvenile Probation and Aftercare Assessment Form	Baird (1985)
Structured Assessment of Violence Risk in Youth	Borum et al. (2003)
Washington State Juvenile Court Risk Assessment	Barnoski (2004)
Youth Level of Service/Case Management Inventory	Hoge and Andrews (2002, 2010b)

2001). The latter is especially important because it helps identify specific aspects of defective reasoning that can lead to antisocial actions.

Comprehensive risk/need assessment instruments constitute another important category of measures. These are generally in the form of structured checklists and employ either an actuarial or structured professional judgment approach. These instruments are potentially useful to assist in all phases of the forensic decision process except adjudication. This includes decisions regarding pretrial detention, pre-charge diversion, post-charge waivers to the mental health or adult systems, and post-adjudication placement and treatment decisions.

Table 11.2 identifies the major standardized risk/need assessment instruments and procedures. Detailed descriptions of these instruments are available from Borum and Verhaagen (2006), Hoge (2008), Hoge and Andrews (1996), and Wiebush et al. (1995). Two examples of the approach will be presented for illustrative purposes.

The YLS/CMI (Hoge 2010; Hoge and Andrews 2002, 2010b) is a standardized actuarial measure providing estimates of risk for reoffending and a framework for developing case plans based on a risk/needs/strengths assessment. The risk/needs section of the inventory contains 42 items reflecting

characteristics of the youth (e.g., “truancy,” “chronic drug use”) or his or her circumstances (e.g., “parent provides inadequate supervision”). The section yields an overall risk/needs score and scores for the following domains: prior and current offences/dispositions; family circumstances/parenting, education/employment, peer relations, substance abuse, leisure/recreation, personality/behavior, and attitudes/orientation. An opportunity is also provided to indicate areas of strength. Subsequent sections provide formats for developing a case plan based on the risk/needs/strength assessment. Reliability and validity research has been reported for the measure (see Hoge 2010; Hoge and Andrews 2010b).

The Estimate of Risk of Adolescent Sexual Offense Recidivism-2 (ERASOR; Worling and Curwen 2001) is an example of a structured clinical assessment tool focusing on youthful sex offenders. It is designed to evaluate risk for sexual reoffending on the part of individuals who have previously committed a sexual assault and to offer guidance in the development of treatment strategies. Twenty-five risk items are represented, including “deviant sexual interest,” and “antisocial interpersonal orientation.” The assessor categorizes the level of risk as low, moderate, or high based on the total number of items checked and the assessor’s judgments about the pattern of risk observed. Psychometric research has been reported for the scale (Worling and Curwen 2001).

Comprehensive Assessment Batteries

Complex decisions relating to mental health issues may require the conduct of a comprehensive assessment by a mental health professional. This would be true, for example, where a decision regarding competency to stand trial is required or a decision must be made regarding a disposition for a youth with a serious behavioral disorder. Figure 11.1 provides an example of a comprehensive assessment battery suitable for use by a psychologist directed by the court to provide a mental health evaluation prior to assist in a forensic decision.

Review of File Information

Interviews

Semi-structured interview with youth

Semi-structured interview with parent

Cognitive Aptitude and Achievement Measures

Wechsler Intelligence Scale for Children–IV (Wechsler, 2004)

Kaufman Test of Educational Achievement (Kaufman & Kaufman, 1985)

Personality Test

Minnesota Multiphasic Personality Inventory–Adolescent (Butcher et al., 1992)

Rating Measures of Behavioral Pathology

Child Behavior Checklist–Parent Version (Achenbach & Rescorla, 2001)

Child Behavior Checklist–Teacher Report Form (Achenbach & Rescorla, 2001)

Broad-Based Risk/Needs Assessment Measure

Youth Level of Service/Case Management Inventory (Hoge & Andrews, 2002, 2010b)

Fig. 11.1 Model assessment battery for a comprehensive risk/needs assessment

394 Evaluating Assessments

395 Reliability and validity are the two major bases
 396 for evaluating psychological measures. The basic
 397 forms of these constructs are defined in Table 11.3,
 398 and only a brief review of some of the basic con-
 399 structs will be provided here. You are referred to
 400 Grisso (2005b), Hoge (2008), and Hoge and
 401 Andrews (1996) for more thorough discussions
 402 of these psychometric procedures as they apply
 403 to forensic assessments.

404 Reliability refers to the stability or consistency
 405 of a measure. More formally, it refers to the rela-
 406 tive proportion of true and error variance in a
 407 measure. Three standard procedures are available
 408 for evaluating reliability: test–retest, inter-rater
 409 agreement, and internal consistency. Each pro-
 410 vides a somewhat different approach to detecting

the extent to which extraneous or error factors are 411
 affecting scores on a measure. Reliability coeffi- 412
 cients are generally expressed through correla- 413
 tion coefficients. 414

Reliability constitutes an essential condition 415
 in a measure. Lack of stability or consistency in a 416
 measure seriously interferes with its utility in 417
 applied assessment situations. If, for example, we 418
 found that scores on a personality test were 419
 affected by factors not related to the personality 420
 trait being assessed and that scores fluctuated in a 421
 more-or-less random fashion over time, we could 422
 have little confidence in that measure. 423

Validity is a more difficult construct to define 424
 since it is used in a number of different ways in 425
 different contexts. However, where referring to 426
 psychological tests or procedures, the term refers 427
 in its broadest sense to the meaningfulness of 428
 scores from a measure (Messick 1995; Sattler 429

t3.1 **Table 11.3** Definitions of psychometric terms

t3.2	<i>Reliability</i>
t3.3	The stability or consistency of a measure; formally defined as the relative proportion of true or error variance within
t3.4	a measure
t3.5	<i>Content validity</i>
t3.6	The adequacy with which a measure represents the conceptual domain it is expected to encompass
t3.7	<i>Construct validity</i>
t3.8	The theoretical meaning of scores from a measure; the accuracy with which the measure represents the construct in
t3.9	question
t3.10	<i>Criterion-related validity</i>
t3.11	Extent to which scores from a measure relate to a criterion of performance; the two forms of criterion-related
t3.12	validity are concurrent and predictive validity
t3.13	<i>Dynamic predictive validity</i>
t3.14	The sensitivity of a measure to changes in the dimension being assessed; also referred to as treatment validity
t3.15	<i>Incremental predictive validity</i>
t3.16	The extent to which a measure exhibits improvements in prediction relative to other procedures

430 and Hoge 2006). Table 11.3 defines a number of
 431 different forms of validity, but only two will be
 432 noted in our discussion.

433 Construct validity is sometimes regarded as the
 434 key form of validity and may be defined as refer-
 435 ring to the theoretical meaning or accuracy of a
 436 measure. It also refers to the extent to which a
 437 measure is measuring what it says it is measuring.

438 Some illustrations of the definition may be
 439 useful. In raising a question of the construct
 440 validity of an intelligence test, we would be rais-
 441 ing a question about the meaningfulness of scores
 442 from the test. Just what does a full-scale score of
 443 113 mean as far as the cognitive functioning of
 444 the youth is concerned? We could also ask how
 445 well that score reflects what we consider the
 446 meaning of “intelligence.” Consider a second
 447 example. If we raised a question about the con-
 448 struct validity of a measure of risk for reoffend-
 449 ing, we would be asking about the actual meaning
 450 of scores from the measure. What definition of
 451 risk underlies the measure or to what extent do
 452 scores from the measure reflect a theoretical defi-
 453 nition of risk? Construct validity may be evalu-
 454 ated through theoretical and empirical procedures
 455 (Messick 1995; Sattler and Hoge 2006).

456 Criterion-related validity is a second form
 457 important for our purposes. It refers to the extent
 458 to which scores on a measure relate to some
 459 criterion of performance. The two forms of crite-
 460 rion-related validity are concurrent validity

(where predictor and criterion scores are collected
 at the same time) and predictive validity (where
 predictor scores are collected at one point and
 criterion scores at a later time).

Criterion-related predictive validity is particu-
 larly important in applied settings because we
 often need to know how well scores from a mea-
 sure predict future behavior or performance. For
 example, the comprehensive risk/need measures
 described above are designed to identify the cur-
 rent risk and need factors exhibited by the youth
 as a means of estimating likelihood of engaging
 in continued criminal activity. Data from crite-
 rion-related predictive studies would provide us
 with that kind of information. The simplest pro-
 cedure for evaluating predictive validity is
 through the correlation of predictor scores with
 the outcome of interest (e.g., new arrests).
 However, a number of more sophisticated statisti-
 cal procedures are available for this purpose
 (Grisso 2005b; Quinsey et al. 1998).

Many psychological measures are evaluated
 with reference to normative data. This is true, for
 example, of the actuarial risk/need instruments.
 The translation of raw scores from those mea-
 sures into specific predictions of the likelihood of
 reoffending is based on normative data collected
 from samples of individuals. However, the ade-
 quacy of the norms will depend on the represen-
 tativeness of the normative sample and, more
 specifically, to the relevance of the sample to the

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492 individual being assessed. Norms based on a
493 sample of adolescent males may not be relevant
494 to adolescent females.

495 It is important to have some familiarity with
496 the meaning of the reliability and validity con-
497 structs, and it is important to obtain information
498 about the reliability and validity of instruments
499 being considered. Measures that do not display
500 adequate levels of reliability and validity are of
501 no value to us.

502 **Practical and Ethical Issues**

503 The following section reviews some practical
504 and ethical issues to be considered in designing
505 an assessment system.

506 **Selecting Relevant Measures**

507 A choice of assessment measure or procedure
508 should be guided, first, by the purposes of the
509 assessment (Heilbrun 2001, 2010). There would
510 be little value, for example, in using a personality
511 test to aid in a decision about pretrial detention or
512 an intelligence test to guide a decision about
513 length of probation. Ethical and legal consider-
514 ations dictate that a psychological assessment
515 must be appropriate to the decision in question.

516 It is important to note that forensic decisions
517 are often narrow in scope, requiring, for example,
518 a judgment about competence to stand trial. In
519 some cases, specialized forensic measures such
520 as the MacCAT-CA (Poythress et al. 1999) might
521 be appropriate.

522 It is also important to insure that the assessment
523 instrument is appropriate for the individual being
524 assessed. This depends on the relevance of avail-
525 able normative, reliability, and validity data for the
526 youth. For example, a personality test developed
527 and evaluated with samples of boys between 8 and
528 12 years may not be relevant for a 17-year-old girl.
529 Age, gender, and the presence of physical or men-
530 tal handicaps are among the factors that should be
531 considered in selecting assessment tools. Many
532 of the standardized aptitude, personality, and
533 behavioral measures have been evaluated for a
534 wide range of respondent types, but this is not true

of all instruments, and it is important to keep this
issue in mind in selecting assessment tools. It is
also important to recognize that assessment instru-
ments developed for adults are not necessarily
relevant to children and adolescents.

Juvenile justice systems must sometimes deal
with youth from different cultural and ethnic
backgrounds. These often present special prob-
lems in the selection of assessment instruments.
Not all measures have been evaluated with refer-
ence to nonmajority groups. Language may also
be a barrier in the conduct of assessments with
these youth.

Evaluating the Measures

The importance of researching the reliability and
validity of measures being considered has
already been discussed. Information about the
psychometric properties of measures is available
from manuals or guides accompanying the
instrument and from a search of the research lit-
erature. Reference materials such as the *Mental
Measurements Yearbook* can also be an impor-
tant source of psychometric information.

Cost

The cost of test materials and their administration
is also a factor to be considered in evaluating the
suitability of measures. Psychological services
are sometimes expensive, and it is important to
weigh those costs against the potential benefits of
using the services. However, research shows that
following principles of best practice, including
the use of standardized assessment procedures,
can lead to significantly reduced levels of reof-
fending. The savings there will often offset the
costs of the assessment.

Professional Expertise

Standardized assessment instruments and proce-
dures require varying levels of training and
experience, and this must be considered in plan-
ning the assessment. As we have seen, some of

575 the tools can be used by professionals such as
 576 probation officers, youth workers, or teachers
 577 with some special training. In other cases, how-
 578 ever, the assessments must be conducted by qual-
 579 ified mental health professionals such as
 580 psychiatrists or psychologists. It is also important
 581 to insure that the use of assessment tools is con-
 582 tinually monitored and that retraining is provided
 583 assessors when appropriate.

584 All professionals involved in the assessment
 585 process in the juvenile justice system should have
 586 a thorough understanding of child and adolescent
 587 development. The cognitive, emotional, and
 588 moral systems of children and adolescents are in
 589 a state of development, and a sensitivity to the
 590 stage of development of a specific youth is
 591 extremely important (Grisso and Schwartz 2000;
 592 Vincent and Grisso 2005; Steinberg 2002). It is
 593 not necessarily the case that professionals knowl-
 594 edgeable and skilled in dealing with adults also
 595 have the qualifications for dealing with youth.

596 Importance of a System View

597 Juvenile justice systems are embedded within a
 598 larger system serving the needs of youth, includ-
 599 ing educational, mental health, and child protec-
 600 tion/welfare systems. Too often these systems do
 601 not work in a coordinated way to meet the needs
 602 of youth. Sharing of information collected in
 603 assessments is often a particularly problematic
 604 area. It is important to overcome professional and
 605 system barriers to cooperation to effectively serve
 606 these youth.

607 Ethical and Legal Considerations

608 A variety of ethical and legal issues arise in con-
 609 nection with forensic assessments (Grisso 2005a;
 610 Grisso and Applebaum 1998; Heilbrun 2001,
 611 2010; Heilbrun et al. 2008; Melton et al. 2007).
 612 Issues of due process and confidentiality are of
 613 particular importance.

614 Insuring that due process is observed in the
 615 treatment of youth within the juvenile justice
 616 system is of paramount importance. The use of an
 617 assessment instrument or procedure should not

618 result in a decision on detention, sentencing, or
 619 rehabilitation that is unfair to the youth. This situ-
 620 ation might arise, for example, where a risk
 621 assessment is used as a basis for a decision about
 622 the length of a sentence. This would normally be
 623 considered a violation of due process.

624 Insuring that informed consent rules are fol-
 625 lowed is sometimes complicated in the context of
 626 the juvenile justice system. Assessment always
 627 constitutes an invasion of the individual's priv-
 628 acy. This is generally viewed as justified in
 629 the case of assessments ordered by the courts.
 630 Where this type of order does not exist, the youth
 631 should be fully informed about the purpose of the
 632 assessment and the uses that will be made of
 633 the assessment information. Obtaining the con-
 634 sent of the youth (or parent under some circum-
 635 stances) is generally required under these
 636 circumstances (Grisso and Vincent 2005).

637 Some juvenile justice systems provide explicit
 638 guidelines regarding these ethical and legal
 639 issues, while others may provide ambiguous
 640 guidelines, or none at all. The goal should be to
 641 encourage all systems to provide explicit guides
 642 for the conduct and uses of assessments (Mulvey
 643 and Iselin 2008). This will help to insure that all
 644 youth are treated in a fair and consistent manner.

645 Professional associations have also developed
 646 general guidelines regarding the conduct of
 647 assessments, and these will apply as well to
 648 forensic assessments. Examples include the
 649 Standards for Educational and Psychological
 650 Testing (American Educational Research
 651 Association, American Psychological Association
 652 1999), the Ethical Guidelines for the Practice of
 653 Forensic Psychiatry (American Academy of
 654 Psychiatry and the Law 1995), and the Ethical
 655 Principles of Psychologists and Code of Conduct
 656 (American Psychological Association 2002).

657 Conducting the Assessment

658 A number of practical issues arise in the conduct
 659 of assessments (Hoge 1999b, 2008; Sattler and
 660 Hoge 2006). These relate to the establishment of
 661 a positive rapport with the youth, the collection
 662 of interview data, the integration of information
 663 from a variety of sometimes conflicting sources,

664 and the preparation of a report. Inadequate training
665 of professionals in these processes is often the
666 source of faulty assessments.

667 Summary

668 This chapter has stressed the importance of
669 conducting careful assessments of the youth prior
670 to any decision. These assessments should be
671 based on standardized assessment instruments
672 and procedures whenever possible. The latter
673 should be selected on the basis of the forensic
674 decision being made and on relevance for the
675 youth and his or her circumstances. Considerations
676 relating to age, developmental level, gender, and
677 ethnic identity are of particular importance.

678 Several advantages have been cited in connec-
679 tion with the use of standardized measures. First,
680 a growing body of research demonstrates that
681 higher levels of validity are associated with these
682 measures than with unstructured or clinical proce-
683 dures (Grove and Meehl 1996). This should in
684 turn lead to more effective decision making.
685 Second, it is easier to evaluate the reliability and
686 validity of standardized measures since it is pos-
687 sible to quantify the predictor and criterion. This
688 is generally not possible with subjective clinical
689 procedures. Third, the use of standardized mea-
690 sures ensures some consistency in the assessment
691 and decision processes since the criteria for
692 assessments and decisions are visible and con-
693 crete. Finally, standardized measures help provide
694 a link with theoretical and research developments.
695 For example, the comprehensive risk-need instru-
696 ments described above are based on the latest
697 research regarding the correlates and causes of
698 antisocial behavior in youth.

699 Certain cautions in the use of standardized
700 assessments have also been stressed. The impor-
701 tance of considering the relevance of the measure
702 for the forensic decision and the youth has been
703 stressed. This should also involve evaluating
704 the relevance of the psychometric support for
705 the group from which the youth is drawn.
706 Observing professional discretion is also impor-
707 tant. Standardized assessment instruments and
708 procedures are designed to assist in the decision

709 process. However, final decisions about the client
710 must rest with the professional responsible for
711 the decision.

712 Decisions made within juvenile justice systems
713 have important consequences for youth and
714 society. The quality of these decisions will depend
715 very directly on the quality of the information
716 provided about the young person. In many cases,
717 the assessment is flawed and invalid information
718 is used as a basis for a decision. It is important for
719 juvenile justice systems to include a commitment
720 to standardized assessments in their mission
721 statements and to insure that adequate assessment
722 procedures are followed.

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Author Query

Chapter No.: 11 0001355107

Query	Details Required	Author's Response
AU1	"a, b" have been introduced in the reference Grisso (1998) since two such references exist in the list. Please retain the appropriate one.	

Uncorrected Proof

Cynthia Morgan-D'Atrio

Historically, youth presenting with mental health disorders in the juvenile justice system have posed many challenges to those who adjudicate, care for, educate and provide direct services for them. Until recently, accurate descriptions, including the number of youth with mental health disorders in the juvenile justice system have been vague. Incomplete and poor sampling techniques, unsound methodological practices, unstandardized and unconventional assessment methods, and disagreement regarding the definitions of mental disorders have contributed to the ambiguity surrounding descriptions of this segment of the population (Isaacs 1992; Cocozza 1992; Shufelt and Cocozza 2006). Unfortunately, the absence of and disparity of any existing information has impeded the provision of mental health services to youth.

In recent years, the rate at which youth with mental disorders have been showing up in the juvenile justice system is such that the juvenile and mental health systems are faced with a crisis (Coalition for Juvenile Justice 2000). Recent studies that have used better methodological practices, broader sampling techniques and more psychometrically sound assessment methods have led to more accurate estimates of the juvenile population (Shufelt and Cocozza 2006).

Although sources continue to vary, the numbers with mental disorders are, nonetheless, alarmingly high. Data clearly support that between 65 and 70% of the youth involved in the justice system meet the criteria for one or more DSM-IV diagnosis (Coalition for Juvenile Justice 2000; Shufelt and Cocozza 2006; Teplin et al. 2002; Wasserman et al. 2005).

In a comprehensive study conducted to examine mental health problems and substance abuse disorders among youth involved in the juvenile justice system, the National Center for Mental Health and Juvenile Justice (NCMHJJ), in collaboration with the Council of Juvenile Correctional Administrators (CJCA), found that 70.4% of youth met the criteria for at least one mental health disorder (Shufelt and Cocozza 2006). Among mental health disorders, disruptive behavior disorders were found to be most prevalent, followed by substance use disorders, anxiety disorders, and then mood disorders. Given that the percentages of youth in the juvenile justice system diagnosed with Disruptive Behavior disorders of the DSM (i.e., conduct disorder (CD), oppositional defiant disorder (ODD), and attention-deficit/hyperactivity disorder (ADHD)) are highly prevalent (estimates range from 30% to over 50%), researchers in this study decided to systematically remove youth with specific disorders to conduct their analyses (Shufelt and Cocozza 2006; Wasserman et al. 2004). First, youth who had a diagnosis of Conduct Disorder were removed from the study and researchers found that over 66% of the youth still met criteria

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66 for another DSM-IV mental health disorder
 67 (Shufelt and Coccozza 2006; Coalition for Juvenile
 68 Justice 2000). Returning to the entire study popu-
 69 lation, researchers then conducted analysis by
 70 removing youth from the study with the diagno-
 71 sis of Substance Use Disorder. They found that
 72 61.8% of the youth still met criteria for a mental
 73 health disorder other than substance use.
 74 Researchers then took the original population of
 75 the study and conducted analysis including all
 76 mental health disorders except Conduct Disorder
 77 and Substance Use. Results indicated that after
 78 removing these two disorders, 45.5% of youth
 79 still met the criteria for at least one mental health
 80 disorder (Coalition for Juvenile Justice 2000).
 81 Conclusions indicated that neither Conduct
 82 Disorder nor Substance Use disorders could
 83 account for the high prevalence of mental health
 84 disorders among youth in the study. These find-
 85 ings highlighted the complexity and severity of
 86 the mental health issues of youth in the juvenile
 87 justice system.

88 Additional results from the study conducted
 89 by the Coalition for Juvenile Justice indicated
 90 that among youth having at least one mental
 91 health disorder, 17% were conferred with at least
 92 two disorders, 19% met the criteria for at least
 93 three disorders, and 43% of youth had four or more
 94 mental health diagnoses (Shufelt and Coccozza
 95 2006). Among youth having a mental health diag-
 96 nosis, 60.8% also met the criteria for a substance
 97 use disorder. Youth diagnosed with a disruptive
 98 behavior disorder were most likely to have mul-
 99 tiple or co-occurring substance use disorders.

100 The number of females involved in the juve-
 101 nile justice system has been steadily rising since
 102 1989 and comprise the fastest growing segment
 [AU1]103 of the juvenile justice system (Skowyr and
 104 Coccozza 2007a, b; Coalition for Juvenile Justice
 [AU2]105 2000; OJJDP Annual Report 2006; Veysey 2003).
 106 It is estimated that since 1989, the number of
 107 females entering the system has increased by
 108 50% whereas the number of males arrested has
 109 actually declined by approximately 10%
 110 (American Bar Association 2001; Snyder 2000;
 111 Veysey 2003). Because the research regarding
 112 youth in the justice system has typically been
 113 conducted with males, even less is known about
 114 female juvenile offenders. Evidence from recent

115 research indicates that females in the juvenile
 116 justice system are more likely than males to have
 117 mental health concerns with some estimates
 118 exceeding 80% of the population (Wasserman
 119 et al. 2005).

120 Of the youth in the juvenile justice system, it
 121 is estimated that at least 20% are impacted by
 122 mental illness such that daily functioning is sig-
 123 nificantly impaired (Abram et al. 2003; Skowyr and
 124 Coccozza 2007a, b; Teplin et al. 2002).
 125 Table 12.1 depicts prevalence rates of mental
 126 health disorders among youth in the juvenile jus-
 127 tice system.

128 Screening Versus Assessment

129 Mental health screenings and assessments are
 130 both used for evaluative purposes; however, the
 131 manner in which they are used and conducted
 132 with juveniles differs in several ways. Table 12.2
 133 features the basic differences between screenings
 134 and assessments.

135 Screenings serve as filters. Within the juvenile
 136 justice system, screenings have typically served
 137 to identify youth who present with emotional and
 138 mental health issues that require immediate atten-
 139 tion, further investigation or intervention (Trupin
 140 and Boesky 1999; Grisso and Barnum 2000;
 141 Williams 2007). Screenings are brief and usually
 142 standardized measures that provide an indication
 143 of which youth need more in-depth assessment
 144 and can assist in identifying areas of functioning
 145 in need of further attention. They are not intended
 146 to provide formal diagnoses, guide intervention
 147 planning, or facilitate important decision making
 148 in the justice process. Rather, they provide broad
 149 “barometers,” if you will, about the overall level
 150 of functioning of a youth at that specific point in
 151 time. Screenings conducted with juveniles should
 152 be broad enough in scope to cover all major areas
 153 of functioning: academics, behavior, emotional
 154 and mental health, medical, adaptive and cogni-
 155 tive functioning.

156 Assessment, on the other hand, is more com-
 157 prehensive and individualized in nature and may
 158 lead to the formulation of diagnostic impressions.
 159 Most assessments utilize more than one method
 160 of data collection and rely on more than one

t1.1 **Table 12.1** Prevalence of youth in the juvenile justice system diagnosed with specific mental health disorders (by
t1.2 percent)

t1.3	Mental health disorder	Males	Females	Total	
t1.4	Any mental health disorder	66.3 ^a	73.8 ^a	69.0 ^a	
		66.8 ^b	81.0 ^b	70.4 ^b	t1.5
		67.0 ^c	80.0 ^c	68.5 ^c	t1.6
				50.0–75.0 ^d	t1.7
t1.8	Any mental health disorder except conduct disorder	60.0 ^a	70.0 ^a	n/r	
t1.9	Any mental health disorder except conduct disorder or a substance use disorder	n/r	n/r	45.5 ^b	
t1.10	Any disruptive behavior disorder	41.4 ^a	45.6 ^a	31.8 ^c	
		44.9 ^b	51.4 ^b		t1.11
t1.12	Conduct disorder (CD)	37.8 ^a	40.6 ^a	46.5 ^b	
		52.8 ⁶	52.8 ⁶	31.7 ^c	t1.13
				50.0 ^d	t1.14
t1.15	Oppositional defiant disorder (ODD)	17.5 ^a	14.5 ^a	2.8 ^c	
t1.16	Attention-deficit/hyperactivity disorder (ADHD)	21.4 ^a	16.6 ^a	2.3 ^c	
		18.5 ^f	11.7 ^f		t1.17
t1.18	Any substance use disorder	50.7 ^a	46.8 ^a	46.2 ^a	
		43.2 ^b	55.1 ^b	49.3 ^c	t1.19
t1.20	Affective/mood disorders (i.e., major depressive disorder, bipolar disorder)	18.7 ^a	27.6 ^a	18.3 ^b	
		14.3 ^b	29.2 ^b	9.1 ^c	t1.21
t1.22	Major depressive disorder (MDD)	10.6 ^f	29.2 ^f	n/r	
t1.23	Bipolar disorder	n/r	1.2 ^f	n/r	
t1.24	Anxiety disorders (i.e., generalized anxiety disorder (GAD), social anxiety,	21.3 ^a	30.8 ^a	34.4 ^b	
t1.25	obsessive-compulsive disorder (OCD), posttraumatic stress disorder (PTSD))	26.4 ^b	56.0 ^b	18.9 ^c	
		32.0 ^d	60.0 ^d		t1.26
t1.27	Psychotic disorders	1.0 ^a	1.0 ^a	n/r	
		3.3 ^f	2.7 ^d		t1.28
t1.29	n/r Not reported				
t1.30	<i>Note:</i> Accurate prevalence rates for eating disorders, posttraumatic stress disorder (PTSD), mental disabilities and per-				
t1.31	vasive developmental disorders (PDD) (e.g., Asperger's syndrome, autism) as they occur in the juvenile justice popula-				
t1.32	tion are not available at this time				
t1.33	^a Teplin et al. (2002)				
t1.34	^b Shufelt and Coccozza (2006)				
t1.35	^c Wasserman et al. (2004)				
t1.36	^d Coalition for Juvenile Justice (2000)				
t1.37	^e Wasserman et al. (2005)				
t1.38	^f Fazel et al. (2008)				

161 source of information. Assessment may involve
162 the use of many instruments over the course of
163 the process, as well as information from multiple
164 sources or informants and periods of time. Further
165 discussion of the components of good assessment
166 will be explored further in this chapter.

167 Reasons for Assessment

168 When there is a request for mental health assess-
169 ment to be conducted with a youth, it is impor-
170 tant to keep in mind its purpose. For youth

involved in juvenile justice, there are typically
several reasons why assessments are conducted
(Grisso and Underwood 2004; Skowrya and
Coccozza 2007a, b):

Initial Referral or Contact with the Juvenile Justice System/Intake

Assessments completed after a youth initially
comes into contact with the legal system and dur-
ing intake into a juvenile system are the most fre-
quently conducted. It is often the case that youth

Table 12.2 Mental health screenings versus assessments

Dimension	Screenings	Assessments
t2.1		
t2.2	– Filter or guide assessment; target areas in need of immediate intervention and attention; target areas in need of in-depth assessment	– Identify psychopathology; diagnostic; lead to intervention and treatment planning; assist with long-term planning, decision making, and placement determination
t2.3	– Short term (e.g., immediate, 2–4 weeks)	– Long-term (i.e., weeks to months)
t2.4	– Upon entry into the juvenile justice system; intake; transition; reassessment	– Follows screening; initial contact and referral to system; intake; start of judicial processing; entry into secure placement; reentry and transition back into the community
t2.5		
t2.6		
t2.7		
t2.8		
t2.9		
t2.10	– Broad and shallow	– Broad and in-depth; comprehensive and individualized
t2.11	– Brief (typically 10–30 min)	– Components may be over several sessions, hours and/or days
t2.12	– Efficient, single, and few simple methods employed; may use standardized procedures and protocols; may be unidimensional or multidimensional	– Comprehensive, individualized and intensive; multiple-methods of data collection; multiple sources of information; multidimensional with targeted unidimensional measures
t2.13		
t2.14		
t2.15	– Typically paper and pencil measure(s) or rating scale; may include interview of youth and record review	– Interviews of youth, care providers, educators, service providers, paper and pencil measures; comprehensive behavioral rating scales; targeted behavioral rating skills; direct observation; psychosocial history; review of all mental health, medical and educational records; formal testing; personality inventories; synthesis of all relevant information
t2.16		
t2.17		
t2.18		
t2.19		
t2.20	– Over one or two short periods of time; capture presence of symptomology at given point in time; “snap shot” of youth	– Collect and review data over time, subjects, settings, and situations
t2.21		
t2.22	– Nonclinical professionals; laypersons; social service personnel; probation and parole personnel	– Mental health professionals (e.g., social workers, counselors, psychologists, psychiatrists); may involve specific, highly trained educators and medical professionals
t2.23		
t2.24		

181 are assessed just after entry into the justice sys- 223
 182 tem and treatment plans are developed from these 224
 183 results. Intake assessments can provide rich 225
 184 information about the background of a youth; 226
 185 however, should remain “open-ended” so that 227
 186 additional information obtained can be added as 228
 187 an addendum to the evaluation report. In doing 229
 188 so, the initial evaluation almost becomes a living, 230
 189 breathing document and testament regarding 231
 190 each youth. 232

191 Placement 233

192 Judicial systems frequently order mental health 234
 193 assessments and evaluations to determine place- 235
 194 ment of youth in particular facilities, wards or 236
 195 settings (i.e., a group home vs. secure care) post- 237
 196 disposition. Careful consideration regarding 238
 197 placement should be given to youth with multiple 239
 198 diagnoses, mental disabilities and youth who 240
 199 present with trauma-related symptomology. 241
 200 Caution is also warranted when decisions about 242
 201 homogenous grouping are being considered. For 243
 202 example, grouping youth together who tend to be 244
 203 very disruptive and/or violent does not lend itself 245
 204 to easily obtaining treatment gains. Such a prac- 246
 205 tice may be convenient with respect to housing 247
 206 and may work well with the design of the physi- 248
 207 cal plant of a juvenile facility; however, the like- 249
 208 likelihood of obtaining treatment gains may be 250
 209 largely reduced by doing so. Many factors need 251
 210 to be considered when making placement deci- 252
 211 sions about youth. 253

212 Treatment, Intervention, and Eligibility 254 213 for Specialized Services 255

214 Perhaps the most important (and obvious) reason 256
 215 for mental health assessment is to guide decision 257
 216 making regarding treatment and intervention. 258
 217 Results of assessment should *always* lead to treat- 259
 218 ment and/or intervention, regardless of intensity 260
 219 of need. However, it is commonly the case that 261
 220 only the most ailing individuals receive access to 262
 221 care. Although recent studies indicate that 263
 222 between 60 and 70% of the juvenile population 264

has a diagnosable mental health disorder, only the 223
 most impaired individuals are typically treated 224
 (about 20%) (Shufelt and Coccozza 2006). All 225
 youth in need of services should have access to a 226
 structured continuum of care that utilizes research- 227
 and evidence-based practices. Unfortunately, 228
 many mental health care systems function reac- 229
 tively instead of in a manner that is proactive and 230
 preventive. Funding to provide state-of-the-art 231
 services is simply unavailable. Knowing the 232
 extraordinary prevalence rates of mental illness 233
 among the juvenile population, treatment plan- 234
 ning and service provision should top the priori- 235
 ties among juvenile justice reform efforts. 236

Mental health assessments are also often con- 237
 ducted to assist in determining whether a youth is 238
 eligible to receive special services (e.g., special 239
 education), and to ascertain whether he or she 240
 qualifies for or needs highly specialized treat- 241
 ments or programs (i.e., a therapeutic group for 242
 individuals presenting with trauma-related symp- 243
 toms or treatment for youth who have sexually 244
 perpetrated). 245

Prognosis 246

Sometimes, assessments are conducted to esti- 247
 mate prognoses among youth and to attempt to 248
 predict future behavior in individuals. Such pre- 249
 dictions may be directed toward ipsative com- 250
 parisons (i.e., previous vs. current behavior in a 251
 specific individual), or comparative in that one 252
 individual’s behavior is measured against another’s 253
 or a group of individuals (i.e., normative 254
 comparisons) (Mesco et al. 1995). 255

Progress Monitoring and Treatment 256 Effectiveness 257

For youth with mental health issues who have 258
 been involved in the juvenile justice system for 259
 periods of time, assessments should be conducted 260
 frequently. Specifically, supplemental assess- 261
 ments should be conducted when there have been 262
 significant changes in symptomology and/or when 263
 treatment plans have undergone major revisions. 264

265 For youth who are stable with respect to func- 308
 266 tioning, comprehensive assessments should be 309
 267 conducted at least once per year, with supple- 310
 268 mental assessments being conducted quarterly. 311
 269 During periods between more comprehensive 312
 270 assessments, mental health status should be vigi- 313
 271 lantly monitored along multiple dimensions. 314
 272 Progress monitoring is an integral part of every 315
 273 treatment program. Assessment conducted to 316
 274 estimate progress will not need to be as compre- 317
 275 hensive as an initial or intake evaluation; how- 318
 276 ever, substantial measures should be administered 319
 277 to capture the behaviors targeted for treatment 320
 278 and the presence of any symptomology that was 321
 279 of previous concern. 322

280 **Reentry and Release**

281 Judicial systems that are fairly progressive 323
 282 include mental health assessments as part of a 324
 283 youth's reentry or release plan. Such assessments 325
 284 provide information about overall stability of a 326
 285 youth pending reentry into society or release 327
 286 from probation/parole, and also provide current 328
 287 information about services a youth may require 329
 288 to ensure a successful transition back into 330
 289 society. 331

290 **Challenges in Assessing Juveniles**

291 The justice system is faced with numerous chal- 332
 292 lenges when it comes to assessing juveniles. First 333
 293 and foremost, adolescents, in and of themselves, 334
 294 are developmentally dynamic and complex indi- 335
 295 viduals. At any given point during adolescence, 336
 296 their skill acquisition, cognitive, emotional and 337
 297 social faculties are developing at rapid, but 338
 298 unsteady and uneven rates. For example, a sud- 339
 299 den spurt in physical development is not neces- 340
 300 sarily accompanied by a parallel spurt in social 341
 301 and emotional functioning. That is, it is highly 342
 302 unlikely that a youth's physical, social, and emo- 343
 303 tional skills are developing at the same time and/ 344
 304 or rate. In fact, it is more often the case during 345
 305 puberty that the physical attributes of adolescents 346
 306 develop earlier than other areas of functioning 347
 307 (e.g., social skills). This factor alone speaks to 348

the importance of conducting assessments that 308
 are *timely* and *ongoing*. 309

Next, we consider the dynamic nature of men- 310
 tal illness. The onset and symptomology of many 311
 mental illnesses (e.g., mood and anxiety disor- 312
 ders, substance use disorders, eating disorders) 313
 wax and wane and are impacted by life stressors, 314
 environmental issues, familial events, neuro- 315
 chemical changes in the human body as well as a 316
 host of other factors. It is critical that our assess- 317
 ments are comprehensive and multidimensional 318
 in their approach in order to depict an accurate 319
 picture of each youth. Additionally, unlike adult 320
 mental disorders, adolescent mental disorders do 321
 not easily fit into diagnostic groupings (Mash and 322
 Barkley 1996). Actually, disorders among youth 323
 in the juvenile justice system are more likely to 324
 be comorbid (or co-occurring) rather than occur 325
 in isolation as single diagnoses, (Mash and 326
 Barkley 1996; Grisso and Underwood 2004). 327

Now, when we consider the nature of adoles- 328
 cence and mental illness together, it becomes 329
 imperative to approach assessment with an open 330
 mind. Results of an initial intake screening and 331
 assessment when a youth is 14 years of age may 332
 look quite different than a comprehensive assess- 333
 ment that is conducted 3 or 4 years down the road 334
 as that adolescent begins the transformation into 335
 adulthood. 336

Apart from the fact that they comprise a 337
 dynamic and complex segment of our population, 338
 there are a number of challenges involved in 339
 assessing juveniles presenting with mental health 340
 issues. 341

Timing of Screening and Assessment 342

Most researchers agree that youth should be 343
 screened as soon as possible after initial contact 344
 or referral is made to the juvenile justice system 345
 (Grisso and Underwood 2003, 2004; Williams 346
 2007). Some have recommended that mental 347
 health screenings should be conducted within 348
 24 h of admission to a juvenile facility and should 349
 include brief assessment of any acute mental 350
 illness (e.g., psychosis), risk for suicide or 351
 harm to self (or others), the use of psychotropic 352
 medications, substance abuse, and risk for 353

354 violent behavior (Teplin et al. 2006). Whereas
 355 such screenings are essential to the adequate pro-
 356 cessing of youth within the justice system, some
 357 youth who are identified as needing further
 358 assessment never receive additional and more
 359 in-depth assessment. Unfortunately, in some set-
 360 tings, results of screenings are interpreted to be
 361 diagnostic indicators and have been used to for-
 362 mulate treatment plans and guide important deci-
 363 sions for youth. Such uses are overextensions and
 364 inappropriate uses of screening measures. While
 365 critical and essential on entry into the justice sys-
 366 tem, mental health screenings only represent the
 367 presence of specific behaviors and symptoms “at
 368 the moment” in which screenings are conducted.
 369 Results of screenings should not be interpreted
 370 beyond a very short period of time (a week or
 371 two), and should *not* be used in isolation to for-
 372 mulate diagnostic and treatment impressions.
 373 Upon entry into the justice system, youth may be
 374 detoxifying from substance use, may be in an
 375 irritable state from being arrested, or even may
 376 be in a state of trauma from the happenings sur-
 377 rounding his/her legal events. Additionally,
 378 screenings and assessments conducted immedi-
 379 ately after entry into the justice system may be
 380 biased, skewed, and unidimensional in nature,
 381 and lack perspective due to an overreliance on
 382 youth self-report.

383 **Scope of Screenings**

384 Screenings for youth in the justice system have
 385 progressed significantly over the past decade and
 386 have served as efficient methods for identifying
 387 the needs of youth. Prior to the early 1990s, there
 388 were few screenings for juveniles in existence
 389 (Skowrya and Coccozza 2007a, b). Although there
 390 have been many advancements in the methodolo-
 391 gies of juvenile screenings, screenings currently
 392 being used continue to “miss” many youth with
 393 needs because their content is limited in scope.
 394 Specifically, some instruments in circulation do
 395 not adequately screen youth for the presence of
 396 trauma-related symptoms, specific types of anxi-
 397 ety disorders, suicidal ideation, eating disorders,
 398 self-mutilation and other self-destructive behav-
 399 iors that may escalate when a youth becomes

detained. Importantly, screening processes also
 need to have the capacity to detect whether a youth
 has a mental disability or impairment upon entry
 into the justice system, as these youth have unique
 communication, management, and care needs.

Cost

The cost of instruments used to conduct mental
 health screenings and assessments can vary con-
 siderably. Behavioral rating scales, inventories,
 structured interviews and schedules, as well as
 formal batteries such as intelligence tests and
 neuropsychological tests, can be quite costly with
 respect to the expense of the materials, the meth-
 ods used to score and interpret results, as well as
 the time expenditures of highly trained personnel
 to administer measures accurately and according
 to standardization specifications. Unstructured
 interviews, direct observations, and the review of
 records generally do not require the purchase of
 instruments or measures; however, they do take
 time to perform. In the case of record reviews and
 the gathering of historical data, a great deal of
 time-related resources may run up the costs of
 assessments as the use of highly trained person-
 nel may be consumed for several hours in order
 for a thorough assessment to be completed.

For most commercially marketed assessment
 instruments, test authors and publishers must
 specify the level of professional training that is
 required to administer a particular instrument.
 For example, in order to administer a formal
 intelligence battery, an advanced degree in psy-
 chology or psychiatry is required. An individual
 with a Master’s degree in psychology or psy-
 chometry may administer, score, and interpret a
 formal battery; however, it must be under the
 supervision of a licensed psychologist.

Assessment Styles and Expertise of Mental Health Personnel

In a world where budgetary considerations often
 prevail over the ability of administrators to recruit
 and hire the most highly trained mental health
 professionals to work with the children and

443 adolescents who come into contact with the justice system, there is a harsh reality that the individuals hired to fulfill the duties of mental health professionals in the juvenile justice system may not be appropriately trained to work with youth. It just makes sense that the most highly skilled professionals should be hired to work with the most challenging youth. Even with unlimited resources, administrators sitting at the helm of a justice agency may possess limited knowledge as to who to hire and who would be best suited to work with the youth under their care. The mental health professionals hired to assess and treat youth should have an extensive background in working with children and adolescents. Their training should be behavioral and cognitive-behavioral in nature. Mental health professionals trained in other approaches, say in psychodynamic or psychoanalytic approaches, may be somewhat less successful in working with the juvenile population due to the limited research which supports the use of these approaches with this segment of the population. Similarly, with respect to social service personnel and those individuals who work in security, individuals recruited from an adult correctional background will also have limited success in working with youth unless provided with additional, specialized training.

472 **Psychometric Properties of Screening**
 473 **and Assessment Instruments**

474 There are many instruments available to assist in the assessment process. A primary consideration in selecting an instrument to use for assessment has to do with how well the measure is constructed and how strong the instrument is psychometrically and methodologically. If a well-thought out screening and assessment process is in place within a juvenile agency, but little consideration has been given to the quality of instruments being used, the data gleaned from such processes will be of little value to practitioners.

486 At minimum, the *reliability* and *validity* of assessment instruments should be completely

488 reviewed before attempting to administer them systemically in any juvenile agency. The psychometric *reliability* of an instrument refers to how consistently an instrument measures the construct of interest (Dawis 1992; Green 1992; Witt et al. 1994). Specifically, if a practitioner uses an instrument several times with an individual, the reliability refers to the likelihood that he or she will obtain the same results after each administration (Dawis 1992; Green 1992; Witt et al. 1994). There are many ways to measure the reliability of assessment instruments. For example, there is test-retest reliability, equivalent- or parallel-form reliability, split-half reliability, and coefficients that represent the internal consistency of an instrument, each of which serves a distinct and important function (Witt et al. 1994).

505 The *validity* of an instrument refers to how well the instrument actually measures the actual construct of interest (Dawis 1992; Green 1992; Witt et al. 1994). For example, does an instrument designed to assess the presence and level of symptoms associated with depression actually do that, and if so, how well? Have the items on the instrument been well developed and do they correlate well with items on other instruments that purport to measure the same or similar constructs? High reliability is necessary but not sufficient to establish high validity in an instrument. An instrument can be highly reliable, but cannot effectively measure the construct of interest.

519 An in-depth discussion regarding the psychometric properties of assessment instruments is well beyond the scope of this chapter; however, the importance of understanding the principles and theory underlying sound test methodology is not to be overlooked or underestimated. For additional information, readers are encouraged to seek out texts specifically allocated to the discussion of test and measurement methodology.

528 **Assessment Practice**

529 Across the nation, facility types and settings vary widely in determining which youth are assessed and evaluated. In a review of the *Juvenile Residential Facility Census (JRFC)* for the year

2002, the Office of Juvenile Justice and Delinquency Prevention reported that approximately 53% of the 2,287 reporting facilities used in-house mental health professionals to conduct assessments and evaluations of all youth on their premises (Snyder and Sickmund 2006). Another 34% of those facilities reported that their in-house mental health professionals assessed and evaluated some, but not all youth (Snyder and Sickmund 2006). Additionally, when public and private facilities were compared, 62% of privately run facilities reported to conduct in-house assessments and evaluations of all youth as opposed to only 41% of publicly run facilities (Snyder and Sickmund 2006). Facilities that reported to provide mental health treatment on-site were also found to be more likely to assess all youth in their care when compared to facilities whose treatment needs were met outside of the facility (Snyder and Sickmund 2006). The JFRC report also provided that youth were more likely to be assessed by an in-house mental health professional as the size of the facility increased. In facilities with capacities from 51 to 100 youth, approximately 57% reported assessing all youth within their care. In contrast, in facilities with 200 or more youth in their care, this proportion rose to at least 60% (Snyder and Sickmund 2006). For facilities caring for 11–20 youth, only about 50% of the facilities reported that all of their youth were assessed for mental health needs.

Facilities may often adopt a “one-size-fits-all” approach to screening and assessing the youth in their care. All youth in a system may be processed using rather generic screenings and assessments without consideration of individual needs. While some youth may be filtered through to receive treatment, the needs of many youth may be missed because the screenings and assessments used are not comprehensive enough or sensitive enough to detect the presence of specific symptomology. Additionally, a youth may receive a comprehensive assessment at some point in his/her life, but all treatment recommendations may be bound to those results from that point. Good assessment practices dictate that they are *dynamic* and *ongoing* processes.

Methods of Assessment

The methods involved in an assessment typically refer to how the assessment is being conducted and the means by which data are gathered. For example, methods may include interviews of the youth, the youth’s caregiver and other relevant adults involved in the youth’s life (e.g., educators), the use of behavioral rating scales that target specific groups of behaviors and symptoms, the inclusion of formal testing instruments (e.g., an intelligence test), direct and indirect observation, and the organization of anecdotal and historical information. Depending on the state, agency, setting, and sometimes individual practitioner, the methods used to assess youth vary widely. Unless a youth has entered a system in which there are standard protocols and procedures in place for screening and assessment, the information gathered for a given assessment may be inconsistent and quite inaccurate. The methods used during an assessment may range from individual interview of a youth by a case-worker or psychiatrist in a single 30-min session, to a comprehensive assessment including interviews, rating scales, observations and formal testing that involves an entire multidisciplinary team. Given the lack of standards in screening and assessment in juvenile systems, it is no wonder that there is such a high rate of disagreement across practitioners regarding mental health diagnoses (Basco et al. 2000; Jensen-Doss and Weisz 2008).

Time for Assessment

The greater the number of youth being screened and assessed by a system, the less time typically spent assessing a specific individual (Grisso and Underwood 2004). Consequently, less time for assessment usually means that more limited methods are used to gather data. The time allocated for assessing juveniles is often directly related to the methods used. There are a number of screening and assessment instruments that take only 10–20 min to administer. However, only so much information can be collected during that time. Assessments utilizing best practices can

625 take many hours, the involvement of multiple
 626 professionals and span several days. The time
 627 taken for assessment can be streamlined by hav-
 628 ing all professionals who come in contact with
 629 the youth work together to avoid duplicating
 630 assessment components (e.g., psychosocial histo-
 631 ries, formalized testing, administration of rating
 632 scales). Juvenile systems are often organized in
 633 manners that are inefficient and ineffective such
 634 that mental health professionals may be address-
 635 ing concerns independently from educational and
 636 social service professionals. In the end, each team
 637 may have conducted their own cognitive screen-
 638 ings, screens for ADHD, psychosocial histories,
 639 and the like, leading to an accumulation of dupli-
 640 cate sets of data, personnel inefficiencies and
 641 inaccuracies in the identification of pertinent
 642 issues. The need to streamline assessments is not
 643 just needed to improve the quality of services
 644 provided to youth, but to also reduce waste and
 645 the cost of assessments.

646 **Communication Across Agencies**

647 When youth become involved in the justice sys-
 648 tem, there are typically multiple agencies that are
 649 activated to provide services. Communication
 650 across these agencies is often impeded for sev-
 651 eral reasons. First, the infrastructure of a given
 652 system may simply not support communication
 653 processes and foster professional relationships
 654 across agencies. Within the community, there
 655 may be no interagency agreements established
 656 among service providers to provide a continuum
 657 of care for youth. Trust across agencies may not
 658 be established or fostered and nurtured. The shar-
 659 ing of data and important information should be
 660 accomplished efficiently and in the spirit of doing
 661 what is best for youth in the care of each agency.
 662 As in personal relationships, professional rela-
 663 tionships are effortful and involve time and per-
 664 sonnel. Second, there may be untrained
 665 administrators who lack vision and clarity about
 666 the purpose and direction of an agency.
 667 Administrators in the juvenile justice system
 668 should be those with appropriate training regard-
 669 ing children and adolescents and have a passion
 670 to work with this population. It is not appropriate

671 to move administrators from an adult correctional
 672 system into one designated for juveniles. 672
 673 Juveniles are constantly changing and are
 674 dynamic beings and differ from adults in many
 675 ways: developmentally, socially, behaviorally,
 676 emotionally, and mentally.

677 Third, there may be a critical shortage of per-
 678 sonnel who are allocated to follow-through with
 679 youth as they transition through the justice system.
 680 Assumptions are often made that information will
 681 travel with the youth, when, more often than not, it
 682 does not. Personnel who do facilitate transition
 683 processes and provide case management services
 684 may find themselves inundated with caseloads and
 685 paperwork and find little time to synthesize rele-
 686 vant information that will lead to a “best practices”
 687 treatment approach for each youth. They may also
 688 find that they are in need of knowledge and
 689 support about whom should be involved in the
 690 “information loop” regarding a youth.

691 Lastly, concerns regarding confidentiality
 692 keep many agencies from communicating with
 693 each other, especially when it comes to the results
 694 of sensitive assessment information. Having
 695 access to previous assessment results can vastly
 696 assist service providers and also serve to notify
 697 them as to which areas of functioning in specific
 698 youth may need to be further explored and
 699 addressed. A by-product of this lack of communi-
 700 cation is that unfortunately, youth are often
 701 administered duplicate measures as they travel
 702 and progress through the system.

703 In many systems, the presence of more service
 704 providers does not necessitate the delivery of a
 705 wider or more effective range of services.
 706 Actually, the more agencies involved in service
 707 delivery, the more difficult the coordination of
 708 the services becomes and the more cumbersome
 709 the efforts to ascertain outcome and effective-
 710 ness. Often the more agencies that are involved
 711 in a youth’s life, the less personalized, less con-
 712 sistent and less effective they are. The involve-
 713 ment of many agencies with a youth may signify
 714 that a youth has intensive needs, or that a region
 715 has many resources; however, this does not assure
 716 that the youth actually receives what he or she
 717 needs. Just because a youth has assistance from a
 718 health clinic, a mental health practitioner, the
 719 school social worker, a community outreach

group, and a member of the clergy, it does not mean that he or she is going to receive maximum benefit unless all service providers are clearly communicating and are actually delivering a quality service product that is evidence based. Specifically, each member of the service delivery community needs to have clearly defined goals and measures in place, as well as methods to accurately capture the gains achieved through use of their “program.” These expectations need to be effectively communicated to other service providers and done so in a manner that can complement and/or assist professionals in other agencies.

There is something to be said for simplicity. Systems that are basic in structure and who offer continuity and consistency in service delivery may achieve greater outcomes for youth over large, powerful systems that are overly complex and bogged down in process and procedure. When multiple agencies are involved in service delivery, whether they are members of social services, law enforcement, education or a university, resources that can be allocated for direct services to youth can easily become depleted as valuable personnel positions are filled by administrators of these participating agencies. Because each agency requires oversight and management, each agency requires that it is administrated and administrated according to local, state, and federal protocol. Therefore, instead of improving service delivery or smoothing out the speed bumps across agencies, the notion of “seamless service delivery” can become an even loftier goal as the number of agencies increases. Finally, the more agencies involved in the life of a youth, the more the bureaucratic issues surface and the more the youth truly become “lost in the system.”

758 Assumptions That Guide Assessment 759 Practices

760 In essence, there is no substitute for good assess-
761 ment. Good assessment reduces error and improves
762 overall accuracy in targeting areas of concern.
763 One reason there has been such disagreement
764 regarding classifications, taxonomies, categories
765 of impairment, and level of risk among youth is

766 because assessment methods and practices have
767 indeed varied across settings, examiners, and
768 agencies.

769 Although this notion may seem a bit simplis-
770 tic, in approaching assessment, it is important to
771 remember that mental health disorders occur out-
772 side of the mental health professional’s office.
773 Rather, as practitioners, we need to keep in mind
774 that disorders impact the entire youth—across
775 settings, times of day, with different people, in
776 different situations. For children and adolescents,
777 the educational context is one in which special
778 considerations need to be given in order to assist
779 youth in becoming more successful in school.
780 Thus, multidisciplinary teams are better suited to
781 address these needs than professionals working
782 independently as specialists.

783 Members of the multidisciplinary teams
784 should include a child psychiatrist, pediatrician,
785 or nurse practitioner, a behaviorally or cognitive-
786 behaviorally trained child and adolescent psy-
787 chologist, masters level social workers and
788 counselors, teachers, activity and recreation staff
789 and residential counseling staff. These teams
790 should review intake or any other assessment
791 information collectively, and collaborate on diag-
792 nostic and treatment progress during frequent
793 and regularly scheduled team meetings. In
794 essence, these teams should serve as data-driven,
795 problem-solving teams who review assessment
796 and treatment-related data, including graphically
797 represented treatment data, frequently and regu-
798 larly. Treatment of each youth should stem from
799 a holistic approach such that the needs of the
800 entire child are addressed and not piecemealed.

801 Mental health assessments should employ
802 multidimensional and multiple-method practices
803 (Wasserman et al. 2004; Witt et al. 1994). The
804 goal of conducting a comprehensive mental
805 health assessment is to collect *enough* data and
806 the *right kind* of data such that a clear picture of
807 the presenting concerns are depicted and ques-
808 tions posed by the referral source can be answered.
809 The assumptions postulated by Witt et al. (1994)
810 are helpful:

- 811 1. “*Children and adolescents present with indi-*
812 *vidual differences.*” These differences must be
813 interpreted contextually, in which such behav-
814 iors occur. In understanding this, as mental

- 815 health professionals, we determine whether
816 such differences are cause for concern.
- 817 2. *“Tests provide us with samples of behavior.*
818 *They only assist in the decision-making and*
819 *problem-solving processes.”* Thus, in using
820 screenings and assessment instruments, it is
821 how we synthesize and interpret the data col-
822 lected from these processes that leads us to
823 make informed decisions; not the scores
824 themselves.
- 825 3. *“Assessments are conducted to improve inter-*
826 *vention activities.”* Fundamentally, assess-
827 ment should *always* lead to treatment and
828 intervention. It is all too often that agencies
829 and organizations, become bogged down in
830 the taxonomies of mental health and “what” to
831 call a youth and “how” to classify he or she.
832 Ultimately, however, regardless of what the
833 cluster of presenting symptoms are called, at
834 the end of the day, the presenting behaviors of
835 concern will remain if not addressed. If results
836 of mental health assessment lead a clinician to
837 identify a youth with a mental health diagno-
838 sis or psychiatric disorder, the primary reason
839 in doing so should be to enhance communica-
840 tion across caregivers, mental health profes-
841 sionals, judicial professionals, and other
842 pertinent adults in an adolescent’s life. The
843 purpose of using any classification system or
844 taxonomy is to “facilitate interdisciplinary
845 communication that occurs routinely in the
846 process of treatment planning, and which is
847 required for legal storage and retrieval of
848 information to subserve legal, financial and
849 other special service needs,” (Mesco et al.
850 1995).
- 851 4. *“The assessor is properly trained.”* This
852 assumption addresses one of the challenges
853 addressed earlier. Many individuals in the
854 fields of special education and mental health
855 are inadequately trained. For assessment
856 results to be meaningful and helpful, we must
857 assume that the individuals conducting them
858 have the appropriate skills and approach
859 assessment from a perspective that is consis-
860 tent with what we know about children and
861 adolescents.
5. *“Assessment methods contain error.”* By 862
863 nature of the principles of testing methodol-
864 ogy, we know that even the most psychometri-
865 cally sound instruments contain error. Even
866 tests and screening measures that researchers
867 consider to have adequate reliability and valid-
868 ity have error. Interviews, regardless of how
869 structured and standardized, contain error.
870 Every form of measurement used in mental
871 health assessment has some degree of error.
872 Some methods simply have more than others.
873 As practitioners, we must choose to use instru-
874 ments and methods, and combinations of such
875 that lead us to minimize error to the greatest
876 degree possible.

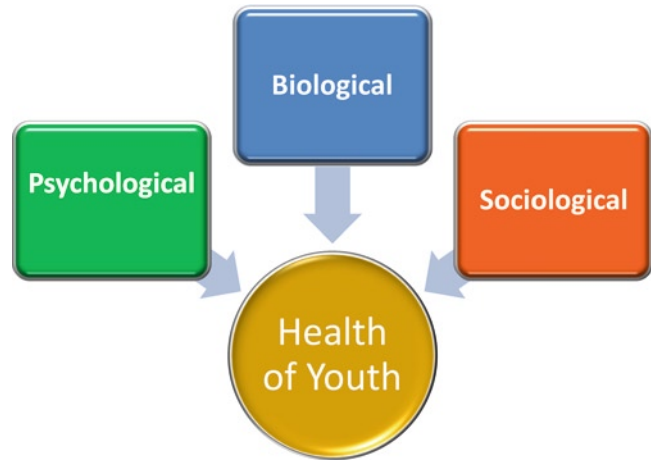
Biopsychosocial Versus Biomedical Perspectives of Human Illness and Behavior

Biopsychosocial Assessment

In a seminal article published in 1977 by psychia-
trist George L. Engel, he expressed that there was
a need for a new model of health and medicine
(Engel 1977; McLaren 2002). Coining the “biop-
sychosocial model (BPS),” he postulated that
biological, psychological and social factors all
contribute to human functioning and they should
be considered when investigating illness (see
Fig. 12.1). This is contrary to the traditional bio-
medical model, which approaches human illness
from the perspective that the presence of a patho-
gen, genetic or developmental abnormality is
responsible for the illness in the body.

Whereas the biomedical model focuses on
symptom reduction and the underlying physio-
logic aspects of illness, the basic tenets of the
BPS support the treatment of human illness from
a holistic perspective. Therefore, because atten-
tion is given to many more factors in this
approach, much more information is required to
conduct a biopsychosocial assessment to formu-
late hypotheses about illness and the subsequent
treatment plan. This person-centered approach
to obtaining information encourages individuals

Fig. 12.1 Biopsychosocial factors which contribute to overall youth wellness



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905 to provide as much information about physical,
906 psychological, and sociological factors as they
907 are willing to do, including the occurrence of
908 major life stressors, their relationships with fam-
909 ily members, and their beliefs about their pre-
910 senting symptoms. Mental health professionals
911 who conduct interviews for biopsychosocials ask
912 open-ended questions, such as “Tell me more
913 about how you are sleeping ...” instead of tradi-
914 tional, closed-ended questions, such as “How are
915 you sleeping?”

916 For youth in the juvenile justice system, using
917 a biopsychosocial approach to gather information
918 can lead to the establishment of much more effec-
919 tive and holistic treatment programs rather than
920 using a traditional biomedical model. Because
921 we know that youthful offenders usually have
922 multiple factors involved in their criminal activ-
923 ity, it behooves mental health professionals to
924 approach assessment this way. Formulating a
925 “big picture” about a youth is much more helpful
926 than “piecemealing” the treatment of symptoms
927 here and there. Additionally, in using a biopsy-
928 chosocial approach, the likelihood of any treat-
929 ment effects to be long-standing and enduring are
930 greatly improved. Table 12.3 contrasts the hypo-
931 theoretical assessment and treatment of a youth pre-
932 senting with depression from the biomedical and
933 biopsychosocial approaches.

934 In recent years, the BPS has been used more
935 extensively in the mental health field. However,

there has been relatively little empirical examina-
tion of the use of this model (Meyer 2009), and
this holds to be especially true within the juvenile
justice setting. Specifically, the components
required to comprise an effective biopsychoso-
cial assessment have received little attention in
the literature (Meyer 2009).

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What is known, is that the components
included in a biopsychosocial will vary depend-
ing on the setting, point of process in the juvenile
system, and referral question(s) being asked.

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Table 12.4 outlines those components recom-
mended for inclusion in a biopsychosocial
assessment.
Due to their complexity, and the sheer volume
of information being gathered and synthesized
for assessment, the report from a comprehensive
biopsychosocial assessment can become the
“cornerstone” so to speak, of the entire assess-
ment of the youth. Throughout the biopsychoso-
cial process, many components can and will
overlap but the data gathered can be complemen-
tary to other components. For example, inter-
views with youth, caregivers and educators, the
mental status exam, and record reviews may be
conducted independently or conducted as a sub-
component of the biopsychosocial. Depending
on the content of each, interviews, the mental sta-
tus exam and record reviews may stand alone and
make specific contributions to the comprehensive
mental health assessment. Similarly, rating scales

Table 12.3 A comparison of the biomedical and biopsychosocial approaches addressing hypothetical depression in an adolescent

	Biomedical	Biopsychosocial
13.1		
13.2		
13.3	Approach to addressing illness	Approach to addressing illness
13.4	– Assess and reduce physical symptoms associated with depression (e.g., sadness, hopelessness, fatigue, loss of interest, suicidal ideation)	– Assess and reduce physical, emotional, and social factors which may be contributing to and maintaining symptoms associated with depression
13.5		
13.6		
13.7		
13.8	Biological and physiological factors	Biological and physiological factors
13.9	– Address physical, neurochemical, and physiological factors associated with depression	– Address physical, neurochemical, and physiological factors associated with depression
13.10		
13.11		
13.12	Psychological factors	Psychological factors
13.13	– Not addressed	– Address negative thoughts, cognitive-behavioral factors, cycles of negative thinking, emotionality/lability
13.14		
13.15		
13.16		
13.17		
13.18		
13.19	Sociological factors	Sociological factors
13.20	– Not addressed	– Investigate and address environmental influences contributing to depression (e.g., poverty, family dynamics, SES, education level)
13.21		
13.22		
13.23		
13.24		
13.25		
13.26		
13.27		

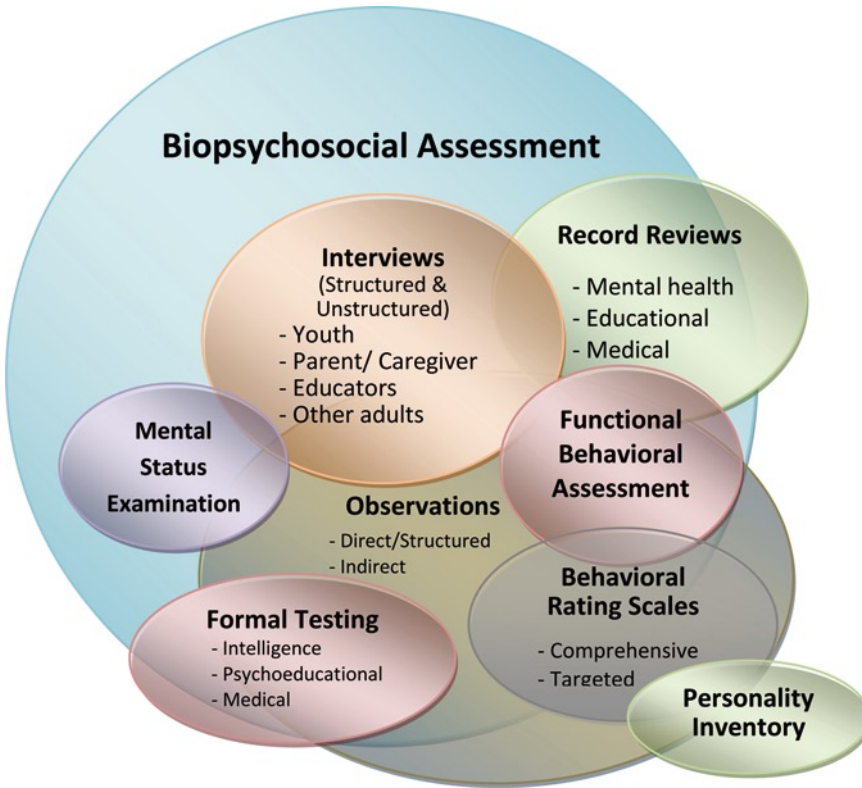
Table 12.4 Recommended components of a biopsychosocial assessment		t4.1
Biopsychosocial assessment		t4.2
(I)	Demographic/identifying information	t4.3
(II)	Reason(s) for referral	t4.4
(III)	Current symptoms/behaviors of concern (per referral source)	t4.5
	• Review of cognitive functioning, the presence of suicidal ideation and/or thoughts of harming self or others, thoughts of becoming victimized by adults and/or other youth	t4.6 t4.7
	• Youth's description and beliefs about his/her presenting concerns (nature of symptoms and behaviors, intensity, severity and duration)	t4.8 t4.9
(IV)	Emotional/psychiatric history	t4.10
	• Youth's account of his/her history of psychological/psychiatric disorders (including treatment)	t4.11
	• Coping strategies	t4.12
	• Prior outpatient and inpatient treatment	t4.13
	• Prior residential treatment	t4.14
	• Psychotropic medications (current and previous)	t4.15
	• Family psychological/psychiatric history (nature of disorders and behaviors, intensity, severity and duration, extent to which psychopathology has impacted family functioning, history of treatment(s), and use of psychotropic medications)	t4.16 t4.17 t4.18
	• Strengths	t4.19
	• Concerns/needs/issues/services needed	t4.20
(V)	Family history	t4.21
	• Family of Origin (individuals present during youth's childhood, marital status of biological parents, description of family and home environment, special circumstances during childhood (i.e., emancipation))	t4.22 t4.23
	• Current family (individuals living in current household, description of family dynamics)	t4.24
	• History of domestic disturbances and abuse	t4.25
(VI)	Medical history	t4.26
	• Surgeries, traumas, accidents, broken bones, injuries, other physical issues or conditions, physical limitations, head or brain injuries	t4.27 t4.28
	• Current nonpsychotropic medications, vitamins and supplements	t4.29
	• Nutritional development and noted deficiencies	t4.30
	• Strengths	t4.31
	• Concerns/needs/issues/services needed	t4.32
(VII)	Substance use history	t4.33
	• Youth's history of substance use/experimentation	t4.34
	• Family substance use history	t4.35
	• Strengths	t4.36
	• Concerns/needs/issues/services needed	t4.37
(VIII)	Developmental history	t4.38
	• Physical development (chronological age, prenatal history, birth, developmental milestones, sensorimotor functioning, motor development)	t4.39 t4.40
	• Emotional development	t4.41
	• Cognitive development	t4.42
	• Social development	t4.43
	• Strengths	t4.44
	• Concerns/needs/issues/services needed	t4.45
(IX)	Educational history	t4.46
	• Last grade completed, last school attended, current grade in school	t4.47
	• Educational performance (review of grades, school performance, results of standardized testing and benchmark assessments)	t4.48 t4.49
	• Behavioral history in school (history of office discipline referrals, nature of referrals, suspensions, expulsions, alternative school attendance, review of onset of behavioral concerns)	t4.50 t4.51

(continued)

Table 12.4 (continued)

Biopsychosocial assessment		
t4.52	<ul style="list-style-type: none"> • History of special education services (including associated related services such as speech therapy, occupational therapy, counseling, psychological services) • Strengths • Concerns/needs/issues/services needed 	
t4.53		
t4.54		
t4.55		
t4.56	(IX) Legal history	
t4.57	<ul style="list-style-type: none"> • History of arrests/current charges/pending charges • Probation/Parole information (if applicable) • Concerns/needs/issues/services needed 	
t4.58		
t4.59		
t4.60	(X) Personal history	
t4.61	<ul style="list-style-type: none"> • Spiritual/religious affiliation • Cultural/ethnicity affiliation • Community involvement • Recreational involvement and preferences 	
t4.62		
t4.63		
t4.64		
t4.65	(XI) Mental status examination (described elsewhere in this chapter)	
t4.66	(XII) Youth's strengths and areas of need/barriers to treatment	
t4.67	(XIII) Summary of information, interpretation of findings, conclusions, and treatment and intervention recommendations	
t4.68		
t4.69	Reference: Excerpts from the McHenry County Mental Health Board, Crystal Lake, IL website, downloaded on	
t4.70	February 22, 2010, from http://www.mc708.org/.../QualityManagement/Documents/Completing_the_Biopsychosocial_Assessment	
t4.71		

967 and the results of formal testing may also be in diagramming) a family tree and significant 993
 968 incorporated into the biopsychosocial report. individuals in his/her life. In later discussions 994
 969 Informal observational data are gathered through- with youth, this diagram can be helpful in refer- 995
 970 out the assessment process. For example, obser- encing specific individuals, situations, and or liv- 996
 971 vations are conducted during interview(s), mental ing arrangements of the youth and serve to reduce 997
 972 status examinations (MSEs), formal testing (if miscommunications. 998
 973 such testing is warranted), and other components The relationships between the biopsychosocial 999
 974 of the comprehensive assessment. Additional assessment, clinical interviews, other interviews 1000
 975 observational data are collected during formal with youth, parents and caregivers, educators, 1001
 976 observations using a structured protocol, and and other relevant adults, and the MSE should be 1002
 977 when observing for the presence/absence of spe- fluid and dynamic in nature. Some clinicians may 1003
 978 cific behaviors. Such observations can provide choose to use the biopsychosocial assessment as 1004
 979 excellent information regarding the relative fre- the “anchor” of the comprehensive mental health 1005
 980 quency, duration, and latency of specified, tar- evaluation, such that all other assessment compo- 1006
 981 geted behaviors of interest. Nonetheless, all such nents fit “into” this framework. This framework 1007
 982 data contribute to the overall, “big picture” and would hold results of direct observations, person- 1008
 983 clinical presentation of a youth. ality inventories, behavioral rating scales, func- 1009
 984 During interviews with youth, mental health tional behavioral assessments (FBAs) and any 1010
 985 professionals need to take into account his/her formal testing conducted. Other clinicians may 1011
 986 verbal skills, and in particular, verbal expression. choose to simply use the biopsychosocial assess- 1012
 987 Some youth have very limited vocabularies, ment as an independent component of the com- 1013
 988 expressive language deficits, and skewed percep- prehensive evaluation. Figure 12.2 depicts the use 1014
 989 tions of family dynamics. Clarification may be of the biopsychosocial assessment as the anchor 1015
 990 needed for both the interviewer and the youth of the entire mental health assessment. Figure 12.3 1016
 991 regarding the questions being asked. It is often depicts the biopsychosocial as a component only 1017
 992 helpful to ask the youth to diagram (or assist of the entire mental health assessment process. 1018



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Fig. 12.2 Comprehensive mental health evaluation components anchored around the biopsychosocial assessment—model 1



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Fig. 12.3 Comprehensive mental health evaluation using individual assessment components, including the biopsychosocial assessment—model 2

1019 **Components of Comprehensive**
 1020 **Biopsychosocial Assessment**
 1021 **in Juveniles**

1022 According to Ollendick and Hersen (1984), “the
 1023 effects of developmental ability and developmen-
 1024 tal change are primary considerations in the
 1025 selection of behavioral assessment procedures.”
 1026 This may be particularly applicable to conduct-
 1027 ing assessments with adolescents and juveniles.

1028 In this section, we will discuss the components
 1029 of good mental health assessment with juveniles.
 1030 Whereas much time may be devoted to describ-
 1031 ing the attributes of the many instruments avail-
 1032 able for use, this would be well beyond the scope
 1033 of this chapter. Therefore, throughout the discus-
 1034 sion of the components, examples of proposed
 1035 methods, instruments, and measures will be pro-
 1036 vided and should not be considered to represent
 1037 the range of instruments and options available.

1038 **Interviews**

1039 Many mental health professionals continue to rely
 1040 on the clinical interview as the primary diagnostic
 1041 tool (Dulcan 2010), yet it is also “one of the most
 1042 underresearched areas of mental health assess-
 1043 ment,” (McConaughy 2005). Among the variety
 1044 of assessment components available, the inter-
 1045 view, in conjunction with the MSE, are perhaps
 1046 most predisposed to judgment, subjectivity, and
 1047 unreliability. Without the support of more objec-
 1048 tive and empirically derived data, the practice of
 1049 conferring diagnoses based solely on these meth-
 1050 ods is error prone and will more than likely lead to
 1051 disagreement among treatment providers and per-
 1052 haps even mis-diagnosis. Interviews are impor-
 1053 tant, clinical tools in the mental health assessment
 1054 process; however, should serve as components in
 1055 the assessment process, not *the* assessment.

1056 Interviews may be formal or informal, struc-
 1057 tured or unstructured. Interviews may be con-
 1058 ducted with youth, caregivers, educators who work
 1059 with the youth, social service personnel, individu-
 1060 als from probation and parole, and any other indi-
 1061 viduals who may provide reliable and relevant

information about the youth. Many evaluators and 1062
 clinicians use interviews that have been developed 1063
 in-house and for purposes that are specific to the 1064
 assessments being conducted. These interviews 1065
 are usually informally developed, administered, 1066
 unstructured, and nonstandardized. The use of 1067
 informal or unstructured interviews serve to com- 1068
 plement other information gathered during the 1069
 assessment process and facilitate the formulation 1070
 of hypotheses about the youth’s functioning. By 1071
 interviewing multiple informants, the perspectives 1072
 of several individuals who have important infor- 1073
 mation about the youth may be considered and can 1074
 contribute to the “big picture” that is being built 1075
 through the assessment process. 1076

Structured (formal) and semistructured inter- 1077
views. There are times during assessment when 1078
 the administration of a more definitive measure 1079
 can assist in formulating hypotheses about cases 1080
 that are difficult, complex, and about youth who 1081
 have volatile and unstable histories. Structured 1082
 interviews such as the *Diagnostic Interview for* 1083
Children and Adolescents-IV (DICA-IV) (Reich 1084
 et al. 1997) follow specified formats, such that 1085
 questions must be asked in a certain order and 1086
 stated as written. Structured and semistructured 1087
 interviews are designed to address the challenges 1088
 that are apparent in difficult cases or in situations 1089
 where diagnosis is likely to be unreliable 1090
 (Summerfelt and Antony 2004). In unstructured 1091
 interviews, the clinician is solely responsible for 1092
 the questions used, and in how a clinical impres- 1093
 sion and/or diagnosis is obtained. The structured 1094
 and semistructured interviews address issues in a 1095
 manner that is standardized in terms of content, 1096
 format, and item order. It is because of the struc- 1097
 ture that the diagnostic formulation process 1098
 becomes more reliable and consequently more 1099
 accurate. *Considerations in choosing an inter-* 1100
view to use with youth. Before deciding to use a 1101
 structured or semistructured interview, take care 1102
 that the instrument is suited for use with the juve- 1103
 nile population and can address the issues at 1104
 hand. Psychometric properties are a priority when 1105
 choosing an instrument. To be of sufficient util- 1106
 ity, structured interviews need to have adequate 1107
 reliability and validity and also have broad diag- 1108
 nostic scope and depth (Summerfelt and Antony 1109

1110 2004). Sometimes, the ability for the interview
 1111 instrument to assess a broad variety of disorders
 1112 sacrifices the instrument's ability to assess the
 1113 depth of information available about each disorder.
 1114 Such "trade-offs" are not uncommon in using
 1115 structured interviews (Summerfelt and Antony
 1116 2004). The level of structure in an instrument
 1117 may directly improve its reliability; however,
 1118 may also sacrifice the validity of the diagnosis
 1119 (Summerfelt and Antony 2004). Other considerations
 1120 when choosing a structured or semistructured
 1121 interview include practical issues, such as,
 1122 "How long does the interview take to administer?"
 1123 and "What is the training level required to
 1124 administer the interview?" The cost effectiveness
 1125 of an interview may significantly decrease if it
 1126 can only be administered by a licensed psychologist
 1127 or psychiatrist.

1128 Additional considerations when using interviews
 1129 with youth pertain to the approach of the
 1130 interviewer. Because youth involved in the justice
 1131 system may have communication difficulties,
 1132 sultry or defensive attitudes, interviewers may
 1133 find that they need to work especially hard to
 1134 establish a healthy and positive rapport with an
 1135 adolescent. Interviewers also need to be adequately
 1136 trained in the methods of objective interviewing
 1137 so as not to turn the interview into an
 1138 interrogation.

1139 Mental Status Examinations

1140 MSEs are similar to physical examinations used
 1141 in the medical field (Ryan 1995) and may be
 1142 blended into a complete clinical interview. They
 1143 serve to assess a youth's current levels of mental
 1144 functioning, awareness, and lucidity and are typically
 1145 conducted during initial intake assessments
 1146 (or assessments in which the youth is initially
 1147 coming into contact with a system) and to obtain
 1148 baseline information about a youth's mental state
 1149 at that point in time. There are many varieties of
 1150 MSEs ranging from those that are formal and
 1151 rather structured, to those which are brief and
 1152 consist of only a few questions. Most of the information
 1153 needed to complete an MSE may be incorporated
 1154 into a clinical interview and ultimately

the biopsychosocial assessment conducted with
 the youth. This clinical interview may take
 approximately an hour (Ryan 1995). Clinicians
 may choose to use only a segment or a few questions
 of an MSE during follow-up sessions or as
 "barometers" over the course treatment with a
 youth. MSEs generally explore the following
 aspects of functioning:

1. *Appearance, attitude, and behavior*—During
 this segment, the clinician observes the youth
 to collect information about hygiene, dress,
 grooming, posture, the appropriateness of the
 youth's behavior, facial expressions, attitude
 during the interview, motoric activity, and
 mannerisms.
2. *Speech*—Over the course of the interview, the
 manner in which a youth speaks and uses language
 is observed. Specifically, a clinician is interested
 in briefly assessing how spontaneously a youth
 engages in conversation, the fluency with which
 he/she speaks, prosody, articulation, the rate of
 speech, such as whether it is pressured or halting,
 and whether a youth perseverates or engages in
 echolalia.
3. *Affect and mood*—Affect refers to the "outward
 manifestation of mood" (Ryan 1995). Mood refers
 to the "pervasive emotion or feeling state which
 affects an individual's perception of the world"
 (Ryan 1995). During an interview, the congruency
 between affect and mood are observed by a clinician.
 For example, a youth may describe themselves as
 being in a "happy" mood, but present with a rather
 dull and depressed affect to the clinician.
4. *Thought processes*—As they engage in conversation
 during interview, a clinician will observe how a
 youth presents with respect to thinking. In other
 words, "How does this individual put thoughts
 together?" To obtain this information, a clinician
 may observe how well speech is produced, whether
 thoughts are coherent and sensible, whether the
 thoughts of a youth stream together well and how
 well a youth can present an idea. Does the youth
 jump around from one topic to another or does
 he/she stick to the topic at hand?
5. *Orientation to person, place, situation, and
 time*—This portion of an MSE provides an

1203	indication as to whether a youth's senses are	these aspects of a youth's functioning; however,	1250
1204	intact, and whether he/she is oriented to the	individuals who have historically worked with	1251
1205	here and now.	adults may attribute these deviations to some form	1252
1206	6. <i>Concentration, attention and memory</i> —To	of pathology. In assessing a youth's intelligence,	1253
1207	assess concentration, attention, and memory,	lack of opportunity may lead a youth to present	1254
1208	the clinician may ask the youth to recall a	with a rather limited fund of general knowledge.	1255
1209	series of numbers both forward and backward,	Therefore, it is important that questions are cul-	1256
1210	count backwards by five, and recall objects or	turally relevant and simply stated when phrasing	1257
1211	words after several minutes.	questions. Finally, and perhaps most importantly,	1258
1212	7. <i>Intelligence</i> —The assessment of intelligence	patience is most needed when seeking informa-	1259
1213	during an MSE is an estimate of a youth's	tion from youth who may present as being defen-	1260
1214	overall fund of general knowledge by the cli-	sive or hostile. Time spent up front to build rapport	1261
1215	nician based on his or her observations over	with a youth is essential to establishing any trust	1262
1216	the course of the interview. It is a very broad	between a youth and practitioner and will go a	1263
1217	and subjective "guesstimate" of a youth's	very long way to foster a trusting and therapeutic	1264
1218	intellect and cognitive and should not be used	relationship. Practitioners working with juveniles	1265
1219	for formulating diagnostic impressions of	may find themselves constantly having to "prove	1266
1220	mental abilities.	themselves" to youth in order to maintain com-	1267
1221	8. <i>Judgment and insight</i> —Information about a	munication that is reciprocal and qualitative.	1268
1222	youth's judgment and insight may be obtained		
1223	throughout the interview. The clinician may	Record Review	1269
1224	ask the youth about decisions he/she has made		
1225	and direct questions that will provide informa-	A thorough review of available records is essen-	1270
1226	tion about the awareness a youth has about his	tial for accurate case formulation and treatment.	1271
1227	or her emotional state.	Throughout the assessment process, the mental	1272
1228	As with any of the components described here,	health professional should be constructing the	1273
1229	the results of MSEs must be used in conjunction	"big picture" of each youth. Historical informa-	1274
1230	with other information gathered during assess-	tion contributes to answering the assessment	1275
1231	ment. Considerations must be given to culture,	questions of duration and settings of symptoms	1276
1232	environment, and education level of the youth	and presenting behaviors. Although often diffi-	1277
1233	being interviewed. For example, for youth who	cult to obtain, a concerted effort should be made	1278
1234	are significantly behind academically, they may	by the juvenile agency to obtain copies of any	1279
1235	not be able to count backwards by specified num-	records of the youth.	1280
1236	bers when asked to do memory-related exercises.		
1237	Their clothing and hygiene may be poor due to	Mental Health	1281
1238	environmental or living conditions. Specifically, a		
1239	youth from a lower SES background may have	Information about a youth's previous mental	1282
1240	only two pair of pants and may appear disheveled	health treatment is highly desirable and most	1283
1241	for those reasons and not those related to the pres-	helpful in formulating plans to address the needs	1284
1242	ence of specific pathologies. The affect of a par-	of youth. Information regarding psychiatric diag-	1285
1243	ticular youth may not be congruent with mood	gnoses, prior hospitalizations, the prescription of	1286
1244	because they are angry and defensive or may not	psychotropic medications, as well as the success	1287
1245	even be able to accurately describe how they are	of previous treatment regimes are highly relevant	1288
1246	feeling. Speech patterns may be odd because the	to the biopsychosocial assessment. Information	1289
1247	youth has deficits in fluency and expressive lan-	about substance use and any prior treatment	1290
1248	guage. Clinicians who work with children and	should also be included in requests for records	1291
1249	adolescents may naturally offer considerations to	and reports.	1292

1293 Educational

1294 The educational records and histories of juveniles
1295 are sometimes communicated about in a manner
1296 that is separate from those pertaining to mental
1297 health and medical issues. In using a biopsychoso-
1298 cial approach, and perhaps we should refer to this
1299 model as a “biopsyoedusocial” approach, the
1300 needs of the entire youth are addressed in a manner
1301 that is seamless and overarching. Consideration of
1302 a youth’s academic abilities and performance
1303 should be given high priority among treatment
1304 concerns. After all, children and adolescents are
1305 supposed to spend most of their time in school!
1306 The manner in which the mental health assess-
1307 ments of youth are approached are perhaps most
1308 relevant to how well they will perform academi-
1309 cally! Where is the student functioning academi-
1310 cally? What are his best and worst subjects? Is he
1311 able to sustain attention throughout the school day?
1312 Are his symptoms associated with posttraumatic
1313 stress disorder (PTSD) interfering with his ability
1314 to pay attention in class? Does he have a history of
1315 being suspended or expelled from school? Does he
1316 receive special education services?

1317 Up to 50% of juveniles have histories of
1318 receiving special education services. Although
1319 there has been some disagreement regarding the
1320 terminology that describes them, there is wide
1321 agreement in the field that youth with learning dis-
1322 abilities (LD) or specific learning disabilities (SLD),
1323 mild and/or moderate mental disabilities (MMD),
1324 and emotional disturbance (ED or EBD) (i.e., an
1325 emotional or behavioral disorder), are overrepre-
1326 sented in juvenile correctional facilities (Casey
1327 and Keilitz 1990; Meisel et al. 1998; Murphy
1328 1986). Youth in the juvenile justice system are
1329 three to five times more likely to be eligible to
1330 receive special education services (Leone and
1331 Meisel 1997).

1332 Because youth in the juvenile justice system
1333 are much more likely to have educational con-
1334 cerns, it is critical that attention be given to
1335 obtaining as much information as possible about
1336 academic histories and performance. The educa-
1337 tional concerns of youth are often overshadowed
1338 by their social maladjustment, illegal behavior,
1339 and the need to keep troubled youth secured from
1340 society. What often tends to be overlooked is that

the behavioral concerns exhibited by many youth
stem from the fact that they are behind academi-
cally or have significant academic deficits. The
period of time in which they are in secure care
can be used opportunistically to remediate skill
deficits and to assist youth in making important
academic gains, whether it is teaching them basic
literacy skills, helping them to prepare for a
General Education Diploma (GED) exam, or
enrolling them in entry-level college courses.

Educational assessments of youth should be
approached broadly and then progress to more
specific assessment as needed. The use of formal
measures is not always necessary up front and
agencies should be cognizant of using screenings
that capture pure academic skills of youth. Upon
entry into the juvenile justice system, record
review should provide some indication as to how
closely to grade level a youth is to functioning.
Does he or she have grade retentions and what is
the last grade he or she completed successfully?
For youth who are markedly behind their respec-
tive grade levels (i.e., greater than 2–3 years
behind), it is essential to know how fluent they
are in reading, writing, and performing basic
math calculations. For youth in secure care, the
mean reading level has been estimated to be
equivalent to the fifth grade. Therefore, when
assessing very basic academic skills, the use of
curriculum-based measurement (CBM) may be
helpful in obtaining information as to the grade
level on which a youth is performing.

Originally developed in the 1980s by Deno
and Mirkin and associates, Fuchs and Fuchs, and
Mark Shinn, CBM offers efficient, standardized
methods to assess fluency across the basic skills
of reading, writing, and mathematics (Deno 1985,
1992; Fuchs et al. 1984; Shinn 1989). Measures
used for CBM are reliable and valid and offer sys-
tematic, yet highly sensitive methods of assessing
student progress across the course of an academic
year (Stecker 2010). CBM is used in several
ways. Typically, measures for CBM benchmark-
ing are administered three to four times per year
to obtain indices of student progress and are rep-
resentative of skills that students should have
mastered across the span of the school year. CBM
probes may then be administered weekly or even

1389 more frequently in accordance with intervention
 1390 plans developed to address specific skill deficits.
 1391 Thus, CBM is excellent for identifying fluency-
 1392 based academic skills in need of remediation or
 1393 intervention. For these reasons and because mea-
 1394 sures used for CBM are highly sensitive to
 1395 changes in student performance, they can assist in
 1396 pinpointing student skill deficits and the grade
 1397 level on which students are performing in the
 1398 three critical subject areas. Sets of passages com-
 1399 monly used to conduct CBM of reading are those
 1400 published by the Center on Teaching and Learning
 1401 at the University of Oregon (i.e., dynamic indica-
 1402 tors of basic early literacy skills (DIBELS)) and
 1403 PsychCorp (AIMSweb).

1404 Keep in mind that CBM is most appropriate
 1405 for youth who are functioning on elementary and
 1406 early middle school levels. For youth who are
 1407 higher functioning and for whom basic fluency is
 1408 not a concern, more sophisticated and compre-
 1409 hensive measures of academic functioning may
 1410 be administered (i.e., standardized tests).
 1411 Agencies should work closely with school sys-
 1412 tems, the education departments in each state,
 1413 and universities offering expertise in this area to
 1414 determine what is most feasible for their organi-
 1415 zation. For more information, readers are encour-
 1416 aged to visit the website of the National
 1417 Association of School Psychologists (NASP).

1418 **Medical**

1419 It is critical to the well-being of the youth in the
 1420 justice system, that accurate information be
 1421 obtained about their medical histories. Again, as
 1422 part of the “big picture,” professionals treating the
 1423 youth in their care need to know whether they
 1424 have medical conditions (e.g., asthma, an STD,
 1425 HIV), previous injuries (e.g., orthopaedic, a closed
 1426 or traumatic head injury), and/or any known aller-
 1427 gies to foods and materials, and so forth.

1428 **Observations**

1429 Any behaviors that are directly observable can
 1430 be systematically recorded and measured (Witt
 1431 et al. 1994). While many assessment instruments
 1432 seek to assess constructs and traits that are

perhaps not directly observable (e.g., formal
 intelligence batteries), assessments that are
 observation based are those based solely on what
 the examiner or observer can observe.
 Observations can be either direct or indirect in
 nature and may occur in the context of other
 assessments, such as MSEs, formal testing, or
 interviews. They can also be conducted to cap-
 ture the behavior of a specific individual, several
 individuals, or groups of individuals.

Indirect Observations

Indirect observations are those which capture
 behaviors of interest in a second-hand manner.
 That is, observational data may be collected from
 individuals who witnessed the behavior(s) of
 interest, have indicated it through behavioral rat-
 ing scales, or data may be collected from records
 which reflect that the behavior occurred some
 time ago (i.e., via an historical reflection of the
 behavioral occurrence). These methods are indi-
 rect because the data are not collected directly by
 an observer and the occurrence of behavior relies
 on the informational quality of other reporters.

Direct Observations

Direct observations are those which occur in the
 here and now and are conducted in the place and
 time during which the behavior is recorded.
 Direct observations may be formal or informal.
 Informal direct observations are those which are
 conducted by the examiner or practitioner and
 may be conducted in various contexts. For exam-
 ple, throughout the interview process, the exam-
 iner or interviewer should record his or her
 anecdotal behavioral observations of the intervie-
 wee’s behavior during the interview. Observational
 data should include the noting of the youth’s
 body position, eye contact and engagement, the
 youth’s demeanor and overall behavioral presen-
 tation, willingness to engage in conversation, his/
 her attitude toward the examiner, and so forth.
 There are many, many aspects of behavioral
 functioning that may be recorded during inter-
 views and other assessment components such as
 the mental status exam, and most practitioners
 have protocols for recording the most important
 behaviors of interest. Other informal but direct

1479 observations may be conducted casually and
1480 naturalistically. For example, a practitioner may
1481 observe a youth during transitions between activi-
1482 ties, to obtain information about social interac-
1483 tions during meals, and activity during recreational
1484 activities.

1485 In more formalized direct observations, the
1486 observer captures data on a first-hand basis and
1487 records only behaviors that meet operationally
1488 defined standards that are determined a priori.
1489 During formal (or structured) observations, the
1490 observer predetermines which behaviors will be
1491 targeted for observation, and those behaviors are
1492 typically defined in an *operational* manner.
1493 *Operational definitions* of behavior refer to
1494 descriptions of specific behaviors (e.g., noncom-
1495 pliance) that are clear, unambiguous, and explicit
1496 (Witt et al. 1994). By operationally defining a
1497 behavior, the possibility of erroneously capturing
1498 the behavior is greatly decreased, and the reli-
1499 ability of the data gathered increases such that if
1500 more than one individual were asked to observe
1501 the behavior, there would be high agreement
1502 among them as to what the behavior would look
1503 like (i.e., high interrater agreement and reliabil-
1504 ity). According to Kazdin (1984), operational
1505 definitions of behavior should be “clear, objec-
1506 tive, and complete. Observers should be able to
1507 read the definition of behavior and use it to record
1508 behavior.”

1509 Why are formal direct observations helpful?
1510 They assist in quantifying the instances and
1511 occurrences of the behaviors of concern. Formal,
1512 direct, and structured observations can capture
1513 various types of information about behavior such
1514 as *frequency*, *duration*, and *latency*, as well as the
1515 *intensity* of specified behaviors and they can pro-
1516 vide quantifiable information to the practitioner
1517 about behavioral severity. In doing so, the ability
1518 to determine baselines of behavior improves dra-
1519 matically, as does the ability to determine whether
1520 associated interventions have been effective.

1521 In using observational-based assessment,
1522 there are various types of recording methods. The
1523 type of recording method used depends on the
1524 dimension of the behavior of interest. Table 12.5
1525 provides an overview of observational recording
1526 methods.

Behavioral Rating Scales

1527 Behavioral rating scales have become widely
1528 used as components of comprehensive assess-
1529 ments. They are considered to provide both social
1530 validity (Kazdin 1977), and face validity (Jensen
1531 and Haynes 1986), and can be cost-efficient to
1532 use since little training is required for those who
1533 complete them. There are limited time commit-
1534 ments involved on the part of mental health pro-
1535 fessionals who oversee their administration
1536 (Kalfus 1995). Behavioral rating scales and
1537 inventories are the “most common methods for
1538 quantifying teacher and parent judgments” (Witt
1539 et al. 1994), with a popular advantage being that
1540 they are scored in an objective manner.
1541

1542 Responses on behavioral rating scales can be
1543 as simplistic as circling “yes” or “no,” or as broad
1544 as those on a 7-point Likert-type scale which
1545 allows respondents to identify the “degree” to
1546 which a behavior or symptom is present.

1547 Many of the commercial behavioral rating
1548 scales offer parallel versions of the same instru-
1549 ment in order to obtain ratings from multiple
1550 informants. For example, a number of rating
1551 scales are published with self-report (or youth
1552 versions), parent/caregiver, and teacher/educator
1553 forms available. However, in scoring and inter-
1554 preting the results of these instruments, the poten-
1555 tial for rater biases, the underreporting or
1556 overreporting of behaviors and symptoms of
1557 informants and the presence of response biases
1558 need to be considered carefully.

1559 Behavioral rating scales have advanced tre-
1560 mendously over the past two decades. Aggressive
1561 research and product development have facilitated
1562 the development of a vast array of instruments
1563 that assess many types of disorders and sets of
1564 behaviors in the mental health field. Some, of
1565 course, are better developed than others. Astute
1566 practitioners should investigate the product devel-
1567 opment behind each instrument and ensure that
1568 the psychometric properties such as the reliability
1569 and validity are stable and strong. In using a spe-
1570 cific behavioral rating scale, it is important that
1571 the normative sample from which the instrument
1572 was developed includes members of the popula-
1573 tion for which it is intended. An additional and

Table 12.5 Observationally based recording methods

Recording method	Description and types of data	Behavior(s) recorded	Example
t5.1	Event-based	Frequency of behavior; number of times a behavior occurs during a specific period of time	Number of times a youth hits another, spits, interrupts others; number of positive comments to peers; instances of noncompliance; number of times a youth cries over a period of time (e.g., day); frequency of auditory hallucinations
t5.2	Interval-based: Behaviors are sampled across a specified period of time (observation period is divided into intervals (i.e., 10- or 15-s intervals over a 10-min period)). Types of interval-based recording:	Behaviors that occur and do not occur during a specific period of time	Out-of-seat behavior; on-task behavior; sleeping
t5.3	(A) Partial-interval recording	Behavior is recorded if it occurs at any time during the specified time interval	Frequently occurring behaviors (may underestimate behavioral frequency)
t5.4	(B) Whole-interval recording	Behavior is recorded if it occurs during the entire observation interval	Frequently occurring behaviors (may overestimate behavioral frequency)
t5.5	(C) Time sampling	Behavior is recorded if it occurs at either the beginning or the end of an observation interval	Frequently occurring behaviors (can be inaccurate for behaviors of short duration)
t5.6	(D) Sequential time sampling	Same as time sampling, except more than one youth is observed. Youth are observed sequentially (i.e., one right after the other)	Frequently occurring behaviors (can be used to compare rates of behavior for different youth) (can be inaccurate and underestimate high frequency behaviors)
t5.7	Time-based	Use temporal aspects of behavior to capture data: duration, latency, interresponse times (measurement of importance is the time, not the occurrence of the behavior). Measurement involves how long a behavior lasts, the time between behavioral events	Duration: Time of engagement in an activity; length of a tantrum; length of time sleeping Latency: Time between request and compliance by youth; time between question and response by youth
t5.8	Permanent product(s)	Measurement of actual by-products of behavior. Typically involve the results of other behaviors	Number of correct answers or responses; number of square feet on a wall that was defaced by graffiti; drawings depicting violence or negative themes

Witt, J. C., Elliott, S. N., Kramer, J. J., & Gresham, F. M. (1994). *Assessment of Children: Fundamental Methods and Practices*. Madison, WI: WCB Brown & Benchmark.

1574 important consideration pertains to the readability
 1575 level of each scale, as well as the age range for
 1576 which the instrument was designed. For youth
 1577 who have limited reading fluency and comprehen-
 1578 sion skills, it can be daunting for them to be
 1579 handed a booklet containing over 200 items. In
 1580 these cases, the recommendation is for mental
 1581 health professionals to read items to youth or find
 1582 another, shorter and easier to read measure that
 1583 can capture the behaviors of interest. Most rating
 1584 scales may be administered either individually or
 1585 in group format.

1586 Behavioral rating scales can assess many types
 1587 of behaviors. A scale may be constructed to assess
 1588 broad sets of behaviors, symptoms and/or skills,
 1589 or a scale may be constructed to assess a specific
 1590 set of symptoms or behaviors to assist with tar-
 1591 geted assessment.

1592 **Comprehensive/Multidimensional** 1593 **Rating Scales**

1594 Comprehensive and/or multidimensional rating
 1595 scales are those which assess a variety of areas,
 1596 issues or concerns, including the presence of
 1597 symptoms associated with various childhood dis-
 1598 orders, social skills, the susceptibility to certain
 1599 pathologies, adaptive behavior skills, and so forth.
 1600 They are typically complexly structured but may
 1601 be used across a wide variety of settings, includ-
 1602 ing schools, clinics, and forensic facilities. Some
 1603 of the most well-developed and most commonly
 1604 used comprehensive scales are the *Behavior*
 1605 *Assessment System for Children-Second Edition*
 1606 (*BASC-2*) (Reynolds and Kamphaus 2004), the
 1607 *Achenbach System of Empirically Based*
 1608 *Assessment (ASEBA)* (Achenbach et al. 2003) and
 1609 the *Connors Comprehensive Behavior Rating*
 1610 *Scales (Connors CBRS)* (Connors 2008). For
 1611 most instruments, computer programs are avail-
 1612 able to assist with scoring and interpretation.

1613 **Targeted/Unidimensional Rating Scales**

1614 Targeted and/or unidimensional rating scales
 1615 are those which assess a specific set of skills or

symptoms. For example, when results of screen- 1616
 ings and comprehensive rating scales lead a clini- 1617
 cian to believe that a youth may have an anxiety 1618
 disorder, a targeted rating scale like the *Revised* 1619
Manifest Anxiety Scale (RC-MAS) (Reynolds and 1620
 Richmond 1985) or the *Multidimensional Anxiety* 1621
Scale for Children (MASC) (March 1997) may be 1622U6]
 used to collect additional data regarding the 1623
 youth's symptom presentation. Targeted scales 1624
 have been developed to address many types of 1625
 disorders and concerns. For example, there are 1626
 rating scales to assess social skills in children and 1627
 adolescents such as the *Social Skills Improvement* 1628
System (SSIS) (Gresham and Elliott 2008), eating 1629
 disorders, and the presence of symptoms associ- 1630
 ated with trauma and traumatic stress, the *Trauma* 1631
Symptom Checklist for Children (TSCC) (Briere 1632
 1996). Targeted rating scales developed to assess 1633
 the presence of symptoms associated with depres- 1634
 sion in children and adolescents include the 1635
Reynolds Adolescent Depression Scale-Second 1636
Edition (RADS-2) (Reynolds 2002), the *Children's* 1637
Depression Inventory (CDI) (Kovacs 2003), and 1638
 the *Multiscore Depression Inventory for Children* 1639
(MDI-C) (Berndt and Kaiser 1996). Each of these 1640
 instruments may provide clinicians with more 1641
 specific, additional information about areas of 1642
 concern. Although most involve self-report, some 1643
 targeted rating scales also offer parallel forms just 1644
 as comprehensive and multidimensional mea- 1645
 sures do to obtain information across informants. 1646

Substance use is often explored through the 1647
 administration of targeted rating scales. For 1648
 example, the *Substance Abuse Subtle Screening* 1649
Inventory, Third Edition (SASSI-3) (Miller et al. 1650
 1997), was designed to identify individuals who 1651
 have a high probability of exhibiting a substance 1652
 dependence disorder. Although reported to be 1653
 fairly methodologically sound, criticisms of the 1654
SASSI-3 include the use of inconsistent terminol- 1655
 ogy when referring to substance-related issues 1656
 and its limited clinical utility. 1657

1658 **Personality Inventories**

Personality inventories often accompany clinical 1659
 interviews in assisting clinicians with the diagnosis 1660

1661 of personality disorders. However, personality
 1662 disorders are not nearly as commonly assessed
 1663 among youth because the onset of personality dis-
 1664 orders does not typically occur until early adult-
 1665 hood. The *Minnesota Multiphasic Personality*
 1666 *Inventry for Adolescents*, the *MMPI-A*, (Butcher
 1667 et al. 1992), is perhaps the most renowned instrum-
 1668 ent for assessing personality in adolescents and
 1669 does so by providing 68 scores over four sets of
 1670 scales: validity scales, basic clinical scales, content
 1671 scales, and supplementary scales. The adolescent
 1672 version of the adult *MMPI-2* is one of only a few
 1673 comprehensive measures available to assess per-
 1674 sonality and syndromal clusters of personality
 1675 dynamics in adolescents. Other personality assess-
 1676 ment instruments for adolescents include the
 1677 *Millon Adolescent Personality Inventry (MAPI)*
 1678 (Millon et al. 1993b), the *Millon Adolescent*
 1679 *Clinical Inventry (MACI)* (Millon et al. 1993a),
 1680 and the *Personality Assessment Inventry-*
 1681 *Adolescent (PAI-A)* (Morey 2007). The *Adolescent*
 1682 *Psychopathology Scale (APS)* (Reynolds 2004)
 1683 may also be helpful as it includes five scales which
 1684 assess personality disorders and also assesses other
 1685 domains.

1686 **Formal Testing/Diagnostic Batteries**

1687 After screenings and preliminary assessment
 1688 results lead to the formulation that a youth may
 1689 have a significant deficit in cognitive function-
 1690 ing, academic skills, or possibly a neuropsychol-
 1691 ological area such as executive functioning, more
 1692 in-depth assessment may be conducted using for-
 1693 malized batteries. Formal testing and diagnostic
 1694 batteries require highly trained professionals to
 1695 administer, score, and interpret them. These indi-
 1696 viduals are usually psychologists, neuropsychol-
 1697 ogists or psychiatrists, or individuals with
 1698 adequate graduate coursework who can work
 1699 under the supervision of a licensed psychologist.
 1700 Formal batteries and diagnostic instruments are
 1701 administered in a standardized manner, which
 1702 requires that the examiner administer the test
 1703 the same way to every individual to whom it is
 1704 administered. Administration manuals accom-
 1705 pany formal tests and practice is usually required

1706 for an examiner to become proficient in adminis-
 1707 tration of each battery. Within administration
 1708 guidelines, there are strict parameters as to
 1709 whether a testing session can be interrupted and
 1710 there may be subtests which are timed or admin-
 1711 istered with time restrictions. The scoring of for-
 1712 mal tests are adhered to normative samples. After
 1713 they are converted, raw scores may be reported in
 1714 a variety of formats such as percentiles, stanines,
 1715 standard scores, and percentile ranks and results
 1716 may be described as belonging to a range of func-
 1717 tioning (e.g., “borderline intelligence,” “mild
 1718 mental impairment”).

1719 **Intelligence**

1720 There are a number of well-developed compre-
 1721 hensive batteries which assess intelligence in
 1722 children and adolescents. The *Stanford-Binet*
 1723 *Intelligence Scales-Fifth Edition (SB-5)* (Roid
 1724 2003), and the *Wechsler Intelligence Scale for*
 1725 *Children-Fourth Edition (WISC-IV)* (Wechsler
 1726 2003) are two of the oldest and most widely used
 1727 instruments used in the industry today. Both
 1728 instruments have a rich history of development
 1729 and evolvment over the years, have been exten-
 1730 sively researched and both are considered gold
 1731 standards in the mental health field. The *SB-5* and
 1732 the *WISC-IV* measure multiple dimensions of
 1733 intelligence, including verbal and nonverbal rea-
 1734 soning, as well as visuo-spatial and perceptual
 1735 skills and short term memory capacity.

1736 Results of intelligence tests (i.e., IQ scores),
 1737 are considered to be highly sensitive pieces of
 1738 information and should be kept confidential.
 1739 Results of intelligence tests have the potential for
 1740 scores to be misused, misinterpreted, and misun-
 1741 derstood by individuals who are untrained in their
 1742 interpretation. There are some situations in which
 1743 actual IQ scores are released; however, it is typi-
 1744 cally much more acceptable to report the ranges in
 1745 which IQ scores fall rather than the actual score(s).
 1746 For example, instead of reporting a full scale IQ
 1747 score of 73, an appropriate report would reflect
 1748 “range of functioning: borderline” or “...the full
 1749 scale IQ score is within the Borderline range.”

1750 There are shorter versions of the lengthier and
 1751 more comprehensive intelligence tests, which
 1752 may be used if in-depth information about an

1753 individual's cognitive functioning is not needed.
 1754 For example, the *Wechsler Abbreviated Scale*
 1755 *of Intelligence (WASI)* (Wechsler 1999) and
 1756 the *Kaufman Brief Intelligence Test, Second*
 1757 *Edition (K-BIT-2)* (Kaufman and Kaufman
 1758 2004c) are abbreviated versions of the compre-
 1759 hensive intelligence tests (the *WISC-IV* (Wechsler
 1760 2003), and the *Kaufman Assessment Battery for*
 1761 *Children, Second Edition (KABC-II)* (Kaufman
 1762 and Kaufman 2004b), respectively, in that pro-
 1763 vide broader estimates of cognitive functioning
 1764 than the comprehensive measures. These abbrevi-
 1765 ated measures are sufficient if a clinician is
 1766 simply interested in obtaining an estimate of a
 1767 youth's level of intelligence and if the purpose of
 1768 the assessment is to simply rule out whether the
 1769 youth may be at-risk for a mental disability.

1770 Neuropsychological

1771 The prevalence of youth involved in the juvenile
 1772 justice system who present with neuropsycholo-
 1773 gical disorders is not really known at this time.
 1774 Due to the nature of the difficulties of youth in
 1775 the justice system, specialized instruments are
 1776 often helpful during assessment. For example,
 1777 for youth with histories of severe substance use,
 1778 it is not uncommon for a youth to have associated
 1779 difficulties with memory, attention, and concentra-
 1780 tion, among other issues. Assessment using a
 1781 neuropsychological instrument that targets the
 1782 assessment of memory function may assist in
 1783 providing information regarding the presence of
 1784 any deficits from the substance use. There are
 1785 also a number of instruments developed to assist
 1786 with the assessment of executive functioning, an
 1787 area in the brain often impaired after traumatic
 1788 brain injuries, and also associated with symptoms
 1789 associated with ADHD and other impulse-related
 1790 disorders. One such instrument is the *Behavior*
 1791 *Rating Inventory of Executive Function (BRIEF)*
 1792 (Gioia et al. 2000), a rating scale that includes
 1793 self-report, caregiver/parent and educator forms
 1794 of the measure. Neuropsychological assessment
 1795 can consist of paper and pencil measures, the use
 1796 of rating scales, and the completion of computer-
 1797 ized vigilance tasks, which assess attention to
 1798 task, attention to detail, response time and
 1799 impulsivity.

1800 Psychoeducational

1801 Due to the close relationships between mental
 1802 health disorders and learning difficulties, com-
 1803 prehensive assessments of youth may include the
 1804 administration of a psychoeducational battery
 1805 that provides indices of academic levels of func-
 1806 tioning. For example, the *Wechsler Individual*
 1807 *Achievement Test (WIAT)* (Wechsler 2009) the
 1808 *Kaufman Test of Educational Achievement,*
 1809 *Second Edition (KTEA-II)* (Kaufman and
 1810 Kaufman 2004a) and the *Woodcock-Johnson*
 1811 *Psychoeducational Achievement Battery-Third*
 1812 *Edition (WJR-3)* (Woodcock et al. 2001) assess a
 1813 broad range of academic skills and can assist in
 1814 ruling out or confirming specific diagnoses.

1815 Academic Data

1816 Although sometimes overlooked in mental health
 1817 assessments, educational performance and aca-
 1818 demic-related data are rich in information regard-
 1819 ing the performance and abilities of youth. In
 1820 conducting mental health assessments, practition-
 1821 ers should consider the following: How well has
 1822 the youth been performing in school? Is the youth
 1823 2 or more years behind peers in grade placement
 1824 and/or academic functioning? Is the youth in the
 1825 correct grade, but struggling with academic mate-
 1826 rials? Are the issues related to mental health
 1827 impeding and/or interfering with his/her aca-
 1828 demic success and progress? How long have aca-
 1829 demic areas been impacted? Are there subject
 1830 areas in which the youth has more difficulty?

1831 Functional Behavioral Assessment

1832 FBAs are not included in most traditional mental
 1833 health assessments. Rather, they are typically
 1834 thought of as methods used to assess problematic
 1835 behavior in schools. When more formally (and
 1836 stringently) used, functional behavioral analyses
 1837 are used to assess the functions of aberrant
 1838 behaviors in low functioning individuals and in
 1839 children with pervasive developmental disor-
 1840 ders (PDD) such as Autism and Asperger's
 1841 Syndrome. Functional assessments and analyses

1842 are typically conducted within the school, hospi- 1891
 1843 tal, or residential settings. In 2004, the Individuals 1892
 1844 with Disabilities Act (IDEA), provided that FBAs 1893
 1845 be included as a component in the assessment of 1894
 1846 problematic behavior that occurs in school set- 1895
 1847 tings and in particular, among students with dis-
 1848 abilities (Riffel 2005). Whereas the notion of
 1849 determining the function of a specific behavior is
 1850 noteworthy, the ultimate goal of utilizing FBAs
 1851 was to ensure that an intervention plan would
 1852 accompany each assessment and that the plan
 1853 was highly relevant to the behaviors of interest.
 1854 Thus, FBAs make a substantial contribution to
 1855 the data needed to develop a function-based inter-
 1856 vention plan.

1857 Because FBAs target problematic behaviors
 1858 and determine the underlying “functions” or rea-
 1859 sons that such behaviors occur, it simply makes
 1860 sense to use FBAs with youth who exhibit some
 1861 of the most problematic behavior that practitio-
 1862 ners and service providers have to address in any
 1863 setting. Through the use of direct observation,
 1864 record reviews, interviews, the completion of rat-
 1865 ing scales, and the manipulation of the variables
 1866 thought to be associated with the behaviors of
 1867 interest, an FBA leads to a description of the
 1868 functions that a youth’s behavior serves (e.g.,
 1869 avoiding the completion of academic tasks, the
 1870 use of profanity, fighting, the use of self-mutila-
 1871 tion, basic noncompliance) (Clark 2006; Frey
 1872 et al. 2010; Riffel 2005; Sugai et al. 1999). Data
 1873 from FBAs lead practitioners to the development
 1874 of hypotheses about why specific behaviors occur
 1875 and should also lead to the development of skill
 1876 competencies related to the targeted behavior
 1877 (Baer et al. 1968; Shriver et al. 2001). For exam-
 1878 ple, if a youth is involved in an altercation involv-
 1879 ing physical aggression, the intervention based
 1880 on data from the FBA should not only reduce the
 1881 frequency of physical aggression, but also build
 1882 positive and acceptable replacement behaviors so
 1883 that the youth learns to better handle strong emo-
 1884 tions and social conflicts. Aberrant behaviors
 1885 typically occur for the following reasons: to avoid
 1886 a person, situation (or task), or setting; to obtain
 1887 attention from someone, to obtain access to
 1888 something, someone, or something to eat, and to
 1889 provide self-stimulation (Broussard and Northup
 1890 1995, 1997; Durand and Crimmins 1988).

Comprehensive mental health assessments 1891
 should incorporate the use of data derived from 1892
 functionally related behavioral assessments as 1893
 part of good practice and to develop effective, 1894
 data-driven intervention plans. 1895

Projective Techniques 1896

Projective measures, such as the Rorschach ink- 1897
 blot test or Thematic Apperception Test (TAT), 1898
 are traditionally rooted in psychoanalytic psy- 1899
 chology and were developed to essentially tap 1900
 into the hidden emotions and internal conflict 1901
 within each individual (Cramer 2004; Exner 2005 1902
 ; Soley and Smith 2008). Projective approaches 1903
 are supposed to access an individual’s subcon- 1904
 scious and reveal aspects of the personality that 1905
 have been repressed (Soley and Smith 2008). 1906
 Although there have been attempts to standardize 1907
 and develop elaborate scoring systems for many 1908
 projectives, they are inherently subjective in 1909
 administration, scoring, and interpretation and 1910
 offer little substance to a comprehensive evalua- 1911
 tion of youth. The psychometrics of projectives 1912
 such as reliability and validity, are weak at best, 1913
 and are considered to be poor indicators of over- 1914
 all functioning. Though many empirical studies 1915
 have been conducted using projectives, little sci- 1916
 entific evidence exists to support their use. 1917
 Additionally, they were originally developed for 1918
 use with higher functioning adults and are not 1919
 appropriate for use with children and adolescents, 1920
 whose personalities are still developing and 1921
 evolving. Whereas some projective approaches, 1922
 such as the use of children’s drawings, can be 1923
 helpful in the therapeutic venue (e.g., art ther- 1924
 apy), information derived from such sources 1925
 should never be used to make important deci- 1926
 sions about youth or to diagnose. 1927

Overassessment 1928

Since there are many components available for 1929
 use with assessment, mental health professionals 1930
 can easily be overwhelmed with choices, the avail- 1931
 ability of instruments and methods to be used. 1932
 This can, unfortunately, lead to “overassessment” 1933

1934 of the youth with whom they work. Not every
 1935 youth needs to be assessed using all components
 1936 as presented here. Good practice dictates that we
 1937 use what is needed to answer the questions posed
 1938 by the referring source. It is easy to get bogged
 1939 down in the notion that “more is better.” However,
 1940 at some point during every assessment, enough
 1941 data become available to make informed deci-
 1942 sions. It is at this point that the assessment should
 1943 be complete at that point in time. If additional
 1944 questions arise at a later date, addendums may be
 1945 added and further, targeted assessment may be
 1946 conducted.

1947 Lessons Learned

1948 Many individuals can be trained to conduct
 1949 assessments. However, it is in the interpretation
 1950 of the results and the manner in which data are
 1951 synthesized that take true skill, experience, and
 1952 analytical sleuthing. With skill, mental health
 1953 professionals can maximize the utility of any
 1954 assessment component and not over- or under-rely
 1955 on any one contributor to the assessment. Rather,
 1956 a skilled practitioner will be able to consider the
 1957 contribution that each assessment component can
 1958 make to the overall picture being developed of
 1959 the youth being assessed.

1960 Lessons regarding the mental health assess-
 1961 ment of youth in the justice system may be
 1962 learned from special education law and the guid-
 1963 ing principles of assessment outlined by IDEA.
 1964 Assessments conducted for special education
 1965 require specific components and criteria to be
 1966 met in order for a child or adolescent to qualify to
 1967 receive services. It is certainly not the goal of this
 1968 writer to advertise special education evaluations
 1969 or to serve as a proponent for special education
 1970 evaluations. However, an examination of how
 1971 these evaluations are conducted may be helpful
 1972 in understanding how to approach assessment
 1973 with the juvenile justice population.

1974 For practitioners in the field, mental health
 1975 assessment should be a dynamic, ongoing pro-
 1976 cess. Consideration should be given to the timing
 1977 and sensitive nature of the information obtained
 1978 from each assessment component and all aspects

of a youth’s functioning should be regarded when
 1979 formulating the “big picture.” The utilization of
 1980 multiple-method and multidisciplinary assess-
 1981 ment approaches will be most comprehensive and
 1982 lead to the most thorough results. In turn, these
 1983 results have the greatest likelihood of leading to
 1984 the most seamless and streamlined delivery of
 1985 services available for the youth that we serve.
 1986

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Uncorrected Proof

Author Queries

Chapter No.: 12 0001355108

Queries	Details Required	Author's Response
AU1	"a, b" have been introduced in the reference Skowyra and Coccozza 2007 since two such references exist in the list. Please retain the appropriate one and check for the same throughout the text.	
AU2	Please check whether the citation "OJJDP Annual Report 2006" given in the sentence beginning "The number of females..." can be changed to "Snyder and Sickmund (2006)."	
AU3	"Murphy 1985" has been changed to "Murphy 1986" in order to match with the reference list. Please check.	
AU4	Please check the sentence "Upon entry into the juvenile...functioning." for clarity.	
AU5	Please provide publication details for "Kazdin (1984)" in the reference list (or) delete this citation from the text.	
AU6	Please provide publication details for "March 1997" (or) delete this citation from the text.	
AU7	Please provide publication details for "Exner 2005" (or) delete this citation from the text.	
AU8	References Abram et al. (2007), Ægisdóttir et al. (2006), Coalition for Juvenile Justice (Downloaded on February 3, 2010), Coccozza and Shufelt (2006), Deykin (1999), Exner (1995), Federal Interagency Forum on Child and Family Statistics (2009), Ford et al. (2007), Grisso (1998), Harrison and Oakland (2003), Hennessey et al. (2004), McMackin et al. (2002), Meltzer-Wolpow and Ford (2004), National Council on Disability (2003), National GAINS Center for People with Co-Occurring Disorders in the Justice System (2001), Newman (2002), Rettew et al. (2009), Rich (2003), Siegfried et al. (2004), Sparrow et al. (2008), Wasserman et al. (2002), and Wood et al. (2002) are not cited in the text. Please check.	
AU9	Please provide year for ref. Coalition for Juvenile Justice.	
AU10	Please provide page number for ref. Deykin (1999).	

John F. Chapman

Introduction

The term “court clinics” is as ill defined as it is ubiquitous in contemporary forensic psychological practice. A clinic, in a medical context is, “An institution, building, or part of a building where ambulatory patients are cared for” (Stedman 2000, pp. 362). Elsewhere, it is defined in similar terms as a facility or “a medical establishment run cooperatively by several specialists sharing the same facilities” (Houghton Mifflin and Co 1997). A true understanding of the term “clinic” is further complicated by the addition of myriad qualifiers (e.g., legal clinic, children’s clinic, and juvenile law clinic). A juvenile court clinic may have psychological services as a major function of its core mission including service provision and evaluation (MAJCC 2010) or a court clinic may have little or nothing to do with psychology as is the case in a number of legal clinics which provide assistance to attorneys or law students related directly to the practice of law, focus on representation and education around the legal rights of young people (Georgetown University Law Center 2010).

A variety of roles can be defined for the forensic practitioner. These may include child custody evaluations, determinations of disability a variety of civil court functions defined state by state,

assistance in jury selection or trial consultation, determination of civil competence, or other matters. However, for the purpose of this chapter, we are speaking solely about juvenile court functions. For our purposes, the term juvenile court clinic in this chapter focuses specifically on the provision of psychological services to children and youth in the juvenile justice system for both forensic and treatment purposes, the latter specific to the disposition of a legal case.

Mental health practitioners frequently consider a court clinic to be a bridge between the mental health field and the juvenile court since each has its own priorities, training, and language (Kahn 2007). Court clinics function and exist in adult service as well as juvenile services. Recent emphasis and funding of mental health courts have become something of an extension of this concept with varying reports of success. These mental health courts are similar in nature to juvenile court clinics in that there is assumed to be some basic structured model though many lack access to new resources or creative alternatives (Steadman et al. 2001).

These innovations support the assertion that juvenile court and mental health tend to go hand in hand. In this chapter, we look at the history of the juvenile court, the trend towards greater reliance by the court on psychology and social science, legal bases for this reliance, and the development of court clinics as well as the standards or lack thereof in juvenile clinical court practice. Finally, we address some of the future needs of the emerging field of court clinics, necessary standardization of its elements, and direction of practice.

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A Brief History of Juvenile Court for Delinquents

Juvenile justice is heavily influenced by social norms which are constantly changing. For example, in Renaissance Europe a case of breaking and entering along with the theft of wine by some young people in a southern German town in 1526 resulted in a label of engaging in a nocturnal disturbance. No punishment was given. Today, however, this activity would have surely brought the attention of the law and/or the mental health community but then was seen as youthful exuberance (Schindler 1997). Thus, there is evidence that youthful indiscretions could be considered a different issue than adult offenses even in the sixteenth century.

Changes in justice functioning occurred slowly. By the mid-eighteenth century British lawyer William Blackstone described the concept that some individuals were not capable of committing a crime and introduced the line between infant (roughly below age seven) and adult (greater than age 14) with a broad gray zone in between these years. Although Blackstone illustrated a dilemma which exists even today, he sowed the seed for differential handling of juveniles and adults as far back as 1760 (American Bar Association 2007). In Britain, the mid-nineteenth century saw the legal introduction of the concept of young people through the passage of the Youthful Offenders Acts of 1854, 1857, 1861, and 1867 at roughly the same time worries about child labor and child homelessness began to be of interest (Bradley 2008). Also at this time, reformers in the USA spoke sincerely of opportunities for rehabilitation. The result was a decrease in executions, however the lack of an effective classification system for prisoners meant that many offenders, young and old were required to share space. By 1899 reform movements resulted in the passage of the *Illinois Juvenile Court Act*. This Act involved procedural changes in handling of juvenile cases which until that time did not differ greatly from adult proceedings with the exception of recognition of the concept of infancy. Ultimately the Act created procedural change in that juvenile court judges began to require an inquiry into the character of

the child such that a determination of fitness for rehabilitation could be made. Also in 1899 the Denver Juvenile court established a model that was instrumental in the passage of reform acts in that state. The result was that children in court were considered basically good individuals gone astray due to social or psychological circumstances (Fox 1996).

However, prior to the establishment of juvenile courts, social concerns with the poor prompted the development of institutional care for children by 1825 when the Society for the Reform of Juvenile Delinquents established its first house of refuge (Steinberg and Schwartz 2000). With these changes the juvenile court began in earnest and worked in an informal way in many jurisdictions until watershed cases such as *Kent v. US*¹ and *In re Gault* 1967² extended strong due process protection to juveniles and resulted in a more adversarial court system.

Although adult and juvenile systems were not separated until 1899, there was an inherent assumption in the system that immaturity might mitigate responsibility for a criminal act where “infancy” was an absolute defense against responsibility, usually age 7–10 depending on jurisdiction (Melton et al. 2008). After the development of the juvenile court, the ideal of rehabilitation was the norm in these courts, whereas prior to this justice was retributive. Because of the strong rehabilitative nature of the courts, there was little attention to due process needs until *Kent v. US* in 1966 and *In re Gault* 1 year later.

Court Clinics, Roles, and Definitions

Melton and colleagues (2008) describe three primary functions of the mental health clinician in juvenile court. These functions are to answer

¹ In *Kent v. US*, the Court ruled that a juvenile defendant is entitled to due process protections accorded to all citizens.

² In the *Gault* case, the Court rejected the doctrine of *parens patriae* as a founding principle of juvenile justice and ruled that the handling of Gault’s case violated the due process clause of the 14th amendment.

t1.1 **Table 13.1** Functions of the juvenile court clinician

t1.2	Juvenile Court Clinician (Melton et al. 2008)	Juvenile Court Clinician (Grisso 1998)	
t1.3	Answer forensic questions raised by the court	Translate the legal standard into standards with relevance to legal community and mental health	t1.3
t1.4	Evaluate a child’s amenability to treatment or rehabilitation	Evaluate the defendant regarding those constructs	t1.4
t1.5	Consult with attorneys on issues related to young clients, assist in preparing juveniles for court appearances, or to offer expert testimony	Communicate the results of evaluation in order for the court to apply the legal standard	

148 forensic questions raised by the court, to evaluate
 149 a child defendant’s amenability to rehabilitation
 150 or amenability to treatment, and finally to consult.
 151 Grisso (1998) describes the clinician’s role
 152 also as threefold, although he put forward different
 153 functions. First, translating the legal standard
 154 into constructs with relevance for the legal community
 155 as well as mental health; evaluating the defendant
 156 with regard to those constructs; and communicating
 157 the results of this evaluation to the court in such a way
 158 that they can be applied in addressing the legal standard.
 159 See Table 13.1 for a breakdown of functions.

161 There is limited definition to the term juvenile
 162 court clinic as we use it here, but it is best
 163 described by Grisso who states that “A *court clinic service*
 164 is any individual or group of practitioners responsible
 165 for meeting the daily evaluation needs of a juvenile court”
 166 (Grisso 1998, pp. 25). Alternately, services may be
 167 provided through case by case contractual arrangements
 168 where professionals provide evaluation for the courts
 169 as the need arises (Grisso 1998).
 170

171 **Integrating Mental Health**
 172 **Evaluative Services into Juvenile**
 173 **Courts: The Argument for**
 174 **Integration**

175 Not everyone believes that mental health belongs
 176 in the courts. Theorists have suggested

177 ...that problems in living experienced and
 178 expressed in terms of so-called psychiatric symptoms
 179 are basically similar to bodily diseases. Moreover,
 180 the concept of mental illness also undermines the
 181 principle of personal responsibility, the ground
 182 on which all free political institutions

rest...For a society, it precludes regarding individuals
 183 as responsible persons and invites, instead, 184
 treating them as irresponsible patients. (Szasz 185
 1974, pp. 262). 186

Szasz claims suggest that the entire concept of
 187 mental illness breeds dependency and presumably 188
 nullifies concepts of free will. This is especially 189
 meaningful to the legal system and while Szasz’ 190
 opinion is strong it is not without detractors as 191
 well as supporters. Morse (2007) argues that there 192
 is no problem of free will in forensic psychology 193
 and psychiatry since free will is not a basis of any 194
 legal doctrine and therefore should not be 195
 addressed by forensic psychologists and psychia- 196
 trists. In addressing programs managed by the 197
 judiciary, Zarella and Bishop (2003) argued that 198
 adopting programs and services not related to core 199
 functions of the judiciary places the judiciary at 200
 risk of violating the doctrine of the separation of 201
 powers and might indeed jeopardize judicial 202
 independence particularly if there should it be 203
 perceived that a judge has a stake in outcome. 204

It seems that the driving factor behind the
 205 integration of mental health and court functions 206
 is the relationship between occurrence of symp- 207
 toms found in the court referred population as 208
 described above, as well as the belief that diffi- 209
 culties or failing in the ability to access care in 210
 the mental health system leads to displacement 211
 into the criminal justice system (Kutcher and 212
 McDougall 2009). Similarities among the corre- 213
 lates of adolescent inpatients and juvenile justice 214
 are noted by Sanislow et al. (2003) who described 215
 correlates of suicide risk among psychiatric inpa- 216
 tients and juvenile detainees. Similarly, Cropsey 217
 et al. (2008) reported factors such as gender, sex- 218
 ual activity, parental involvement in the legal 219
 system, substance use, a disruptive behavior 220

221 disorder in childhood, and a history of aggression
 222 as correlates. In their sample of 636 medical files,
 223 they report 43.6% as having a history of juvenile
 224 justice involvement. Meanwhile community-
 225 based care, which is delivered across child-serving
 226 agencies, has been reported to decrease juvenile
 227 justice system involvement in certain communi-
 228 ties where this was tried (Foster et al. 2004).

229 Shanok and Lewis (1977) found no difference
 230 between juvenile court and child guidance clinic
 231 cohorts on the prevalence of psychiatric symp-
 232 toms. Serious concerns including suicide have
 233 been identified in juvenile court populations
 234 (Battle et al. 1993). Serious psychiatric diagnoses
 235 were found in a population of Flemish young
 236 people adjudicated by the Belgian juvenile courts
 237 (Vermeiren et al. 2000). In this study, internaliz-
 238 ing and externalizing problems among juvenile
 239 court youth were consistent with reports among
 240 clinical groups and ADHD, depression, substance
 241 abuse, and PTSD were commonly found, as was
 242 conduct disorder, but only in about one-half of
 243 subjects (Vermeiren et al. 2000). A Dutch study
 244 completed at roughly the same time noted that
 245 65% of young people before the juvenile court had
 246 a psychiatric disorder, while less than one-half
 247 received orders for a forensic evaluation. This
 248 finding prompted the authors to recommend diag-
 249 nostic examinations for all juveniles 12–14 years,
 250 violent offenders, sexual offenders, substance
 251 abusing juveniles, those with family history of
 252 psychiatric problems, criminal contact, or violence
 253 (Doreleijers et al. 2000). Applying the European
 254 estimates to US courts indicates an incredibly
 255 large number of children who might potentially
 256 be serviced by juvenile court clinics. In 2005,
 257 juvenile courts handled nearly 1.7 million delin-
 258 quency cases (Puzzanchera and Sickmund 2008).
 259 However, in the late 1980s, it was suggested that
 260 in the USA, children were referred for court clinic
 261 evaluation more often based on probation impres-
 262 sions of dysfunction rather than other clinical
 263 factors (Barnum et al. 1989).

264 Certainly requirements of evaluation in a pre-
 265 adjudicatory setting create significant conflicts
 266 with fifth amendment rights guaranteed to young-
 267 sters in juvenile court under *Gault*, as well
 268 as issues outlined in the Ethical Principles of

269 Psychologists [General Principle A: Beneficence
 270 and Nonmalficence (American Psychological
 271 Association 2002)] and raises issues regarding the
 272 right to refuse treatment (*Washington v. Harper*
 273 1990³), especially if the outcome is incarceration.
 274 Perhaps more significantly, certain forensic ques-
 275 tions such as waiver to adult court must be done
 276 prior to adjudication and creates a distinct legal
 277 dilemma for the individual (Barnum 1990).

278 A further significant question is if the court
 279 clinics or court evaluations work and under what
 280 circumstances. Although rehabilitation remains
 281 the ideal goal of the juvenile court, Cauffman and
 282 colleagues (2007) identified legal factors (e.g.,
 283 number of prior referrals, violent nature of a
 284 charge) to be likely to impact disposition.

285 This reported success in system integration is
 286 contrasted with problems inherent in contact with
 287 the juvenile justice system (Bonham 2006). This
 288 latter point is cogently made by Gatti et al. (2009),
 289 suggesting that the juvenile justice system can do
 290 a great deal of harm to the individual. It is poten-
 291 tially problematic since it targets youth who are
 292 poorest, disinhibited, and most poorly supervised.
 293 They note that the negative impact of the juvenile
 294 justice system increases as intensity and system
 295 involvement increase. While acknowledging
 296 potential problems in the competing roles of
 297 juvenile justice, and the risk of turning the juve-
 298 nile justice system into the mental health system
 299 for youth (a term coined as “iatrogenic injustice”)
 300 Grisso (2007) emphasizes that there have been
 301 singular improvements in the juvenile justice
 302 system through the establishment of prevalence
 303 of mental disorders, development of screening
 304 tools, and development of empirically based
 305 treatment. He also points out that numbers of
 306 incarcerated have decreased due to diversion
 307 strategies and that many youth are safer after
 308 years of working to improve knowledge of men-
 309 tal health needs.

310 Juvenile court clinics should aid the court
 311 in understanding the nature of the adolescent,

³In this case, the Court established that a mentally ill
 prison inmate can be treated against their will if the
 prisoner is dangerous to self or others and in the prisoner’s
 best interest.

312 adolescent development and cognitive, emotional,
 313 and behavioral problems. Additionally, juvenile
 314 court clinic staff must understand the basics of
 315 juvenile justice practice, forensic principles, and
 316 Constitutional protections. The goal of this is to
 317 provide the trier of fact with needed information,
 318 to match the child to appropriate treatment where
 319 possible, and *to do no harm*, in the sense of avoid-
 320 ing Grisso's description of iatrogenic injustice.

321 Integrating Mental Health 322 Evaluative Services into Juvenile 323 Courts: Theory and Practice

324 There are two distinct trajectories of mental
 325 health service provision in juvenile courts. First,
 326 the provision of services to incarcerated youth
 327 has been an important consideration for a num-
 328 ber of years. Management of children and youth
 329 in detention or correctional settings has benefited
 330 from group guidelines for care and treatment as
 331 well as strong consideration of the needs of these
 332 young people and a desire to enhance training
 333 and standardize practice (Wasserman et al. 2003).
 334 While case law has made significant impact on
 335 serving mental health needs of incarcerated
 336 youth and adults (see *Estelle v. Gamble* 1976,⁴
 337 *Washington v. Harper* 1990), this has not been
 338 the case for the juvenile court clinic. In fact, case
 339 law has benefited from input of psychological
 340 research and testimony (e.g., in *Roper v. Simmons*
 341 2005⁵ Justice Kennedy cites a number of research-
 342 ers and theorists in delivering the opinion of the
 343 court). Yet with the exception of decisions
 344 impacting admissibility of evidence little case
 345 law currently exists which compels standardiza-
 346 tion of clinical evaluations of juveniles facing
 347 charges in the court.

348 What does exist is a newer understanding
 349 of how these functions occur (Grisso and Quinlan

2005), standards for delivery of service by
 psychologists (Committee on Ethical Guidelines
 for Forensic Psychologists 1991), and develop-
 ment of training standards for screening and
 assessing youth (Otto 2009).

Grisso and Quinlan (2005) note that the ser-
 vices provided by juvenile court clinics are rela-
 tively similar though they may be provided in a
 number of several ways, either by a court clinic
 model where providers are in or near the court
 building, through a community mental health
 model where an institution designates individu-
 als to perform juvenile court ordered evaluations,
 or by a private practice model where private
 practitioners provide services using an hourly or
 capped fee for service model. They further note
 that the majority of evaluations are provided
 through the court clinic model (46%) followed
 by the private practitioner model (37%), then by
 the community mental health model (12%).
 Financial arrangements most commonly encoun-
 tered were evaluations performed by employees
 on salary and the majority of funds were gener-
 ated by juvenile court budgets. There are ques-
 tions raised by this research as to benefits of
 one model over another. The authors note that
 perhaps some greater efficiency exists in the
 court clinic model and that private practitioners
 responded that their reimbursements made it dif-
 ficult to perform evaluations which met their own
 standards.

The standards to be applied in the application
 of testing can be found in two primary areas. The
 Standards for Educational and Psychological
 Testing (Standards) (American Psychological
 Association 1985) and the Specialty Guidelines
 for Forensic Psychologists (SGFP) (Committee
 on Ethical Guidelines for Forensic Psychologists
 1991) both provide important information on the
 use of assessment. The Standards provide a gen-
 eral guideline for evaluating test practices. It
 emphasizes basic necessities including the fact
 that users should have basic sound technical and
 professional backgrounds for test use and
 provides extremely important outlines of key
 concepts such as validity and reliability in test
 use. The SGFP describe desirable professional
 practice "by forensic psychologists, within any

⁴*Estelle v. Gamble* addresses deliberate indifference to medical needs of prisoners.

⁵In this case, the Court ruled that execution of an individual for a crime committed before reaching the age of 18 is impermissible.

398 subdiscipline of psychology (e.g., clinical, 446
 399 developmental, social, and experimental), *when* 447
 400 *engaged regularly* as forensic psychologists” 448
 401 (Committee on Ethical Guidelines for Forensic 449
 402 Psychologists 1991, pp. 656–657). It is the latter
 403 document that is especially pertinent for court
 404 clinics since it applies to the psychologist “...act-
 405 ing, with definable foreknowledge as a psycho-
 406 logical expert on explicitly psycholegal *issues*, *in*
 407 *direct* assistance to courts, parties to legal pro-
 408 ceedings, correctional and forensic mental health
 409 facilities, and administrative, judicial, and legisla-
 410 tive agencies acting in an adjudicative capacity”
 411 (Committee on Ethical Guidelines for Forensic
 412 Psychologists 1991, pp. 657). The specialty guide-
 413 lines highlight several important areas of practice
 414 including competence, relationships, confidential-
 415 ity and privilege, and others. It is the SGFP that
 416 serves as the benchmark for measuring and
 417 evaluating forensic practice among psychologists.
 418 Though the original guidelines cited where pub-
 419 lished in 1991, a number of iterations have fol-
 420 lowed and the most recent draft (September, 2008)
 421 of SGFP can be found at the American Psychology
 422 and Law Society website [http://www.ap-ls.org/
 423 aboutpsychlaw/SpecialtyGuidelines.php](http://www.ap-ls.org/aboutpsychlaw/SpecialtyGuidelines.php).

424 While the necessity of guidelines cannot be 468
 425 understated legal constructs emphasize profes- 469
 426 sional practice and take alternative approaches to 470
 427 developing the field of forensic psychology. 471
 428 Grisso and Vincent (2005) describe the premise 472
 429 of forensic assessment as assuring due process in 473
 430 the adjudication of young people in the juvenile 474
 431 justice system. Due process issues include capaci- 475
 432 ties to make decisions, evaluation of mental dis- 476
 433 orders in the context of transfer. The forensic 477
 434 assessments are described as being differentiated 478
 435 into three types of tolls: clinical instruments, risk 479
 436 of harm instruments, and forensic assessment 480
 437 instruments, the latter being employed to evalu- 481
 438 ate specific competencies and abilities. 482

439 However, employment of proper tools is not 483
 440 sufficient to proper assessment practice. Those 484
 441 individuals regardless of discipline involved in 485
 442 juvenile court evaluations must be knowledge- 486
 443 able about child development, show understand-
 444 ing of psychopathology specific to adolescence,
 445 have a basic understanding of the legal system

and the legal process, be aware of the local juvenile 446
 justice system and services in the area, and be 447
 competent to work with children from diverse 448
 ethnicities and backgrounds (Otto 2009). 449

Juvenile Court Clinics: Practice 450 Consideration 451

Any consideration of the role of the juvenile court 452
 clinic must include discussion of necessary train- 453
 ing, background, and competencies in dealing 454
 with forensic work. Though there are no specific 455
 degree requirements for juvenile forensic clinic 456
 work, Grisso and Quinlan (2005) report that the 457
 majority of individuals providing evaluations to 458
 juvenile courts were trained in clinical psychol- 459
 ogy (71.3%) followed by counseling psychology, 460
 psychiatry, social work, and educational psychol- 461
 ogy in order of descending rank. Psychologists, 462
 however, were not necessarily established as able 463
 to provide testimony on matters involving mental 464
 disorders until a federal appeals court established 465
 that some psychologists could do so in 1962 in 466
Jenkins v. United States.⁶ 467

While there are differences in training, 468
 approach to evaluation, and the development of 469
 respective professions, Grisso (1993) argues that 470
 forensic psychiatry and forensic psychology 471
 share many things such as common theoretical 472
 bases and the fact that each are outsiders in the 473
 legal world. Though distinctions are made 474
 between practice specialties arguments exist that 475
 greater information can bridge gaps in expertise 476
 (Kayser and Lyon 2000), competent practice 477
 involves sensible interviewing, review of collat- 478
 eral information, and use of psychometrics where 479
 appropriate. Of considerable importance is the 480
 use of psychometrics which are valid and reli- 481
 able. However, collaboration between special- 482
 ties can be especially helpful in complex cases 483
 and can benefit from one another’s expertise in 484
 matters such as quality control and training 485
 (Grisso 1993). 486

⁶This case established that some psychologists are capa-
 ble of rendering expert testimony in a case involving
 mental disorder.

487 Though there is frequent appreciation
 488 expressed for evidence-based models and princi-
 489 ples in juvenile justice, case law has established
 490 criteria for admissibility of evidence including
 491 psychological evidence in a number of cases
 492 (e.g., *Frye v. United States*⁷ in 1923 and with
 493 more specificity later in *Daubert v. Merrell Dow*
 494 *Pharmaceuticals*⁸ in 1993). This was later
 495 extended to expert testimony in *Kumho v.*
 496 *Carmichael*⁹ in 1999 and rules are established for
 497 admissibility of expert testimony opinions and
 498 admissibility of test results (see Federal Rules of
 499 Evidence, Article VII; Committee on the Judiciary
 500 House of Representatives 2001).

501 The notion of a subspecialty of forensic psy-
 502 chology developed following the 1962 ruling in
 503 *Jenkins v. United States* (Heilbrun et al. 2008).
 504 By the 1970s there were directions for training
 505 specific to forensic psychology suggested which
 506 included graduate training in forensic psychol-
 507 ogy including the combined JD/PhD degree,
 508 introductory courses for those from other
 509 specialty areas followed by in depth seminars
 510 in forensic psychology and field placement in
 511 forensic psychology (Poythress 1979). As a
 512 result of an invitational conference on training in
 513 education and the law held in 1995, referred to
 514 as the Villanova Conference for its venue, dis-
 515 tinctions have been made in levels of training
 516 citing an entry level training or legally informed
 517 clinician, a secondary level or proficiency level,
 518 and a final tertiary level of specialization (Packer
 519 and Borum 2003).

520 There are persistent ideas for training yet a
 521 review of the SGFP reminds us that a forensic
 522 psychologist is one who is regularly engaged in
 523 the practice of forensic psychology as defined by
 524 acting as a forensic psychologist meaning "...all
 525 forms of professional psychological conduct

526 when acting with definable foreknowledge as a 526
 527 psychological expert..." (Committee on Ethical 527
 528 Guidelines for Forensic Psychologists 1991, 528
 529 pp. 657). So there are many ways to achieve sta- 529
 530 tus as a forensic psychologist, though certifica- 530
 531 tion through the American Board of Forensic 531
 532 Psychology (ABFP) through the American Board 532
 533 of Professional Psychology is a desirable means 533
 534 of recognizing expertise. 534

535 Otherwise, expertise needs to be established 535
 536 by exercising reasonable standards of practice 536
 537 and standards of care. The two are defined by 537
 538 Heilbrun et al. (2008) who define a standard of 538
 539 care as judicially determined, externally estab- 539
 540 lished, with mandatory adherence, a breach of 540
 541 which exposes the individual to potential dam- 541
 542 ages. However, in establishing the distinction, 542
 543 Heilbrun and colleagues note that there is also an 543
 544 absence of a universally accepted standard of 544
 545 care in forensic mental health assessment due to 545
 546 historical debates over the importance of empiri- 546
 547 cism vs. theory, regulatory and policy consider- 547
 548 ations, and judicial deference to self-regulation. 548

549 In an earlier article, Otto and Heilbrun (2002) 549
 550 supported a number of goals to enhance profes- 550
 551 sional forensic practice including updating the 551
 552 SGFP, dissemination of relevant information 552
 553 about forensic practice at multiple areas, and 553
 554 training of consumers of forensic assessments. In 554
 555 revisiting the issues presented regarding the field, 555
 556 Heilbrun and Brooks (2010) describe the changes 556
 557 in the field since the publication of Otto and 557
 558 Heilbrun (2002) noting improvement in treatment 558
 559 focus and a greater dissemination of knowledge 559
 560 of forensic psychology issues. They cite national 560
 561 reports and adapt recommendations from other 561
 562 fields of science to forensic science and make five 562
 563 major recommendations including integrating 563
 564 forensic science into a proposed National Institute 564
 565 of Forensic Science outlined in a report by the 565
 566 National Research Council, improve the quality 566
 567 of forensic mental health evaluation practice, 567
 568 expand the scope of the field to include treatment 568
 569 innovations and interventions as well as special- 569
 570 ized tools, to expand consultation to settings that 570
 571 provide forensic services, and to deal with the 571
 572 issue of racial disparity in the juvenile justice 572
 573 system (Heilbrun and Brooks 2010). 573

⁷Frye establishes that evidence admitted must be sufficiently established to have gained general acceptance in the field it comes from.

⁸Under the Federal Rules of Evidence, scientific testimony must be not only relevant but also reliable. *Daubert* offered four factors for consideration including testing, peer review, error rates, and general acceptance.

⁹Held that the *Daubert* factors may be applied to experts who are not scientists but offer specialized opinion.

574 Increasingly, the status of forensic psychology
 575 will be dependent upon adherence to ethics and
 576 standards of practice. It is possible that develop-
 577 ment of standards of care supported by Heilbrun
 578 et al. (2008) would provide a specific, valuable
 579 enhancement to the field. In the interim, knowledge
 580 of the particular ethical risks involved (Knapp
 581 and VandeCreek 2001; Hess 1999; Bush et al.
 582 2006) is necessary training for those practicing in
 583 the forensic field and the field of juvenile court
 584 clinics. Yet adherence to ethical principles must
 585 also encompass the overwhelming notion that
 586 children are more vulnerable than adults, holding
 587 special rights, and in need of specific protections
 588 (Zerby and Thomas 2006).

589 **Developing and Managing**
 590 **Competent and Efficient Court**
 591 **Clinic Models**

592 As described above there are three main models
 593 of service delivery in a juvenile forensic court
 594 setting: the Court Clinic model (CC) where staff
 595 are employees of the jurisdiction served, the
 596 Community Mental Health (CMH) where a com-
 597 munity hospital or health care agency is dedicated
 598 to providing court evaluations, and a Private
 599 Practitioner model (PP) where forensic evalua-
 600 tion is provider on a fee for service basis. These
 601 descriptors are taken from Grisso and Quinlan’s
 602 (2005) work and abbreviations borrowed from
 603 their article.

604 In spite of how the payment and organiza-
 605 tional structure function it is worth prioritizing
 606 who is the client. In these cases, the court is the
 607 client and should be conceived of as such.
 608 Recollection of such a relationship allows for a
 609 bit of perspective when evaluating employees of
 610 contractors providing service. The justice system
 611 can exist without forensic psychology but the
 612 reverse is not true. That is not to say that separ-
 613 ate, clinically focused quality assurance mea-
 614 sures should not be put into place, but it is to
 615 emphasize that the goal of the court clinic is to
 616 provide valid, reliable, timely, and useful infor-
 617 mation of a psychological nature to the court for

618 the administration of justice. Ultimately, the 618
 619 judge is the “boss.” This is said however with the 619
 620 understanding that it is a somewhat simplistic 620
 621 view. Any organization will require management 621
 622 for service delivery, and courts should not be 622
 623 bound by administrative function. However, 623
 624 there are psychological and management func- 624
 625 tions that must be accounted for, these are best 625
 626 done separately. 626

627 It is not possible for any nonclinically trained 627
 628 manager to evaluate the psychological work of 628
 629 forensic examiners. Therefore, some sort of dual 629
 630 model is highly desirable and can be accom- 630
 631 plished in several ways. First, government agen- 631
 632 cies are ultimately responsible to taxpayers for 632
 633 efficient use of public resources. Because of this, 633
 634 parsimonious use of expensive resources must be 634
 635 justified. One major issue in forensic practice is 635
 636 the tendency to obtain evaluations with poorly 636
 637 formulated referral questions. These can prompt 637
 638 unnecessary testing, unnecessary costs to the tax- 638
 639 payer, redundancy in evaluation, and a disagree- 639
 640 able response from the juvenile being evaluated 640
 641 who may take issue with multiple evaluations. 641

642 Additionally, not all juvenile court evaluations 642
 643 are best answered by one particular practitioner 643
 644 such as a psychologist or psychiatrist. Although 644
 645 psychology is the dominant means of service 645
 646 delivery in all areas identified, there are questions 646
 647 involving medical or biological issues which are 647
 648 best addressed by a physician, neuropsychological 648
 649 issues best addressed by a neurologist or neuro- 649
 650 psychologist, and issues of cognition, achievement, 650
 651 and personality may be best answered by the psy- 651
 652 chologist. Further, many of the cases presenting 652
 653 themselves to the court for disposition require 653
 654 only a treatment plan and referral. In these cases, 654
 655 less is more and reliance on mental health provid- 655
 656 ers, such as social workers and counselors, well 656
 657 trained in identifying psychopathology, finding 657
 658 resources, determining referral questions, and 658
 659 highlighting issues, is an exceptional cost-saving 659
 660 measure for juvenile court clinics rather than 660
 661 exposing each individual to expensive psycholog- 661
 662 ical testing or costly psychiatric interview. 662

663 Once basic functions of identification of refer- 663
 664 ral questions and determining appropriate spe- 664
 665 cialty evaluations are completed, it is important to 665

666 turn to quality. The quality component of the court
667 clinic has two major bifurcations: preemployment/
668 contracting quality assurance, and continuing
669 quality assurance. The latter is further separated
670 into two areas: peer review and education.

671 As described above there are no current prac-
672 tice standards for forensic psychology adopted
673 which have potential for considerable weight
674 (Heilbrun and Brooks 2010). As such there is little
675 ability to rely on practice standards. There are
676 particular training programs available and candi-
677 dates with forensic experience are perhaps desir-
678 able though an understanding of children and
679 child development is essential (Otto 2009).

680 The juvenile court clinic is dependent upon
681 local standards (see Heilbrun and Brooks 2010
682 for a comprehensive listing of individual state
683 requirements for training and certification in
684 forensic mental health) and national or organiza-
685 tional credentialing to ensure expertise in foren-
686 sic matters. The American Board of Forensic
687 Psychology is one such credentialing body. Hiring
688 of quality providers may best be accomplished by
689 (1) setting minimum standards of education and
690 training in forensics, (2) establishing ongoing,
691 peer-reviewed quality assurance feedback mod-
692 els, and (3) establishing a system of continuing
693 education or support for continuing education,
694 especially one with a mentor or continuing super-
695 vision component.

696 Juvenile Court Clinics 697 and Agenda's for the Future

698 It seems that the plans and desires of the field of
699 forensic psychology are sound and periodic calls
700 for review of the state of the field are accurate
701 and beneficial (Grisso 1987; Poythress 1979;
702 Otto 2009; Otto and Heilbrun 2002; Heilbrun and
703 Brooks 2010). For established court clinics, of
704 whatever fashion the development and adoption
705 of practice standards even at a local level is desir-
706 able. Further, there is great potential for the juve-
707 nile justice system to become the de facto mental
708 health system. This must be avoided through ade-
709 quate knowledge of community resources and
710 referral. While these resources may be limited

the use of such resources is vital if one is to avoid
over reliance on state systems.

Evidence-Based Practices

This raises the issue of evidence-based practice.
While this practice is essential, it is necessary to
understand exactly what is evidence based. The
term evidence based is attached to a variety of
instruments and interventions which is clearly
promising, but can be confusing unless a common
sense definition for evidence based is considered.
That is, as suggested by Schneider (2009) "don't
employ a technique or procedure or prescribe a
pill until you have satisfied yourself through the
examination of the empirical evidence that it has
been demonstrated to work." Schneider empha-
sizes that while evidence-based practices may put
the practitioner on the right path towards decision
making, employment of any particular practice is
still clinical judgment. Additionally, the rights of
individuals to have input into their treatment is a
factor that may at times be at odds with evidence-
based practices, but need not be since the concept
of shared decision making can exist in the pres-
ence of a thorough clinical consultation and
informed discussion (Barratt 2008).

Managing Limited Healthcare Resources

Knowledge of local mental health resources is
necessary when juvenile court clinics develop
functions related to service recommendation. To
avoid over reliance on government or juvenile
justice system interventions a broad range of
treatments should be considered, especially when
local services are difficult to obtain due to access
issues or geographic impediments. Maximization
of benefits of the integration of juvenile justice
and mental health go beyond the forensic or diag-
nostic functions of the juvenile court clinic.
Indeed, spending on diagnostic functions in
relation to interventions raises interesting philo-
sophical points and generates study of how to
distribute resources and manage entitlements

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753 (Semkow 1985). However, access to special
 754 services may emanate from a thorough juvenile
 755 court clinic evaluation when previously undis-
 756 covered or undiagnosed disabilities are made
 757 manifest. These findings might have enormous
 758 rehabilitative and quality of life issues for the
 759 young people referred. Additionally, evaluative
 760 findings (e.g., cognitive and emotional disabili-
 761 ties) carry great import for both forensic and
 762 rehabilitative processes.

763 **Research**

764 Ensuring adequate evidence-based practice
 765 requires the juvenile court clinician to read and
 766 perhaps participate in research, empirical, and
 767 otherwise. For a great number of social science
 768 practitioners, this means relearning a new system
 769 of analyzing questions and issues. For the psy-
 770 chologist well versed in data analysis and empirical
 771 evaluation, there will be the need to understand
 772 case law, the importance of legal precedent, and a
 773 new world of case research (see Morris et al.
 774 1997 for a comprehensive guide to understanding
 775 and participating in legal research).

776 Guidance on research in legal settings is avail-
 777 able in a number of areas. For example, there may
 778 be concern in some systems that instituting a study
 779 utilizing a randomized design is undesirable and
 780 contrary to the concept of fairness desired by the
 781 judicial process. This is not so. The issue of the eth-
 782 ics of randomized design in legal settings has been
 783 established. Standards issued by the Federal Judicial
 784 Center suggest that there are conditions which must
 785 be established in order for randomized experiments
 786 to be considered. First, there needs to be current
 787 practice or policy-requiring improvement, there
 788 needs to be significant uncertainty around the value
 789 of the proposed intervention for study, there should
 790 be no other means of determining the value, and the
 791 rights of the individual must be protected (Boruch
 792 1997). Although not specific to the justice popula-
 793 tion as a whole forensic populations that we are
 794 discussing here are subject to special protections in
 795 research settings as outlined in the Code of Federal
 796 Regulation Section 46 subparts C (prisoners) and
 797 subpart D (children) (Department of Health and
 798 Human Services 2009).

Disproportionate Minority Contact

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800 One of the overarching goals of US courts in the
 801 twenty-first century is the continued development
 802 of fair and equitable systems of justice. In the
 803 USA, minorities are grossly over represented in
 804 all stages of the juvenile justice system with
 805 African-American youth accounting for greater
 806 over representation than any other minority group
 807 (Hsia et al. 2004). It is not entirely clear how
 808 much racial divergence is seen in mental
 809 health measures with some suggestion that white
 810 youth report higher incidence of suicidal ideation
 811 and drug problems, but not more anxiety, thought
 812 disturbance or depression than African-American
 813 youth in a large sample of juvenile justice youth
 814 screened (Vincent et al. 2008). Conversely, Desai
 815 and colleagues (2012) did not find increases in
 816 risk to be related to mental health screening
 817 status.

818 It is made clear by Heilbrun and Brooks (2010)
 819 recent article on forensic science and forensic
 820 psychology that diversity will need to play a key
 821 role in future goals for forensic practice. To that
 822 end, some considerations for juvenile court clinics
 823 should be kept in mind. In spite of the importance
 824 of this issue, there is virtually no guidance as to
 825 what one must look for in an instrument when
 826 using it with ethnic minorities that will adequately
 827 guarantee cultural competence (Grisso 2005). The
 828 idea is not new, but lagging. In 1999, the National
 829 Multicultural Conference and Summit was held,
 830 hosted by American Psychological Association
 831 (APA) Divisions 17 (Counseling), 35 (Psychology
 832 of Women), and 45 (Society for the Study of
 833 Ethnic Minority Issues), and issued calls for mul-
 834 ticultural guidelines governing competencies to
 835 be adopted by APA. Changes in population demo-
 836 graphics will greatly modify American culture in
 837 the next few years and as various groups issue
 838 calls for framework development and plans for
 839 diversity to exist in future endeavors (e.g., health
 840 psychology; Yali and Revenson 2004; advanced
 841 practice psychiatric nursing, Mahoney et al. 2006),
 842 so should forensics.

843 A definition of cultural competence offered
 844 suggests that mental health services are culturally
 845 competent to the degree to which they are
 846 compatible with the cultural and linguistic

847 characteristics of the community; attention to
848 cultural characteristics of the population served;
849 factors involved in the infrastructure of the orga-
850 nization (values reflecting the importance of cul-
851 tural competence, communication with partner
852 organizations, human resources, governance, and
853 so on); and direct service support (e.g., availabil-
854 ity and accessibility) (Hernandez et al. 2009).

855 Extending this to the juvenile court clinic
856 involves conceiving of the court clinic as a part
857 of the community. This is not a simple concept
858 since decreased utilization of courts (and there-
859 fore court clinics) is more desirable than
860 increased use. However, when considering the
861 juvenile court clinic itself, one might ask sev-
862 eral questions to evaluate competence. First, is
863 the clinic itself diverse. Are staff and individu-
864 als in contact with the young people representa-
865 tive of the ethnic background of the community
866 served, are they knowledgeable about the cul-
867 tural norms of the community and are they lin-
868 guistically compatible. Second, are services of
869 the court clinic compatible with local popula-
870 tions? Are instruments and measures race neu-
871 tral or have instruments been normed on young
872 people represented in the community, are data
873 provided on any score differences on these
874 scales, and have the instruments been translated
875 (Grisso 2005)? Do the weight of factors consid-
876 ered in an assessment such as a risk assessment
877 lean heavily upon factors tied to the community.
878 Are court clinic values consistent with local cul-
879 tural norms? Do brochures and informational
880 forms or letters of reminder for appointments
881 consider language differences? Is there a policy
882 statement addressing diversity and cultural compe-
883 tence, and what is the level of cultural compe-
884 tence among the individuals working in the
885 juvenile court clinic? Has there been training or
886 a breadth of experience to suggest that one is
887 not bound to their own culture, and can these
888 issues be discussed in an open, non-threatening
889 fashion? Are recommendations culturally appro-
890 priate, relevant, and suitable for the population
891 served? Finally, do recommendations consider
892 that public transportation might be the only
893 means of accessing recommended services and
894 may be a hardship.

Summary

895
896 As described, the juvenile court clinic in modern
897 juvenile justice practice is another innovation
898 developed in the greater process of the evolution
899 of the juvenile court. In that sense, the development
900 of juvenile court clinics is a historical imperative.
901 The juvenile court clinics are poorly defined, are
902 made up of multiple professionals practicing in a
903 wide variety of formats, and in spite of this are
904 thought of as a discrete and understandable entity.
905 The juvenile court clinic is an archetype, devel-
906 oped through the marriage of psychology and
907 law. This marriage and the juvenile court clinics
908 emerged because of the significant overlap
909 between problematic behavior resulting in court
910 referral and problematic behavior resulting in
911 psychological referral. They emerged because of
912 a shared constituency.

913 The assertion that there is a shared group in
914 juvenile court has ample evidence in research.
915 However, practice considerations differ vastly
916 between evaluative and treatment components of
917 forensic practice where the latter has been heavily
918 influenced by case law as well as scholarly
919 research and the former has probably provided an
920 equal or greater impact on case law. This is not
921 without significant philosophical problems and
922 challenges. Concepts of crime and punishment
923 are subject to popular thought reflected in legisla-
924 tive action and considerations of free will are sig-
925 nificant, though probably more so in areas of
926 adult court though high-profile juvenile crimes
927 can create great conflict within a community.
928 Conversely, there is some indication that juvenile
929 court clinic services arise from observational or
930 other factors and may be under utilized.

931 The juvenile court clinic is a small cog in the
932 wheel of the justice system. But one that needs
933 to function well never the less. For individuals
934 involved in the juvenile court clinic several
935 basic competencies must exist. First, there must
936 be training and experience with children and an
937 understanding of child and adolescent develop-
938 ment. There must be an understanding of the
939 legal process, especially of the legal customs in
940 the local area of practice as well as a broader

941 appreciation for Constitutional issues. There
 942 needs to be an understanding of what is required
 943 according to law and practice standards of the
 944 profession including ethical responsibilities and
 945 admissibility of expert opinion and admissibil-
 946 ity of opinion which relies upon testing when
 947 appropriate. Finally, as the field seeks to establish
 948 itself as one marked by fairness, an understand-
 949 ing of cultural factors within the communities
 950 one practices and overall cultural competence
 951 must be established.

952 Goals for the juvenile court clinic in the
 953 twenty-first century must make the service fis-
 954 cally responsible to obtain needed funding, but
 955 must also be cognizant of its limitations. It must
 956 above all, avoid harm. One major dilemma that
 957 can be encountered is the potential for the juve-
 958 nile justice system and the juvenile court system
 959 to become the primary gateway into the mental
 960 health system or to become a substitute mental
 961 health system.

962 Practitioners in the system must know local
 963 resources including community practitioners,
 964 clinics, and other means of accessing treatment.
 965 When necessary, searches and assistance in find-
 966 ing psychological care to families seeking help is
 967 desirable.

968 The juvenile court clinic must maintain its
 969 integrity by adherence to ethics, but also by a
 970 clear vision of the standards it adopts, the sense
 971 that it gets of the experience desired by candi-
 972 dates to work or consult in the clinic, and by a
 973 solid and dependable quality assurance process.
 974 This should include peer review of case actions,
 975 reports, and interventions, ability to engage mul-
 976 tidisciplinary partners when necessary, knowl-
 977 edge and ability in developing appropriate
 978 referral questions which truly aid the court in
 979 discovering what is necessary for the case before
 980 them and making proper connections between
 981 questions identified and resources accessed.
 982 When necessary, multidisciplinary evaluations
 983 will be required.

984 Finally, one of the more pertinent issues fac-
 985 ing juvenile court clinics in the coming years is
 986 the issue raised by Otto (2009) and Heilbrun
 987 and Brooks (2010) that being the issue of cul-
 988 tural competence. Failure to ensure appropriate

evaluation and recommendations based on 989
 cultural or linguistic misunderstanding cannot 990
 exist in a fair system, the one which we in our 991
 respective mental health professions are privi- 992
 leged to be part of. 993

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The History, Development, and Testing of Forensic Risk Assessment Tools

Jay P. Singh

Predicting the weather is easy compared with predicting violence
Monahan and Steadman (1996, p. 932)

With interpersonal violence currently a leading cause of death (World Health Organization 2004) and recent reports suggesting that approximately 100,000 juveniles are arrested for violent crimes each year in the USA alone (Puzzanchera 2009; Puzzanchera et al. 2010), establishing valid and reliable methods of identifying children and adolescents who will commit violent acts is an important public health and safety issue. One method of identifying future offenders is through the use of *risk assessment tools*, structured instruments designed to predict the likelihood of anti-social behavior. Numerous juvenile and adult risk assessment tools, the manuals of which claim high rates of predictive validity and reliability, have been introduced in recent decades (Bonta 2002; Schwalbe 2007). The investigation of these measures' psychometric properties has produced a sizeable literature which has often come to conflicting conclusions as to which tools produce the highest rates of predictive validity in different contexts (Singh and Fazel 2010).

Despite major uncertainties regarding which risk measures are most accurate and the populations and study designs in which they perform best, forensic risk assessment tools are currently used in correctional, psychiatric, and court settings in many Western countries, including the USA

(Archer et al. 2006), Canada (Hannah-Moffat and Marutto 2003), the UK (Dolan and Rennie 2008), Sweden (Swedish Council on Health Technology Assessment 2005), the Netherlands (de Ruiter and Hildebrand 2007), Australia (Thompson and Putnins 2003), and New Zealand (Vess 2008). These instruments are used to influence medico-legal decisions related to individual liberty and public protection (e.g., involuntary hospitalization, length of mandated treatment, discharge from psychiatric hospitals and detention centers), making their predictive validity of considerable importance.

The aim of the following chapter is to provide readers with a foundational understanding of the core concepts in forensic risk assessment. A history of the field is presented, dominant approaches to contemporary risk assessment are described, and methods for developing and testing the predictive validity of risk assessment tools are discussed. By becoming familiar with the terminology and methodology commonly used in this important subfield, readers will be prepared for a more detailed conversation of the violence risk assessment literature on juvenile populations.

A Brief History of Forensic Risk Assessment

The concept of *risk* first emerged in the seventeenth century in the context of gambling (Parton 1996). The term was used to describe the probability of financial loss or gain at the throw of the

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dice. Statistical models of risk prediction soon followed, and as the construct developed into the eighteenth century it was adopted by the growing insurance industry, prompting the construction of the first risk assessment instruments (Kemshall 1996). It was not until the twentieth century, however, that scientists began attempting to systematically assess dangerousness.

The first major development in the field of forensic risk assessment came in 1928, when University of Chicago sociologist Dr. Ernest Burgess and his students developed the first statistical prediction scheme for assessing the risk of recidivism (i.e., reoffending) in parolees. In his seminal article, *Factors Determining Success or Failure on Parole*, Burgess (1928) used a unit scoring approach [now referred to as the “Burgess method” (Hakeem 1948, p. 376)] in which he assigned an unweighted score of +1 for the presence of each of 21 characteristics, which Burgess postulated systematically increased parolees’ likelihood of violating the conditions of their release (such *risk factors* are discussed in the following section, Risk versus Protective Factors). Using a calibration sample of some 3,000 parolees, Burgess found that 76% of participants who his instrument judged to be at high risk of recidivism went on to reoffend over five years (Burgess 1928).

Burgess published his instrument at a time when assessments of dangerousness in psychiatric and correctional settings were based primarily on brief clinical interviews that lacked standardization (Schauer 2003). The predictive validity of such *unstructured clinical judgment*—a clinician’s assessment of risk based on his or her intuition, theoretical knowledge, and professional experience (Westen and Weinberger 2004)—was not questioned by research or practice (Meehl 1954). Thus, promising *actuarial models* (i.e., models relying on a statistical algorithm to make predictions) such as Burgess’ were considered academic and were not widely implemented. Where Burgess’ instrument was implemented, however, it resulted in a greater standardization of risk assessment procedures, increased rates of predictive validity, and improved communication between correctional institutions (Gross 2008).

The first critical examination of the unstructured clinical approach came in 1954 with Professor Paul Meehl’s influential text, *Clinical vs. Statistical Prediction: A Theoretical Analysis and a Review of the Evidence*. In this book, Meehl made the claim that clinicians could not predict offending better than actuarial formulae. As clinicians’ assessments of dangerousness were used to influence many important decisions pertaining to individual liberty and access to therapeutic resources, Meehl’s work started a major debate about the predictive validity and reliability of clinical judgment (Westen and Weinberger 2004).

In the 1960s and 1970s, dissatisfaction with unstructured clinical judgment grew. A series of seminal court decisions in the USA, including *Baxstrom v. Herold* (1966) and *Dixon v. Attorney General of the Commonwealth of Pennsylvania* (1971), provided researchers with natural experiments to investigate the predictive validity of clinical predictions of future offending (Cooper et al. 2008).

In *Baxstrom v. Herold* (1966), the US Supreme Court held that a legal determination of dangerousness was needed to permit involuntary hospitalization at the end of an offender’s sentence. As a result of this ruling, nearly 1,000 mentally disordered offenders whom clinicians had identified as “dangerous” were transferred from New York state maximum security hospitals to general psychiatric units. Steadman and Coccozza (1974) followed the *Baxstrom* sample for 4 years and found that only 20% of those individuals who clinicians predicted would be violent went on to be arrested for a violence offense.

In the related case of *Dixon v. Attorney General of the Commonwealth of Pennsylvania* (1971), the US District Court for the Middle District of Pennsylvania held that the Mental Health and Mental Retardation Act (1966), a law which allowed for the involuntary hospitalization of mentally disordered offenders at the end of their sentences without a formal hearing, was unconstitutional. As a result, the court ordered that persons who had been involuntarily committed under the Mental Health and Mental Retardation Act be discharged or recommitted after a fair

162 hearing (Weiner et al. 2003). Thornberry and
163 Jacoby (1979) followed approximately 400
164 mentally ill offenders who had been discharged
165 subsequent to the *Dixon* decision. The researchers
166 found that only 11% of those individuals who
167 clinicians had predicted would be violent went
168 on to be arrested for a violent crime within four
169 years of discharge.

170 In response to such discouraging findings, the
171 American Psychiatric Association published a
172 report on the role of clinicians in violence risk
173 assessment. The report concluded:

174 The clinician should not regard the prevention of
175 future violence as within his proven capability. It
176 has been noted that ‘dangerousness’ is neither a
177 psychiatric nor a medical diagnosis but involves
178 issues of legal judgment and definition, as well as
179 issues of social policy. Psychiatric expertise in the
180 prediction of ‘dangerousness,’ is not established
181 and clinicians should avoid ‘conclusory’ judg-
182 ments in this regard.

183 American Psychiatric Association 1974, p. 3

184 Finally, in 1981, Dr. John Monahan published
185 a decisive monograph entitled, *The Clinical*
186 *Prediction of Violent Behavior*. In this work,
187 Monahan (1981) used evidence from the 1960s
188 and 1970s to reassert Meehl’s (1954) claim that
189 clinicians are unable to predict violence at rates
190 above chance. Monahan concluded:

191 [P]sychiatrists and psychologists are accurate in no
192 more than one out of three predictions of violent
193 behavior over a several-year period among institu-
194 tionalized populations that had both committed vio-
195 lence in the past (and thus had high base rates for it)
196 and those who were diagnosed as ‘mentally ill’.

197 Monahan 1981, pp. 48–49

198 Enjoying widespread popularity, the mono-
199 graph signified the beginning of a “second genera-
200 tion” (Monahan 1984, p. 141) of risk assessment,
201 where research into the predictive validity of
202 unstructured clinical judgment was largely
203 replaced by research into the development of actu-
204 arial risk assessment schemes. During the 1980s,
205 actuarial instruments designed for adults includ-
206 ing the Statistical Information on Recidivism scale
207 (SIR; Nuffield 1982) and the Level of Service
208 Inventory (LSI; Andrews 1982) were published
209 and their utility tested in countries including the
210 USA and also England, Wales, and Canada, which

211 passed legislation allowing clinicians to involun- 211
212 tarily hospitalize mentally disordered offenders at 212
213 the end of their sentences if they were judged to 213
214 be at risk of harming others (Criminal Code of 214
215 Canada, §753, 1985; Mental Health Act, §41, 215
216 1983). While these laws did not mention the use 216
217 of structured tools, specifically, their passing 217
218 resulted in increased scrutiny of the validity and 218
219 reliability of assessment procedures. 219

220 During the 1990s, continued interest in the 220
221 development of risk assessment tools led to an 221
222 increase in research on risk factors for antisocial 222
223 behavior. Multisite longitudinal research projects, 223
224 such as the MacArthur Risk Assessment Study 224
225 helped to clarify the relationship between socio- 225
226 economic and clinical factors and offending 226
227 (Monahan et al. 2001; Torrey et al. 2008). A num- 227
228 ber of studies were also conducted to systemati- 228
229 cally investigate risk factors for offending in 229
230 juveniles, specifically (e.g., Hawkins et al. 1998; 230
231 Hoge et al. 1996; White et al. 1994). In addition 231
232 to innovative work in research design and report- 232
233 ing, the literature of this decade also included dis- 233
234 cussion as to whether legislation [e.g., the UK’s 234
235 proposed Dangerous Severe Personality Disorder 235
236 (DSPD) Programme; Department of Health 1999] 236
237 should be passed, allowing for the use of actuarial 237
238 risk assessment tools to predict violence risk in 238
239 mentally disordered offenders or sexual offenders 239
240 in order to preventatively detain those found to be 240
241 at high risk. 241

242 In the 2000s, the focus of the field began to 242
243 shift from risk assessment to risk management. It 243
244 was argued that reintroducing clinical judgment 244
245 into risk assessment procedures might assist 245
246 mental health professionals in making more 246
247 educated treatment decisions (Douglas et al. 247
248 2003; Douglas and Skeem 2005). To this end, 248
249 instruments which use clinical judgment to sup- 249
250 plement actuarial scales, an approach referred to 250
251 as *structured professional judgment* (SPJ), gained 251
252 popularity. Recent surveys suggest that the use of 252
253 SPJ instruments is growing in forensic settings in 253
254 Western countries, such as the USA (Archer et al. 254
255 2006; Lally 2003) and the UK (Khiroya et al. 255
256 2009). However, there is limited meta-analytic 256
257 evidence to suggest that these tools produce com- 257
258 mensurate rates of predictive validity to actuarial 258

259 measures (Guy 2008; Singh et al. 2011). In addition to the increased popularity of the SPJ approach, the 2000s also saw the publication of the first widely implemented risk assessment tools for juveniles (for a review, see Schwalbe 2007), recognizing that the assessment of violence risk in children and adolescents should not be identical to adults.

267 **Contemporary Approaches**
 268 **to Forensic Risk Assessment**

269 The present section describes the two currently dominant approaches to juvenile risk assessment: actuarial prediction and structured professional judgment. Risk and protective factors measuring either static or dynamic risk are also examined, as they are the building blocks of statistical and clinically based instruments.

276 **Actuarial Versus Clinically Based**
 277 **Instruments**

278 As noted previously, both the actuarial and structured professional approaches to risk assessment have developed in response to findings that unstructured clinical judgment, for many years the standard method of prediction, produces generally low rates of predictive validity (Daniels 2005; Hanson and Morton-Bourgon 2009). The poor performance of the unstructured approach may be due to judgments of dangerousness being made without consideration of factors which studies have suggested are empirically associated with offending (Hanson 1998). Unstructured clinical predictions also have poor rates of inter-rater reliability due to their subjective nature (Hanson and Morton-Bourgon 2009).

293 To increase validity and reliability, forensic researchers began to develop actuarial risk assessment instruments. These second generation tools estimate the likelihood of antisocial behavior through assigning numerical values to factors empirically associated with offending. A statistical algorithm is then used to combine these numerical values and translate individuals' total risk scores into probabilistic estimates

of future misconduct. As each individual is appraised using the same criteria and no subjective clinical judgment is used, scores on actuarial instruments can be directly compared. In addition, as they rely on statistical algorithms rather than professional judgment, actuarial tools are generally considered more reliable than clinical predictions (Harris and Tough 2004; Latessa and Lovins 2010).

Recently, instruments employing the structured professional judgment approach to risk assessment have gained popularity (Douglas and Skeem 2005). In this third generation approach, clinicians use scales composed of factors which have been found to be empirically associated with offending to guide their judgments (Douglas et al. 1999). Supporters of the approach argue that clinically based tools do more than assess the risk of future offending; they also supply information that can be used for treatment planning and risk management (Douglas et al. 1999; Gray et al. 2010). By reintroducing professional judgment into the clinical decision-making process, SPJ instruments address criticisms that purely actuarial predictions do not take into account individual differences (Sreenivasan et al. 2000).

Risk Versus Protective Factors

The item content of actuarial and SPJ tools consists of risk factors and protective factors. *Risk factors* are biological (e.g., traumatic brain injury), psychological (e.g., impulsivity), or sociological (e.g., low socioeconomic status) characteristics which systematically increase the likelihood of future antisocial behavior. *Protective factors* are those biological (e.g., healthy exercise regime), psychological (e.g., high self-esteem), or sociological (e.g., prosocial peers) characteristics which systematically decrease the likelihood of future offending.

Risk and protective factors are routinely identified using longitudinal methodology in which a sample is followed for such a duration as to allow for the possibility of offending. The biopsychosocial characteristics of those who offend are analyzed to see if they differ from those who do not. If, after a through investigation of

348 confounding (i.e., the presence of third variables
349 that explain the association between the charac-
350 teristic and the outcome) and temporality (i.e.,
351 the characteristic preceding the outcome), the
352 presence of a given characteristic is associated
353 with a significant increase in the likelihood of
354 offending, it is considered a risk factor. If the
355 presence of a characteristic is associated with a
356 significant decrease in the probability of offend-
357 ing, it is considered a protective factor.

358 Until recently, the investigation of protective
359 factors was neglected in favor of studying risk
360 factors (de Vogel et al. 2007). However, focusing
361 on risk factors may bias clinicians toward nega-
362 tive perceptions of their patients because indi-
363 viduals' potential for development is ignored
364 (Rogers 2000; Sheldrick 1999). Evidence sug-
365 gests that by identifying protective factors and
366 putting interventions into place that increase their
367 prevalence and accessibility in high risk popula-
368 tions, communities may effectively decrease
369 rates of offending (Hoge et al. 1996; Rogers
370 2000). The results of recent clinical trials for
371 interventions designed to increase the prevalence
372 of protective factors in high risk juveniles have
373 been particularly encouraging (e.g., Lodewijks
374 et al. 2009).

375 **Static Versus Dynamic Item Content**

376 Risk and protective factors measure either static
377 traits or dynamic states. *Static* factors are those
378 historical characteristics that cannot be changed
379 (e.g., previous violence or history of substance
380 abuse), while *dynamic* factors are present, poten-
381 tially changeable facts or subjective states (e.g.,
382 current substance use or feelings of suspicion).
383 Using static factors to predict the likelihood of
384 future offending establishes an *absolute level of*
385 *risk*. Absolute risk ratings are commonly used for
386 the purposes of preliminary screening and con-
387 ducting comparisons of risk at the group level
388 (Sjöstedt and Grann 2002). As the information
389 needed to score static item content on risk assess-
390 ment tools does not rely on clinical judgment or
391 patient self-report, it may have the benefit of
392 greater objectivity and, therefore, reliability.
393 However, overemphasizing static risk factors can

394 lead to a possibly mistaken perception of an indi-
395 vidual posing an irreversible risk to society
396 (Sullivan et al. 1995).

397 As risk management and crime prevention
398 have begun to attract more attention, there has
399 been increasing interest in the identification of
400 dynamic factors (Douglas and Skeem 2005).
401 Measuring the likelihood of future offending
402 using dynamic item content establishes a *relative*
403 *level of risk* which is useful in measuring an indi-
404 vidual's changing level of risk in response to an
405 intervention or change in life circumstances.
406 Available research suggests that dynamic risk fac-
407 tors contribute information regarding the proba-
408 bility of future offending that static risk factors do
409 not (Beech et al. 2003; Hanson and Harris 2000;
410 Mills et al. 2003). Thus, to prevent future offend-
411 ing and inform treatment planning, it may be
412 important to take into account changes in an indi-
413 vidual's socioemotional functioning. However,
414 overemphasizing dynamic factors can lead to
415 unstable (and, therefore, what some may consider
416 unusable) risk ratings (Sullivan et al. 1995).

The Development of Risk Assessment Tools

417 The present section discusses the methodologies
418 currently recommended for combining static and
419 dynamic risk and protective factors into actuarial
420 and SPJ schemes.
421
422

Developing Actuarial Risk Assessment Tools

423 The development of actuarial instruments is a
424 primarily statistical task. Given that the aim of
425 risk assessment is prediction, regression model-
426 ing is used to select item content for these tools.
427 As outcomes of interest in forensic risk assess-
428 ment are often binary events (e.g., committing or
429 not committing a criminal offense), logistic and
430 Cox regression are the methodologies of choice
431 (Agresti 1996; Gagliardi et al. 2004). The goal of
432 logistic regression is to estimate the likelihood of
433 a dichotomous outcome occurring, while the goal
434 of Cox regression is to estimate the hazard (i.e.,
435
436

the risk at a given time) of a dichotomous outcome occurring. Both logistic regression and Cox regression can be used to develop multivariate prognostic models (Harrell et al. 1996), assessing the unique contribution of multiple predictor variables through maximum likelihood estimation.

Once a parsimonious set of predictor variables has been identified using regression modeling, the next step in developing an actuarial risk assessment tool is to decide whether items will be weighted. Parameters commonly used to weight items include regression coefficients and base rates of offending (Menard 1995; Nuffield 1982). Alternatively, the unweighted Burgess method may be used.

The final step in constructing an actuarial instrument is to identify a cut-off score which can be used to classify individuals as being at high risk or low risk for offending. A tool's cut-off point is routinely identified as the risk score that balances rates of sensitivity (i.e., the proportion of offenders accurately identified by the tool) and specificity (i.e., the proportion of non-offenders accurately identified by the tool). Alternatively, researchers may choose to use two cut-off thresholds: one to classify individuals as being at high risk of offending (individuals who score at or above this score can be considered a danger to others) and one to classify individuals as being at low risk (individuals who score below this score can be considered not to be a danger to others). This approach results in three risk categories: low, moderate, and high.¹

470 **Developing of Clinically Based Risk** 471 **Assessment Tools**

472 Rather than rely on statistical modeling to select
473 item content, authors of instruments that employ
474 SPJ use previous empirical research and clinical

¹There also exist risk assessment tools which use a derivation of the low/moderate/high binning scheme. For example, tools such as the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge and Andrews 2002) classify individuals into one of four risk classifications: low, moderate, high, and very high risk.

theory to select which risk and protective factors 475
to include (Webster et al. 1997). Recently devel- 476
oped SPJ instruments (e.g., Watts et al. 2004) have 477
also interviewed panels of mental health profes- 478
sionals to enquire as to which factors are generally 479
agreed to be the most useful in predicting future 480
offending. Once authors have decided which items 481
to include on their instrument, they arrange the 482
items into scales (e.g., the social/contextual scale 483
of the Structured Assessment of Violence Risk in 484
Youth; Borum et al. 2002). Clinicians use these 485
scales as *aide-mémoires* when making profes- 486
sional judgments concerning the likelihood of 487
future offending (Guy 2008). Clinical judgment is 488
used in place of weighted risk scores and cut-off 489
thresholds to place an individual into a risk cate- 490
gory (e.g., low, moderate, or high). 491

Evaluating the Predictive Validity of Risk Assessment Tools

492
493
Once a risk assessment tool has been developed, 494
its predictive validity may be evaluated. This sec- 495
tion briefly discusses the research methodology 496
and outcome measures used in primary studies, 497
which attempt to establish the predictive accu- 498
racy of a risk instrument. Finally, an overview is 499
presented of the three major forms of review 500
which are used to summarize the results of these 501
primary studies. 502

Primary Study Methodology

503
504 Primary studies in the forensic risk assessment
505 literature are generally designed such that a risk
506 tool is administered to all participants in a sam-
507 ple, leading to predictions as to who will offend
508 (Heilbrun 2003). The sample is then followed to
509 determine whether individuals who were pre-
510 dicted to offend and do, and vice versa. Using
511 this approach, individuals are classified into one
512 of four categories: true positives (TP), false pos-
513 itives (FP), true negatives (TN), and false nega-
514 tives (FN). A TP is an individual who is predicted
515 to offend and does. A FP is an individual who is
516 predicted to offend but does not. An individual

Box 14.1 Testing predictive validity using 2 × 2 contingency table data

		Outcome	
		Offender	Non-offender
Test result	Positive	True positive (TP)	False positive (FP)
	Negative	False negative (FN)	True negative (TN)

Sensitivity = TP/(TP + FN)

Specificity = TN/(TN + FP)

Area under the curve (AUC) =

$$\frac{1}{2} \sum_{i=1}^k (Sens_{i-1} + Sens_i) \times (Spec_{i-1} + Spec_i)$$

Positive predictive value (PPV) = TP/(TP + FP)

Negative predictive value (NPV) = TN/(TN + FN)

Diagnostic odds ratio (DOR) = (TP × TN)/(FP × FN)

t1.1
t1.2
t1.3
t1.4
t1.5
t1.6
t1.7
t1.8
t1.9
t1.10
t1.11
t1.12
t1.13
t1.14
t1.15

517 who is predicted to not offend and does not is
518 referred to as a TN. Lastly, an individual who is
519 predicted to not offend but does is referred to as
520 an FN. These outcomes are commonly organized
521 into a 2 × 2 contingency table (Box 14.1).

Outcome Measures

522 Data from 2 × 2 tables may be used to calculate
523 effect sizes which measure the ability of a risk
524 assessment tool to accurately identify offenders and
525 non-offenders. Studies in the juvenile risk assess-
526 ment literature often use a single outcome statistic
527 to summarize their predictive validity findings,
528 commonly an index of sensitivity and specificity,
529 the *area under the curve* (AUC). Other frequently
530 used outcome statistics in the risk assessment litera-
531 ture include the *positive and negative predictive*
532 *values* (PPV and NPV, respectively). Another out-
533 come statistic, commonly used in prediction studies
534 in the medical literature (Glas et al. 2003), is the
535 *diagnostic odds ratio* (DOR). The equations for
536 these outcome statistics are provided in Box 14.1.
537

Area Under the Curve

538 The receiver operating characteristic (ROC)
539 curve plots a risk assessment tool’s sensitivity
540 against the inverse of its specificity across score
541 thresholds. The area under the ROC curve can be
542 interpreted as the probability that a randomly
543 selected offender has a higher test score than a
544

randomly selected non-offender and is currently 545
considered the preferred measure of predictive 546
accuracy (Kroner 2005). As it measures a risk 547
assessment tool’s ability to predict an outcome 548
that has already occurred, the AUC is limited by 549
its retrospective orientation. In addition, forensic 550
experts have suggested that the AUC may be 551
being misused such that findings are interpreted 552
too optimistically (Sjöstedt and Grann 2002), and 553
a recent meta-analysis concluded that the effect 554
size may not be useful in comparing instruments 555
(Singh et al. 2011). 556

Positive and Negative Predictive Values

557 The PPV is the proportion of individuals who are 558
predicted to commit an offense who actually 559
offend, while the NPV is the proportion of indi- 560
viduals who are predicted by a tool not to commit 561
an offense who do not offend. The predictive val- 562
ues are prospectively oriented as they measure 563
whether a test’s prediction of whether an indi- 564
vidual will offend or not comes true. As the aim 565
of risk assessment is to identify individuals who 566
will or will not offend in the future, the PPV and 567
NPV are perceived favorably in the forensic lit- 568
erature (Large et al. 2010). The predictive values 569
are dependent upon the base rate of the outcome 570
of interest (e.g., self-report, arrest, charge, con- 571
viction, incarceration), although this may be con- 572
sidered a strength when investigating tool utility 573
in a population with an epidemiological estab- 574
lished base rate of offending. What constitutes a 575
“strong” or a “weak” PPV or NPV may differ 576
depending on the outcome of interest. Therefore, 577
general guidelines have not been established for 578
interpreting the predictive values. 579

Diagnostic Odds Ratio

580 The DOR is the ratio of the odds of a positive test 581
result in an offender (i.e., the odds of a true posi- 582
tive) relative to the odds of a positive result in a 583
non-offender (i.e., the odds of a false positive). 584
The DOR is not base rate dependent and, unlike 585
the AUC, takes into account a risk assessment 586
tool’s manual suggested cut-off score. Further, as 587
researchers and clinicians are familiar with the 588
concept of an odds ratio, the DOR may be easier 589
for nonspecialists to comprehend than the 590

591 currently preferred AUC. While the DOR has not
 592 been as frequently used in the forensic risk assess-
 593 ment literature as the AUC or the predictive val-
 594 ues, recent meta-analytic evidence suggests that
 595 the DOR may be one of the most useful effect
 596 sizes for comparing risk assessment tools' pre-
 597 dictive validity (Singh et al. 2011).

598 **Review Methodology**

599 As the number of primary studies concerning
 600 juvenile risk assessment has grown, a number of
 601 reviews have been published. Reviews are help-
 602 ful to the field in that they allow large quantities
 603 of information to be quickly assimilated by read-
 604 ers, be they researchers, clinicians, policymakers,
 605 or nonprofessionals (Cochrane Collaboration
 606 2006). The contemporary literature on topics
 607 related to juvenile risk assessment contains three
 608 kinds of review: *narrative reviews* (e.g., Borum
 609 2003; Edens et al. 2001), *systematic reviews* (e.g.,
 610 Gerhold et al. 2007; Worling and Långström
 611 2003), and *meta-analyses* (e.g., Cottle et al. 2001;
 612 Olver et al. 2009; Schwalbe 2007). Understanding
 613 the methodology and relative strengths and weak-
 614 nesses of each form of review may assist in their
 615 critical appraisal.

616 **Narrative Reviews**

617 Narrative reviews summarize the available litera-
 618 ture on a given topic from the theoretical
 619 and experiential perspective of the reviewer
 620 (Kirkevold 1997). A primary strength of narra-
 621 tive reviews is that they may cover a broad vari-
 622 ety of issues concerning a particular subject.
 623 However, narrative reviews may be strongly
 624 influenced by the viewpoint of their authors, as
 625 reviewers often take sides on a controversial
 626 issue. A weakness of narrative reviews is there-
 627 fore that they can be subjective representations of
 628 the literature, and if a particular piece of research
 629 does not support the authors' viewpoint, they
 630 may choose to exclude it rather than present it
 631 and appraise its validity (or lack thereof). To
 632 obtain an objective overview of the available
 633 literature, all those works identified using a

systematic search which meets a set of prespeci- 634
 fied inclusion and exclusion criteria must be 635
 included. Without taking such a systematic 636
 approach, a review is not considered reproduc- 637
 ible (Collins and Fauser 2005). 638

Systematic Reviews 639

Using a systematic search strategy and predefined 640
 inclusion and exclusion criteria to identify eligi- 641
 ble studies, systematic reviews address the poten- 642
 tial selection biases of narrative reviews. 643
 As reproducible systematic searches are used, 644
 readers of systematic reviews may be confident 645
 that a representative sample of work on a given 646
 topic has been included. Systematic reviews 647
 allow researchers to evaluate the consistency of 648
 results from primary studies. If consistent find- 649
 ings are reported by multiple studies, it strength- 650
 ens these findings' credibility. If inconsistent 651
 findings are discovered, the reviewer can theorize 652
 why such discrepancies occur. In addition to 653
 identifying trends, systematic reviews also allow 654
 researchers to identify gaps in the literature that 655
 future research may address. The principal weak- 656
 ness of systematic reviews is that they do not 657
 quantitatively synthesize the results of primary 658
 studies and cannot, therefore, calculate summary 659
 effect sizes or systematically investigate which 660
 sample or study design characteristics led to 661
 inconsistencies in study findings (i.e., sources of 662
 heterogeneity). 663

Meta-analyses 664

Meta-analytic methodology maintains the 665
 strengths of systematic reviews while allowing 666
 for the statistical combination of primary study 667
 results. Researchers conducting meta-analyses 668
 use systematic searches and apply prespecified 669
 inclusion and exclusion criteria to identify 670
 studies of interest. Effect sizes, tabular data, or 671
 individual participant data from the identified 672
 study manuscripts or obtained from study 673
 authors is then quantitatively synthesized. In 674
 addition to calculating summary effect estimates, 675
 meta-analytic methodology also allow research- 676
 ers to statistically investigate the influence of 677
 sample demographics (e.g., participant age) and 678

679 study design characteristics (e.g., length of fol-
680 low-up) on effect size. Potential weaknesses of
681 meta-analytic methodology include (1) the com-
682 bination of studies which measure different out-
683 comes in different populations (i.e., the apples
684 and oranges problem), (2) the combination of
685 studies of varying quality (i.e., the garbage in,
686 garbage out problem), and (3) the analysis of
687 a nonrepresentative group of studies due to
688 publication bias [i.e., the file drawer problem
689 (Rosenthal 1979)].

690 Conclusion

691 This chapter provided background on key con-
692 cepts underlying the field of forensic risk assess-
693 ment. We explored the history of the field of
694 forensic risk assessment and concluded that the
695 construction of tools for predicting violence in
696 juveniles is a relatively new development. The
697 two currently dominant approaches to juvenile
698 risk assessment, the statistically based actuarial
699 approach and the clinically based structured pro-
700 fessional approach, were described. We discussed
701 how these instruments are methodologically
702 designed and explored how the predictive valid-
703 ity of such tools is tested both in primary studies
704 as well as in reviews. With a thorough under-
705 standing of the basic concepts of risk assessment,
706 readers are now prepared to read about which
707 risk and protective factors have been found to be
708 empirically associated with juvenile offending
709 and which assessment and risk management
710 strategies appear most promising for child and
711 adolescent populations. The necessary back-
712 ground now in place, these topics are investigated
713 in the next chapter.

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Assessing Juveniles for Risk of Violence

Mary Alice Conroy

Recent years have brought increasing national concern regarding violent behavior in the juvenile population (Borum 2000). Actual statistics in this regard have varied markedly depending upon definitions, specific time periods, and measures used. For example, in 1996, Snyder et al. reported that the rate of serious juvenile crime—particularly homicides—increased a startling 150% between 1985 and 1994. On the other hand, Snyder and Sickmund (1999) later reported rates for the same population were declining between 1993 and 1999. When looking specifically at male offenders, rates have significantly declined since the peak in 1994 (Viljoen et al. 2008). Nonetheless, high profile media attention, often given to serious incidents of juvenile violence, can direct national attention on the issue regardless of frequency.

A more complicated question is estimating the likelihood of juveniles re-offending. It is relatively rare for adolescents who commit violent crimes to go on to chronic criminal careers as adults. In fact, approximately 80% of those who commit violence as juveniles will desist from this behavior by the age of 21 (Borum and Verhaagen 2006). On the other hand, a small percentage of juvenile delinquents (estimated at between 5 and 10%) are found to commit violent offenses at

all stages of development, ranging from early elementary school into adulthood (Borum and Verhaagen 2006). Most common, however, is what is known as “adolescent-limited” violence that begins and ends during the teenage years. Exact data on recidivism within this group is difficult to derive for four reasons: (a) adolescents tend not to be consistent in choice of victims or behavior across situations; (b) even somewhat serious offenses often result in the individual being released to family members rather than being arrested; (c) even violent behavior may be treated as an institutional infraction within a school or correctional environment rather than referred to law enforcement; and (d) adolescents are more likely than adults to be referred for some form of diversion rather than being subject to prosecution and entered into a formal data system.

Risk for future violence has become one of the most commonly asked questions in the juvenile justice system (Conroy and Murrie 2007). Juvenile courts frequently request such assessments to assist in determining the advisability of pretrial diversion, final disposition, possible conditions of probation, or placement decisions. Less common, but potentially very consequential, are decisions as to whether a juvenile should be tried as an adult, in which case a risk assessment is generally mandatory (*Kent v. U.S.*, 1966; Salekin and Grimes 2008). Juvenile authorities, tasked with balancing treatment needs of particular juveniles against public safety requirements, also utilize risk assessments to determine what specific factors to target with what services and

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66 what setting (Olver et al. 2009). The result has
 67 been a dramatic increase in the number of formal
 68 risk assessments conducted for the juvenile
 69 justice system (Schwalbe 2007). This is likely to
 70 increase further with the increasing use of mental
 71 health courts.

72 In the following chapter, the important dis-
 73 tinctions between risk assessments of juveniles
 74 and those conducted for adults, as well as the dis-
 75 tinction between risk assessment and threat
 76 assessment, will be explained. This will be fol-
 77 lowed by discussions of the most salient risk fac-
 78 tors, protective factors, and instruments especially
 79 designed to measure these. The importance of
 80 idiographic factors in any analysis and applica-
 81 tions to unique populations (e.g., female offend-
 82 ers, sexual offenders) will be addressed. Finally,
 83 attention will be focused on the most important
 84 follow-up to risk assessment: risk management.

85 **Juvenile Versus Adult Risk**
 86 **Assessment**

87 Authorities generally agree that risk assessment
 88 of juvenile offenders is quite different from risk
 89 assessment of adults, requires a somewhat differ-
 90 ent set of competencies, and may require a differ-
 91 ent set of management techniques (Borum 2000;
 92 Borum 2003; Borum and Verhaagen 2006; Grisso
 93 1998). A major difference is that antisocial con-
 94 duct is much more common among the juvenile
 95 population. In fact, some would suggest that it
 96 comes close to being normative (Borum 2000,
 97 Viljoen et al. 2008). Whereas history of violent
 98 behavior is a reliable predictor for adults, it is
 99 particularly challenging to assess risk for any
 100 juvenile beyond the adolescent years simply
 101 because the majority of delinquent youths—even
 102 those who commit serious violence—cease crim-
 103 inal activity after entering adulthood (Borum
 104 2000; Moffitt 1993). Very little evidence exists
 105 allowing evaluators to distinguish which juve-
 106 niles will fall into which group. The American
 107 Psychological Association recently submitted
 108 *amicus curiae* briefs to the U.S. Supreme
 109 Court detailing extensive professional literature

demonstrating the problems with predicting 110
 adult behavior based upon adolescent history 111
 (American Psychological Association 2004, 112
 2009). Statistically it can be argued that the safest 113
 juvenile risk assessment would estimate that all 114
 youths are at low risk for reoffending (Grisso 115
 1998). Of course, such an approach would be of 116
 no value to the consumer. There is a particular 117
 dearth of research for offenders below the age of 118
 13 (Augimeri et al. 2010). 119

To conduct an adequate juvenile risk assess- 120
 ment, one must be cognizant of the many devel- 121
 opmental variables impacting this population. 122
 There are enormous developmental changes that 123
 take place during the adolescent years that must 124
 be considered (Viljoen et al. 2008). Risk factors 125
 may vary by age. For example, research indicates 126
 that the influence of peers versus the influence of 127
 family varies with the stage of adolescent devel- 128
 opment (Augimeri et al. 2005). This would 129
 emphasize the need to re-assess the youth’s risk 130
 as time passes. Research has demonstrated con- 131
 siderable developmental variability in things 132
 such as impulse control, the ability to evaluate 133
 risk, and the ability to take the perspective of oth- 134
 ers (Borum and Grisso 2007). In addition, per- 135
 sonality characteristics are much less stable in 136
 adolescents than in adults (Borum et al. 2010). 137

Juveniles ordinarily exist in contexts quite dif- 138
 ferent from those of adults. They frequently live 139
 in family constellations, in neighborhoods, and 140
 attend schools over which they have little choice. 141
 Yet these environments are apt to significantly 142
 impact behavior, both past and future. Exposure 143
 to violence within the family or to a criminogenic 144
 neighborhood may have particularly marked 145
 effects on youth in middle childhood (Ingoldsby 146
 and Shaw 2002). 147

Risk Assessment Versus Threat 148
Assessment 149

Before addressing specific elements critical to 150
 juvenile risk assessment, it is essential to clearly 151
 distinguish it from threat assessment. Risk 152
 assessment is done in response to questions of 153

154 the likelihood an individual will commit some
155 general type of crime of violence in the future.
156 However, particularly since the tragic events at
157 Columbine High School and Virginia Tech
158 University, courts and administrative bodies often
159 pose inquiries regarding specifically *targeted*
160 violence (Cornell 2004). Borum (2006, p. 193)
161 explained the importance of this distinction

162 ...because the factors considered and the assess-
163 ment approach may differ.

164 ...These (threat) assessments should arguably rely
165 on a fact-based assessment approach and may—for
166 a variety of reasons—not rely primarily on base
167 rates or a tally of empirically based risk factors for
168 general violence.

169 Threat assessments are generally precipitated
170 when a youth comes to the attention of school or
171 juvenile justice authorities due to a concern about
172 the potential for violence toward a particular per-
173 son or in a particular setting. It is often the case
174 that the juvenile has no prior history of violence
175 but, rather, some type of suspicious behavior has
176 been noted. Threat assessment approaches have
177 been developed primarily by the U.S. Secret
178 Service and its associated mental health consul-
179 tants. (For additional information, see Borum and
180 Reddy 2001; Vossekuij et al. 2002).

181 Risk Factors

182 Unlike threat assessment, risk assessment is typi-
183 cally aimed at evaluating risk for future crime and
184 violence generally. Examinees typically have some
185 history of violent behavior to form the basis for the
186 assessment. The following section will address spe-
187 cific factors, both risk and protective, that a mental
188 health professional will need to explore in conduct-
189 ing a risk assessment of a juvenile offender.

190 Research has identified numerous factors that
191 may put a juvenile offender at risk for future vio-
192 lence during the remainder of his/her adoles-
193 cence. However, there are a few factors that are
194 discussed extensively in the literature, and these
195 will be discussed here. Consideration of empiri-
196 cally supported risk factors is a critical element
197 of any risk assessment.

198 Some factors are, by their nature, static. That
199 is, they are historical or otherwise unlikely to
200 change. Examples would include a history of vio-
201 lent behavior or having grown up in a criminog-
202 enic, crime-infested neighborhood. Static
203 factors are helpful in conducting an initial risk
204 assessment; however, they are rarely helpful in
205 assessing change over time or the effectiveness
206 of interventions. Dynamic factors, on the other
207 hand, are things which are subject to change over
208 time, and may be the targets of specific interven-
209 tion. For example, impulsive behavior or specific
210 criminal attitudes would be described as dynamic.
211 Such variables may form the primary focus of
212 risk-management efforts.

213 The reader should be cautioned that risk factors
214 are of greatest importance when they are cumula-
215 tive (Augimeri et al. 2010; Conroy and Murrie
216 2007). For example, Loeber et al. (2005), in a
217 study of 1,500 young men, found that those with
218 four or more risk factors for homicide were 14
219 times more likely to commit such violence than
220 those who had fewer. Nonetheless, it is possible
221 that a single factor would have over-riding predic-
222 tive weight (e.g., serial homicide). Given the
223 generally cumulative effect of risk factors, evalua-
224 tors need to consult a broad amount of collateral
225 information to conduct a thorough investigation.

History of Violent Behavior 226

227 As with adults, prior violent behavior is probably
228 the single best predictor of future violence (Borum
229 and Verhaagen 2006; Brame et al. 2001; Conroy
230 and Murrie 2007; Hoge 2010; Viljoen et al. 2008).
231 Long-term studies further indicate that a younger
232 age at the onset of violent behavior is also predic-
233 tive of repeat offending (Hawkins et al. 2000;
234 Elliott 1994; Loeber et al. 2005). Although not
235 limited to violent behavior, other research indi-
236 cates that antisocial behavior that begins prior to
237 age 15 is often followed by criminality, substance
238 misuse, and general adverse outcomes in early
239 adulthood (Moffitt et al. 2002) and continuing
240 through age 50 for both violent and non-violent
241 offenses (Samuelson et al. 2010). More predictive
242 than any one type of violence or the severity of

243 violence is a chronic history of violence across
244 multiple settings (Loeber et al. 2001).

245 **Psychopathic Personality Features**

246 The term psychopathy is generally applied to a
247 constellation of negative personality characteris-
248 tics commonly found in criminal populations.
249 Hare and Hart (1993) defined it as:

250 ...a cluster of personality traits and socially devi-
251 ant behaviors: a glib and superficial charm; ego-
252 centricity; selfishness; lack of empathy, guilt, and
253 remorse; deceitfulness and manipulativeness; lack
254 of enduring attachments to people, principles, or
255 goals; impulsive and irresponsible behavior; and a
256 tendency to violate explicit social norms (p. 104).

257 As measured by Hare's Psychopathy
258 Checklist—Revised, the construct has been found
259 to be highly correlated with violent reoffending
260 in adult populations (DeMatteo et al. 2010). Two
261 measures of this construct have been developed
262 for use with adolescents: the Psychopathy
263 Checklist: Youth Version (PCL-YV) (Forth et al.
264 2003) and the Antisocial Process Screening
265 Device (Frick and Hare 2001). Since the publica-
266 tion of the PCL-YV, data have continued to
267 mount indicating that high scores on this instru-
268 ment are associated with violent, as well as gen-
269 eral, recidivism in youth (Gretton et al. 2004;
270 Edens and Cahill 2007).

271 Despite the aforementioned data, a number of
272 serious concerns have arisen in regard to the use
273 of psychopathy as a violence risk factor in juve-
274 niles. First, it is sometimes difficult to distin-
275 guish normative adolescent traits (e.g.,
276 impulsivity, conflict with authority) from those
277 indicative of psychopathy (Conroy and Murrie
278 2007). Second, although there appears to be a
279 moderate relationship between juvenile psy-
280 chopathy and recidivism in adulthood, data
281 remain sparse and there is considerable variabil-
282 ity among studies (Edens et al. 2007). Whether
283 this constellation of traits established in adoles-
284 cence remains stable into adulthood remains
285 uncertain. Third, more research is needed to
286 determine whether the PCL-YV is appropriate
287 for risk assessment among females and ethnic
288 minorities (Odgers et al. 2005).

289 A final, but major, concern in the use of
290 psychopathy in risk assessments of juvenile
291 offenders is the impact of the label itself.
292 Research indicates the label is both negative and
293 powerful (Boccaccini et al. 2008; Edens and
294 Vincent 2008; Murrie et al. 2007). This opens
295 the question as to whether use of the term
296 becomes overly prejudicial.

297 **Psychopathology**

298 Impulsivity is a major feature of numerous diag-
299 noses commonly applied to adolescents.
300 Impulsivity has been found to be correlated with
301 violent behavior from preadolescence (White
302 et al. 1994) into young adulthood (Brennan et al.
303 1993). Therefore, the trait of impulsive behavior
304 as part of any psychopathology would enhance
305 risk (Connor 2002).

306 There is general agreement that many young
307 offenders suffer from some type of psychological
308 disorder (Grisso 2004; Teplin et al. 2002).
309 Research on the relationship of specific diagno-
310 ses to youth violence is somewhat sparse.
311 A Conduct Disorder diagnosis indicates the youth
312 is prone to antisocial activities; however, this is
313 more a description of behavior, absent any known
314 etiology or pathology. Bipolar Disorder has been
315 generally thought to manifest as anger and
316 aggression in youth, rather than the more typical
317 mania or depression seen in adults (Vincent and
318 Grisso 2005). However, at the time of this writing
319 that diagnosis was being called into question and
320 being considered for significant revision. Some
321 research would suggest an association between
322 Posttraumatic Stress Disorder and aggression in
323 youth—particularly among females (Cauffman
324 et al. 1998; Vincent and Grisso 2005). However,
325 the data remain preliminary.

326 **Context**

327 As has already been noted, an adequate risk
328 assessment requires that a juvenile be considered
329 in context. Most youth remain, to at least some
330 degree, part of a family unit. Exposure to family

331 violence, parental criminality, and the early
 332 disruption of family relationships are all corre-
 333 lates of later violence (Elliott 1994; Farrington
 334 1989; Hawkins et al. 1998). Negative peer rela-
 335 tionships, particularly involving gang affiliations,
 336 are also significant (Farrington 1989; Hawkins
 337 et al. 2000; Hinshaw and Lee 2003).
 338 Neighborhoods where crime is prevalent will
 339 expose children to negative role models at an
 340 early age and consequently encourage early onset
 341 violent behavior (Borum and Verhaagen 2006).
 342 Problems in school leading to negative attitudes
 343 toward the academic environment are also a fac-
 344 tor (Elliott 1994; Hawkins et al. 1998).

345 **Substance Abuse**

346 Substance abuse is strongly associated with
 347 recurrent violence in both adults and juveniles.
 348 DeMatteo and Marczyk (2005) note a consider-
 349 able body of evidence indicating that the major-
 350 ity of youth in correctional facilities were abusing
 351 some type of substance at the time of their
 352 offense. However, evidence also suggests that
 353 age may interact with substance abuse as a risk
 354 factor. An extensive meta-analysis found that
 355 substance abuse was a much greater risk factor
 356 for children below the age of 12 than for those
 357 between the ages of 12 and 14 (Hawkins et al.
 358 2000). Given the evidence, it might seem that
 359 substance abuse would be a critical risk factor for
 360 juvenile violence. However, the base rate of sub-
 361 stance abuse for juvenile offenders in general is
 362 so high that it does not differentiate between
 363 those who are likely to act out violently in the
 364 future from those who are not (Conroy and Murrie
 365 2007). That is not to say that alcohol or drug
 366 abuse may not be a salient precipitant of violent
 367 behavior for a particular individual.

368 **Protective Factors**

369 In 2000, Rogers took issue with forensic psy-
 370 chologists who simply looked at empirical fac-
 371 tors that enhance the potential for violence while
 372 ignoring more positive variables that might

373 mitigate the risk. Protective factors, as commonly
 374 defined, are more than simply the absence of an
 375 identified risk factor. Rather, they are positive
 376 traits, experiences, or contexts that have been
 377 found to reduce the risk for violence in a particu-
 378 lar population. A commonly cited definition of
 379 protective factors characterizes them as "...vari-
 380 ables that reflect involvement with and commit-
 381 ment to conventional society, that control against
 382 nonnormative activities, and that refer to activi-
 383 ties incompatible with normative transgression"
 384 (Jessor et al. 1995). Unfortunately, research iden-
 385 tifying particular protective factors is relatively
 386 sparse. However, what has been done is primarily
 387 in the area of juvenile violence.

388 One factor that stands out as protective for
 389 youth is strong school performance and an over-
 390 all bonding to the academic environment (Borum
 391 2006; Hoge et al. 1996; Lodewijks et al. 2010;
 392 Rodney et al. 2005). Adolescents who are moti-
 393 vated to excel in non-criminal activities and have
 394 long-term goals involving education are more
 395 likely to realize the negative consequences of
 396 violent behavior. Another critical protective ele-
 397 ment is an established ability to form a close rela-
 398 tionship with a positive adult role model, whether
 399 in the family, in school, or in the community
 400 (Borum 2006; Conroy and Murrie 2007; Hawkins
 401 et al. 1998; Lodewijks et al. 2010; U. S.
 402 Department of Justice 1995). Forming such a
 403 relationship would involve both an ability to
 404 engage in social bonding and the ability to see an
 405 authority figure in a positive light. It would also
 406 indicate an amenability for forming a therapeutic
 407 relationship with an appropriate provider. Beyond
 408 relationships with individual adult role models, a
 409 strong social support system overall has been
 410 found to be protective (Lodewijks et al. 2010;
 411 Resnick et al. 2004). This would include having
 412 positive peer attachments, that is, relationships
 413 with other adolescents who are pro-social in ori-
 414 entation and not part of the criminal subculture. It
 415 would also include family members who support
 416 the juvenile's rehabilitation efforts. In terms of
 417 personality traits, resilience appears to play a
 418 significant protective role (Borum 2006; Borum
 419 et al. 2010). Exploring resilience would mean
 420 examining negative events in the adolescent's
 421 life and determining the typical response.

422 Protective factors appear to play a particularly
 423 important role when evaluating adolescents who
 424 are at high risk for violence. These factors also
 425 appear to be stronger in combination.

426 **Structured Assessment Devices**

427 The first instruments designed to assist evaluators
 428 in conducting risk assessments were targeted at
 429 adults. However, over the past 10 years, a number
 430 of these have been developed specifically for the
 431 juvenile population. At the present time, both
 432 courts and juvenile justice agencies frequently
 433 seek some device that has been well validated
 434 that will give them the needed risk-assessment
 435 information.

436 Instruments have several distinct advantages.
 437 A well-validated assessment device (i.e., one
 438 with high levels of predictive validity) will give
 439 the evaluator scientific backing for any opinion
 440 provided. Instruments assist evaluators in being
 441 thorough and avoiding idiosyncratic thinking.
 442 Instruments also provide a common vocabulary
 443 that can facilitate communication. Significant
 444 concerns have been raised about assessments
 445 done in an unstructured manner (Borum 1996),
 446 and use of a structured approach is much preferred.
 447 Finally, instruments usually provide operational
 448 definitions of known risk and protective
 449 factors.

450 Some risk-assessment instruments were
 451 developed to be strict actuarial devices, while
 452 others facilitated the application of Structured
 453 Professional Judgment (SPJ). An actuarial device
 454 provides a very specific mathematical formula
 455 one must use to calculate a number, based upon
 456 scores assigned to various factors, that will then
 457 correspond to the appropriate risk category. For
 458 example, the Youth Level of Service/Case
 459 Management Inventory was designed as an actuarial
 460 assessment. Its content is empirically derived
 461 and results in quantitative estimates of risk, as
 462 well as needs (Hoge 2010). An instrument based
 463 upon SPJ, on the other hand, provides a scientific,
 464 but more flexible guide, to reaching a conclusion.
 465 For example, the Structured Assessment
 466 of Violence Risk in Youth (SAVRY) is designed

to be just such a guide (Borum et al. 2010). The
 SPJ approach allows for consideration of individual
 variables unique to a particular case, whereas the
 actuarial approach does not. Such instruments will
 likely require more clinical expertise than a pure
 actuarial device. SPJ devices may have a scoring
 system (since such is necessary for research purposes);
 however, the developers may advise the user that
 the scores are only for research purposes.

It must be said that no particular currently
 available risk-assessment instrument for juveniles
 represents the “gold standard.” Studies have varied
 in results when attempts were made to compare
 the instruments. Part of this is simply due to the
 fact that these are relatively new devices and have
 not been validated on multiple samples (Schwalbe
 2007). Nonetheless, it might be helpful to give
 a very brief description of two commonly used
 instruments.

The SAVRY

The SAVRY is an SPJ instrument designed to
 provide evaluators with a guide to exploring a set
 of empirically supported risk and protective factors
 for juveniles. It includes both static (historical)
 factors and more dynamic (social and clinical)
 predictors of risk. It also includes six scientifically
 based protective factors. The factors on the list
 are not weighted (as elements would be in an
 actuarial device). Rather, it is left to professional
 judgment to determine the importance to assign
 to each area explored. (For a complete description
 of the instrument, see Borum et al. 2010).

The Youth Level of Service/Case Management Inventory

The YLS/CMI was developed in a fashion similar
 to its adult counterpart, the Level of Service
 Inventory—Revised (LSI-R). It is theoretically,
 as well as empirically, based, applying the “risk/
 needs/responsivity” principles honed by the
 developers. Specifically, this paradigm asserts

509 that a solid risk assessment will address providing
 510 services for very high *risk* youth, in a way that
 511 considers the unique *needs* of the individual, using
 512 an approach to which the individual can best
 513 *respond*. It addresses eight domains: offense history,
 514 family, education/employment, peers, substance
 515 abuse, leisure, personality, and attitudes. Although
 516 initially developed as an actuarial, the authors agree
 517 it can also function as a useful guide in the application
 518 of SPJ. The final section is specifically formulated
 519 to assist the user in developing targeted interventions.
 520 (For a complete description of the instrument see Hoge
 521 2010).

522 Idiographic Factors

523 Empirically supported risk factors are by their
 524 nature nomothetic, that is, based on group data. In
 525 his formulation of principles for forensic assessment,
 526 Heilbrun (2001) emphasized the need to use case-
 527 specific data in addition to that gleaned from
 528 empirical studies. Idiographic factors are those
 529 unique to an individual or the particular context.
 530 For example, psychosis is relatively rare in juveniles
 531 and most major symptoms of psychosis have not
 532 proven to be empirically supported violence risk
 533 factors in any population. However, in the case of
 534 a juvenile who is actively psychotic and commits
 535 murder based upon a delusional belief, it would
 536 certainly be a major issue to consider. In fact,
 537 it might be the single most important issue to
 538 address. To use another example, suppose a juvenile
 539 with a serious history of violence acquires a
 540 significant disability that significantly restricts
 541 mobility. Depending upon the exact disability,
 542 this could reduce his risk of future violence
 543 from high to low. Substance abuse could be a
 544 huge risk factor for a particular individual if it
 545 is found that the person is addicted and commits
 546 all of their violent acts while intoxicated.

547 Context must also be considered as an idiographic
 548 factor. Will the youth be functioning in a crime-
 549 infested neighborhood or in the structured
 550 environment of a state school? Context can
 551 change and will sometimes be changed intentionally
 552 to reduce risk. If context changes, will access
 553 to victims be reduced?

554 One method that will help to uncover idiographic
 555 risk factors is an anamnestic analysis. An anamnestic
 556 approach is “a specific type of clinical assessment
 557 whereby the examiner attempts to identify violence
 558 risk factors through a detailed examination of the
 559 individual’s history of violent and threatening
 560 behavior” (Otto 2000, p. 124). A conscientious
 561 evaluator will meticulously examine each instance
 562 of major violence in the individual’s history to
 563 determine what led up to the incident and what
 564 triggered the egregious behavior. The result should
 565 be an understanding of both how and why the person
 566 became violent. Frequently, this will involve some
 567 interaction of traits unique to the individual and
 568 a particular context or situation. 569

570 Special Populations

571 Significant research on the factors that contribute
 572 to and predict risk of juvenile violence has only
 573 begun to accumulate in the last two decades. To
 574 date, this research has focused primarily on male
 575 offenders from the mainstream population. Much
 576 of the research also refers to criminal activity in
 577 general and, at best, breaks the events vaguely
 578 into violent and non-violent categories. Courts
 579 and administrators, as well as mental health
 580 professionals, should keep this in mind when
 581 applying data to females, ethnic populations, or
 582 those who specialize in particular types of offenses.

583 Female Offenders

584 Research on violence among juveniles has focused
 585 almost exclusively on males because they appear
 586 to commit the vast majority of violent offenses
 587 in this age group. Some data suggest that violence
 588 among female juveniles has been increasing
 589 (Odgers et al. 2005). Yet, there is some evidence
 590 that female violence frequently goes unreported
 591 (Lodewijks et al. 2010), making it more difficult
 592 to research. What little work has been published
 593 indicates there may be significant differences.

594 An early meta-analysis indicated many of the
 595 same risk factors that apply to males also apply to

596 females (Simourd and Andrews 1994). However, 641
 597 additional investigation has revealed subtle dif- 642
 598 ferences. History of violence and early age of 643
 599 onset may be slightly less a predictor for females 644
 600 than for males (Odgers et al. 2005). A history of 645
 601 sexual abuse, mental disorder, and problems with 646
 602 attachments may also be affecting females more 647
 603 than males (Odgers et al. 2005). Female violence 648
 604 is more likely to be directed at family members 649
 605 or intimate partners (Skeem et al. 2005). 650
 606 Incarcerated young women are much more likely 651
 607 to have been abused than their male counterparts,
 608 and evidence indicates that trauma may be closely
 609 related to violent behavior by this population
 610 (Borum et al. 2010). Disruptive attachments early
 611 in life may have greater effects on girls than on
 612 boys (Moretti and Odgers 2006).

613 Only limited research has been conducted on
 614 the validity of various risk-assessment instru-
 615 ments with juvenile females. Even when results
 616 from females were reported, the sample was often
 617 relatively small. Olver et al. (2009) found some
 618 support for the use of the YLS/CMI with female
 619 youths. Findings regarding the PCL-YV have
 620 been mixed, and it is difficult to draw conclusions
 621 (Olver et al. 2009; Odgers et al. 2005). For chil-
 622 dren under the age of 12, a set of gender-specific
 623 risk-assessment tools (EARL-20B and EARL-
 624 21G) have been developed and show some early
 625 promise (Augimeri et al. 2010).

626 **Juvenile Sex Offenders**

627 Making a scientifically grounded assessment of
 628 a juvenile’s risk of sexual reoffense is difficult.
 629 Juveniles are not only heterogeneous as a group,
 630 but even less likely than adults to select a
 631 particular type of victim (Wijk et al. 2006).
 632 Juvenile recidivists are much more likely than
 633 adults to engage in a variety of criminal activ-
 634 ity. Although it may be possible to assess risk
 635 for violence in general, it is rarely possible to
 636 assess risk for an additional sexual offense
 637 (Witt and Conroy 2009).

638 Instrument development for this population is
 639 still in its infancy. A meta-analysis by Olver et al.
 640 (2009) found the weakest predictive accuracy to

be for sexual recidivism. Borum et al. (2010) 641
 admit that the SAVRY has been disappointing in 642
 assessing risk for sexual recidivism. Some spe- 643
 cialty instruments have been developed for this 644
 population, most notably the Juvenile Sex 645
 Offender Assessment Protocol (JSOAP-II) and 646
 the Estimate of Risk of Adolescent Sexual 647
 Offense Recidivism (ERASOR). Although 648
 research initially yielded some moderate support, 649
 later studies have called into question the predic- 650
 tive validity of either instrument (McCoy 2007). 651

Risk Management 652

It has been strongly argued that the ultimate 653
 reason for conducting a risk assessment is *pre-* 654
venting recidivism rather than simply *predicting* 655
 it (Douglas and Kropp 2002; Olver et al. 2009). 656
 Given that most adolescent offenders desist from 657
 criminal activity and given that they are person- 658
 ally somewhat malleable during adolescence, it 659
 would seem that intervention may be both short 660
 term and potentially effective. A well-grounded 661
 risk assessment should always be at the heart of 662
 any risk management plan. Risk management is 663
 best achieved by taking each risk factor that is 664
 potentially dynamic and designing an interven- 665
 tion to address it (Conroy and Murrie 2007). One 666
 of the most frequent mistakes in risk manage- 667
 ment is to select targets to be addressed based on 668
 intuition or programs that happen to be readily 669
 available. 670

Given that adolescence is a time of rapid 671
 change it will be necessary to repeatedly re- 672
 assess risk and the effectiveness of any risk man- 673
 agement plan at short intervals (Vitacco and 674
 Vincent 2006). Given that early onset of violent 675
 behavior is a key risk factor, early activation of a 676
 risk management plan is also critical (Hoge and 677
 Andrews 1996). 678

It is in the best interests of both the juvenile 679
 and the larger society that the most effective 680
 interventions be selected and modified as needed. 681
 Some well-intentioned interventions may, in fact, 682
 be counterproductive. For example, evidence 683
 suggests that programs aimed solely at raising 684

685 self-esteem, programs designed to induce fear of
 686 punishment, and peer counseling with deviant
 687 peers may actually cause harm (Viljoen et al.
 688 2008). On the other hand, Sheidow and Henggeler
 689 (2005) cited evidence strongly supporting multi-
 690 systemic therapy, multidimensional treatment
 691 foster care, and functional family therapy as
 692 community-based programs effective in reducing
 693 recidivism risk. Whatever the intervention
 694 selected, it is essential that it is designed to iden-
 695 tify the specific factors that put this individual at
 696 risk for future violence.

697 Into the Future

698 Risk assessment is becoming a regular part of the
 699 forensic armamentarium utilized by courts and
 700 criminal justice agencies. Much progress has been
 701 made in recent years to provide a strong scientific
 702 basis for recommendations made. Anyone pur-
 703 porting to assess violence risk in juveniles must
 704 be intimately familiar with the available science.
 705 They must also recognize the changing nature of
 706 the published data and strive to remain current.

707 To be competent in evaluating juvenile risk,
 708 the mental health professional must be fully cog-
 709 nizant of the most current empirical data regard-
 710 ing factors found to elevate the risk for future
 711 violence in this population and the relative
 712 salience of each. Protective factors are too often
 713 ignored but should be explored and integrated
 714 into any risk assessment. Juveniles are a very het-
 715 erogeneous population, and evaluators must con-
 716 sider whether available data can be applied to a
 717 particular sub group (e.g., females, ethnic popula-
 718 tions, offenders with very specific victims).
 719 Juveniles are also individuals, and what triggers
 720 violence in a specific person or context may be
 721 unique. Courts are becoming increasingly inter-
 722 ested not only in risk assessment but in develop-
 723 ing strategies to mitigate risk. Risk management
 724 addresses ways in which risk can be reduced while
 725 at the same time allowing the target individual the
 726 least restrictive and most therapeutic environ-
 727 ment. Finally, evaluators need to be clear about
 728 the limitations of any assessment performed.

Much more research is needed to enhance 729
 risk-assessment strategies and tools. It is essen- 730
 tial that juveniles be recognized as a very hetero- 731
 geneous group and that research address the 732
 many components. Structured assessment devices 733
 need to be expanded and validated on multiple 734
 samples. Researchers need to continue educating, 735
 not only practitioners, but potential consumers of 736
 risk-assessment data on the key findings. 737

Finally, risk management needs to be adapted 738
 to flow directly from risk assessment. Precious 739
 time can be wasted and juvenile offenders harmed 740
 by programs that do not address their level of 741
 risk, do not address what is needed to reduce the 742
 specific risk factors, and are not tailored to the 743
 target individual. 744

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Becoming More Therapeutic: Motivational Interviewing as a Communication Style for Paraprofessionals in Juvenile Justice Settings

Angela R. Wood, Ralph J. Wood,
and Susan M. Taylor

8 *LINE STAFF:* What's wrong, Joe?
9 *JOE:* My mom didn't show up again
10 for visitation.
11 *LINE STAFF:* I'm sure she has a good reason.
12 I bet she'll be here next week.
13 *JOE:* Whatever.
14 *LINE STAFF:* Maybe she got busy.
15 *JOE:* I doubt it.
16 *LINE STAFF:* Or had to work.
17 *JOE:* She don't work.
18 *LINE STAFF:* I'm sure it'll be all right. Just keep
19 working your program. Maybe
20 I can come visit you Sunday.
21 *JOE:* rolls his eyes.

retribution, and compliance obtained through 26
coercion and fear. The culture of many facilities 27
was of an adversarial nature: "us" vs. "them." 28
Now, the focus is on rehabilitation, meaningful 29
social interactions, natural, logical consequences, 30
and staff as active participants in the change process 31
(Walters et al. 2007). Efforts to reform the 32
system include reducing the use of secure-care 33
facilities in favor of community-based programs, 34
such as multisystemic therapy and multidimen- 35
sional treatment foster care programs (Center for 36
Children's Law and Policy,) as well as improving 37
the conditions of youth requiring 24-h surveil- 38
lance, such as the Missouri Model (Annie E. 39
Casey Foundation 2008). Juvenile justice sys- 40
tems are moving toward the use of evidence- 41
based practices, including interventions such as 42
the Intensive Aftercare Program (Wiebush et al. 43
2005) and Thinking for a Change (Bush et al. 44
2011). Yet, models outside of corrections may 45
offer valuable applications in both community 46
and residential settings. For example, motiva- 47
tional interviewing (MI) (Miller and Rollnick 48
2002), originating from tobacco use and alcohol 49
abuse treatment programs, is widely applied in 50
various therapeutic milieus, such as group and 51
individual counseling in substance abuse (e.g., 52
Foote et al. 1999; Miller et al. 2003) and mental 53
health settings (e.g., Handmaker et al. 2002) as 54
well as brief, targeted interventions developed 55
for healthcare settings (Resnicow et al. 2002). 56

Motivational interviewing is "a client-centered, 57
directive method for enhancing intrinsic moti- 58
vation to change by exploring and resolving 59

22 Introduction

23 Juvenile justice across the nation is becoming
24 less punitive and more therapeutic (Hsia and Beyer
25 2000). Systems were once about punishment,

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ambivalence” (Miller and Rollnick 2002, p. 25). While the core skills applied in MI are common counseling techniques, such as the use of empathic reflection and maintaining positive regard for the client, the philosophy (or the “spirit and principles”) of MI is crucial to understanding *how* the counseling techniques are applied. Rather than viewing the client as either ready for change or not, MI techniques are used in a directive manner to find the “diamond in the rough” (any evidence that the client might desire change) and polish the gem in order to build motivation and commitment to change. Resistance to change is viewed as an interpersonal phenomenon which the counselor must learn to skillfully reduce by “rolling with resistance.” The counselor seeks to elicit “change talk;” to uncover what the client is “motivated for” rather than asking the client, “Why don’t you want to change?”

Juvenile Justice and Motivational Interviewing

Several challenges exist when working with offenders of any age. First, individuals in the criminal justice system are often mandated to receive treatment and are frequently viewed by practitioners as unmotivated or resistant to change, resulting in case plans or treatment plans that tend to dictate to the client with little input from the offender. Second, offenders who are in secure settings are “captive clients” and the perception may be that collaboration with the client is not necessary (Ginsburg et al. 2002). Lastly, there is the temptation to “fix” the offender; to be the expert who knows best; who presents the arguments for change and tells the offender what he/she should do (Ginsburg et al. 2002). At its worst, the justice system has relied upon confrontational approaches justified as necessary “to get through” to offenders; approaches that would be unacceptable as treatment for most mental health disorders (Viets et al. 2002).

All of these challenges create an adversarial environment that does not promote advancement of the reformation of the juvenile justice system. MI, however, lends itself well to managing

resistance by enhancing engagement and adherence in treatment (Carroll et al. 2006; Zweben and Zuckoff 2002) and ultimately facilitating change in a respectful, therapeutic manner. The amount of literature published in the past 10 years demonstrates the great interest criminal justice researchers, administrators, and practitioners have placed on MI, including MI texts and training manuals written for adult and juvenile corrections (McMurran 2002; Ginsburg et al. 2002; National Institute of Corrections Academy 2009; Bogue and Nandi 2003; Ferns et al. 2004; NIC resources) and probation/parole settings (Clark 2005; Clark et al. 2006; Harper and Hardy 2000; Walters et al. 2007).

While MI is widely applied in adult and juvenile criminal justice settings (McMurran 2002; Walters et al. 2007), much of the empirical studies of MI’s effectiveness with criminal justice populations have primarily focused on substance abuse treatment (McMurran 2009). For example, Stein et al. (2006) examined treatment engagement in incarcerated adolescents. Youth received either a single motivational interviewing feedback session or a single relaxation training (RT) session, both followed by treatment as usual. Adolescents who received the MI session rated the therapeutic relationship better than youth who received the RT session (Stein et al. 2006). Additionally, youth who received the RT session demonstrated significantly more negative treatment engagement compared with the MI group (Stein et al. 2006). Negative treatment engagement is defined as “counternormative talk and reference to delinquent activities” during treatment which result in iatrogenic effects of intervention groups (Stein et al. 2006, p. 26).

The avoidance of labeling offenders (labels are believed to reduce motivation for change) is another benefit of applying MI in criminal justice settings. Additionally, MI allows the therapist to view motivation as fluid, multifaceted, and malleable rather than “in denial” and “not ready for treatment.” MI ultimately offers a method for interacting with offenders in a manner more consistent with the cultural change desired within juvenile justice and the broader criminal justice system (Mann et al. 2002).

153 Paraprofessionals and Motivational 154 Interviewing

155 Researchers have examined the training of parapro-
156 fessionals (Cooperman et al. 2007), mid-wives
157 (Kropa 2007), and school personnel (Burke et al.
158 2005) in the use of MI techniques in brief counsel-
159 ing interventions toward targeted behavior change.
160 Additionally, the training of lay people as peer
161 counselors can be seen in the National Cancer
162 Institute's (2005) Body and Soul curriculum that
163 incorporates MI techniques as core skills in the
164 training modules. The Body and Soul project
165 examined a nutritional intervention targeted at
166 African-American church members in an effort
167 to reduce the cancer rate. Results found that
168 attendance at project events, receipt of educational
169 materials and self-reported quality of the MI calls
170 contributed to increases in fruit and vegetable intake
171 and decreased fat consumption among African-
172 American church members (Campbell et al. 2007).

173 Another trend in the implementation of MI by
174 individuals outside of the counseling profession
175 is the use of MI techniques in residential thera-
176 peutic settings (Wood et al. 2011). In this setting,
177 MI skills are viewed less as a counseling approach
178 and more as a communication style to reduce
179 resistance and increase client engagement in the
180 therapeutic milieu. MI can be described as a "way
181 of being with people" (Burke et al. 2002).
182 Therefore, the learned clinical skills are not used
183 in targeted interventions, but rather "on the fly" to
184 communicate better with clients. The use of MI as
185 a communication tool has the potential to enhance
186 the reform efforts toward a more therapeutic cul-
187 ture within the justice system (Mann et al. 2002).

188 Thus, very little empirical research on MI has
189 been conducted with juvenile justice populations
190 (Alexander et al. 2008; Feldstein and Ginsberg
191 2007). However, the efficacy of MI in related fields,
192 including use by paraprofessionals, lends support
193 to its application in juvenile justice settings.

194 Implications for Training

195 Before designing a plan to implement MI, several
196 questions arise. Do we train direct care staff the

197 same way we train counseling staff? What skills
198 and background does the direct care staff need?
199 How will we adapt our training methods? What
200 type of follow-up is needed to encourage and
201 enhance implementation of the techniques?

202 The literature includes a plethora of training
203 outcomes, supervision techniques, and barriers
204 and facilitators to implementation at the agency
205 level. A recent systematic review of the MI train-
206 ing literature revealed that the types of profes-
207 sionals targeted for training included physicians,
208 medical students, nurses, dietitians, medical
209 assistants, mental health professionals, substance
210 use professionals, and probation officers (Madson
211 et al. 2009). Most studies describe training indi-
212 viduals who have advanced degrees (beyond
213 bachelor degrees). The length of training varied
214 from less than 8 h to more than 24 h, averaging
215 9–16 h of formal training, and may include fol-
216 low-up/booster sessions and ongoing contact
217 with the trainer as a coach/supervisor. Training
218 results included increases in participant confi-
219 dence in using MI, MI knowledge, interest in
220 learning more about MI, intention to use MI, and
221 actual integration into one's practice based on
222 self-report (Madson et al. 2009). Objective eval-
223 uations have found improved MI-related skills
224 (Miller 2000; Moyers et al. 2005).

225 There is much to consider when an agency
226 decides to train staff and implement a particular
227 therapeutic approach. When an agency or pro-
228 gram decides that a change is needed, the process
229 of diffusion begins (Rogers 2003). From an orga-
230 nizational standpoint, an agency's administration
231 may choose to include staff input at this point to
232 discuss options to address the needed area of
233 change. Once a decision is made to implement a
234 new practice (in this case, MI), the dissemination
235 process begins—usually involving training.
236 Some key factors to promote implementation and
237 adherence include administrative support for the
238 new approach, resources, staff time devoted to
239 training and ongoing supervision (Berger et al.
240 2009), having a champion or "change agent"
241 (ATTC 2000), and the "goodness of fit" of MI
242 with the individual's philosophy of how people
243 change (Moyers and Yahne 1998; Wood et al.
244 2011). As mentioned previously, the provider may
245 believe that confrontation is the only way to produce

246 change in a juvenile. This approach is often
 247 reinforced when the staff person feels he or she
 248 is “right” and “wins” when the youth complies,
 249 albeit temporarily. Thus, the challenge in training
 250 line staff is to help staff accept the spirit and prin-
 251 ciples of MI as a client-centered approach; that
 252 their job is not about *making* someone change
 253 (or comply); but rather helping to elicit and build
 254 one’s motivation for change.

255 Application of Motivational 256 Interviewing in the Milieu

257 Let us review the scenario presented at the
 258 beginning of this chapter. The script was devel-
 259 oped based on the experiences of the authors in
 260 a secure-care setting. We use the scenario to
 261 role-play or act out common “traps” staff may
 262 find themselves falling into—with the best of
 263 intentions, yet lead the client away from change.
 264 After each script is acted, we ask the training
 265 participants to tell us what happened in that sce-
 266 nario. How did it work for the youth? Was it
 267 helpful to the youth? Did it facilitate change? In
 268 the opening scenario, the staff person attempted
 269 to placate the youth; to “fix it” for him. Is “fix-
 270 ing it” what the youth needs to learn in order to
 271 cope? Did the youth feel understood? What
 272 could the staff person do instead? We teach par-
 273 ticipants that *empathy* is the key to positive
 274 communication. While reflections are not the
 275 only important counseling skill used in MI, it
 276 can be a significant determinant of the client’s
 277 response to treatment (Miller and Rollnick
 278 2002). Let us try that again:

279 *LINE STAFF:* *What’s wrong, Joe?*
 280 *JOE:* *My mom didn’t show up again*
 281 *for visitation.*
 282 *LINE STAFF:* *Oh, I’m sorry to hear that. Must*
 283 *be pretty disappointing.*
 284 *JOE:* *Yeah.*
 285 *LINE STAFF:* *What do you think happened?*
 286 *JOE:* *I don’t know. Shrugs his shoulders.*
 287 *LINE STAFF:* *Must be hard to imagine why*
 288 *she couldn’t come today.*

JOE: *Yeah, not like she works or* 289
doesn’t have a ride or some- 290
thing. I just don’t get it, man. 291
LINE STAFF: *There’s no clear reason to you.* 292
JOE: Nods his head in agreement. 293
LINE STAFF: *What do you say we get some* 294
games out until visitation is 295
over? 296
JOE: *Yeah, sure. That’s cool.* 297

Imagine the line staff having only those few 298
 moments to help a youth with a situation that could 299
 conceivably lead to an outburst later in the day had 300
 the youth’s disappointment and frustration not been 301
 acknowledged. Notice the staff person did not *solve* 302
 the youth’s dilemma. And hopefully the staff person 303
 will inform the youth’s case manager or counselor 304
 regarding the youth’s reaction to the missed visit. 305
 The line staff simply acknowledged the youth’s 306
 feelings. By attempting to show the youth we under- 307
 stand and we are listening, the staff person has fur- 308
 ther developed his/her rapport with that youth, and 309
 reduced the chance of future resistance from that 310
 youth, particularly as the staff person attempted to 311
 redirect the youth into another activity. 312

Training 313

Miller and Moyers (2006) describe eight stages 314
 in learning MI. The training of beginners (such as 315
 line staff) will involve the early stages with future 316
 training sessions focusing on later stages (Miller 317
 2008). The first stage is “Overall Spirit of MI” 318
 which teaches participants about the spirit of MI 319
 (or ACE: autonomy, collaboration, and evoca- 320
 tion; see Table 16.1) and the principles (or EARS: 321
 Express Empathy, Amplify Ambivalence, Roll 322
 with Resistance, and Support Self-Efficacy; see 323
 Table 16.2). The developers of the *Body and Soul* 324
 training DVD made the decision to avoid dis- 325
 cussing theory and instead stripped the concepts 326
 down to the basics and explain why these tech- 327
 niques are helpful and motivating. Whether or 328
 not the exclusion of the spirit (ACE) and princi- 329
 ples (EARS) during workshop sessions is detri- 330
 mental to the implementation of MI is not known. 331

t1.1 **Table 16.1** Spirit of MI

t1.2	ACE	Description
t1.3	Autonomy	Responsibility for change is with the client
t1.4		Client is free to take counsel—or not
t1.5		Client presents arguments for change
t1.6	Collaboration	A partner-like relationship with the client
t1.7		Exploration rather than exhortation
t1.8		Support rather than persuasion or argument
t1.9	Evocation	Counselor does not IMPART things (wisdom, insight, reality)
t1.10		Find these things within and draw them out of the client
t1.11		Evoking, calling forth things within the client

t2.1 **Table 16.2** Principles of MI

t2.2	EARS	Description
t2.3	Express empathy	Seeking to understand the client’s feelings and perspectives without judging, criticizing does not mean agreement or approval.
t2.4		Acceptance and respect builds self-esteem and rapport
t2.5		
t2.6	Amplify ambivalence	May involve identifying and clarifying the <i>person’s own</i> goals and values which are in conflict with his behavior
t2.7		
t2.8	Roll with resistance	The client is not an opponent to be outsmarted or defeated
t2.9		Your response will influence whether resistance increases or diminishes
t2.10		
t2.11	Support self-efficacy	Support the client’s belief in his or her ability to succeed
t2.12		Hope and faith are important elements of change

332 Miller and Moyers (2006) assert that learning the
 333 spirit and philosophy of MI is the first step in the
 334 learning process and have included it in all of
 335 their training on MI. It is also the opinion of the
 336 authors that learning ACE and EARS is an inte-
 337 gral part of understanding MI as a therapeutic
 338 style to be followed by staff in the residential set-
 339 ting. The focus on ACE helps line staff identify
 340 the value of autonomy of the youth, and collabora-
 341 tion between staff and youth in promoting
 342 behavior change—concepts that were likely not
 343 trained or encouraged for staff who previously
 344 worked in traditional, correctional settings.
 345 Additionally, the principles, EARS, provide a
 346 guide for using the core counseling skills
 347 described in the second stage.

348 The second stage of learning MI is “OARS:
 349 Client-Centered Counseling Skills.” In this stage,
 350 participants become more comfortable practicing
 351 OARS: open questions, affirmations, reflective
 352 listening, and summarization. Depending upon
 353 the length of training available and the level
 354 of staff to be trained, the third stage may be tar-
 355 geted as well, “Recognizing Change Talk and

Table 16.3 Stages of learning MI

t3.1	Getting the spirit of MI	t3.1
t3.2	Developing client-centered skills (OARS)	t3.2
t3.3	Recognizing change talk	t3.3
t3.4	Rolling with resistance	t3.4
t3.5	Developing a change plan	t3.5
t3.6	Consolidating commitment	t3.6
t3.7	Integrating MI with other interventions	t3.7
t3.8		t3.8

Resistance.” This stage builds on the participants’
 356 skills in identifying change talk: desire, ability,
 357 reasons, and need for change. The third through
 358 eighth stages (see Table 16.3) can be targeted in
 359 future training sessions or “boosters” to gradu-
 360 ally build staff skills. Additionally, it remains to
 361 be seen how valuable these advanced skills are
 362 for line staff that are supporting the work of the
 363 counselors, not actually providing the individual
 364 therapy.
 365

366 Miller (MINT 2004) suggests that to provide
 367 an introduction to MI, allow 2 h to 1 day. More
 368 advanced training levels require 2- to 4-day
 369 workshops, such as advanced clinical training,
 369

Put an E, A, R, or S in front of the statement that best represents that aspect of EARS. Each letter will be used only once.

— “I noticed yesterday that you walked away from your peer when he was trying to make you give him your snack. You handled that well.”

— “It’s difficult for you to understand the judge’s decision.”

— “You’d like to stay out of trouble, and you also aren’t sure you can avoid trouble and the people you’ve been hanging out with.”

STAFF: “Sounds like you’ve made up your mind.”

Fig. 16.1 EARS activity

370 supervisor training, and training for trainers. In
 371 the authors’ experience, the length of time
 372 devoted to training MI is dependent upon the
 373 experience level of the staff to be trained, as well
 374 as how the particular system has responded to the
 375 reform efforts. Line staff workers who continue
 376 to be resistant to the ideas presented in the reform
 377 of the system will have greater difficulty adapt-
 378 ing their supervision styles and “buying into” the
 379 spirit and principles of MI. Some line staff may
 380 require a considerable amount of time to assimilate
 381 MI concepts into their beliefs about juvenile
 382 supervision, and may need substantial support in
 383 applying the skills during training role-plays.
 384 These staff will also need a great deal of “on the
 385 job” support and skills reinforcement beginning
 386 soon after the formal training sessions.

387 **Basics of Motivational Interviewing**

388 *ACE and EARS.* To help staff understand what
 389 the “spirit” (or ACE) of MI looks like, a scripted
 390 scenario can be used. By having a couple of par-
 391 ticipants each read a role in a scripted scenario,
 392 trainee engagement in the learning process can
 393 be enhanced as well as providing a realistic situ-
 394 ation from which to learn about the therapeutic

395 aspects of ACE. To help trainees apply the prin-
 396 ciples (EARS), sample statements are used to
 397 identify which aspect of EARS is best reflected
 398 (see Fig. 16.1). This helps participants better
 399 identify how the principles may be enacted.

400 *OARS.* There are many activities to practice the
 401 counseling skills described as OARS. Each skill
 402 is explained and then demonstrated. It is helpful
 403 to demonstrate the application of these skills in
 404 an unscripted, live role-play. It is difficult to find
 405 video demonstrating MI with an adolescent client.
 406 Vignettes found on MI training videos (for
 407 example, Miller et al. 1998) are *counseling ses-*
 408 *sions.* It is the experience of the authors that
 409 direct care staff does not relate to vignettes and
 410 role-plays that sound like a counseling session.
 411 Additionally, counseling staff participating in
 412 facility-based training may not relate to vignettes
 413 in which the client does not act like the juveniles
 414 found in their facility.

415 *Open-ended questions.* When teaching open-
 416 ended questioning, it is helpful to ask trainees to
 417 create open-ended questions from sample closed-
 418 ended questions relevant to their work environ-
 419 ment (see Fig. 16.2). For example, “Do you like
 420 being here?” Participants can create several

Fig. 16.2 Open-ended questions

Open - Ended Question Activity

Closed - Ended Question	Open - Ended Question
Do you get along with your mother?	
Do you like the program here?	
Did your talk with the group go well?	
Where were you in your 4 th hour class?	
Do you like being here?	
Do you want to finish school?	
Do you want to tell me about your phone call?	

421 different options to form this question open-ended,
 422 such as “What do you think of it here?” “How do
 423 you like being here?” and “Tell me your thoughts
 424 about being here.” While this may seem basic,
 425 line staff may not have any previous training in
 426 communication techniques and find it challeng-
 427 ing to learn to distinguish the difference between
 428 closed- and open-ended questions as well as
 429 understand the therapeutic value. Staff who dem-
 430 onstrate competency in forming open-ended
 431 questions can assist fellow trainees during class-
 432 room activities.

433 *Affirmations.* Troubled youth often hear what
 434 they are doing wrong and how they should
 435 behave differently. Research shows that positive
 436 reinforcement is more reinforcing than punish-
 437 ment (Bandura 1969). Affirmations, or positive
 438 judgments, are an important part of building self-
 439 efficacy in our youth. One simple activity to
 440 practice affirmations is having the training class
 441 share an affirmation about each other. The par-
 442 ticipants can either pair up and share an affirma-
 443 tion with each other, or participants can simply
 444 volunteer an affirmation about their training
 445 class. The trainer can also use a “card sorting”
 446 exercise (Downey 2008). First, develop a list of
 447 positive attributes and create enough sets of these
 448 attributes using index cards sufficient for class
 449 size. Each class member should select several
 450 cards that represent qualities descriptive of him
 451 or her. Discuss why he or she selected particular
 452 qualities, how they are important to him/her and

how they may be used in reaching one’s goal for
 change. Another option is to have participants
 choose cards randomly, categorize the cards and
 discuss (1) which qualities are true for you now,
 (2) select one quality and talk about a time you
 best upheld that characteristic, and (3) select
 qualities that you would like to work on or further
 develop (Downey 2008).

Reflective listening. Teaching reflections can be
 the most challenging aspect for nonclinical staff
 learning MI. MI is often described as simple, but
 not easy to learn (Miller and Rollnick 2009). The
 authors often take a little more time walking
 through this skill. We find that reflections are
 most unlike a person’s natural communication
 style, and line staff may perceive this skill as
 “psychologist talk.” Most MI trainers will teach
 various levels of reflection (e.g., simple, double-
 sided, and exaggerated). The authors, however,
 suggest that when direct care staff are less likely
 to have previous education and training in basic
 counseling skills, the training should focus on
 making simple reflections, such as restating,
 rephrasing, and guessing emotions to express
 empathy. Start with sample statements the juve-
 niles may express. For example, the youth states,
 “The dorm supervisor is always on me, asking
 ‘Where you supposed to be?’ She’s picking on
 me.” The trainer asks participants to create a
 reflective statement. Multiple responses should
 be collected and processed to identify whether
 the responses represent reflective listening skills.

485 For additional practice, a “reflections-only round
 486 robin” can be used (MINT 2004). The trainer
 487 role-plays a client by stating something they are
 488 ambivalent or unsure about changing. Going
 489 around the room, the first trainee will respond
 490 with a reflection to the trainer’s statement. The
 491 trainer will then respond to the reflection. The
 492 next trainee will respond to the trainer’s last state-
 493 ment, and so forth. Skip any trainee who becomes
 494 stuck and come back to him/her. Trainees may
 495 require some coaching in developing appropriate
 496 responses.

497 Another reflection activity similar to the
 498 “round robin” is “batting practice” (MINT 2004).
 499 In this activity, the training class is lined up in a
 500 single row, and divided in half with the line lead-
 501 ers facing one another. The trainer instructs which
 502 line will portray the client and which line por-
 503 trays the staff person. The first “client” (or line
 504 leader A) pitches a resistant comment to the staff
 505 person he/she faces. The staff person (line
 506 leader B) responds using a reflective statement.
 507 For example, the “juvenile” may say, “I’ve asked
 508 for a new pair of tennis shoes for 3 days and no
 509 one seems to have time to get them.” The “staff”
 510 may then reply, “You sound frustrated because it
 511 seems staff aren’t listening to what you say you
 512 need.” The first set of line leaders then step to the
 513 back of the opposite line and the next set of “juve-
 514 nile” and “staff” role-play a resistant comment
 515 and a reflective response. Thus, the activity con-
 516 tinues until all participants have had the opportu-
 517 nity to provide a staff response. Trainers can
 518 provide coaching or discussion about each reflec-
 519 tion, and can provide support to those staff who
 520 are struggling.

521 *Summarization.* Summarization draws together
 522 the person’s own perspectives on change.
 523 Summarization is a special form of reflection that
 524 helps to recall the conversation, think of new
 525 ideas, plan next steps, and feel more confident
 526 about moving forward (Miller and Rollnick
 527 2002). Presenting several samples of summariza-
 528 tion may be helpful. Practicing summarization
 529 requires that trainees form groups, typically tri-
 530 ads in which members take turns role-playing
 531 client and staff along with one member acting as

observer to record the number and type of 532
 MI-consistent and nonconsistent skills (see 533
 Fig. 16.3). Since many trainees may be new to 534
 the care of juveniles, index cards with brief sce- 535
 narios are provided (see Fig. 16.4 for examples). 536
 The triads conduct the role-play for approxi- 537
 mately 3 min. When the trainer calls “time to 538
 summarize” the trainee role-playing the staff 539
 should summarize the session to that point. The 540
 observer then shares his/her observations of the 541
 use of OARS and any responses that were incon- 542
 sistent with MI. 543

544 *Traps.* Miller and Rollnick (2002) present several
 545 “traps” that inhibit motivation and can lead to
 546 increased resistance to change. These traps are
 547 *question–answer*, *taking sides*, *premature focus*,
 548 *blaming*, *expert*, and *labeling*. In the *question–*
 549 *answer trap*, the counselor asks a series of ques-
 550 tions to which the client provides only short
 551 answers. This may result in the client feeling
 552 interrogated. Staff members who argue for a par-
 553 ticular change or side with another individual are
 554 falling into the *taking sides trap*. In this trap, the
 555 client will perceive the counselor as an adversary.
 556 For youth in juvenile justice, the client has lost
 557 his advocate. In the *premature focus trap*, the
 558 counselor focuses too quickly on a specific prob-
 559 lem or aspect of a problem. This could result in
 560 an increase in client resistance or focusing on an
 561 unnecessary or secondary issue. The *blaming*
 562 *trap* can occur in juvenile justice settings; par-
 563 ticularly, when blaming is confused with account-
 564 ability. Juveniles will likely blame others for their
 565 problems. Additionally, a counselor may wish to
 566 show the client how he or she is at fault. This is
 567 not helpful to enhance engagement and does not
 568 promote accountability with the youth. The coun-
 569 selor in the *expert trap* conveys the impression of
 570 having all the answers (Miller and Rollnick
 571 2002). While there is a time for the counselor to
 572 give an opinion or advice, the client is viewed as
 573 the expert. The authors created a trap titled the
 574 “Fixing Trap” (as seen in the vignette at the intro-
 575 duction of this chapter) to bring attention to the
 576 tendency of nonclinical staff to placate juveniles
 577 in an attempt to “fix” the juvenile’s feelings, or to
 578 “fix” the problem by offering solutions without

Name of participant in "staff" role: _____

Name of observer: _____

<i>Technique</i>	How many times technique used?	Comments
Open-ended questions		
Affirmations		
Reflections		
Gave advice/suggestions		
Asked closed-ended questions		
Tried to make him feel better: "It'll be all right"		
Argues his/her side: "Yes, but...."		
Lecture/Explains to the youth rather than elicit from him		

Fig. 16.3 Triad exercise

<p>SCENARIO</p> <p>The youth is having problems with another youth on the dorm. The youth, who was his best friend on the "outside," is also his co-defendant, and was responsible for the drug deal which put them in the facility.</p>	<p>SCENARIO</p> <p>The youth gets a phone call from his mother telling him she was evicted and has to move out of their apartment. She has no money.</p>
<p>SCENARIO</p> <p>The youth was trying to help another youth through a problem. They continued their discussion in the classroom, and as a result, got in trouble with the teacher. When trying to explain the situation, a security staff intervened and the youth was written up for disobedience.</p>	<p>SCENARIO</p> <p>The youth has several medication refusals and tells you he doesn't like the side effects of the medication he's taking.</p>

Fig. 16.4 Sample scenarios

t4.1 **Table 16.4** DARN-C: Types of change talk

t4.2	Type	Example statement
t4.3	Desire	“I don’t want my anger to get out of control like that anymore.”
t4.4		
t4.5	Ability	“Once I make up my mind to change, I know I can do it.”
t4.6		
t4.7	Reason	“I need to do this for my baby. I need to stay out of jail for her sake.”
t4.8		
t4.9	Need	“If I don’t change my ways, I’m going to end up here again.”
t4.10		
t4.11	Commitment	“I can do this. I am going to make this change.”
t4.12		

579 first hearing the youth and enhancing his ability
 580 to solve his problem. This trap, however, can fit
 581 with Miller and Rollnick’s (2002) *expert trap*.
 582 Lastly, the addictions field tends to fall into the
 583 *labeling trap*: trying to convince the client that
 584 he or she is an alcoholic or an addict. In juvenile
 585 justice, labels such as “thug,” “no good,” “stupid,”
 586 and “little criminal” are equally as unhelpful.

587 The authors created scripts for each trap to
 588 demonstrate these communication barriers as
 589 they might be seen in a residential setting with
 590 juvenile offenders. These scripts were created
 591 based on the experiences of the authors working
 592 in the setting as well as observations of staff who
 593 have engaged in these traps while communicat-
 594 ing with the juveniles in their care.

595 *Follow-up.* It is important to remember that a
 596 workshop alone is insufficient to learn and apply
 597 MI techniques. Support and coaching in the work-
 598 place should follow training (Miller et al. 2006).
 599 Future in-service training can provide “boosters”
 600 to refresh line staff on the concepts and techniques
 601 of MI as well as gradually introduce more com-
 602 plex skills depending upon the development of the
 603 line staff. For example, in-service trainers may
 604 focus on stage 3, “Recognizing and Reinforcing
 605 Change Talk” (Miller and Moyers 2006). As with
 606 the scripted “traps,” similar role-plays can be cre-
 607 ated to demonstrate types of “change talk” (char-
 608 acterized by desire, ability, reason, need, and
 609 commitment; see Table 16.4) followed by group
 610 triads for role-play practice. The observer can use
 611 a recording sheet similar to Fig. 16.3 except with
 612 the five kinds of change talk listed.

613 A model of supervision should be considered
 614 when implementing MI with line staff. Traditionally,

clinical staff receives clinical supervision, and 615
 line staff receives “training” through preservice 616
 and in-service training events, administrative 617
 supervision, and possibly mentoring. Supervision 618
 can help staff build their MI “muscles.” The 619
 development of a model for clinical supervision 620
 of line staff is of interest to the authors. From the 621
 literature on clinical supervision, we can consider 622
 key methods for supervision and determine what 623
 will work best for the agency’s needs and avail- 624
 able resources. Relevant methods for line staff 625
 include direct observation, case consultation 626
 (structured presentation of a situation) or verbal 627
 self-reports the line staff brings to the supervision 628
 session. Additionally, co-facilitation and model- 629
 ing in the general milieu may be helpful, as well 630
 as role-playing during supervision sessions. 631
 Similar to videotaping of counseling sessions, 632
 some settings may have surveillance video that 633
 may be useful to process certain incidents that 634
 occur between staff and juveniles. Methods such 635
 as written reports may be less useful, although 636
 may provide a starting point for the supervision 637
 sessions. Resources are often limited when large 638
 numbers of line staff are required for 24-h care, 639
 therefore establishing a group supervision sched- 640
 ule is likely the most practical use of resources. It 641
 is the belief of the authors that investment in 642
 weekly, biweekly or monthly supervision will 643
 ultimately pay off in terms of staff development 644
 and retention. 645

Limitations 646

MI is increasingly popular for counselors and 647
 probation/parole officers due to the resistance to 648
 change faced when working with criminal justice 649
 populations. This popularity, however, does not 650
 mean that it is a comprehensive approach to treat- 651
 ment. MI is a “particular tool for addressing a 652
 specific problem: when a person may need to 653
 make a behavior or lifestyle change and is reluc- 654
 tant or ambivalent about doing so” (Miller and 655
 Rollnick 2009, p. 136). Additionally, when work- 656
 ing with difficult youth, other “tools in the tool- 657
 box” are needed. Communication styles can be 658
 broken into three styles (1) instruction, (2) listen, 659
 and (3) guide. The usefulness of each depends 660

661 upon the situation. Role-plays can be useful to
 662 help staff learn when (and how) to use MI skills,
 663 yet working with the juveniles in the milieu pres-
 664 ents its own challenges as situations are not so
 665 neat as they are in the training classroom. Each
 666 youth brings his/her own traits, characteristics,
 667 and issues to the interaction as well as the staff
 668 person's characteristics and personal communica-
 669 tion style. The agency's training program should
 670 consider how these communication styles will be
 671 addressed in the curricula.

672 Summary

673 The application of MI in criminal justice settings
 674 is well-documented. William Miller stated, "I
 675 am, on reflection, particularly thankful that there
 676 seems to be interest and openness to a personally
 677 respectful MI approach within criminal justice
 678 settings" (Walters et al. 2007, p. xiii). There is
 679 growing empirical evidence of the application of
 680 MI by counselors and probation/parole officers in
 681 the criminal justice setting and by paraprofes-
 682 sionals and trained peer counselors in health set-
 683 tings. Wood et al. (2011) found many agencies in
 684 Southeast Louisiana training line staff in MI
 685 techniques to work with adult and adolescent
 686 substance-involved clients. The empirical evi-
 687 dence supporting the training and implementa-
 688 tion of MI by line staff is lacking; however, the
 689 literature supporting the efficacy of MI in general
 690 is quite positive. This chapter discussed how MI
 691 techniques may be applied by line staff as a com-
 692 munication style in the general milieu as well as
 693 implications for training in MI. More research is
 694 needed to test the efficacy of training line staff as
 695 well as demonstrate the clinical impact of imple-
 696 menting MI in juvenile justice settings.

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At the Junction of Personality Theories: Working with Juvenile Offenders

Elena L. Grigorenko

Rule breaking (Tremblay 2010), impulsivity, need for stimulation, social immaturity (Forth and Burke 1998; Skeem and Cauffman 2003), and oppositional behavior within the context of autonomy seeking (Chen 2010) and identity development (Josselson 1989) are considered by many developmentalists to be important components of normative adolescence. In general, familial and societal sensitivity to these behaviors is rather high and societal structures tend to exercise a considerable amount of tolerance and forgiveness toward such developmental events when they occur during adolescence (Wästerfors 2009). Yet, the majority (if not all) of the developed and many developing countries (Feld 1999) have a juvenile justice system (United Nations 1985, 1990a, b), according to which certain acts committed by juveniles—typically defined as individuals up to 17 years of age (United Nations 1989)—are singled out because of the severity or repeated nature of their acts against societal rules, which are dealt with legally. There are multiple points of entry into the juvenile justice system; the individuals within this system are referred to as juvenile offenders, meaning that they have offended societal rules and these offenses were serious (or frequent) enough not to be forgiven

by the society. Yet, the fact of committing such serious or frequent offenses is, perhaps, one of the very few common denominators of this relatively small group of children and youth. Juvenile offenders vary tremendously in the offenses they commit and the trajectories that bring them to and follow from these offenses (Le Blanc 1998); correspondingly, understanding and characterizing their trajectories might enhance attempts at prevention and rehabilitation.

This relatively small portion of children and youth (again, typically ranging between 10 and 17 years of age, but with variations between states even within a single country, such as the USA) attracts a considerable amount of interest and consumes a considerable amount of resources in modern societies. This is explained by a number of factors, among which are the propensity of developed countries to rehabilitate rather than punish their children and youth (with rehabilitation being much more expensive than punishment), and to attempt to prevent future crimes, given that a substantial portion of adult criminals have had encounters with juvenile courts. This interest is also driven by the accumulating evidence, derived mostly from large-scale longitudinal birth cohort studies (e.g., Wolfgang et al. 1972, 1987) as well as research on repeat offenders (DeLisi 2001, 2005; Loeber and Farrington 1998) that the majority of all crimes and, in particular serious crimes, are committed by a relatively small set of juvenile offenders (Moffitt 1993), both when they are juveniles and then later in their lives as adults. To emphasize what

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66 appears to be a life-long trajectory of crime, these
 67 individuals are referred to in the literature as
 68 career criminals (DeLisi 2005). They are often
 69 characterized by a set of academic problems
 70 (e.g., truancy, underachievement, suspension, and
 71 dropout) as well as mental health problems (e.g.,
 72 substance use problems and a variety of develop-
 73 mental and personality disorders), and are dispro-
 74 proportionately victims of violence themselves.

75 Due to the accumulation of data substantiating
 76 the observations above, the science of criminol-
 77 ogy has started paying much more attention to
 78 sources of individual differences in all juvenile
 79 offenders and, more particularly, in serious
 80 offenders and career criminals. The field, previ-
 81 ously dominated primarily by sociological theo-
 82 ries of crime, is now much more balanced; today,
 83 there are numerous theories of juvenile antisocial
 84 behavior that both originate from and contribute
 85 to the field of personality (Caspi et al. 1994;
 86 Miller and Lynam 2001; Raine 2002). These theo-
 87 ries have emerged from a substantial literature
 88 reporting on studies carried out within particular
 89 major personality theories (e.g., dispositional
 90 (trait) perspective, psychodynamic, social cogni-
 91 tive) and their crossroads. These studies unfold at
 92 the junction of various traditions of personality
 93 psychology, capitalizing on the multitude of
 94 approaches developed within Allport's (1937)
 95 classical subdivision of nomothetic and idio-
 96 graphic approaches to personality.

97 The goal of this essay is to provide an abbrevi-
 98 ated overview, a snapshot, of applications, both
 99 current and potential, of various theories of per-
 100 sonality to the field of juvenile forensic psychol-
 101 ogy, specifically, in the field's attempt to
 102 understand sources of individual differences in
 103 juvenile offenders. The essay does not intend to
 104 carry out a critical comparative analysis or to
 105 arrive to a particular recommendation. It is meant
 106 to provide a description of the current "state of
 107 affairs" with regard to the junctions of various
 108 theories of personality and both psychological
 109 research and practice with juvenile offenders.
 110 It is also intended to contextualize specific con-
 111 structs, theories, and assessments, particularly
 112 the latter, since these are often used in forensic
 113 practice in a decontextualized way, without

114 recognition or acknowledgment of the particular
 115 theoretical framework in which and for which
 116 these assessments were developed.

117 Correspondingly, the essay is structured as a
 118 sequential overview of various personality-
 119 oriented approaches to understanding heteroge-
 120 neity among juvenile offenders. It is important to
 121 clarify here that behaviors that are classified as
 122 offenses (either criminal offenses, i.e., violations
 123 of the law, or status offenses, i.e., demonstration
 124 of behaviors that violate the status of the minor—
 125 an individual under a particular age that is consid-
 126 ered to be the age of majority) vary in different
 127 societies. Moreover, once again, juvenile offend-
 128 ers constitute a small portion of all juveniles,¹
 129 although many juveniles, in lieu of developmental
 130 transitions into adulthood, break norms. The
 131 notion promoted in this essay is that juvenile
 132 offenses arise, as it were atop an iceberg, where
 133 societal, communal, family, and individual factors
 134 operate. It has been assumed that, among individ-
 135 ual factors predisposing for committing an offense
 136 as a juvenile, personality factors play a substantial
 137 role. Thus, juvenile offenders do possess the
 138 trait of juvenile delinquency, but possess particu-
 139 lar personality traits that, perhaps, form or con-
 140 tribute to the propensity for such offenses.

141 The essay starts with personality-trait-based
 142 approaches, continues with typologies of juvenile
 143 offenders, reflects on the influences of psychody-
 144 namic ideas, continues with a discussion of the
 145 impact of social cognitive theories, and com-
 146 ments on the potential of life-narrative-oriented
 147 approaches to juvenile delinquency. The key
 148 observation that crystallizes at the end of this
 149 essay is that there are multiple applications of
 150 personality-oriented approaches in working with
 151 juvenile offenders. No single theory or approach
 152 has been instrumental in solving the many

¹To illustrate, the state of Connecticut had 841,688 chil-
 dren under the age of 18 in the year 2000; there were
 1,600 unique admissions to detention centers that year.
 Thus, only ~0.002% of children under the age of 18 are
 detained. This is a rough estimate (not corrected for age
 bands), but it provides the reader with an idea of "prevalence"
 of juvenile offenders in the general population of
 children and adolescents.

153 complex tasks faced by the field, but, collec- 198
 154 tively, they provide an integrated framework for 199
 155 the everyday operations of the field of forensic 200
 156 juvenile psychology. In fact, what many research- 201
 157 ers and practitioners in the field are finding is 202
 158 that their operations unfold at the junction of 203
 159 personality theories, utilizing ideas, approaches, 204
 160 and instruments from the field of personality 205
 161 at large. 206

162 Personality Traits

163 There is a large body of the literature investigat- 210
 164 ing the connections between personality traits 211
 165 and delinquent and antisocial behavior, both in 212
 166 juveniles and adults. Traits are viewed as habitual 213
 167 patterns of behaving, thinking, and feeling (Kassin 214
 168 2003). Personality traits (unlike personality states) 215
 169 are viewed as stable within an individual across 216
 170 the lifespan, but variable across individuals at 217
 171 any given moment. The fundamental assumption 218
 172 of the trait theories of personality is that traits are 219
 173 latent indicators of humans that can be relatively 220
 174 accurately assessed by a set of statements judged 221
 175 by a person him/herself as characteristic (or not) 222
 176 of his personality and that these latent indicators 223
 177 are predictive of observed indicators such as 224
 178 behavior, feelings and emotions, and relation- 225
 179 ships. As there is an endless number of statements 226
 180 that can be generated about habitual patterns of 227
 181 human lives, the dominant approach to reducing 228
 182 the dimensionality of the resulting collections of 229
 183 statements has been factor analysis. The assump- 230
 184 tion here is that these statements cluster together 231
 185 providing, collectively, an indicator of a particu- 232
 186 larly empirically derived trait of personality. 233
 187 Having early ideas introduced by Allport (1937), 234
 188 today's scientists differentiate primary (typically 235
 189 referred to as traits or higher-order traits) and 236
 190 secondary (typically referred as facets of lower- 237
 191 order traits) personality traits. It has been sug- 238
 192 gested that three (Eysenck 1967, 1991) to five 239
 193 (Costa and McCrae 1992; McCrae and Costa 240
 194 1987) primary personality traits are sufficient to 241
 195 describe the major dimensions of an individual's 242
 196 personality; yet, these suggestions are not univer-
 197 sally accepted (Saucier and Goldberg 1998). It is

important to note that pretty much every trait 198
 theory of personality has an assessment device 199
 based on it; in addition, there are many atheoret- 200
 ical (i.e., not linked to any particular personality 201
 theory) personality inventories. 202

Numerous personality inventories (and, cor- 203
 respondingly numerous trait theories) have been 204
 utilized in forensic settings. An important differ- 205
 entiation of these inventories and theories, how- 206
 ever, is whether they focus on typical (i.e., those 207
 that are present and distributed in the general 208
 population) or atypical (i.e., those that are derived 209
 in the context of studying specific subpopulations 210
 and are present in the general population at a very 211
 low frequency) traits. 212

Typical Personality Traits and 213 Their Associations with Delinquent 214 and Antisocial Behavior 215

Theories of normal personality (John et al. 2008; 216
 McCrae and Cost 2008), and thus, assessment 217
 devices that capture typical personality charac- 218
 teristics, have been applied in forensic settings. 219
 For examples, using the data generated by 220
 Tellegen's assessment of the Big Three—the 221
 Multidimensional Personality Questionnaire, 222
 MPQ (Tellegen 1985)—and numerous assess- 223
 ments of the Big Five (Heaven 1996; Krueger 224
 et al. 1994; Miller and Lynam 2003), Miller and 225
 Lynam (2001) carried out a meta-analysis and 226
 reported that, across different personality inven- 227
 tories, there are similar personality traits that 228
 exhibit robust associations (either negative or 229
 positive, depending on the texture of the trait) 230
 with delinquent and antisocial behavior, namely 231
 agreeableness ($d=0.37$), conscientiousness 232
 ($d=0.25$), and to a lesser degree, neuroticism 233
 ($d=0.09$). Similarly, yet another meta-analysis 234
 (Malouff et al. 2005), also highlighted these traits 235
 with the behaviors in question, with large effect 236
 sizes ($d=0.80$ for agreeableness and $d=0.64$ for 237
 conscientiousness). In addition, there have been 238
 investigations of lower-order facets of broad per- 239
 sonality traits; these facets have been reported to 240
 be more sensitive and differentiating clinically 241
 (De Clercq and De Fruyt 2003; Paunonen and 242

243 Ashton 2001). The lower-order facets that have
 244 been shown to be associated, also with a rela-
 245 tively impressive effect size (~20–25% variance
 246 explained), with delinquent and antisocial behavior
 247 were trust—agreeableness, excitement-seeking—
 248 extroversion, self-discipline—conscientiousness
 249 (Heaven 1996) and straightforwardness and
 250 compliance—agreeableness and deliberation—
 251 conscientiousness (Miller et al. 2003). The appar-
 252 ent nonoverlap in facets, although there is a
 253 consistent overlap in traits, can be explained, at
 254 least in part, by the fact that in both studies the
 255 decision was made to examine only a subset of
 256 the 30 facets. Of note also is the observation
 257 (Trull et al. 2001) that a lower-order facet may be
 258 associated with the behavior in question even
 259 though the higher-level trait might not (e.g.,
 260 extroversion, Heaven 1996). This general pattern
 261 of findings indicating the presence of the link
 262 between personality traits and delinquent and
 263 antisocial behavior, obtained in college (Heaven
 264 1996) and community (Miller et al. 2003) sam-
 265 ples, has been observed, with certain specific dis-
 266 crepancies, in a comparative study of juvenile
 267 delinquents and normative peers (Corff and
 268 Toupin 2009). Specifically, the two groups varied
 269 significantly, with observed effect sizes from
 270 medium ($d=0.40$) to large ($d=0.93$) on two traits,
 271 agreeableness ($d=0.78$) and neuroticism ($d=0.65$),
 272 and 12 facets (angry hostility—neuroticism,
 273 depression—neuroticism, impulsiveness—neuro-
 274 ticism, vulnerability—neuroticism, warmth—
 275 extroversion, excitement-seeking—extroversion,
 276 values—openness, trust—agreeableness, straight-
 277 forwardness—agreeableness, compliance—agree-
 278 ableness, tender-mindedness—agreeableness,
 279 competence—conscientiousness). One notable
 280 specific group discrepancy was the lack of differ-
 281 ences between the two groups on the trait of con-
 282 scientiousness. Interestingly, in another study, the
 283 conscientiousness—delinquent/antisocial behav-
 284 ior connection was missing (Van Dam et al.
 285 2005). Another group discrepancy, mentioned in the
 286 literature before, but to a lesser degree (e.g., Ferrer
 287 et al. 2010), concerned the trait of neuroticism.
 288 Interpreting these differences in findings, research-
 289 ers (Corff and Toupin 2009) have pointed out
 290 the most obvious causes of the discrepancy—the

differences in the natures (college, community, 291
 and youths with delinquent records), constella- 292
 tions (both or only one gender) and sizes of the 293
 samples. Thus, although there appears to be a 294
 robust general connection between particular 295
 typical personality traits and facets, and delin- 296
 quent and antisocial behavior, specifics of this 297
 connection might vary depending on demo- 298
 graphic and other factors. It has also been 299
 observed that, although these traits appear to dif- 300
 ferentiate samples with and without records of 301
 delinquency, they do not appear to differentiate 302
 incarcerated male juveniles by offense type or 303
 severity, while other factors (e.g., trajectory of 304
 criminal development and a possible neuro- 305
 maturational gap) do appear to do so (Nederlof 306
 et al. 2010). Similarly, typical personality traits 307
 have not been found to be powerful predictors of 308
 recidivism; once again, other factors, such as 309
 demographic characteristics and previous inter- 310
 actions with the court seem, to be more powerful 311
 predictors of reoffending (Trulson et al. 2005; 312
 van der Geest and Bijleveld 2008; van der Geest 313
 et al. 2009). Yet, it is important to note that typi- 314
 cal personality traits demonstrate associations 315
 with a broad range of other delinquent behaviors, 316
 such as illicit drug use (Hundley 1986), nicotine 317
 and alcohol use (Elkins et al. 2006), substance 318
 abuse (Martins et al. 2008), delinquent sexual 319
 behaviors and maladaptive sexual attitudes 320
 (Bogaert 1993). 321

Atypical Personality Traits 322
and Their Associations with Delinquent 323
and Antisocial Behavior 324

Atypical personality traits are those that, although 325
 present in the general population, appear to be 326
 either rare or not normally distributed. Their appear- 327
 ance in the literature is typically associated with 328
 studies of a particular group or groups of individu- 329
 als that are distinct from the general population 330
 (e.g., individuals with schizophrenia or individuals 331
 with criminal records). In an attempt to character- 332
 ize these differences, psychologists and psychiatrists 333
 have developed constructs capturing these atypical 334
 traits and generated corresponding theories. 335

336 Although applicable in specific inquiries with
337 the general population, the Minnesota Multiphasic
338 Personality Inventory (MMPI) was designed, in
339 part, to be used with a forensic population and is
340 the most frequently used self-report instrument
341 utilized in forensic settings (Pope et al. 2000)
342 due, largely, to the availability of corresponding
343 validated scales to assess response validity
344 (Strong et al. 2006). There are volumes of
345 research on the MMPI, making it one of the most
346 empirically grounded personality assessment
347 devices. Although researched less than the
348 MMPI, the Minnesota Multiphasic Personality
349 Inventory—Adolescent, MMPI-A (Butcher et al.
350 1992), is also supported by hundreds of empirical
351 publications (Baum et al. 2009). When these pub-
352 lications are considered collectively (Baum et al.
353 2009), it appears that group indicators for sam-
354 ples of juvenile offenders are subclinically ele-
355 vated (i.e., elevated right up to below the clinical
356 threshold) on basic (psychopathic deviate, *Pd*;
357 paranoia, *Pa*; and hypomania, *Ma*) and content
358 scales (conduct disorders, *A-con*; school prob-
359 lems, *A-sch*; and negative treatment indicators,
360 *A-trt*). In addition, the MMPI-A has been stated
361 to be externally valid, with the most powerful
362 predictor variables exerting medium to large
363 effect sizes (Baum et al. 2009). Overall, it seems
364 to function well with juvenile offenders (Hand
365 et al. 2007; Hays and McCallum 2005; Pinsonneault
366 2005). To illustrate, juvenile male offenders were
367 reported to be distinguished, as a group, from
368 juvenile male psychiatric patients by multiple
369 scale scores, including infrequency (i.e., the tes-
370 tee “faking bad”) 2 (*F2*), social avoidance (*Si2*),
371 repression (*R*), and alcoholism (MacAndrews
372 Alcoholism Scale Revised, *MAC-R*) (Archer
373 et al. 2003). There is also evidence that numerous
374 MMPI-A validity and clinical scales can be
375 instrumental in distinguishing male and female
376 adolescents in a correctional sample from non-
377 correctional adolescents, and adolescents in cor-
378 rectional facilities faking good (Stein and Graham
379 1999). The same researchers investigated the
380 capacity of the lie scale (*L*) to differentiate,
381 among incarcerated teens, substance abusing and
382 non-substance abusing youth, when they filled
383 out the MMPI-A under two instructions, the stan-

384 dard and the instructions to fake good (Stein and
385 Graham 2005). It has also been reported that the
386 *F*, *F1*, and *F2* scales and the *F-K* index (i.e.,
387 infrequency-defensiveness) discriminated ade-
388 quately between groups of nonclinical adoles-
389 cents instructed to fake bad and both the clinical
390 and nonclinical adolescents who received stan-
391 dard instructions (Lucio et al. 2002). There are
392 also data on the prediction of recidivism, with
393 both basic (*Pd*) and content (*A-con*) scales
394 accounting for 32% of the variance in recidivism
395 (Peterson and Robbins 2008).

396 A fertile construct in research on individuals
397 with criminal careers (i.e., individuals who first
398 offend as juveniles and then remain on the crimi-
399 nal path through the majority of their lifespan)
400 has been the construct of psychopathy. It has long
401 been present in the literature, but its penetration
402 into mainstream psychological research has not
403 been without controversy (Vaughn and Howard
404 2005). There are many definitions of psychopa-
405 thy (Cleckley 1976; Hare 1996a, b; Lynam 2002;
406 McCord and McCord 1964), which differ on
407 many points, but they agree, in general, that this
408 construct may be conceived as a condition (psy-
409 chopathy), personality type (psychopathic per-
410 sonality) or personality trait of individuals,
411 primarily but not only (and more so recently)
412 males, who appear “aggressive, self-centered,
413 callous, guiltless, impulsive, sensation-seeking,
414 interpersonally exploitive, deceptive, low in fear
415 and anxiety, unable to learn socially approved
416 ways of satisfying immediate needs, and unable
417 to develop warm affective bonds with other per-
418 sons” (Vaughn et al. 2008, p. 408). Recently, there
419 has been a true explosion of research on psychop-
420 athy in childhood and adolescence. Here, only
421 major highlights of this research are presented.

422 Most researchers of criminal behavior and
423 psychopathy in adulthood agree that adult psy-
424 chopathy is one of the key indicators of repeated
425 violent offending (Patrick et al. 1996), and that
426 adult psychopathy appears to originate from
427 delinquent behaviors and other conduct problems
428 present at earlier developmental stages (Saltaris
429 2002). It has also been observed that the develop-
430 ment of psychopathy seems to be closely related
431 to experiences of trauma in childhood (Campbell

432 et al. 2004; Krischer and Sevecke 2008; Lang
433 et al. 2002). Yet, the literature is replete with
434 debates on whether psychopathy (or psycho-
435 pathic traits) in adulthood and childhood are the
436 same (Lindberg et al. 2009) and whether child-
437 hood psychopathy can be reliably assessed and
438 utilized as a prognosis indicator (Edens et al.
439 2001; Seagrave and Grisso 2002; Steinberg and
440 Scott 2003).

441 Depending on the specifics of the assessment
442 device used to assess psychopathy in children
443 and adolescents, it has been reported that 9–59%
444 of juvenile offenders demonstrate psychopathy-
445 like personality characteristics (Campbell et al.
446 2004). When characterized as a group compared
447 to other juvenile offenders, individuals with psy-
448 chopathic traits tend to commit violent acts,
449 higher in both number (Dembo et al. 2007;
450 Derefinko and Lynam 2007; Frick et al. 2003a)
451 and degree of seriousness (Caputo et al. 1999;
452 Kotler and McMahon 2005; Loper et al. 2001).
453 Juvenile offenders with (or with more) psycho-
454 pathic traits tend to demonstrate more institu-
455 tional violence while being detained or
456 incarcerated (Forth et al. 1990). In general, a
457 recent analysis has pointed out the presence of
458 consistent correlations (between 0.20 and 0.40)
459 between measures of violence and psychopathy
460 in 11 studies of juvenile offenders (Edens et al.
461 2001). Thus, juvenile offenders with psychopa-
462 thy or with higher scores on psychopathic traits
463 tend to be both more prominent (i.e., committing
464 more and more serious crimes) and noncompliant
465 with the juvenile criminal justice systems (DeLisi
466 and Vaughn 2008; Harpur and Hare 1994; Harris
467 et al. 1991; Porter et al. 2001; Vaughn and DeLisi
468 2008; Vaughn et al. 2007). Hence, at least con-
469 currently, the characteristics of juvenile psychop-
470 athy resemble that of adult psychopathy (Lynam
471 and Gudonis 2005). There is also evidence that
472 adolescent psychopathic features are quite stable
473 (Loney et al. 2007). Juvenile offenders possess-
474 ing these features tend to recidivate more quickly
475 (Långström and Grann 2002). It has also been
476 noted that these juveniles tend to be character-
477 ized by shorter periods between offending (Brandt
478 et al. 1997). Correspondingly, it has been argued
479 that psychopathy may be the single best predictor

480 of future violence and recidivism (Harris et al.
481 1991; Myers et al. 2010; Salekin et al. 1996;
482 Serin and Amos 1995), predicting multiple
483 dimensions of the delinquent career and over-
484 powering the effects of demographic and avail-
485 able risk factors (Vaughn et al. 2008).

486 Of note also is that the psychopathy trait
487 appears to be associated with important indica-
488 tors that, in turn, are often either characteristic or
489 predictive of delinquency and antisocial behav-
490 ior. Thus, youths possessing high level of, psy-
491 chopathic traits tend to be fearless, impulsive,
492 self-centered, and involved in multiple problem
493 behaviors (Vaughn et al. 2008). Moreover, juve-
494 niles with higher scores on the psychopathy trait
495 have been shown to exhibit worse performance
496 on neurological, attentional, and sometimes intel-
497 ligence testing (Hiatt et al. 2004). They also
498 appear to differ in the ways they process emo-
499 tional stimuli (Kimonis et al. 2008), which is
500 thought to be related to a weaknesses in the devel-
501 opment of the affective components of consci-
502 ence, a characteristic of psychopaths (Frick
503 and Morris 2004). Interestingly, when the con-
504 cept of psychopathy was just emerging in the lit-
505 erature, it was argued (Cleckley 1976) that
506 psychopaths were characterized by higher IQ
507 compared to their nonpsychopathic antisocial
508 peers. It appears, however, that this difference is
509 not substantiated; the literature reports either no
510 differences in IQ among psychopathic and
511 nonpsychopathic youths (Loney et al. 1998), or
512 that psychopathic youths have lower IQs (Hecht
513 and Jurkovic 1978). Also, it has been reported
514 that psychopathic youths are more likely to report
515 being subjected to harsh or maladaptive parent-
516 ing strategies (Farrington 2006). In addition,
517 there is also evidence that juveniles with the ele-
518 vated trait of psychopathy demonstrate higher
519 levels of substance use and abuse (Dembo et al.
520 2007; Derefinko and Lynam 2007; Taylor and
521 Lang 2006) and other mental health problems.

522 Also of interest is an observation that psychop-
523 athy, as a trait, is a complex construct itself. Of its
524 multiple factors and facets, whether empirically
525 or theoretically derived, it appears that the callous
526 and unemotional aspect of psychopathy has a par-
527 ticular association with delinquent and antisocial

528 behavior. For example, it has been reported that
529 juvenile sex offenders who earn high scores on
530 callousness and unemotionality had a greater
531 number of sexual offense victims, used more vio-
532 lence with their victims, and engaged in more
533 sexual offense planning than those low on these
534 traits (Lawing et al. 2010). Similarly, the impor-
535 tance of this facet of psychopathy has been dem-
536 onstrated longitudinally. Specifically, the degrees
537 of callousness and unemotionality measured in
538 seventh grade were highly predictive of five of the
539 six antisocial outcomes—general delinquency,
540 juvenile and adult arrests, and early adult antiso-
541 cial personality disorder criterion count and diag-
542 nosis (McMahon et al. 2010). Callousness and
543 unemotionality, along with impulsivity and irre-
544 sponsiveness, have been reported to be good con-
545 current predictors of violent and nonviolent
546 delinquency, delinquency versatility, and risky
547 sexual behavior in a Croatian sample of nonre-
548 ferred children and adolescents (Ručević 2010).
549 Of interest is that impulsivity and irresponsive-
550 ness were reported to manifest themselves differ-
551 entially for boys and girls: for boys, they had
552 stronger associations with nonviolent delinquency
553 and delinquency versatility, but for girls—with
554 risky sexual behavior (Ručević 2010).

555 Yet, as mentioned above, there is considerable
556 debate pertaining to both the validity and reliabil-
557 ity of the assessment of psychopathy in children
558 and adolescents due to concerns about the stabil-
559 ity of this trait. The substantial general develop-
560 mental literature suggests that personality traits
561 in general tend to manifest and coalesce in mid-
562 dle childhood but do not crystallize and become
563 stable until late adolescence or early adulthood
564 (Seagrave and Grisso 2002). Correspondingly,
565 there are concerns that the predictive power of
566 various measures of psychopathy in children and
567 adolescents might be limited to concurrent asso-
568 ciations (Edens and Cahill 2007). The empirical
569 literature committed to this issue, at this point,
570 cannot be interpreted unequivocally. For exam-
571 ple, researchers (Caffman et al. 2009) used three
572 distinct approaches [a clinical interview method—
573 the Psychopathy Checklist: Youth Version, PCL:YV
574 (Forth et al. 2003), a self-report measure—the
575 Youth Psychopathic Traits Inventory (Andershed

576 et al. 2002), and a personality-based approach—
577 the NEO Psychopathy Resemblance Index
578 (Lynam and Widiger 2007)] to quantify juvenile
579 psychopathy in a large-n study of short- and long-
580 term recidivism. Quantitatively, the data showed
581 a rather limited overlap between the three indica-
582 tors (the correlations ranged from 0.26 to 0.36)
583 and, qualitatively, there were substantial mea-
584 sure-based discrepancies between labeling indi-
585 viduals as psychopathic or not. Moreover, the
586 long-term predictive power was reported to be
587 low. The researchers interpreted these findings as
588 raising serious concerns about the use of these
589 measures for legal or clinical treatment decisions
590 (Caffman et al. 2009). Other studies indicate
591 that psychopathy can be reliably assessed in
592 childhood and adolescence, and that psycho-
593 pathic traits are relatively durable (Frick et al.
594 2003b; Lynam 2002; Moffitt et al. 2002). For
595 example, some researchers (Lee et al. 2009) indi-
596 cate moderate to high stability of psychopathic
597 traits, as indexed by total scores, and low to mod-
598 erate stability of psychopathic traits at the factor
599 (and facet) level. Of note also is that, when homi-
600 cidal juveniles and adults were compared, both
601 samples had distinct psychopathic subgroups,
602 but there were age-related differences in the
603 manifestations of factors and facets (Lindberg,
604 et al. 2009). Finally, it is important to state
605 that psychopathy is not the only “rare” trait that
606 has been investigated as a predictor of delin-
607 quency. Although substantially lower in numbers,
608 there are publications on other traits, such as
609 Machiavellian and sadistic traits, which, along
610 with narcissism have been described as the “Dark
611 Triad” of personality (Jakobwitz and Egan 2006;
612 Lee and Ashton 2005; Paulhus and Williams
613 2002). For example, results from one study
614 (Chabrol et al. 2009) indicated the promise of
615 considering sadistic traits as predictors of juve-
616 nile delinquency (i.e., committing offenses as a
617 minor). Yet another study stressed the importance
618 of considering the role of early manifested malev-
619 olent aggression (Clarbour et al. 2009).

620 In summary, there is a vibrant and productive
621 subfield of research and practice in forensic juve-
622 nile psychology that engages trait approaches to
623 personality. This field utilizes multiple theories

(and, correspondingly, multiple inventories) of personality, but the general premise of this utilization is shared by all professionals in the field, which is to characterize, descriptively, personality traits of juvenile offenders, and attempt to use these descriptives (i.e., specific traits individually) or profiles (i.e., specific traits collectively) to predict behavior concurrently (i.e., institutional violence while being detained or incarcerated) or prospectively (i.e., recidivism). The consensus in the field is that the tremendous heterogeneity within juvenile offenders prohibits the possibility of a particular personality trait (or a specific constellation of traits) being referred to as “descriptive” or “prescriptive” of juvenile offenders. Yet, it looks like, as a group, juvenile offenders tend to be marked by elevations of a number of specific traits that, perhaps, as a constellation of risk factors, elevate the propensity for committing an offense. Correspondingly, when specific personality trait assessments are used in clinical or research work with juvenile offenders, the most common denominator of this usage is in providing specific insights into the propensity to recidivate, rather than to marking a particular trait as the basis of juvenile offense.

Taxonomies and Typologies

The realization that juvenile offenders are an extremely heterogeneous population is far from new (Ewing 1990). Yet, there is still no clear understanding of how this population can be subdivided into more homogeneous subgroups (Greco and Cornell 1992; Megargee 1970), either concurrently or prospectively (Frick 2004; Loeber 1996; Loeber et al. 1997), and whether such subdivisions can lead to treatment and prevention (Vaughn et al. 2008; Zagar et al. 2009). Influenced in part by early personality theories (Allport 1937) and in part by typological approaches from the hard sciences (Bryant 2000), the field of criminology has also developed a number of taxonomies and typologies to capture the heterogeneity of life trajectories and personalities among juvenile delinquents. The main premise of this research is that the complexity

and heterogeneity of delinquent and antisocial behavior cannot be captured by a single set of descriptors or a single etiological mechanism. In fact, coherent, internally consistent and distinct categories are needed to overcome and systematize the heterogeneity of the presentations and etiologies of delinquent and antisocial behavior (Gibbons 1975; Huizinga et al. 1991; Jones and Harris 1999; Lykken 1995; Moffitt 1993; Paternoster and Brame 1997; Van Voorhis 1994; Zhang et al. 2002).

Roughly speaking, taxonomic research in criminology can be subdivided into two large categories, although both the categories and their underlying foundation have been questioned in the literature (Britt 1994; Hirschi and Gottfredson 1994; Thagard 1992). One category is oriented toward behavior and unifies life and crime pathways that are assumed to differentiate distinct criminal careers (Nagin and Land 1993). The other category is oriented toward individual characteristics of offenders and is based on psychosocial, biological, personality, and other explanatory factors (Harris and Jones 1999; Lykken 1995; Mealey 1995; Moffitt 1993; Van Voorhis 1988). Of note, however, is that the creators of the first type of taxonomy (Lykken 1995; Mealey 1995; Moffitt 1993) often construct their classifications based on their analyses of the literature. Empirical evidence is not available to substantiate these typologies; they are essentially theoretical prototypes (Moffitt 2003) or armchair taxonomies (Lykken 1995) rather than empirically derived systems of offender classification. The contributors to the second category of taxonomies exercise dimensional approaches and are interested in developing general theories of delinquency and antisocial behavior (Osgood 2005; Sampson and Laub 2005). There are ongoing efforts to collect empirical data to falsify existing taxonomies, although the results of these studies are contradictory (Aalsma and Lapsley 2001; Harris and Jones 1999; Huizinga et al. 1991; Jefferson and Johnson 1991; Jones and Harris 1999; Mezzich et al. 1991; Nagin and Paternoster 2000; Potter and Jensen 2003; Skilling et al. 2001; Sorensen and Johnson 1996).

Recently, Brennan and colleagues (2008) summarized the literature and presented the following

717 typologies and taxonomies as the most prevalent
718 in the literature. The first type is referred to as *nor-*
719 *mal or situational offenders*. Individuals consti-
720 tuting this type are viewed as typical young people
721 who engage in minor accidental delinquent behav-
722 ior, which is thought to arise in stressful and dif-
723 ficult situations when normal coping strategies do
724 not function (Aalsma and Lapsley 2001; Huizinga
725 et al. 1991; Lykken 1995; Van Voorhis 1994). The
726 second type, according to Brennan and colleagues
727 (2008), is referred to as *socialized delinquents*,
728 *common sociopaths*, and/or *subcultural offenders*.
729 Individuals in this category, referred to as com-
730 mon sociopaths (Lykken 1995), subcultural iden-
731 tifiers (Warren 1971), socialized conformists
732 (Jesness 1988), secondary sociopaths (Mealey
733 1995), and lower class gang delinquents (Miller
734 1958), exemplify delinquent and antisocial behav-
735 ior that echoes social deprivation or reflects atyp-
736 ical socialization. Social deprivation and poor
737 socialization, in turn, are thought to arise in fami-
738 lies with incompetent or delinquent parents, in the
739 context of a delinquent peer group, and/or while
740 submerged in oppositional criminal subcultures.
741 The next category includes individuals who are
742 mostly adequately socialized, but, during their
743 adolescent years, temporarily (Moffitt et al. 2001)
744 identify with, mimic, or are associated with their
745 delinquents peers while forming autonomy,
746 searching for meaning, or solving other develop-
747 mental tasks. This type is referred to as *adoles-*
748 *cence-limited offenders* (Lykken 1995; Moffitt
749 1993). Brennan and colleagues' fourth type is
750 referred to as *neurotic or internalizing delin-*
751 *quents*. Social withdrawal, depression, social anx-
752 iety, hostility and mental health problems are
753 common in these individuals. Moreover, these
754 lives are often characterized by severe parental
755 abuse, interpersonal rejection and neglect.
756 Brennan and colleagues draw parallels between
757 individuals in this group and in the group of the
758 internalizing pattern of delinquency (Moffitt
759 2003). Finally, the fifth category includes *under-*
760 *controlled serious delinquents—impulsive and*
761 *unsocialized*. This is, clearly, the most serious cat-
762 egory, including individuals with early onset of
763 problem behaviors, serious versatile crimes and
764 such personality traits as impulsivity, risk-taking,

765 aggression, callousness, and superficial charm. 765
766 Other theorists refer to similar categories as life- 766
767 course persistent offenders (Moffitt 1993), pri- 767
768 mary psychopaths (Lykken 1995), primary 768
769 sociopaths (Mealey 1995), unsocialized psycho- 769
770 paths (Quay 1990), immature aggressive offend- 770
771 ers (Jesness 1988), and psychopaths (Frick 2004; 771
772 Hare 1996a, b; Skilling et al. 2001). In an attempt 772
773 to examine selected theoretical taxonomies 773
774 (Lykken 1995; Mealey 1995; Moffitt 1993), 774
775 Brennan and colleagues worked with two large 775
776 samples of delinquent youth (~1,500 individuals 776
777 each). It was reported that seven clusters recur- 777
778 rently emerged across replications, two of which 778
779 were analogous to Moffitt's two main categories, 779
780 and three—to Lykken's sociopathic, neurotic- 780
781 internalizing and normal types. Yet, the authors 781
782 remarked that both the statistical and content 782
783 properties of the classifications were not perfect 783
784 and further efforts were needed to clarify the find- 784
785 ings (Brennan et al. 2008). 785

786 The conclusion of Brennan and colleagues, in 786
787 general, illustrates the situation of the field, where 787
788 there are many only partially empirically sup- 788
789 ported and often contradictory typologies. There 789
790 are many reasons for such a state of affairs, rang- 790
791 ing from a principal question of applicability of 791
792 typological approaches to people whose behavior 792
793 and motivation are dynamic and unstable rather 793
794 than, let us say chemical elements whose proper- 794
795 ties are stable (Bryant 2000), to applied method- 795
796 ology issues (Lenzenweger 2004; Milligan 1996; 796
797 Wishart 2003). Most importantly, however, delin- 797
798 quent and antisocial behavior is marked by mul- 798
799 tiple complexities across multiple interacting 799
800 domains (Walsh 2002); with neither understood, 800
801 typologies might not be possible, at least at the 801
802 current stage of knowledge. 802

803 In summary, it is unclear, at least at this point, 803
804 whether typological approaches to juvenile 804
805 offenders, as developed with regard to both delin- 805
806 quent and antisocial behaviors and personality 806
807 typologies, are useful and, if yes, how productive 807
808 they are. So far, the most informative feature of 808
809 typologies is their inclusion in the recidivism fac- 809
810 tor (i.e., whether a person, after committing a 810
811 crime, recidivates or not). Yet, when defined on 811
812 the basis of recidivism, a typology can have only 812

813 historical value; in other words, a person can be
 814 categorized only after criminal behavior has been
 815 repeated (i.e., after the person has recidivated) or
 816 after the person’s life is over, or virtually over
 817 (i.e., while there is no “upper” limit for committing
 818 a crime, the likelihood of recidivating
 819 decreases among aging individuals).

820 **Psychodynamic Influences**

821 Juvenile forensic psychology and psychiatry has
 822 been heavily influenced by psychodynamic
 823 approaches to personality, with their capacity to
 824 utilize the depth of information and the breadth
 825 of observation pertaining to a single person
 826 (Westen et al. 2008). The heterogeneity of criminality,
 827 referred to above, also applies to every
 828 single individual within the juvenile justice system;
 829 these individuals are more different from
 830 each other than alike. Moreover, the last 20 years
 831 of developmental literature have convincingly
 832 shown that there is a tremendous amount of connectedness
 833 between victimization and perpetration; quite often,
 834 a child who is a victim of abuse is later an abuser
 835 him/herself. Clearly, psychodynamic theories of
 836 personality, with their rich texture of reliance on
 837 early developmental stages, have much to contribute
 838 to research and practice with troubled juveniles.
 839 This contribution is present at multiple levels. First,
 840 there are multiple intrinsic and yet delicate connections
 841 between psychoanalysis in its many shapes and forms
 842 and the attachment theory (Steele 2010). Second,
 843 there are psychodynamic typologies of criminal
 844 behavior which are idiographic in nature. These
 845 typologies are biographical and case-oriented;
 846 psychodynamic literature is replete with case
 847 analyses of court-involved individuals at different
 848 stages of their involvement with the system, and
 849 there are multiple insightful interpretations of the
 850 life stories of these individuals that have resulted
 851 in the generation of interesting typologies—
 852 Delinquency as Absence: Making the Absent Present;
 853 Delinquency as “Hole-in-the-mind”: Evoking the
 854 Development of “Whole-of-mind”; Delinquency as
 855 “Concrete Symbol”: Playing with the Concrete
 856 (Fairall and Gleeson 2007).

858 Third, there is an ongoing struggle for the preservation
 859 of the art of psychoanalysis in the face of the demand
 860 for evidence-based treatment (EBT) approaches. In
 861 fact, the advocacy for EBT in the field of juvenile
 862 justice is so strong that it has been referred to as
 863 “the latest attack upon psychoanalysis of any praxis
 864 other than reductionistic behaviorism” (Lewis 2009,
 865 p. 107). Yet, the most pronounced impact of
 866 psychodynamic theories of personality on the juvenile
 867 justice system has been through its assessment
 868 devices, namely projective techniques. These
 869 techniques are widely used in the juvenile justice
 870 system, individually and in combination with other
 871 assessments (Silver 1963), both for various purposes
 872 within the system (Heilbrun et al. 2005) and for
 873 research purposes (Janson and Stattin 2003).
 874 Especially popular are projective assessment
 875 techniques, such as the thematic apperception
 876 test, TAT (Haynes and Peltier 1985) and the
 877 Rorschach inkblot test (Dean et al. 2007; Gibbs
 878 1982; McCraw and Pegg-McNab 1989). However,
 879 although both tests are prominent in the work of
 880 practitioners in the system, the number of peer-
 881 reviewed publications on them is rather small.

882 Psychodynamic theories of personality are directly
 883 related to psychoanalysis as originally introduced
 884 by Joseph Breuer and Sigmund Freud, specifically
 885 its key concepts concerning the importance of
 886 internal psychological processes and childhood
 887 experience, the centrality of psychosexual
 888 development, the prominence of the conflict
 889 between the id (basic essence of existence), ego
 890 (rationality) and superego (morality), defense
 891 mechanisms, methods of elucidating (e.g., free
 892 associations) and resolving (e.g., interpretation
 893 including transference, defenses, and dreams)
 894 conflict-triggering experiences, and its key
 895 premise that human behavior and relationships
 896 are determined by both conscious and unconscious
 897 influences. Early ideas of psychodynamic
 898 theorists have been transformed by numerous
 899 scientists and practitioners working in this
 900 tradition (e.g., Anna Freud, Karen Horney,
 901 Melanie Klein, Donald Winnicott, John Bowlby,
 902 Erich Fromm, Erik Erikson, and numerous
 903 contemporary thinkers). There is no cohesive
 904 theoretical

906 interpretation of juvenile offending within this
907 approach, although there are multiple specific
908 applications of various constructs developed
909 within psychodynamic ideas about personality
910 to the work with juvenile offenders (e.g., Brodie
911 2007; Mizen 2003).

912 In general terms, crime is a product of a deviant
913 structure of personality that is in itself a result
914 of deep unresolved early conflicts that arose early
915 in life (Brodie 2007). It is these conflicts that,
916 through the power and energy of unconscious
917 psychic pain, drive people to violence and aggression.
918 Thus, serial violence involving abducting
919 and torturing multiple victims has been explained
920 as repeated attempts to resolve early conflicts of
921 disrespect, punishment, and isolation. Similarly,
922 in his writing, Erik Erikson (Erikson 1979) capitalized
923 on the idea of finding, resolutions to internal
924 conflict as characteristic of adolescence and
925 the driving force of its identity crisis. In this context,
926 juvenile offending reflects a facet of this process
927 of identity formation, reflecting the cognitive and
928 social-emotional immaturity of juveniles, their
929 inability to ascertain proper social channels for
930 manifesting their identity, and their dependency
931 on others in figuring out “the right way.”

932 This “normalization” of juvenile offending has
933 been challenged by August Aichorn (1935), who
934 argued that social demands by themselves did
935 not and could not produce juvenile offending.
936 Reflecting on the heterogeneity of the outcomes
937 of the process of identity formation, he introduced
938 the concept of latent delinquents that is those juveniles
939 who seek immediate gratification for themselves
940 without considering the effect of this on others.
941 In the spirit of psychodynamic approaches, Aichorn
942 referred to, as the source of individual differences
943 between latent delinquents and other youths,
944 troubled family life and early child development
945 conflicts (Freud 1951; Schowalter 2000). But the
946 impact of this work on the field was much broader
947 than that, suggesting that the pressure of situations,
948 no matter how charged those situations are, is
949 always differentiated by other characteristics,
950 those that are both inherited and interiorized
951 by the person (Federn 1962).

952 The reference of Aichorn and others to early
953 experience, especially to those of poor family life

954 resulting in abuse and maltreatment, generated a
955 large amount of work, both within and outside
956 psychodynamic approaches, focused on the connection
957 between these traumatic experiences and juvenile
958 offending. Within the psychodynamic approach,
959 the family is conceptualized as, among other
960 functions, the medium through which the child
961 develops the personal tools that enable him or
962 her to balance id, ego, and superego demands
963 and cope with the pressure from the social world.
964 The id-ego-superego dynamics are complex, and
965 different byproducts of these dynamics going
966 awry (e.g., the urge to be punished, feelings of
967 being unloved, feelings of inadequacy and
968 deserving of punishment, lack of compassion) are
969 considered to be unconscious triggers of violence
970 and aggression or specific mental states (e.g.,
971 psychosis), that lead to violence and aggression.

972 Psychodynamic ideas have been implemented
973 in the psychology and psychiatry of juvenile
974 offenders both in treatment and assessment,
975 although the assessment applications are much
976 more widespread. To illustrate, the literature
977 on the application of the Rorschach with
978 delinquent juveniles, although limited in size,
979 is in general supportive of the instrument's
980 concurrent utility, reliability, and validity in
981 this population (Liebman et al. 2005). For
982 example, it has been shown, in a sample of
983 adjudicated adolescents, that the Rorschach
984 aggression variables of AG (Exner 1993),
985 A1 and A2 (Holt 1977), and AgC and AgPast
986 (Gacono and Meloy 1994), can be reliably
987 scored and related to each other in a
988 theoretically meaningful way. Yet, an
989 examination of the reliability of Rorschach
990 variables between the ages of 8 and 16
991 finds that most of the indicators are not
992 stable (Exner et al. 1985). Correspondingly,
993 it has been argued that Rorschach variables
994 should not be viewed as reliable long-term
995 diagnostic indices. A rather unique
996 application of the Rorschach comes from
997 the Solna study, an ongoing birth-to-maturity
998 investigation of a birth cohort of 212 children
999 in an urban Swedish community. They were
1000 recruited through their mothers before their
1001 birth, during the mothers' visits to a prenatal
1002 clinic; every fourth woman was asked to
1003 participate and the refusal rate was ~3%.
1004 The recruitment unfolded

1002 over a period of 3 years; all children were born
 1003 between 1955 and 1958. The demographic char-
 1004 acteristics of the sample indicate that it is repre-
 1005 sentative of Swedish urban communities. The
 1006 researchers collected multiple indicators of vari-
 1007 ous aspects of child development from infancy
 1008 through age 18 annually, and then three more
 1009 times at the ages of 21, 25, and 36. The adminis-
 1010 tration of the Rorschach occurred ten times,
 1011 when the participants were 3, 4, 5, 6, 7, 8, 10, 14,
 1012 18, and 36 years of age. The results indicated that
 1013 the Rorschach-based measures (maturity—ego
 1014 differentiation and integration; aptitude, func-
 1015 tioning intelligence; mood—glad, optimistic;
 1016 self-esteem—secure, sure of own value; contact
 1017 ability—good emotional contact ability; activity—
 1018 enterprising, busy; ability to concentrate—to be
 1019 able to apply oneself to one task, persistency; and
 1020 ambition—to strive to do one’s best) predicted
 1021 delinquent outcomes over and above other mea-
 1022 sures (i.e., maternal reports of delinquency);
 1023 lower Rorschach scores indicated a higher risk of
 1024 delinquency in adolescence and adulthood
 1025 (Janson and Stattin 2003).

1026 Research on the TAT is even more limited in
 1027 number, especially in the juvenile setting. Yet,
 1028 the instrument is widely used. For example, a
 1029 Canadian survey (Haynes and Peltier 1985) on
 1030 the usage of the TAT in juvenile forensic settings
 1031 indicated that the majority of practitioners use
 1032 the instrument as part of their assessment battery
 1033 (with 6–10 cards, mostly). A substantial portion
 1034 of practitioners, however, do not use the TAT
 1035 because of time constraints and lack of guidance
 1036 in the literature on standards of care and prefer-
 1037 ential significance and the interpretability of spe-
 1038 cific cards in working with juvenile offenders.
 1039 Yet, this “research-needed” call has not elicited a
 1040 response in the literature as yet.

1041 In summary, historically among the first theo-
 1042 ries of personality to address delinquent and anti-
 1043 social behaviors, psychodynamic theories and
 1044 their related assessments remain central to the
 1045 field of juvenile psychology and psychiatry.
 1046 Although not necessarily well researched in the
 1047 population of juvenile delinquents, projective
 1048 personality techniques are widely used in the
 1049 everyday work with court-involved children and

adolescents, generating information that, argu- 1050
 ably, provides an insight into personality’s deep 1051
 structures and allows us to appreciate the layers 1052
 of developmental complexity that typically mark 1053
 the road to crime, especially early crime. 1054

**The Influence of Social Cognitive 1055
 Theories 1056**

A defining feature of social cognitive theories of 1057
 personality is their attempt to understand the 1058
 individual by adapting the person-in-context 1059
 approach (Higgins and Scholer 2008; Mischel 1060
 and Shoda 2008; Ryan and Deci 2008). In this 1061
 approach, rooted in social learning theory (Miller 1062
 and Dollard 1941), broadly speaking, personality 1063
 is a product of the interactions among the cogni- 1064
 tive and affective processes triggered by and 1065
 embedded in the social context. These theories 1066
 have impacted juvenile psychology and psychia- 1067
 try both directly, through the development of 1068
 applications of certain theories to juvenile antisoc- 1069
 ial behavior (Bandura 1999; Bandura et al. 1996; 1070
 Caprara et al. 1998), and indirectly, through the 1071
 emergence of new theories (e.g., Agnew 1992; 1072
 Gottfredson and Hirschi 1990) specific to crimi- 1073
 nology, that have been conceived within the gen- 1074
 eral framework of social cognitive theories of 1075
 personality. 1076

The central premise of social cognitive theo- 1077
 ries of personality posits that personality, in part, 1078
 emerges from observing others while engaged in 1079
 social interactions and experiences. One of the 1080
 major general assumptions of these theories is 1081
 that children model their behavior based on posi- 1082
 tive or negative feedback and in response to reac- 1083
 tions they trigger from others. These “others” are 1084
 typically referred to as adults the children are in 1085
 contact with, whether real (e.g., parents, teachers, 1086
 coaches, and so forth) or virtual (e.g., adults in 1087
 mass media—TV, movies, radio, videogames). 1088
 Among “others,” there are also peers. In other 1089
 words, children learn from and follow examples 1090
 of behaviors demonstrated by their real and vir- 1091
 tual role models, observing rewards and punish- 1092
 ment for these types of behaviors. Thus, if 1093
 violence is demonstrated by many role models in 1094

1095 the child's life, the child can grow up believing
1096 that violent and aggressive behaviors are accept-
1097 able and rewarding. In fact, often, the child starts
1098 practicing violent and aggressive behaviors at
1099 home first, directing them at siblings and other
1100 family members and soliciting a reaction from
1101 parents. Thus, another major general assumption
1102 of social learning theory is in the role of vicarious
1103 learning—i.e., learning from other people's
1104 behavior and attempting to refrain from making
1105 mistakes in imitating the modeled behavior. In
1106 other words, children observe the behaviors of
1107 others and imitate them (Bandura 1989); the
1108 degree of success of imitation and, consequently,
1109 acquisition of a behavior is modulated by the
1110 extent of the child's self-efficacy—i.e., the child's
1111 own appraisal of his/her abilities to observe and
1112 imitate (Bandura 1988). Vicarious learning is a
1113 facet of social modeling, which includes not only
1114 observing and imitating, but also receiving
1115 instructions and guidance from others, mastering
1116 experiences, self-modulating physical and emo-
1117 tional states so that learning can occur more effec-
1118 tively, and soliciting from and providing to others
1119 verbal encouragement (McAlister et al. 2008).

1120 To illustrate, Bandura's reasoning on delin-
1121 quency and antisocial conduct engages his theory
1122 (Bandura 1986) through the concept of the moral
1123 self—an agent who is embedded in a broader
1124 social context, which both influences and is influ-
1125 enced by the self. Both moral (and immoral, or
1126 delinquent) actions can arise only through self-
1127 regulatory mechanisms that are rooted within
1128 individuals (i.e., his/her moral standards) and are
1129 exercised in response to an external stimulus.
1130 Early in development, conduct is regulated pri-
1131 marily through external leads (i.e., those of par-
1132 ents or social institutions) and social sanctions.
1133 Yet, as development unfolds, the regulatory focus
1134 moves from external to internal leads. A person
1135 should exercise his/her moral agency to both
1136 inhibit immoral behaviors and enhance moral
1137 behaviors. Tools and skills for doing so need to
1138 be acquired developmentally, through interac-
1139 tions with others in social situations (e.g., family,
1140 peers, and larger social settings). It is important
1141 to point out (Santrock 2008) the difference
1142 between the ability of an individual to be morally

1143 competent (i.e., possessing the ability to perform
1144 a moral behavior) and his/her moral performance
1145 (i.e., actually performing morally in a specific
1146 situation). Moral competence is a multicompo-
1147 nential structure that refers to an individual's
1148 knowledge, capacities, skills, awareness of rules
1149 and regulations, and level of general cognitive
1150 functioning. Moral performance, however, is an
1151 application of moral competence in a specific
1152 situation, where rewards and incentives are in
1153 place and counterbalanced with punishment and
1154 losses. Thus, moral competence can dictate a
1155 realization of what is right and wrong (e.g., break-
1156 ing into someone else's property), but a reward
1157 for a particular behavior can override this realiza-
1158 tion, so immoral (e.g., breaking into someone
1159 else's property and stealing valuables), rather
1160 than moral performance take place.

1161 The literature on juvenile forensic psychology
1162 and psychiatry provides many relevant observa-
1163 tions, obtained both through longitudinal research
1164 (e.g., Renschmidt and Walter 2010; van der Laan
1165 et al. 2010) and cross-sectional investigations
1166 (Barriga et al. 2009) on the contextual factors of
1167 delinquency. The general trajectory of this
1168 research first identifies a general source of con-
1169 textual influences, then attempts to zoom in on a
1170 specific facet within this general source. For
1171 example, negative parenting styles and poor
1172 parental monitoring [i.e., tracking and surveil-
1173 lance of their children have been linked to vari-
1174 ous forms of delinquency (Biglan et al. 1995;
1175 Dishion et al. 1995; Metzler et al. 1994)]; posi-
1176 tive parenting, on the contrary, is considered to be
1177 one of the most important protective factors (de
1178 Haan et al. 2010; Kerr et al. 2009). Recent inves-
1179 tigation into the constructs of parenting styles
1180 and parent monitoring, however, have attempted
1181 to refine them and have pointed out the specific
1182 aspect of their multidimensionality that appears
1183 to be most relevant to delinquency, with a particu-
1184 lar emphasis on child disclosure—i.e., children's
1185 spontaneous reporting of their behaviors (Fletcher
1186 et al. 2004; Lahey et al. 2008; Stattin and Kerr
1187 2000). It has been observed that child disclosure
1188 appears to be triggered and aided by certain par-
1189 enting behaviors, clarifying the translational
1190 dynamics of the role of parent monitoring in

1191 delinquency and antisocial behavior (Soenens
 1192 et al. 2006). Of note also is that child disclosure
 1193 appears to be related to child temperament (Stattin
 1194 and Kerr 2000) and adolescent personality (Eaton
 1195 et al. 2009). In other words, the fact that a child
 1196 discloses his/her behavior to parents seems to be
 1197 one of the best protective factor against juvenile
 1198 offending, but whether the child discloses or not
 1199 depends on many other factors, both internal (i.e.,
 1200 his/her temperament and personality) and external
 1201 (e.g., the degree of parental solicitation and
 1202 control) to the child, once again stressing the
 1203 complex relationships between the self, context,
 1204 and action (Stattin and Kerr 2000).

1205 Similarly, research into the peer-related social
 1206 context has been central to the literature on juvenile
 1207 delinquency. Yet, the specifics of these influences
 1208 are not well understood. To illustrate, researchers
 1209 have attempted to hypothesize about the dynamics
 1210 of peer relationships in a small group of adolescents
 1211 who refrain completely from delinquent behavior
 1212 (Moffitt 1993). It has been suggested that these
 1213 adolescents are protected from the influence of
 1214 negative peer influence because they are unpopular
 1215 and socially isolated due to some unappealing
 1216 physical/personality characteristics. Thus, such
 1217 teens are thought to refrain completely from
 1218 delinquent behavior because they are social
 1219 introverts who are excluded from normative peer
 1220 activities, which are often led by peer role
 1221 models who demonstrate delinquent behavior
 1222 (Moffitt 1993). This theoretical assertion, however,
 1223 has been recently challenged with an empirical
 1224 analysis of the friendship network data from the
 1225 National Longitudinal Study of Adolescent Health
 1226 (Chen and Adams 2010). This analysis has
 1227 revealed a rather complex set of associations
 1228 between the adolescent friendship network
 1229 characteristics and delinquency abstinence,
 1230 stressing, once again, the importance of
 1231 identifying specific facets of social influences
 1232 as they determine the development and
 1233 manifestation of the self. Another recent finding
 1234 in the literature specifying the particulars of the
 1235 impact of peer relationships indicates the
 1236 differential role of romantic engagement. It has
 1237 been reported, based on the results of a large-
 1238 scale longitudinal study among Swedish seventh
 and eighth grade students

1239 who were assessed over a period of 3 years, that
 1240 romantic relationships amplified girls' and boys'
 1241 existing delinquency propensities, and that this
 1242 amplification is stronger for girls than boys
 1243 (Eklund et al. 2010). These studies illustrate
 1244 probable points for the application of social
 1245 cognitive theory by suggesting the kinds of
 1246 behaviors that might be endorsed to certain
 1247 subgroups of youth who are marked by
 1248 specific demographic profiles. These
 1249 endorsements might be made by youth
 1250 celebrities through specially framed positive
 1251 messages, whether regarding the prevention
 1252 of juvenile offending or the promotion of
 moral behavior (Smith and Petty 1996).

1253 As mentioned above, the field of criminology
 1254 has generated a number of theories that are
 1255 focused on juvenile delinquency, but, broadly
 1256 speaking, may be viewed as representative of
 1257 the cluster of social cognitive theories of
 personality.

1258 The general strain theory postulates that social
 1259 strains can impact children and youth and
 1260 result in the generation of negative emotions,
 1261 notably anger and depression, which can in
 1262 turn result in delinquency and antisocial
 1263 behavior. The sources of strain are typically
 1264 grouped into three categories: the failure to
 1265 achieve positively valued goals, the possible
 1266 or actual loss of positively valued stimuli,
 1267 and the presentation of stimuli noxious to
 1268 individuals (Agnew 1992). A set of "other"
 1269 factors that can modulate the connection
 1270 between social strains and delinquency are
 1271 contextual factors of family and peers and
 1272 the coping skills of children and adults. There
 1273 is a body of empirical evidence that supports
 1274 key propositions of the general strain theory
 1275 (Agnew and Brezina 1997; Agnew et al. 2002;
 1276 Aseltine et al. 2000; Baron 2004; Broidy
 1277 2001; Mazerolle et al. 2003; Piquero and
 1278 Sealock 2004). In addition, as research
 1279 progresses, there are additional clusters of
 1280 strain. For example, using a longitudinal
 1281 design, researchers (Moon et al. 2009) focused
 1282 on the relationships among key strains (now
 1283 eight: family conflict, emotional and physical
 1284 punishment by parents, emotional and physical
 1285 punishment by teachers, financial stress,
 1286 examination-related stress, being bullied,
 gender discrimination, and criminal victimization),
 situational- and trait-based negative emotions,
 conditioning factors, and delinquency.

1287 While, in general, the results of this study sup- 1335
 1288 ported the theory, they generated some questions 1336
 1289 about the correlation between situational- and 1337
 1290 trait-based negative emotions and their differen- 1338
 1291 tial role in delinquent outcomes. 1339

1292 One more theory briefly mentioned here is the 1340
 1293 theory of self-control (Gottfredson and Hirschi 1341
 1294 1990). In the context of this theory, an individu- 1342
 1295 al's level of self-control results from the process 1343
 1296 of parental socialization during the first ten (\pm) 1344
 1297 years of life. Responsible and responsive parents 1345
 1298 are able to recognize, divert, or prevent deviant 1346
 1299 behavior early on and are likely to instill, by 1347
 1300 rewarding, correcting, and punishing self-control. 1348
 1301 Irresponsible and unresponsive parents, on the 1349
 1302 contrary, fail to inculcate self-control. Individuals 1350
 1303 with low self-control manifest a set of attitudes 1351
 1304 and behaviors. Specifically, they (1) exhibit here- 1352
 1305 and-now orientation; (2) prefer easy and simple 1353
 1306 tasks; (3) seek excitement and engage in risky 1354
 1307 behaviors; (4) do not believe in social institutions 1355
 1308 and long-term investment in them; (5) do not 1356
 1309 plan and do not like to plan; and (6) are self- 1357
 1310 centered, insensitive, impulsive, and nonempa- 1358
 1311 thetic. Although some, if not all, of these 1359
 1312 characteristics resemble specific personality traits 1360
 1313 (DeLisi et al. 2010), the authors of the theory 1361
 1314 state that self-control is not a personality con- 1362
 1315 struct (Gottfredson and Hirschi 1990), and that 1363
 1316 personality traits that are related to crime are, in 1364
 1317 fact, derivatives of self-control (Hirschi and 1365
 1318 Gottfredson 1993). These statements, inevitably, 1366
 1319 have been empirically researched. Thus, the liter- 1367
 1320 ature contains reports that a self-reported mea- 1368
 1321 sure of self-control substantially correlated with 1369
 1322 conscientiousness (O'Gorman and Baxter 2002) 1370
 1323 and agreeableness (Miller et al. 2008), and with 1371
 1324 many other indicators of personality (Marcus 1372
 1325 2003, 2004) assessed by a variety of inventories, 1373
 1326 such as the retrospective behavioral self-control 1374
 1327 scale (Grasmick et al. 1993), the self-control 1375
 1328 scale from the California Psychological Inventory, 1376
 1329 CPI-Sc (Gough 1975), the Sixteen-Personality- 1377
 1330 Factor-Questionnaire, 16PF-Q3 (Cattell et al. 1378
 1331 1970), and the NEO-FFI (Costa and McCrae 1379
 1332 1989). Researchers have also pointed out the 1380
 1333 connection between self-control and narcissism 1381
 1334 (Vaughn et al. 2007). Correspondingly, the jury is

still out on whether the theory of self-control 1335
 adds something new to the field of criminology. 1336

In summary, the central and most powerful 1337
 action of social cognitive theories of personality, 1338
 as they are applied to juvenile offending, is the 1339
 way they merge together individuals and their 1340
 contexts. This permits a broad approach to per- 1341
 sonality, in which not only juveniles (i.e., their 1342
 personality traits, types of criminal pathways, 1343
 and deep structures) are considered, but also their 1344
 social contexts and, most importantly, their cog- 1345
 nitive-affective representations of themselves 1346
 and their contexts. These broad considerations 1347
 are especially imperative in court, when deci- 1348
 sions are being made about the futures of juve- 1349
 niles. Judges should be informed, in detail, not 1350
 only about the personality traits of the juveniles, 1351
 but also of the contextual characteristics of their 1352
 lives and crimes, since, according to social cog- 1353
 nitive theories, understanding the interactive 1354
 nature of past behavior and taking into account 1355
 both the person and the situation are crucial for 1356
 predicting future behavior. In turn, as decisions 1357
 (whether legal or policy) are made, to be most 1358
 effective, they should be delivered to youth with 1359
 an understanding of both the opportunities and 1360
 constraints of social learning as depicted by 1361
 social cognitive theory. 1362

Personal Narratives and Life Story 1363

Although not new by any means (Adler 1927; 1364
 Bakhtin 1981; Tomkins 1987, 1992, 2008), the 1365
 narrative approach to personality (Josselson et al. 1366
 2007; McAdams 2008; McAdams and Adler 1367
 2010) has recently gained much attention, mov- 1368
 ing into the center of the psychology of personal- 1369
 ity. The focus of this approach is personal 1370
 narrative. Although there are now quite a few 1371
 publications on this approach, it is fair to say it is 1372
 a developing subfield of the field of personality. It 1373
 is discussed here, however, because it appears to 1374
 bring a particularly powerful angle to the analysis 1375
 of juvenile delinquency, as exemplified by the 1376
 analyses of normative adolescent development 1377
 (McLean et al. 2007), although to my knowledge 1378
 and through my survey of the literature, there are 1379

1380 no publications that ground this approach in juvenile forensic psychiatry and psychology. The principle assumption here is that a self-narrative is a representation of autobiographical memory which, in turn, is a process of reconstructing the self (Josselson 2009). This process is said to be guided by six common principles (McAdams 2008) (1) having a life story that connects the reconstructed past and looks into the imagined future is a natural feature of any person; correspondingly, these stories are important sources of information about individual differences between people; (2) a life story integrates personal traits and actions in time; in other words, they provide continuity to the texture of life as it unfolds allowing for transformation and change; (3) life stories are meant to be shared; they are told to others with the purpose of being connected to them, with different goals and for different reasons; (4) life stories are temporally unstable and reflect the flow of life; their content changes depending on the context of the person’s life; (5) life stories are not culture free; they are replete with values of the group, family, religion, culture, and society the person belongs to and these values determine what stories are tellable (versus untellable); and (6) as life stories are products of the autobiographical memory, they, as any product, can be evaluated on a number of dimensions, such as coherence, complexity, and emotional charge.

1410 Clearly, for a life story to be analyzed, it first needs to be produced. I would like to finish this section by referencing a number of life narratives that were produced by current inmates of Rikers Island and collected through the Student Press Initiative, SPI, supported by Columbia University (<http://publishspi.org/>). SPI is a psycho-educational intervention designed for incarcerated young adults to improve their literacy skills and to remediate their sense of attachment. For the past 7 years, SPI has partnered with the New York City Department of Education on Rikers Island to combine oral histories and narrative therapy methodologies to help participants write and process their life stories.

1425 Analyses performed on the SPI narratives demonstrates that over 90% of participants are people of color who come from disadvantaged

inner-city neighborhoods filled with drugs, violence, and other risk factors for juvenile offending and failing schools. SPI staff teams visit Rikers weekly and their work involves helping students become familiar with the SPI process, interviewing students and transcribing the audio recordings, and then working with students on editing their transcripts to become complete narratives. Throughout this process, SPI staff also serve as mentors to students, asking questions about how the students have processed and continue to process their life events (Chen 2011). I have selected excerpts that constitute autobiographical comments of these young adult inmates on their maturational years. Again, these quotes are intended to illustrate the potential of the narrative approach in helping court-involved individuals develop their own understanding of who they are and why they committed the acts they committed.

Yenny F.

1448 Where I grew up, it was crazy; there was a lot of violence. I tried to get away from it, but it always used to pull me in. Now, I can’t really regret that. Because I am already going to say it in the get go that I ain’t going to regret anything I’ve done or anything I say. But I forgive myself for doing that. There was no need for that, because something could have ended up happening to me. Thank God it didn’t. I used to live right across the street from these projects in Manhattan. I was a bad little boy. I used to live right next to this store. I used to go in, grab me a couple chips, and get up out of there without having to pay for it. Yeah. I used to beat people up for a couple nice things that they used to have that wasn’t mine. I was a gang member so I used to beat people up on the random. I used to have a lot of problems because of beef under the gang situation; they used to have beef with the other projects across the street. I used to go to the junior high school was right there on the block. So we used to run from there to the eastside. Any little kids, we used to knock them. Any little tough dudes we used to see. Everybody. We used to whip them; we used to catch them. Word? Boop, boop, boop, boop. Keep walking. Those were the days. I started being a gang member when I was 14. At the time, I was jumped by the rival gang of the gang that I was in, but I wasn’t part of that gang at the time. I used to know a couple of the people from the gang that I joined, and they saw me almost get jumped. They came and they defended me, “Yo, if you all going to jump him, you all going to have to fight us, too.” So they stopped. They ain’t

1482 want to fight. We got up out of there. Then I started
1483 chilling with them.

1484 They asked me, "Yo, you want to join?" I was
1485 like, "Let me think about it." I went. Got in. Boom.
1486 Ended up doing what I had to do. Then I was offi-
1487 cial, nobody could say nothing to me. I knew my
1488 stuff. Everybody knew who I was. I felt happy.
1489 I felt good. And then more rival gang members
1490 started going to our school. We beat them up.
1491 Boom. Then they would leave the school. Then
1492 we'd wait again until more of them came. They
1493 ain't know. Boom. And when they used to go to
1494 another school, we used to go to that school to beat
1495 them up. I used to be bad. One time I went to the
1496 other school, I ended up seeing three of them, and
1497 we asked them. They like, "Nah, we not." But they
1498 started running. I'm like, if you all not, why you all
1499 started running? So we started chasing them and
1500 we beat them up. When I think about that now,
1501 I don't really feel no way. They should have never
1502 ran. That's I learned when I was in that gang. That's
1503 how we are. We was. Because a lot of us ain't with
1504 it no more. Yeah, you can say I'm a bad kid, but
1505 I don't really think I'm a bad kid. Everybody says
1506 I'm a good person. I'm a good person. I have no
1507 problems. I don't start no problems. If you start
1508 problems with me, we're going to get into some-
1509 thing. I got my butt whipped a couple nice times,
1510 but then I moved to the Bronx. We moved because
1511 the apartment that we lived in Manhattan wasn't
1512 under my parent's name. It was under somebody
1513 else's name and something happened to that per-
1514 son. So we couldn't renew the lease.

1515 **Kenny H.**

1516 My name is Kenny, but you can call me "Mr. H."
1517 I'm from the Bronx, the projects. I'm about to be
1518 an older man. I'm about to be 20 and have a family,
1519 so I have to make choices for three people now. My
1520 wife is pregnant; she's three months along. So far,
1521 my life hasn't been that good. It was once a calm,
1522 nice, and decent life to live, but it's just hard; it
1523 really is. I've realized that you have to learn from
1524 your own mistakes and then make choices in a dif-
1525 ferent way because of them. [...]

1526 My birthdays have always been fun. My mom
1527 always brought her nice cakes, little apple cakes.
1528 I always celebrated my birthdays the way I wanted
1529 to. I lost my virginity on my fifteenth birthday, for
1530 example. That was the first time I ever felt happy.
1531 I felt like, "Yeah, I got girls that's getting mad over
1532 me, and I'm only fifteen." From that point on, I just
1533 started doing my own thing, you know, every birth-
1534 day. I always needed to have a girl, but that was the
1535 first time I was ever really happy. I've been happy
1536 because my mom took me places, you know,
1537 because my mom did something for me, but for that
1538 birthday, I finally did something for myself. I didn't
1539 ask anybody to do anything for me that day, so
1540 that's why I felt so happy. For my 20th birthday,

I was going to try to get an outfit and go to the
40/40 Club. That's Jay-Z's club in Brooklyn. I was
trying to go there because Jay-Z's birthday is the
same day as mine. I wanted to celebrate with him,
so I could feel that I accomplished something, that
I did something for me. Now I can't even do that,
but hopefully in time I can.

1548 **Claire C.**

1549 Between the ages 9 and 10, fourth and fifth grade,
1550 I started doing things badly. I started acting out
1551 because I wanted to know what it was like. I was
1552 raised to not do anything the world did, which was
1553 nothing bad, so I wanted to see what it was like.
1554 And my mother wasn't in the picture, or father, so
1555 I had a lot of anger and I never expressed myself.
1556 I would steal from my grandma, go hide out at my
1557 best friend house, smoke cigarettes. My grandma
1558 used to work all hours and I was a very mature,
1559 intelligent young lady, so my grandma gave me a
1560 key. I remember I had got suspended from school
1561 for starting a fire in the girls' bathroom. When I got
1562 home, I thought she would be there waiting, but
1563 she wasn't. I know I was going to get the whoopin'
1564 of my life, so I put newspaper in my jeans to be
1565 prepared. She came home and didn't say a word.
1566 For two whole days, I was scared and that right
1567 there was the worst whoopin' I've ever had:
1568 Silence. I felt so bad. My grandma was getting
1569 tired, raised eight children plus two more, her
1570 grandkids, and one's acting out. Damn! My grand-
1571 mother would call my mother and tell her the news
1572 about how I was acting out around that time. I was
1573 11 going on 12 years old. So we sat in the living
1574 room when my mother arrived. We knew that our
1575 mother was coming to get us for good. My grand-
1576 mother thought my mother was only coming to get
1577 us for welfare checks. After they discussed the
1578 arrangement, we left with our mother.

1579 **Jane T.**

1580 My name is Jane T., but people call me Slim. I am
1581 from the South Bronx. Things were a little rough.
1582 My mother was a single parent. There was five of
1583 us, three girls, two boys. And my mother used to
1584 struggle to buy us what we needed. It was rough on
1585 her. My mother used to go out and sell fried foods,
1586 Spanish fried foods, to provide us with what we
1587 needed. And we had to help her, go out with her.
1588 I didn't used to want to go because I used to be
1589 embarrassed that the people from school would see
1590 me. But if I wanted a pair of sneakers, I had to go.
1591 If I wanted something, I had to go with her. I don't
1592 remember my father bein' with us half the time.
1593 My father used to have a lot of women.

1594 My father came back when I was like 9 years
1595 old, and he used to verbally abuse us. My mother
1596 was real scared of him. We moved from the South
1597 Bronx to somewhere in the Bronx. My mother
1598 used to make us do whatever my father wanted to
1599 do regardless of what it was. We never got sexually

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1600 abused or any of the above, but he was real strict
 1601 and we would have to go to the room, not come
 1602 out. They used to lock us in the room. My mother
 1603 was not that loving type, only with my father.
 1604 I have three sisters and two brothers. I am like the
 1605 fourth one in the family. My siblings now, they all
 1606 are very well educated. They have houses, they
 1607 have homes, they have everything. The only one
 1608 that has nothing is Jane, but that's because I chose
 1609 that. They chose the right way, I chose the wrong
 1610 way. And I guess that's what happened to me
 1611 because at the age of 13 1/2, I went and I lost my
 1612 virginity, and my mother threw me out to the
 1613 streets. My father told her if I wouldn't leave, he
 1614 would leave. And since the age of 13, I've been on
 1615 my own, so it's been rough. I went from a little girl
 1616 to a mother to a woman. I had to learn how to do
 1617 everything by myself. The father of my kids, the
 1618 guy that I met that I lost my virginity to, took me to
 1619 his house; my parents married me at the age of 14.
 1620 They married us because they told him if he
 1621 wouldn't marry me that he was going to go to jail.
 1622 I was 14; he was 16. I'm still legally married to that
 1623 man. It was rough growing up. I learned how to
 1624 cook. I learned how to do everything by myself.
 1625 I had to learn the hard way, and I was doin' real
 1626 good in school. I was in high school already, but
 1627 I had to stop goin' to school because I was havin' a
 1628 baby. And by the last month of my pregnancy,
 1629 I didn't want to go to school. I was getting lazy and
 1630 stuff like that, so I stopped goin'. The father of my
 1631 child, he was young, he couldn't work, so my hus-
 1632 band went to work with my family in order to pro-
 1633 vide for us, that's how he used to make his living.
 1634 I started using.

1635 But then as time went along, my husband
 1636 started getting into bigger business, my family
 1637 started making different moves, doing different
 1638 things, and that's when my addiction escalated, but
 1639 I still took care of my kids. I did everything for my
 1640 kids. My husband always took care of me. I told
 1641 him, "Listen, this is not working, you know. You're
 1642 going to end up in jail, I'm going to end up being
 1643 by myself with my daughter." My daughter was
 1644 like 2 years old. So he went and he got a job for this
 1645 company, Disclosure. He worked for that com-
 1646 pany, like, for sixteen years, but my husband was
 1647 an alcoholic. He used to drink all the time. And
 1648 after my husband stopped working with my family,
 1649 I kind of like stopped everything because there was
 1650 no money to come in for me to do anything, and
 1651 I was young, I didn't know the streets or anything.
 1652 So my husband got a job. After sixteen years,
 1653 because of his alcohol addiction, he got fired. They
 1654 caught him drinking on the job a couple times, and
 1655 they warned him, they put him on probation. And
 1656 I used to tell him, "Listen, you're going to end up
 1657 losin' your job." And he didn't care, he used to still
 1658 drink. One time he got arrested on the train drink-
 1659 ing; they called his job. He had went to do an

1660 errand for somebody at work, they had sent him to
 1661 do something. He used to work with the computers
 1662 and stuff like that. While he went out to go do that
 1663 errand, he went and bought some liquor and got
 1664 caught on the train with it, so he got arrested and
 1665 they called his job. When he came back, he got
 1666 fired. They fired him without no benefits, without
 1667 nothing. I broke up with my husband. After four-
 1668 teen years of living with my husband, I broke up
 1669 with him and I went on my own.

1670 Each of these narratives and all of them col-
 1671 lectively substantiate some of the themes extrap-
 1672 olated in the various theories of personality
 1673 discussed above. Reading the excerpt from
 1674 Yenny's narrative, one can map out the dissocia-
 1675 tion of moral competence and moral performance
 1676 (he knew that stealing was bad, he knew he was
 1677 bad, and he still did it), the essential negativity of
 1678 peer influences through his gang membership
 1679 and the satisfaction of knowing his identity, one
 1680 recognizable by both himself and others and the
 1681 feeling of belonging this recognition gave him.
 1682 Kenny's story stresses the importance of sexual
 1683 activities and romantic relationships in adoles-
 1684 cence and young adulthood and underlies, once
 1685 again, how important it is for these types of rela-
 1686 tionships to unfold to the satisfaction, within a
 1687 societally appropriate context, of all of the
 1688 involved. Claire's account provides a classic
 1689 illustration of the urge to find out who one is and
 1690 the striving for love and acceptance, within the
 1691 psychodynamic context of her mother and grand-
 1692 mother. Finally, Jane's narrative shares the devel-
 1693 opmental trauma of being rejected by one's
 1694 parents and forced into a marriage, having a baby
 1695 but no future.

1696 It is quite remarkable how different and yet
 1697 similar these narratives are. They are different in
 1698 terms of their general essences and their specific
 1699 life events. They are similar because they are told
 1700 by people residing in a correctional facility,
 1701 Rikers Island, and these people are there for a rea-
 1702 son: they have violated the law. Moreover, they
 1703 violated the law more than once, previously as
 1704 juveniles and now again as adults. This circum-
 1705 stance is important because, by definition, this
 1706 makes them what was referred to above as "career
 1707 criminals." The field has been trying to understand
 1708 them, engaging a variety of theories, methods,
 1709

1709 and assessment, resulting in a huge amount of
1710 knowledge and yet little understanding of how to
1711 effectively divert these individuals' lives into
1712 socially positive and productive careers.

1713 A detailed analysis of these narratives is out-
1714 side the scope of this essay. It is important to
1715 know, however, that, although the very idea of
1716 bringing these narratives to the light of the day
1717 (i.e., soliciting them, transcribing them, and ana-
1718 lyzing them) should be credited to the rapidly
1719 developing field of the analyses of autobiograph-
1720 ical accounts of personality, they can be pro-
1721 cessed by professionals working with juvenile
1722 delinquents in multiple ways. First, creating them
1723 and sharing them with a listener is often a thera-
1724 peutic act of self-formulation for an individual.
1725 Second, these narratives present a great deal of
1726 information about the deep structures of the
1727 offenders' personalities, and, similar to projec-
1728 tive techniques, may unveil information that is
1729 not typically shared. Third, there is much room
1730 for the quantitative analyses of the content of
1731 these stories and the elucidation of common
1732 themes related to the narratives themselves (e.g.,
1733 1–6 above, McAdams 2008) as well as to the
1734 shared and specific features of the lives of court-
1735 involved individuals. Thus, such narratives,
1736 potentially, might provide many insights into the
1737 field of juvenile justice, but, as it stands now,
1738 there is virtually no empirical evidence to sub-
1739 stantiate this potential. The field needs to develop
1740 ways of collecting and processing them, as they
1741 generate tremendously rich insights into life jour-
1742 neys of juvenile offenders.

1743 Conclusion

1744 As indicated above, this essay was conceived to
1745 capture the general picture of the utilization of
1746 various selected theories of personality and the
1747 assessment devices each of these theories utilizes
1748 in the field of forensic juvenile psychology and
1749 psychiatry. The list of approaches exemplified
1750 here is far from exhaustive; so are the illustra-
1751 tions of ideas and empirical work within each
1752 approach. Yet, the essay provides a general picture
1753 of the lay of the land, that is, the jumble of ideas,

assessments, and findings, that underscore, once
again, the complexity of human behavior in gen-
eral, and law-offending behavior in particular.
The evidence presented here crystallizes the
observation that there are multiple and important
applications of personality-oriented approaches
in working with juvenile offenders. The most
powerful point is that both concurrent and pro-
spective predictions can arise at the junction of
multiple theories and, correspondingly, multiple
assessments, rather than from the specific angle
of any one of them.

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Services for Youth in Closed Settings: Gaps in Services

Faye S. Taxman, Sara Debus-Sherrill,
and Carolyn A. Watson

Nearly 4% of all youth 8–18 years old are involved in the justice system (Taxman et al. 2007a). In 2008, 2.11 million juveniles were arrested (Puzzanchera 2009). However, over 101,000 youth are detained in a myriad of facilities: detention (26,590 youth), correctional facilities (32,260 youth), camps (9,770 youth), community-based (18,360 youth), and residential treatment (14,070 youth) (Sedlak and McPherson 2010). Detained youth in closed settings rely upon the facility for their basic needs. Youth detained in facilities tend to have a compilation of biosocial needs including higher rates of substance use disorders, mental health issues, physical disorders, and educational needs (see Sedlak and McPherson 2010). The challenge is to address these needs to better prepare the youth to be part of the community. In this chapter, we provide a brief overview of the juvenile justice system and juvenile offender populations, we describe the residential facilities, we examine the unique needs of detained youth, and we identify the services provided in these facilities, including (a) health, (b) mental health, (c) substance abuse, and (d) education. The final section is devoted to a discussion of the adoption of evidence-based practices (EBP) as it relates to juvenile justice facilities.

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Basic Terms and Concepts: Understanding the Justice Population

In most states, individuals under the age of 18 are considered juveniles and therefore are handled through a special process. Increasingly, states are pursuing policies to waive the youth to adult court, with over 8,500 youth currently detained in adult facilities (Adams and Addie 2010). In the juvenile system, youth are detained in a myriad of facilities, for delinquent offenses or for status offenses (behavioral issues that are not considered criminal behavior for adults). The terms “confinement” and “residential placement” are often used interchangeably.

The Nature of the Juvenile Justice System

Figure 18.1 illustrates the overall juvenile justice system, recognizing that each local community has some variation in the system processes. The process overall consists of the following components: possible delinquent act; diversion to delinquency prevention programs by the police, prosecutor, or juvenile justice intake processes (discretionary decision), formalized adjudication (conviction), probation or placement in a residential facility, and then aftercare from a residential facility (parole). These basic processes exist in most systems, with variations in the number and type of diversion programs, residential treatment

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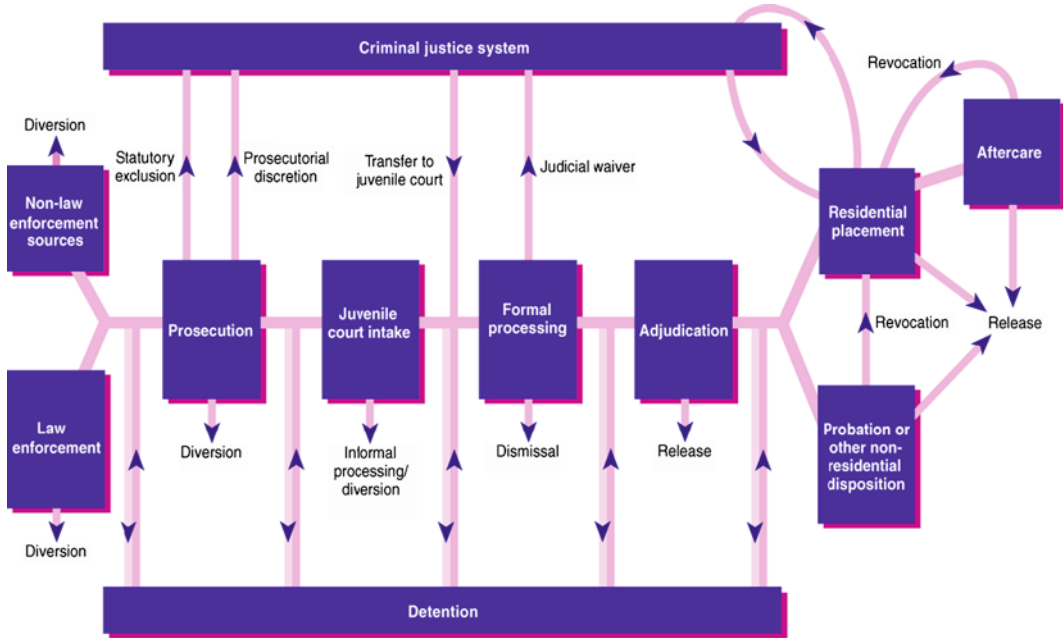


Fig. 18.1 Diagram of the juvenile justice system. *Source:* Snyder and Sickmund (2006) Juvenile offenders and victims: 2006 National report

60 facilities, and probation programs. That is, each
 61 jurisdiction is unique in terms of the nature and
 62 type of programming/services available.

63 Unless a youth is diverted from the formal
 64 system, the typical pathway after an arrest is sim-
 65 ilar to that in the adult criminal justice system.
 66 The police make an arrest, the prosecutors deter-
 67 mine whether there is prima facie evidence for
 68 the charges, the court handles the charges, an
 69 adjudication decision is made, and sentencing
 70 decisions are made by the judiciary. Like adult
 71 courts, plea bargaining is common. Most offend-
 72 ers are offered probation supervision (nearly
 73 650,000 youth), with a smaller number of offend-
 74 ers (80,000) placed in some type of closed set-
 75 ting. Unlike the adult system, the juvenile justice
 76 system has several diversion type programs (e.g.,
 77 warn-and-release prior to official arrest, diversion
 78 to a special delinquency prevention program for
 79 juvenile offenders by prosecutors or juvenile
 80 justice intake). For youth charged with serious
 81 offenses, the juvenile can be “transferred” or
 82 “waived” to adult court through various mecha-
 83 nisms depending on the jurisdiction (a) concu-
 84 rrent jurisdiction where prosecutors have discretion

over whether to file the case in adult or juvenile
 court, (b) statutory exclusion where laws deter-
 mine what offense types are eligible for adult
 court regardless of juvenile status, or (c) judicial
 discretion where judges have discretion on
 whether a case will be processed in adult or juve-
 nile court (Adams and Addie 2010).¹ Juveniles
 incarcerated in adult facilities must be separ-
 ated from adult offenders by “sight and sound”
 in accordance with the Juvenile Justice and
 Delinquency Prevention Act of 1974 (P.L. 93-415,
 88 Stat. 1109).

Unlike the adult system, the juvenile justice
 system handles unique cases. Juveniles can be
 arrested for “status offenses,” particular behav-
 iors or actions that are legal for adults but illegal
 for minors (e.g., underage tobacco or alcohol use,
 truancy, running away from home). Once arrested,
 juveniles can be involuntarily held without
 charges. Juvenile case dispositions also are not as
 structured as adult sentences given that many

¹ Some states have minimum ages of criminal responsibility where an individual cannot qualify for adult court if they are under a certain age.

106 juveniles receive indeterminate sentences, have
 107 their original sentences extended, or have the
 108 length of stay determined by the facility instead
 109 of the judge (Griffin and King 2006). Juvenile
 110 justice records are not publicly available. As of
 111 2010, 13 states and the District of Columbia had
 112 closed juvenile court sessions, 18 states had open
 113 sessions, and 20 states had offense and age
 114 restrictions to determine whether the session
 115 would be open or closed (Szymanski 2010a).
 116 Many of the states allow for judge discretion on
 117 whether to override the state's general rule. All
 118 states except for Rhode Island also have proce-
 119 dures for sealing or expunging certain eligible
 120 juvenile records once an individual legally
 121 becomes an adult (although at least 31 states
 122 also have methods for "unsealing" records)
 123 (Szymanski 2010b).

124 Given that juveniles are under the care and
 125 responsibility of an adult (parent or guardian),
 126 family members play an active role in juvenile
 127 cases. Juvenile courts may place legal require-
 128 ments on parents or guardians (as well as the
 129 youth), such as parent training classes or partici-
 130 pation in the juvenile's treatment. Parental
 131 responsibility laws in some states may even result
 132 in civil liability or criminal charges for parents of
 133 juvenile offenders (Office of Juvenile Justice and
 134 Delinquency Prevention 2004). If a court deter-
 135 mines that a parent or guardian is incapable of
 136 managing the youth's behavior (sometimes
 137 deemed a "person or child in need of supervi-
 138 sion" [PINS/CHINS]) or addressing their needs,
 139 the State may take custody of the juvenile, and
 140 the youth will become a "ward" of the state. In
 141 some states, a juvenile placed in a state facility
 142 automatically has the state as the legal guardian.
 143 If parents maintain custody of an incarcerated
 144 juvenile, the facility may need to obtain parental
 145 consent for use of certain services (e.g., treatment
 146 programs, health procedures).

147 Needs of Confined Youth

148 In 2008, the Office of Juvenile Justice and
 149 Delinquency Prevention (OJJDP) sponsored a
 150 survey of a nationally represented sample of

151 youth incarcerated in a variety of facilities
 152 ($n=7,073$). Based on these findings, we have a
 153 better sense of the diverse set of needs of the
 154 youth (Sedlak and McPherson 2010) and indi-
 155 vidual studies on juvenile justice populations.

156 *Health needs.* Placed and incarcerated youth
 157 report significant health needs with over two-
 158 thirds (69%) requiring basic healthcare, such as
 159 dental, vision, and hearing issues, are the most
 160 common needs (37%), followed by nearly equal
 161 shares of treatment needs for illness (28%), injury
 162 (25%), or other health needs (29%) (Sedlak and
 163 McPherson 2010). A retrospective review of den-
 164 tal screening records from a county youth deten-
 165 tion facility found that more than half of the
 166 juvenile detainees had untreated tooth decay,
 167 compared to 20% of the general youth population
 168 (Bolin and Jones 2006). Chlamydia is 8–13 times
 169 higher in juvenile justice inmates compared to
 170 the general population, and rates of gonorrhea are
 171 5–9 times higher among juvenile inmates than
 172 the general population. Approximately 3.7% of
 173 male and 5.2% of female inmates test positive for
 174 Syphilis compared to less than 0.001% of adults
 175 in the general population (Centers for Disease
 176 Control and Prevention 2006, 2007). STI rates
 177 vary significantly by gender, including Chlamydia
 178 (6–14% for incarcerated males and 10–33% for
 179 incarcerated females) and gonorrhea (0.6–7% for
 180 males and 5–23% for females) (see Belenko et al.
 181 2009; Lederman et al. 2004; Morris et al. 1998;
 182 Teplin et al. 2003). Female offenders appear to
 183 have higher prevalence rates of STIs (Belenko
 184 et al. 2009; Canterbury et al. 1995); moreover,
 185 studies have also shown high rates of current or
 186 past pregnancies among incarcerated female
 187 youth. For instance, 10% of female detainees in
 188 an Alabama detention center were pregnant upon
 189 admission (Feinstein et al. 1998, as cited in
 190 Golzari et al. 2006), and 37% of Georgia female
 191 detainees were currently pregnant or had been
 192 pregnant in the past (Williams and Hollis 1999,
 193 as cited in Golzari et al. 2006).

194 *Mental health.* Youth in closed settings report
 195 higher rates of mental health issues than the
 196 general population. Externalizing disorders

(i.e., substance use and disruptive behavior disorders) are the most prevalent in these populations, but internalizing disorders (i.e., affective and anxiety disorders) are also common, especially among girls (Teplin et al. 2002; Wasserman et al. 2005, 2010). The majority (60%) of youth report anger issues, around half (48–52%) report anxiety or depression symptoms, one-third (30%) report a history of sexual or psychological abuse, and over 20% report attempted suicide in the past (Sedlak and McPherson 2010).² Female youth report around two times more past suicide attempts and past physical abuse and four times more past sexual abuse than male youth. This nationally representative sample of youth exhibits slightly less than the higher rates of mental health problems/diagnoses among various juvenile offender populations in other studies. High rates of psychiatric diagnoses are also found when juveniles are administered the DISC, a structured clinical assessment instrument developed by Columbia University. For instance, 72% of youth (95% male) incarcerated in a South Carolina detention facility and 66% of males and 74% of females in a Chicago detention center met criteria for at least one psychiatric disorder (Atkins et al. 1999; Teplin et al. 2002). Incarcerated youth are similar to delinquent involved youth in the community, where two-thirds (67%) of juvenile offenders from Illinois and New Jersey who were referred to assessment centers reported symptoms consistent with a psychiatric diagnosis (Wasserman et al. 2004). Texas youth referred to probation intake had a high rate (46%) of diagnosable mental illness, with female referrals exhibiting higher rates of anxiety disorders, affective disorders, and oppositional defiant disorder (Wasserman et al. 2005).

Mental health disorders are linked to further delinquent behavior. Among juvenile justice populations, those with externalizing psychiatric disorders (especially disruptive behavior disorders) were significantly more likely to reoffend than those without (McReynolds et al. 2010; McReynolds and Wasserman 2008; Wasserman

et al. 2004). Evans Cuellar and colleagues found that among justice-involved youth with mental health problems, 57% were rearrested and 10% were for felonies (Evans Cuellar et al. 2006). Conversely, internalizing disorders (e.g., depression, anxiety) tend to reduce the likelihood of reoffense or disciplinary infraction, even when combined with disruptive behavior disorders (McReynolds and Wasserman 2008; McReynolds et al. 2010).

Substance use disorders. Incarcerated youth also have greater substance abuse needs than the general population. Rates of use for alcohol, marijuana, and other illegal drugs are 1.3–2.8 times greater for youth in residential placement (Sedlak and McPherson 2010). Most surveyed youth (87% of males and 91% of females) had tried at least one illegal drug during their lifetime. The majority reported getting drunk or high multiple times per week prior to arrest (59%) and 68% report experiencing problems (e.g., getting in trouble, blacking out) (Sedlak and McPherson 2010).

Educational needs. Many youth in residential facilities experienced problems in schools prior to the incarceration period. About 21% of the incarcerated youth have dropped out of school, 61% had an expulsion or suspension during the year prior to incarceration, and 48% function below their expected grade-level (Sedlak and McPherson 2010). A national survey of state departments of juvenile corrections also reported that 39% of confined youth have learning disabilities while 10% are diagnosed with mental retardation (Quinn et al. 2005).

Types of Juvenile Justice Facilities

In 2002, 23% of adjudicated cases resulted in residential placement (Snyder and Sickmund 2006). The OJJDP identifies that incarceration or residential placement can occur in a variety of settings (a) detention center, (b) shelter, (c) reception/diagnostic center, (d) group home, (e) ranch/wilderness camp, (f) training school, and (g) residential treatment center. (Note: youth waived to

²Symptoms are self-reported by youth and are not necessarily indicative of a diagnosis.

285 adult court are not counted in these figures.)
 286 Residential treatment centers (35% of youth),
 287 group homes (28%), and detention centers (27%)
 288 are the most common types of residential facili-
 289 ties holding juvenile offenders (Hockenberry
 290 et al. 2009).³ Group homes, shelters, ranches, and
 291 training schools do not only maintain youth
 292 involved in the justice system, but oftentimes
 293 mix youth with various behavioral problems or
 294 youth that are in foster care (Sedlak and
 295 McPherson 2010).

296 Juvenile justice facilities can vary in signifi-
 297 cant ways. The OJJDP Census of Juvenile
 298 Residential Facilities describes the characteris-
 299 tics of different types of facilities holding juve-
 300 nile offenders (Hockenberry et al. 2009). Less
 301 than half (44%) of facilities are publicly oper-
 302 ated, although publicly operated facilities hold
 303 the majority (69%) of juvenile offenders. Shelters,
 304 group homes, and residential treatment centers
 305 are more likely to be privately run, whereas
 306 detention centers, reception/diagnostic centers,
 307 and training schools are more likely to be pub-
 308 licly run. Facilities also differ drastically by size.
 309 Over half (54%) of facilities hold 20 or fewer
 310 residents while only 3% of facilities hold over
 311 200 residents. However, the larger facilities
 312 account for a much larger proportion of juvenile
 313 offenders. Although group homes are the second
 314 most common facility type, they hold less than
 315 10% of juvenile offenders. In contrast, facilities
 316 with more than 100 residents hold nearly half
 317 (47%) of juvenile offenders (3% of facilities with
 318 over 200 residents hold one-quarter of juvenile
 319 offenders). Around one in ten (11%) juvenile
 320 offenders live in overcrowded facilities, mainly
 321 detention centers or training schools. The level of
 322 security also varies by facility type. While about
 323 two-thirds (68%) of public facilities lock youth
 324 into their rooms, only 8% of private facilities do
 325 so. Half of facilities report additional security
 326 measures, and a smaller number of facilities
 327 (19%) use razor wire to confine youth, a feature

³Facilities could endorse multiple facility type options. The survey of juvenile facilities did not define these terms but merely indicated that there were different types of facilities.

328 more common with training schools, detention 328
 329 centers, and reception/diagnostic centers. 329

330 Differences occur in the placement of youth to 330
 331 various different types of facilities. African– 331
 332 American youth are more likely to be placed in 332
 333 “correctional” placements (42% compared to 333
 334 31% Caucasian), Hispanic youth are more likely 334
 335 to be placed in “camp” programs (17% compared 335
 336 to 7% Caucasian), and Caucasian youth are more 336
 337 likely to be placed in residential treatment pro- 337
 338 grams (Sedlak and McPherson 2010). Female 338
 339 juvenile offenders are more likely than males to 339
 340 be located in detention centers (45% vs. 35% 340
 341 males), and are less likely to be placed in long- 341
 342 term secure facilities (24% vs. 37% males) 342
 343 (Snyder and Sickmund 2006). 343

344 **What Types of Services Are Offered**
 345 **in Youth Incarceration Facilities?**

346 The National Criminal Justice Treatment 346
 347 Practices (NCJTP) survey (see Taxman et al. 347
 348 2007a for a description of the sampling frame⁴) 348
 349 provides information on the types of services 349
 350 available in juvenile incarceration facilities, both 350
 351 in community settings and in closed settings. The 351
 352 average daily population in the residential facili- 352
 353 ties was 180.8 (median=98) youth, as compared 353
 354 to 34.7 (median=48) in the juvenile jails. In resi- 354
 355 dential facilities, 30.3% of the staff are classified 355
 356 as clinical, where the ratio of clinical staff to 356
 357 youth was 2–10 in residential facilities. 357

358 Table 18.1 shows the five most prevalent pro- 358
 359 grams in incarceration facilities and jails for youth. 359

⁴The survey of juvenile facility directors was part of the NCJTP survey conducted in 2004–2005 (see Taxman et al. 2007a). Residential facilities were selected from a sampling frame of the 772 juvenile institutions listed in the 2003 American Correctional Association (ACA) national directory. After applying exclusionary criteria (facilities with capacities of less than 25, shelters, and group and foster homes were eliminated), 67 facilities were identified using a stratified sample (based on region of the country and size of the population). In the second stage, 165 local juvenile corrections facilities and offices in these counties were identified using the ACA Directory, municipal agency Web sites and directories, and direct telephone inquiries.

Table 18.1 Prevalence of correctional services and programs

Type of program/service	Incarceration/residential facilities (N=317)	Jails (N=1,395)	Community corrections (N=2,207)	All facilities (N=3,918)
Education/GED program				
% with program	97.1	65.9	78.5	73
# in program	29,890	39,752	45,808	115,450
% of ADP (median)	100	96.5	8.3	8.3
Vocational training				
% with program	67.7	14.7	47.5	37.5
# in program	13,246	4,641	9,471	27,359
% of ADP (median)	40	100	0.6	0.5
Sex offender therapy				
% with program	50.3	7.2	67	44.3
# in program	4,450	700	13,428	18,578
% of ADP (median)	12.6	16.7	0.5	1.7
Intensive supervision				
% with program	17.9	6.1	78.3	47.7
# in program	3,117	2,945	25,005	31,066
% of ADP (median)	100	10	1.8	5.8
Transitional housing				
% with program	7.7	0.1	31.4	18.3
# in program	1,776	–	3,865	5,656
% of ADP (median)	12.5	–	0.3	0.4

Note: Weighted data presented in all tables. “% in program” refers to the percentage of facilities that provide the specified program or service. “# in program” refers to the number of youth attending the program on a typical day in all reporting facilities. “% of ADP” refers to the median percentage of the average daily population in the facilities that attend the program on a typical day

Source: Young et al. (2007)

The survey found that the facilities reported to include boot camps (8.1% of the facilities) and day reporting and work release programs (less than 2% of the facilities). Vocational services and therapeutic programs for sex offenders were fairly common (in 37.5 and 44.3% of the facilities, respectively), but the programs could only provide services to a small percentage of the youth.

As shown in Table 18.1, the pattern of services follows expectations. Because minor youth are mandated to attend school, nearly all the residential facilities and two-thirds of the jails provided education programs. The capacity was sufficient for all youth to be involved in these programs. The relatively high “percent of ADP” figure for some programs in jails (vocational and educational) and residential facilities (educational and intensive supervision) is due to the fact that these are only for facilities that offer the services.

For example, while all the youth in half of the jail facilities that provide vocational services attend such programs, only 14.7% of all the jails provide this well-attended service. Two-thirds of the residential facilities provide a vocational program, and in half of these facilities, the program is attended by 40% of the daily facility census (i.e., in half of the facilities more than 40% attend, and in the other half less than 40% attend).

NCJTP survey was devoted to understanding the range of substance abuse services and treatment programs offered (see Table 18.2). The least intensive service models were widely reported by respondents, with over three-quarters of all facilities providing drug and alcohol education. Fewer than expected residential and jail facilities provide case management services to link youth to services in the community. The most common treatment modality for juvenile offenders was brief (1–4 h) weekly substance abuse group counseling.

t2.1 **Table 18.2** Prevalence of substance abuse services

t2.2	Type of program/ service	Incarceration/residential facilities (N=317)	Jails (N=1,395)	Community corrections (N=2,207)	All facilities (N=3,918)
t2.4	Drug/alcohol education				
t2.5	% with program	88.1	66.4	81.8	76.8
t2.6	# in program	18,759	18,251	40,896	77,907
t2.7	% of ADP (median)	30	41.7	8.2	21.3
t2.8	% pgms ≥ 90 days	43.7	7.8	14.2	15.7
t2.9	SA group 1–4 h/week				
t2.10	% with program	50.7	10.7	57.7	40.4
t2.11	# in program	8,484	4,360	11,124	23,968
t2.12	% of ADP (median)	30	30	2.5	4.2
t2.13	% pgms ≥ 90 days	63.7	18.3	31.7	33.6
t2.14	SA group 5–25 h/week				
t2.15	% with program	42.2	6.7	31.9	23.8
t2.16	# in program	4,339	1,600	5,739	11,677
t2.17	% of ADP (median)	13	70	0.9	0.9
t2.18	% pgms ≥ 90 days	67.2	4.3	98.9	85.8
t2.19	TC—Segregated				
t2.20	% with program	23.5	50	2	20.8
t2.21	# in program	5,887	7,539	7,087	20,513
t2.22	% of ADP (median)	18	20.8	100	20.8
t2.23	% pgms ≥ 90 days	82.8	91	24.2	86.4
t2.24	TC—Nonsegregated				
t2.25	% with program	10	4.6	5.2	5.4
t2.26	# in program	3,482	257	1,548	5,288
t2.27	% of ADP (median)	100	30	0.4	11.6
t2.28	% pgms ≥ 90 days	95.3	4.9	90.9	65.3
t2.29	Case management				
t2.30	% with program	35.2	5.8	33.3	23.7
t2.31	# in program	10,090	2,164	42,364	54,618
t2.32	% of ADP (median)	66.3	66.7	10.9	10.9
t2.33	% pgms ≥ 90 days	67.2	21.1	95.7	86.8

t2.34 *Source:* Young et al. (2007)

400 Forty percent of all facilities provided this stan- 414
 401 dard weekly “outpatient” treatment and 23.8% 415
 402 provided the equivalent of intensive outpatient 416
 403 treatment (5–25 h weekly). The access data 417
 404 showed that both of these modalities were avail- 418
 405 able only to small numbers of juveniles, serving 419
 406 an average of less than 5% of youth in these 420
 407 facilities. 421

408 As discussed in Young et al. (2007), 66.4% of 422
 409 the residential facilities offered at least one of 423
 410 the three primary treatment modalities (1–4 h/ 424
 411 week counseling, 5–25 h/week counseling, or TC 425
 412 treatment), compared to 16.7% of the jails. 426
 413 Approximately two-thirds of the treatment 427

provided in these facilities had treatment durations 414
 of at least 90 days or more while less than 20% 415
 of the jail programs had programs of this length. 416

417 The NCJTP Facility Directors survey included 418
 419 a series of questions about the extent to which 419
 420 various screening, assessment, and other special- 420
 421 ized services were offered. Slightly over half 421
 422 (52.3%) of the facilities reported using a stan- 422
 423 dardized substance abuse tool, and the Substance 423
 424 Abuse Subtle Screening Inventory (SASSI-A or 424
 425 SASSI-A2) was the most common tool, used in 425
 426 about half of the residential facilities (50.5%) and 426
 427 jails (50.7%). Use of standardized mental health 427
 assessments was reported by 36% of the residential

t3.1 **Table 18.3** Percent of youth provided various services

t3.2 Service	Incarceration/ residential facilities (%)	Jails (%)	Community corrections (%)	All facilities (%)
t3.4 HIV/AIDS testing	64.3	24.6	20.3	26.4
t3.5 HIV/AIDS counsel and treatment	55.9	25.2	19.9	25.7
t3.6 TB screening	93.7	89.5	25.0	58.9
t3.7 Hepatitis C screening	73.5	16.0	18.8	22.9
t3.8 Physical health services	97.0	96.3	30.4	59.3
t3.9 Assessment for mental health	96.2	75.4	51.1	63.4
t3.10 Mental health counseling	72.2	61.4	43.6	52.2
t3.11 Assessment for co-occurring disorders	77.2	53.6	36.1	45.6
t3.12 Counseling for co-occurring disorders	64.4	48.8	28.7	38.7
t3.13 Family therapy/counseling	46.0	33.2	42.5	39.5
t3.14 Communication or social skills t3.15 development	90.4	69.4	33.3	50.8
t3.16 Life skills management	81.5	73.5	30.5	50.3
t3.17 Anger or stress management	87.1	65.3	31.1	47.8
t3.18 Cognitive skills development	90.8	56.3	31.7	45.2
t3.19 Job placement/voc counseling	48.7	28.1	26.4	28.9
t3.20 Religious/spiritual sessions	87.8	68.6	16.3	41.2

t3.21 *Source:* Young et al. (2007)

t4.1 **Table 18.4** Percent of youth provided offender reentry services

t4.2 Reentry service	Incarceration/ residential facilities (%)	Jails (%)	Community corrections (%)	All facilities (%)
t4.4 Community-based (CB) treatment t4.5 referral	51.5	52.6	56.4	54.9
t4.6 CB treatment appointment	55.9	25.2	19.9	25.7
t4.7 CB treatment prerelease contact	93.7	89.5	25.0	58.9
t4.8 12-step contact	73.5	16.0	18.8	22.9
t4.9 Parole/probation pre-release contact	97.0	96.3	30.4	59.3

t4.10 *Source:* Young et al. (2007)

428 facilities and 7% of jails. Risk assessment tools,
429 common in justice settings to examine probabili-
430 ty of further justice involvement, were infre-
431 quently used in residential (15.1%) or jail (6.8%)
432 facilities.

433 Other than TB screening, which was provided
434 to 58.9% of youth in all facilities, general ser-
435 vices, such as physical health services (59.3%),
436 mental health assessment (63.4%), and mental
437 health counseling (52.2%), were most frequently
438 reported. Life skills, communication skills, and
439 social skills were the next most common service
440 type, provided to approximately one-half of the
441 juvenile offenders in all facilities (Table 18.3).

442 The final part of the survey examined the
443 degree to which reentry services are provided to
444 offenders after release from incarceration. The
445 NCJTP survey assessed the frequency with which
446 facilities provided reentry services to youth with
447 substance abuse problems. As shown in Table 18.4,
448 a little over half of substance abusing youth
449 were provided with a referral to a community-
450 based treatment provider at discharge. The resi-
451 dential facilities further reported that they also
452 arranged for a post-release appointment with a
453 community-based program with over half of their
454 residents (55.9%) while appointments were made
455 for just 25.2% of those leaving jails.

456 **What Is the Quality of the Services**
 457 **Provided to Youth in Incarceration**
 458 **Facilities?**

459 The last two decades have seen an emphasis on
 460 juvenile justice (as well as adult corrections),
 461 focusing on adoption of EBP, or those treatments
 462 or practices that are tied to improved outcomes of
 463 the youth. The question raised by the EBP move-
 464 ment is not only what practices occur in the justice
 465 facility, but also what organizational or environ-
 466 mental characteristics affect the adoption and
 467 implementation of EBPs into the correctional
 468 environment. As recently noted, “a presupposition
 469 of the evidence base is that its development has
 470 taken into account the fit between the treatment
 471 and the context of delivery. In fact, this fit has been
 472 attended to only rarely” (Hoagwood et al. 2001:
 473 1185). Most of the literature on EBPs for juvenile
 474 offenders has focused on community-based treat-
 475 ment agencies, with much less emphasis on resi-
 476 dential correctional settings (Belenko 2000).
 477 Henderson et al. (2007), using the NCJTP survey
 478 data, analyzed the factors that affect the adoption
 479 of EBPs in juvenile justice settings. The research
 480 team defined EBPs based on the *Bridging the*
 481 *Gap: A Guide to Treatment in the Juvenile Justice*
 482 *System* (Drug Strategies 2005), a report that high-
 483 lights the key elements of effective substance
 484 abuse treatment practices for juvenile offenders.
 485 This report reflects a consensus of researchers,
 486 practitioners, policy makers, and criminal justice
 487 administrators specializing in substance abuse
 488 treatment for justice involved youth.

489 The factors that affect the adoption of effec-
 490 tive treatment practices, as highlighted by
 491 Henderson et al. (2007) include (a) organizational
 492 structure (Backer et al. 1986; Knudsen et al. 2006;
 493 Roman and Johnson 2002), (b) organizational
 494 climate (Aarons and Sawitzky 2006; Glisson
 495 2002; Glisson and Hemmelgarn 1998; Lehman
 496 et al. 2002), (c) training opportunities (Brown
 497 and Flynn 2002; Knudsen et al. 2005), (d)
 498 resource adequacy (Lehman et al. 2002; Simpson
 499 2002; Stirman et al. 2004), (e) network connect-
 500 edness (Knudsen and Roman 2004), and (f)
 501 administrator and staff attitudes (Knudsen et al.
 502 2005; Liddle et al. 2002; Schmidt and Taylor

2002). The dependent variable in the current 503
 study—extensiveness of use of effective treat- 504
 ment practices—indicates the number of key ele- 505
 ments identified in the Drug Strategies (2005) 506
 report currently used at the facility. The key vari- 507
 ables used in the study were: 508

- 509 1. Systems integration was measured by a list
 510 of activities in which the respondents partici-
 511 pated with judiciary, community corrections,
 512 and community-based treatment (Fletcher et al.
 513 2009). Analyses conducted by Lehman et al.
 514 (2009) indicated that a threshold of eight
 515 joint activities was indicative of more exten-
 516 sive levels of networking.
- 517 2. Screening and treatment matching drew on
 518 work by Taxman et al. (2007b) which cate-
 519 gorized assessment practices according to
 520 the use of standardized screening tools, use
 521 of tools developed by the organization, and
 522 no use of assessment tools. Programs using
 523 standardized assessment tools met the crite-
 524 rion for this effective practice.
- 525 3. Concerning treatment services, recognizing
 526 the importance of comorbid disorders, devel-
 527 opmental appropriateness, and family
 528 involvement were operationalized by items
 529 in which respondents indicated whether they
 530 had specific programming for participants
 531 with co-occurring disorders and adolescent
 532 clients and provided family therapy.
- 533 4. Determination of qualified staff was made
 534 from an item that indicated the proportion of
 535 staff that had specialized training or specific
 536 credentials in substance abuse treatment.
 537 Programs were considered to meet this crite-
 538 rion if 75% or more of their staff had either
 539 specialized training or credentials in sub-
 540 stance abuse treatment.
- 541 5. Comprehensive treatment was calculated
 542 from an inventory of medical, mental health/
 543 substance abuse, and case management ser-
 544 vices provided by the facilities. Respondents
 545 met the criterion for comprehensive treat-
 546 ment services when they provided medical,
 547 mental health/substance abuse, and case
 548 management services.
- 549 6. Engagement in treatment was assessed by
 550 an item that queried the extent to which the

- 551 programs used specific engagement techniques, 597
 552 such as motivational interviewing, with the 598
 553 criterion being using those techniques “often” 599
 554 or “always.” 600
- 555 7. Two items served as the basis for quantifying 601
 556 continuing care, one assessing the number of 602
 557 offenders that are provided a referral to a 603
 558 substance abuse treatment program and 604
 559 another assessing the number of offenders 605
 560 that had a prearranged appointment with a 606
 561 treatment program. 607
- 562 8. Respondents working in institutions reported 608
 563 on the number of offenders that received the 609
 564 services when they were released; respon- 610
 565 dents working in treatment programs reported 611
 566 on the number of offenders that appeared to 612
 567 have received the services prior to their 613
 568 admission to the community-based facility. 614
 569 Programs meeting this criterion reported that 615
 570 all of the offenders received referrals and most 616
 571 or all of them had prearranged appointments. 617
- 572 9. Assessment of treatment outcomes was oper- 618
 573 ationalized by an item that assessed the extent 619
 574 to which the respondents were regularly kept 620
 575 informed about the effectiveness of their 621
 576 substance abuse treatment programs. 622
- 577 10. Five sets of independent variables (1) organi- 623
 578 zational structure, (2) organizational climate, 624
 579 (3) training and resources (funding, staff, phys- 625
 580 ical plant, etc.), (4) network connectedness, 626
 581 and (5) administrator attitudes. Organizational 627
 582 structure measures included a dichotomous 628
 583 item indicating whether or not the facility is a 629
 584 substance abuse treatment facility and an item 630
 585 indicating whether the facility served offend- 631
 586 ers exclusively or offenders and general pop- 632
 587 ulation clients. Subscales assessed perceptions 633
 588 of management emphasis on treatment quality 634
 589 and improvement and correctional staff sup- 635
 590 port for treatment. 636
- 591 11. Training and facility resources were opera- 637
 592 tionalized by scales adapted from the 638
 593 resources and staff attributes subscales of the 639
 594 Survey of Organizational Functioning for 640
 595 correctional institutions (Lehman et al. 641
 596 2002). Scales assessed respondents’ views 642
- about the adequacy of funding, the physical 597
 plant, staffing, resources for training and 598
 development, and internal support for new 599
 programming. 600
12. Subscales that assessed beliefs about the 601
 value of different responses to crime and 602
 drug crime (rehabilitation, punishment, 603
 deterrence) were adapted from previous 604
 similar surveys of public opinion and justice 605
 system stakeholders (Cullen et al. 2000). 606
- Table 18.5 provides an overview of each vari- 607
 able to assess the adoption of EBP. Henderson 608
 et al. (2007) collapsed the data to examine the 609
 trends for incarceration (i.e., residential treat- 610
 ment, jails, detention facilities) and community- 611
 based programs. On average, facilities reported 612
 that they were using 5.5 (SD=1.9) of the effec- 613
 tive treatment practices, with community settings 614
 using significantly more ($M=5.8$, $SD=1.8$) than 615
 institutions ($M=4.9$, $SD=2.1$; $t(120)=-2.33$, 616
 $p=0.022$). Institutional programs were more 617
 likely to provide comprehensive services (χ^2 618
 $[1]=3.84$, $p=0.050$) than community-based 619
 programs. 620
- Table 18.6 shows the results of the number of 621
 specific treatment practices used, with the first 622
 column showing the results for the combined 623
 sample (adjusted for region of the country) and 624
 the second column also adjusting for setting 625
 (institution vs. community). Henderson and col- 626
 leagues (2007) adjusted for region to control 627
 for potential sample selection effect and adjusted 628
 for setting due to the differences in types and 629
 numbers of effective practices the programs 630
 were using as detailed above. As shown in 631
 Table 18.6, a number of variables affected the 632
 extent to which EBPs were in use by the facili- 633
 ties. These include organizational structure 634
 variables ($F[4, 116]=3.20$, $p=0.016$, $R^2=0.10$, 635
 Adj. $R^2=0.07$, $\Delta R^2=0.08$), treatment climate 636
 variables ($F[4, 98]=5.03$, $p=0.001$, $R^2=0.17$, 637
 Adj. $R^2=0.13$, $\Delta R^2=0.09$), management emphasis 638
 on the quality of treatment ($\beta=0.31$, $t=3.15$, 639
 $p=0.002$), training and resources variables 640
 ($F[7, 112]=3.76$, $p=0.001$, $R^2=0.13$, Adj. 641
 $R^2=0.09$, $\Delta R^2=0.12$), network connectedness as a 642

t5.1 **Table 18.5** Use of evidence-based practices by youth facilities (NCJTP survey results)

t5.2 t5.3 t5.4 Variable	Institution/ Residential/Jail		Community		Overall	
	%	<i>M</i> (<i>SD</i>)	%	<i>M</i> (<i>SD</i>)	%	<i>M</i> (<i>SD</i>)
t5.5	Evidence-based practice					
t5.6	Systems integration	45.8	42.3		77.9	
t5.7	Developmentally appropriate treatment	2.9	13.6		10.7	
t5.8	Qualified staff	52.9	76.1		69.7	
t5.9	Use of standardized assessment	70.6	84.1		80.3	
t5.10	Comprehensive services	55.9	36.4		41.8	
t5.11	Family involvement in treatment	70.6	95.5		88.5	
t5.12	Addressing co-occurring disorders	73.5	70.5		71.3	
t5.13	Use of engagement techniques	64.7	75.0		72.1	
t5.14	Continuing care	26.5	25.0		25.4	
t5.15	Assessment of treatment outcomes	38.2	67.0		59.0	
t5.16	Average of number of key elements used		4.88 (2.07)	5.77 (1.82)		5.5 (1.93)
t5.17	Organizational structure					
t5.18	Substance abuse treatment facility	35.3	60.2		53.3	
t5.19	Offenders vs. offenders and non-offenders	17.6	95.5		73.8	
t5.20	Organizational climate					
t5.21	Management emphasis on quality		3.60 (0.80)	4.08 (0.46)		3.95 (0.61)
t5.22	treatment					
t5.23	Correctional staff support for treatment		3.52 (0.64)	3.42 (0.72)		3.45 (0.70)
t5.24	Training and resources					
t5.25	Funding		2.56 (0.78)	2.36 (0.73)		2.41 (0.74)
t5.26	Physical plant		3.16 (0.79)	3.61 (0.85)		3.48 (0.85)
t5.27	Staffing		2.66 (0.90)	2.93 (0.77)		2.86 (0.82)
t5.28	Internal support		3.62 (0.53)	3.38 (0.97)		3.45 (0.88)
t5.29	Network connectedness					
t5.30	Noncriminal justice facilities		2.05 (0.74)	2.44 (0.73)		2.32 (0.75)
t5.31	Criminal justice facilities		2.23 (0.81)	3.15 (0.88)		2.88 (0.95)
t5.32	Administrator attitudes					
t5.33	Punishment/deterrence		2.32 (0.61)	2.10 (0.64)		2.16 (0.64)
t5.34	Rehabilitation		4.51 (0.54)	4.56 (0.51)		4.55 (0.51)
t5.35	Organizational commitment		3.94 (0.75)	4.31 (0.50)		4.20 (0.60)
t5.36	Cynicism for change		2.29 (0.83)	1.73 (0.53)		1.90 (0.68)

t5.37 *Source:* Henderson et al. (2007)

t5.38 *M*=mean, *SD*=standard deviation

643 group showed the strongest relationship with the
 644 use of effective practices ($F [4, 113]=8.23$,
 645 $p<0.001$, $R^2=0.21$, $\text{Adj. } R^2=0.19$, $\Delta R^2=0.20$),
 646 and administrator attitudes as a group was sig-
 647 nificantly associated with the use of effective
 648 practices ($F [6, 108]=2.68$, $p=0.018$, $R^2=0.11$,
 649 $\text{Adj. } R^2=0.06$, $\Delta R^2=0.09$). The multivariate
 650 model found that the use of EBPs was the result

of network connectedness, training, internal sup-
 port for new programs, management emphasis
 on the quality of treatment, administrator com-
 mitment to the organization, and whether the
 facility was a substance abuse treatment agency
 ($R^2=0.28$, $\text{Adj. } R^2=0.24$, $\Delta R^2=0.20$); the only
 significant individual predictor was network con-
 nectedness ($\beta=0.23$, $t=2.86$, $p=0.005$).

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t6.1 **Table 18.6** Impact of organizational variables (IVs) on the use of evidence-based practices (DV)

t6.2 Variable	Unadjusted coefficient			Adjusted coefficient for setting		
	<i>B</i>	SE <i>B</i>	β	<i>B</i>	SE <i>B</i>	β
t6.3 Organizational structure						
t6.4 Institution vs. community setting	1.23	0.65	0.29	N/A	N/A	N/A
t6.5 Substance abuse treatment facility	0.69	0.35	0.18*	0.69	0.35	0.18*
t6.6 Offenders vs. offenders and non-offenders	-0.59	0.67	-0.13	-0.59	0.67	-0.13
t6.7 Organizational climate						
t6.8 Management emphasis on quality treatment	1.06	0.27	0.36***	0.91	0.29	0.31**
t6.9 Correctional staff respect for treatment	0.12	0.25	0.05	0.16	0.25	0.06
t6.10 Training and resources						
t6.11 Funding	-0.46	0.23	-0.18*	-0.37	0.22	-0.15
t6.12 Physical plant	0.10	0.21	0.05	-0.05	0.21	-0.02
t6.13 Staffing	0.02	0.22	0.01	-0.08	0.21	-0.04
t6.14 Training development	0.61	0.30	0.20	0.60	0.29	0.20*
t6.15 Internal support	0.45	0.21	0.20*	0.56	0.21	0.25**
t6.16 Network connectedness						
t6.17 Noncriminal justice facilities	0.82	0.27	0.33**	0.84	0.27	0.33**
t6.18 Criminal justice facilities	0.33	0.21	0.17	0.21	0.23	0.11
t6.19 Administrator attitudes						
t6.20 Punishment/deterrence	-0.35	0.28	-0.12	-0.26	0.28	-0.09
t6.21 Rehabilitation	0.23	0.36	0.06	0.26	0.35	0.07
t6.22 Organizational commitment	0.82	0.39	0.27*	0.81	0.38	0.26*
t6.23 Cynicism for change	0.14	0.35	0.05	0.35	0.36	0.13

t6.24 *Source:* Henderson et al. (2007)

t6.25 *B*=Unstandardized regression coefficient, SE *B*=Standard error, β =Standardized regression coefficient

t6.26 * $p < 0.05$, ** $p < 0.01$

659 Discussion and Conclusion

660 Approximately 4% of the juvenile population
 661 involved in the formal part of the justice system,
 662 with an undisclosed number of youth involved in
 663 diversion programs in the community. Youth that
 664 interact with the juvenile justice system, and
 665 probably those in diversion programs, have a
 666 higher burden of need for services along all
 667 dimensions—medical, psychological, educational,
 668 and vocational—than the general population of
 669 youth. This high burden of need places the youth
 670 at risk for poor prognosis for being productive
 671 adults, including future mental health and sub-
 672 stance abuse problems. Poor educational attain-
 673 ment also limits future employment prospects.

674 Existing survey data illustrates that the juve-
 675 nile justice system fails to deliver EBP or treat-
 676 ments that are likely to improve the life prospects

of youth. This paper is devoted to youth that are 677
 detained in facilities and not in community-based 678
 settings, such as probation. As shown by the data 679
 provided by the NCJTP (Henderson et al. 2007; 680
 Young et al. 2007) as well as the recent Survey of 681
 Youth in Residential Treatment (Sedlak and 682
 McPherson 2010), residential treatment and 683
 incarceration facilities are equipped to provide 684
 legally mandated services for educational and 685
 basic medical care. But much needed psychologi- 686
 cal services such as mental health counseling and 687
 substance abuse treatments are infrequently pro- 688
 vided, and the existing services are insufficient to 689
 meet the needs of the youth. More importantly, 690
 the services that are available do not map to the 691
 EBP literature. Most neglected are family-related 692
 treatments, such as multisystemic family therapy. 693
 Few institutional programs provide family therapy 694
 while the youth is in the facility or in community- 695
 based programming. The NCJTP survey provides 696

t7.1 **Table 18.7** Core components of recent national initiatives

t7.2	Juvenile detention alternatives initiative (<i>Annie E. Casey Foundation</i>)	Models for change (<i>MacArthur Foundation</i>)	Reclaiming futures (<i>Robert Wood Johnson Foundation</i>)
t7.4	Collaboration between juvenile justice agencies, community organizations, and other governmental entities	Fundamental fairness	Initial screening
t7.7	Collection and utilization of data to identify problems and assess impacts of changes	Recognition of juvenile–adult differences	Initial assessment
t7.9	Development of objective admissions criteria	Recognition of individual differences	Service coordination
t7.11	Nonsecure alternatives to detention	Recognition of potential	Service initiation
t7.12	Case-processing reforms	Safety	Service engagement
t7.13	Flexible policies and practices to address special detention cases	Personal responsibility	Service completion
t7.15	Reduction of racial disparities in the use of detention	Community responsibility	
t7.16	Improvement of confinement conditions through routine inspections and raised standards	System responsibility	

697 the most extensive information on available services
698 in both institutional and community setting (for
699 formal programs); NCJTP reveals that few juve-
700 nile justice facilities—either institutional or com-
701 munity based—provide adequate services. The
702 potential for addressing psychological and physi-
703 cal needs during the period of confinement exists
704 but the current system does not use this opportu-
705 nity. Instead, the services that are provided are
706 poorly matched to the needs of the youth and do
707 not lay a solid foundation to assist the youth in
708 having productive lives.

709 Much pressure has been placed on the juvenile
710 justice system over the last few decades to
711 improve the quality of services provided and to
712 improve the life prospects of troubled youth. But
713 at the same time, the increasing focus on punish-
714 ment in the juvenile justice system has resulted
715 in more youth being waived to the adult system,
716 more youth being placed in “correctional” (not
717 treatment) facilities, and fewer services being
718 provided in the facilities to address psychological
719 needs. The Survey of Youth in Residential
720 Facilities (SYRF) reveals that over one-third of
721 youth report that their medical needs are unat-
722 tended to. And, recent troubles in juvenile justice
723 residential facilities where correctional staff use
724 force to deal with behavioral problems reveal
725 that safety and security within the facilities are a
726 major challenge. In fact, in the SYRF more than

one-third of the youth (38%) indicated that they
fear for their personal safety with 25% reporting
concerns about another resident, 22% report con-
cerns about staff, and 15% report concerns about
someone coming into the facility from the out-
side (Sedlak and McPherson 2010).

The population of incarcerated youth has been
steadily decreasing since 2000, when nearly
109,000 juvenile offenders were in residential
placement (Sickmund 2010). During this same
time, juvenile arrest rates were also declining,
but at more aggressive rates (33% vs. 26%
decrease between 2000 and 2008). Over the last
decade, three national initiatives have drawn
attention to juvenile justice issues and supported
programs intended to decrease the number of
juveniles in confinement facilities. These initia-
tives are summarized in Table 18.7 and include

1. The Annie E. Casey Foundation’s Juvenile
Detention Alternatives Initiative (JDAI) tar-
geted the increasing rates of detention and
overcrowded conditions at these facilities.
JDAI relies on eight core strategies for reduc-
ing the use of juvenile detention (see
Table 18.7) (Mendel 2009). Jurisdictions
undertaking the goals of JDAI have had suc-
cess in reducing detention populations; the
overall population across 78 JDAI sites
decreased 35% due to reducing the number of
admissions and the overall length of stay.

757 2. The MacArthur Foundation’s Models for
 758 Change initiative began in 1996 with grants
 759 for both research and the development of new
 760 laws, policies, and practices (Models for
 761 Change 2009). The Models for Change initia-
 762 tive attempts to protect and rehabilitate juve-
 763 nile offenders while still emphasizing
 764 accountability and community safety through
 765 eight principles (see Table 18.7). Models for
 766 Change efforts are in 16 states to advance the
 767 identification and dissemination of promising
 768 state-level strategies for reform intended to
 769 promote more fair decision making, increase
 770 prosocial development, and reduce recidivism,
 771 the use of incarceration, and transfers of juve-
 772 niles to the adult system.

773 3. The Robert Wood Johnson Foundation’s
 774 Reclaiming Futures is focused on substance-
 775 abusing youth in the community with a goal of
 776 prevention incarceration or confinement in
 777 juvenile facilities. Reclaiming Futures began
 778 in 2002 (Nissen et al. 2006). Reclaiming
 779 Futures encourages multidisciplinary commu-
 780 nity collaboration, greater involvement with
 781 families, and stronger coordination of services
 782 for offending youth in local jurisdictions. An
 783 evaluation of ten demonstration sites (Butts
 784 and Roman 2007) found that local juvenile
 785 justice and substance abuse experts reported
 786 improvements in 12 of 13 indicator areas
 787 across a 6-year period when the Reclaiming
 788 Futures model was implemented within their
 789 jurisdiction.

790 The challenge is that youth that interact with
 791 the justice system are more likely to have psycho-
 792 logical and physical needs that require a service
 793 delivery system. The juvenile justice system,
 794 which once operated on a “child saving” philoso-
 795 phy, yields to the pressures to have a punishment
 796 focus. Mirroring the adult correctional system,
 797 the focus is on punishment and accountability,
 798 with few services to address the unmet psycho-
 799 logical or physical needs. This has resulted in
 800 incarceration facilities that offer few services and
 801 that do not adequately prepare the youth to be
 802 part of society. The EBP and treatment movement
 803 has provided a new impetus to resume practices
 804 and services that will improve the outcomes of

youth—but in a diminishing service environment 805
 it is unclear whether society is willing to assist 806
 delinquent youth. But the consequences of not 807
 improving the life prospects of these youth is 808
 these youth are more likely to be involved in the 809
 adult correctional system and continue to be a 810
 burden on society. It would appear that “an ounce 811
 of prevention” through quality medical and psy- 812
 chological services would be worth the 2.2 mil- 813
 lion lives that pass through the juvenile justice 814
 system each year. 815

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Implementing Evidence-Based Practices for Juvenile Justice Prevention and Treatment in Communities

Nancy G. Guerra and Kirk R. Williams

Implementing Evidence-Based Practices for Juvenile Justice Prevention and Treatment in Communities

The growing trend to treat juveniles in community settings coupled with an increased focus on the use of evidence-based practices (EBPs) raises an important question: What practices are most effective for community-based prevention and treatment? However, answering this question is not a simple task. At the outset, it is important to be clear about what the term “evidence-based practices” actually means with regard to juvenile justice prevention and treatment. Does practice refer to a name-brand program certified by an official group tasked with vetting the scientific rigor and outcomes of empirical evaluations? Or does it refer to a general strategy for prevention and treatment, derived from scientific evidence, and including optimal conditions for implementation?

As we illustrate in this chapter, we believe it includes both components. This is consistent with a recent definition provided by with EBPs

considered to be a “program or strategy that has been evaluated through rigorous scientific study using experimental or quasi-experimental methods” (p. 1). This includes two types of EBPs. On the one hand, there are brand-name programs that have been developed and validated through controlled research. These programs are offered in manualized versions for broader implementation, often with training and technical assistance from dedicated organizations. On the other hand, EBPs as defined here also include strategies (sometimes called “principles” or “practices”) such as group counseling, cross-age tutoring, mentoring, or cognitive-behavioral therapy. These strategies also are components of programs and consequently have been subjected to empirical test.

Beyond clarifying the meaning of the term, the task of listing EBPs for juvenile justice is complicated by the relatively scant evidence for model programs as well as a lack of detailed information on key elements of effective strategies. Indeed, there are relatively few “model programs” in juvenile justice that have been rigorously evaluated with consistently positive findings (Guerra et al. 2008). Although some programs have been evaluated with diverse populations, in general, there is less evidence for program effectiveness for males versus females, across multiple ethnic groups, and in distinct community settings. There also is relatively little evidence regarding approved “adaptations” for model programs, that is, what can be varied while still maintaining positive outcomes. And designation as a model program in the most

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63 comprehensive reviews typically only requires
64 one controlled study and one replication (e.g.,
65 Mihalic and Irwin 2003; Greenwood 2010).
66 Further, there is a growing recognition that even
67 the best programs will not improve outcomes
68 unless implemented with high quality and fidelity
69 to the original model (Backer 2005; Spoth et al.
70 2004).

71 Given the dearth of model programs, an alter-
72 nate approach that is gaining momentum within
73 juvenile justice is to extract from evaluation
74 research reviews and meta-analyses a core set of
75 strategies for effective intervention based on fea-
76 tures that statistically distinguish effective pro-
77 grams from ineffective ones. Again, a “strategy”
78 is a general approach to reducing delinquency
79 that allows for flexibility and adaptation across
80 settings. As Lipsey et al. (2007, p. 1) note: “The
81 key assumption of this approach is that incorpo-
82 ration of a suitable selection of those features into
83 the practice of routine programs will ensure their
84 effectiveness.” In other words, this approach does
85 not require exact replication of model programs
86 with consistently high fidelity, but rather the
87 inclusion in these programs of key elements asso-
88 ciated with effectiveness vis-a-vis reducing delin-
89 quency, recidivism, and related outcomes. These
90 strategies address both the *content* of the pro-
91 gramming as well as the *conditions* for optimal
92 implementation.

93 In the present chapter, we review the current
94 state of knowledge regarding EBPs for juvenile
95 justice prevention, and treatment. We include in
96 this review both model programs and evidence-
97 based strategies. As we note, evidence-based
98 strategies can be used by practitioners to assess
99 whether characteristics of current or planned
100 interventions are consistent with available evi-
101 dence on effectiveness (or potential for effective-
102 ness based on risk prediction) absent an
103 appropriate model program. We also describe a
104 rating system for program characteristics linked
105 to reductions in recidivism, the Standardized
106 Program Evaluation Protocol (SPEP), developed
107 and evaluated by Lipsey and associates, and
108 piloted with state juvenile justice systems in
109 Arizona and North Carolina.

110 We conclude with a discussion of next steps
111 for developing a more in-depth rating system that
112 incorporates detailed descriptions of program ele-
113 ments and optimal conditions of implementation.
114 We illustrate the need for greater elaboration of
115 effective program elements by drawing on inter-
116 vention research in cognitive-behavioral therapy
117 and etiologic studies examining social-cognitive
118 predictors of risk for delinquency. Although cog-
119 nitive-behavioral interventions routinely emerge
120 as the most effective interventions, specific com-
121 ponents linked to risk reduction have not been
122 clearly articulated in intervention research but can
123 be gleaned from the risk prediction literature.

124 Under difficult fiscal conditions and with the
125 increasing role of local communities in offender
126 treatment and rehabilitation, it is critical that lim-
127 ited resources be utilized for programs and strate-
128 gies likely to have the greatest effect on positive
129 juvenile justice outcomes. Model programs can
130 provide clear direction for these efforts when the
131 client population, intervention needs, and quality
132 of implementation closely approximate those in
133 the research (e.g., model programs typically are
134 implemented with high levels of resources, care-
135 ful monitoring, and ongoing training). When
136 local conditions differ significantly, it may be
137 necessary to evaluate further a model program
138 under these new conditions. However, with some
139 exceptions, juvenile justice agencies are over-
140 taxed with service delivery and case manage-
141 ment, and do not have the resources and/or
142 infrastructure in place to manage this type of
143 research. Accordingly, a rating system to assess
144 the potential effectiveness of available programs
145 based on evidence-based strategies can provide a
146 useful tool for optimizing positive effects.

147 It is our position that these approaches are not
148 mutually exclusive but rather complementary.
149 Ideally, communities would adopt relevant model
150 programs, continue to evaluate them under novel
151 conditions or as adapted, use a rating system to
152 judge the potential for effectiveness of ongoing or
153 new programs based on their alignment with
154 evidence-based strategies and risk factors for delin-
155 quency, and conduct ongoing evaluations of these
156 new programs to augment the evidence base.

157 **Model Programs for Community-**
 158 **Based Juvenile Justice Prevention**
 159 **and Treatment**

160 Although there have been numerous efforts to
 161 establish listings of model programs for juvenile
 162 justice intervention, guidelines for certification
 163 of programs as evidence-based vary greatly,
 164 leading to different lists from different sources.
 165 As Greenwood (2010, p. 1) notes in a recent
 166 review of EBPs for juvenile justice, “Although
 167 the developers of the lists all claim they are *evid-*
 168 *ence-based*, they differ significantly in the pro-
 169 cesses and care with which they were developed,
 170 the number of programs and strategies they recom-
 171 mend and the reliability of their recommen-
 172 dations . . . not all lists are created equal.” Among
 173 the listings considered most rigorous are the
 174 Blueprints project at the University of Colorado
 175 (<http://www.Colorado.edu/cspv/blueprints/>), the
 176 Coalition for Evidence-Based Policy at
 177 Vanderbilt University (<http://www.coalition4evi->
 178 [dence.org/wordpress/](http://www.coalition4evidence.org/wordpress/)), the Top Tier project at
 179 Vanderbilt University (<http://www.toptierevi->
 180 [dence.org/wordpress](http://www.dence.org/wordpress)), and the Washington State
 181 Institute for Public Policy (WSIPP; [http://www.](http://www.wsipp.wa.gov)
 182 [wsipp.wa.gov](http://www.wsipp.wa.gov)).

183 Considering “proven programs,” there are
 184 relatively few brand name programs available
 185 for young offenders that have consistently dem-
 186 onstrated significant positive effects on reducing
 187 offending and related behaviors (Guerra et al.
 188 2008). Some proven programs to prevent delin-
 189 quency target younger populations from infancy
 190 through childhood. For adolescents, the only
 191 proven programs deemed as evidence-based in
 192 at least two rigorous trials and vetted by at least
 193 two of the four groups listed above are Multi-
 194 systemic Therapy (MST), Functional Family
 195 Therapy (FFT), and Multidimensional Treatment
 196 Foster Care (MTFC). An additional program,
 197 Aggression Replacement Training (ART), fre-
 198 quently is used in juvenile justice practice
 199 and is considered evidence-based according
 200 to the Washington State Institute of Public
 201 Policy only.

Brand Name Model Programs
 for Juvenile Justice

Multi-systemic Therapy

MST is perhaps the most well known and widely
 used family-based intervention for juvenile
 offenders, with a large national organization
 available to support training and implementation.
 The emphasis of this intervention is on helping
 families deal more effectively with their adoles-
 cent’s behavioral problems and other risk factors
 contributing to delinquency. MST also addresses
 barriers to family utilization of resources and
 empowerment. Trained teams of MST therapists
 with low caseloads (four to six families) provide
 approximately 50 h of face-to-face contact over a
 3–6 month period. Controlled studies have found
 reductions in recidivism for treatment youth of
 approximately 8% compared to controls. Based
 on a cost per youth of \$4,364, cost–benefit esti-
 mates project a savings (benefits minus costs) of
 \$17,694 for participants (Greenwood 2010). Still,
 some effectiveness trials within juvenile justice
 systems have raised concerns about outcomes,
 particularly in light of implementation difficul-
 ties in real-world settings. For example, a recent
 study by WSIPP (2004) reported increased recid-
 ivism rates for MST when implementation is
 poor. This raises an important issue regarding
 whether agencies can adhere to the standards and
 guidelines set out by program developers when
 implementing programs in real-world settings.

Functional Family Therapy

Designed several decades ago, FFT is a struc-
 tured family behavioral intervention designed to
 improve family functioning through increased
 family problem-solving skills, enhanced emo-
 tional cohesion, and improved ability of parents
 to provide structure and guidance for their teen-
 age children. The program is relatively brief,
 delivered in home settings by individual thera-
 pists, and is less intensive and expensive than
 MST. Studies have demonstrated approximately
 18% reductions in recidivism for intervention
 youth in FFT. Based on a cost per youth of
 \$2,380, cost–benefit estimates project a savings

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247 of \$49,776 (Greenwood 2010). However, the
 248 program was designed to work with less serious and
 249 generally younger youth than MST, which must
 250 be considered in comparing the two programs.

251 **Multidimensional Treatment Foster Care**

252 This program differs from MST and FFT because
 253 participants are in foster care or similar therapeutic
 254 environments, rather than living at home with
 255 their families. It has been used as an alternative to
 256 group residential treatment for more seriously
 257 delinquent youth in need of out-of-home place-
 258 ment. The program emphasizes behavior man-
 259 agement techniques for foster families and
 260 includes family therapy for the youth’s biological
 261 parents. Randomized trials of MFTC have found
 262 reductions in recidivism of approximately 18%
 263 for participants. Based on comparisons with resi-
 264 dential treatment facilities and a cost per youth of
 265 \$6,926, cost–benefit analyses predict a savings of
 266 \$88,953 for this program (Greenwood 2010).

267 **Aggression Replacement Training**

268 Although only designated a model program by
 269 WSIPP, this program is widely utilized in juve-
 270 nile training and rehabilitation settings. It is a
 271 30-h program, typically administered three times
 272 per week for 10 weeks. The emphasis of the pro-
 273 gram is on social skill acquisition, impulse, and
 274 anger control, and improving moral reasoning. It
 275 is the only brand name program with some evi-
 276 dence for effectiveness that does not involve
 277 families. This is important in settings and under
 278 conditions where family involvement is not prac-
 279 tical. Reductions in recidivism of approximately
 280 8% for treatment youth have been found. Based
 281 on a cost per youth of \$918, cost–benefit esti-
 282 mates project a savings of \$23,015 for ART
 283 (Greenwood 2010).

284 **Implementing Model Programs:
 285 Cautions and Concerns**

286 A major concern for implementation of evidence-
 287 based model programs is the dearth of programs
 288 available. Further, because model programs are

289 tested under “ideal” conditions, these programs
 290 may not produce similar outcomes when imple-
 291 mented in less controlled, real-world juvenile
 292 justice settings (WSIPP 2004). Even less is
 293 known about the appropriateness and effective-
 294 ness of these programs across a range of socio-
 295 economic, community, ethnic, and cultural
 296 conditions. Under these different conditions it
 297 may be necessary, at the very least, to evaluate
 298 further the effectiveness of these model pro-
 299 grams. And beyond family interventions, the evi-
 300 dence base is particularly weak.

301 On the other hand, there is also evidence for
 302 standardized programs that have been found to
 303 be ineffective or even harmful. In general, pro-
 304 grams that try to scare youth get “tough” on
 305 youth, and group delinquent youth together for
 306 unstructured programming have been ineffective
 307 or harmful. For example, according to evidence
 308 gathered by WSIPP, residential boot camps and
 309 Guided Group Interaction (using the antisocial
 310 peer group to promote prosocial behavior) have
 311 not been linked to reductions in recidivism. Of
 312 more concern, the Scared Straight approach,
 313 where prison inmates confront first-time offend-
 314 ers about the negative consequences of a criminal
 315 lifestyle, has been found to lead to increases in
 316 recidivism for participants compared to controls.

317 Of course, positive, neutral, and negative find-
 318 ings must also be interpreted with caution. As
 319 noted above, in the case of programs with posi-
 320 tive effects, it is possible that these effects will
 321 not maintain for different populations, with cer-
 322 tain adaptations, and/or under different condi-
 323 tions of implementation. It is also possible that
 324 evaluations that did not produce significant find-
 325 ings have not been published, the infamous “file
 326 drawer” problem noted in research reviews and
 327 meta-analyses. For programs without demon-
 328 strated effectiveness, it may be that the program
 329 was necessary but not sufficient to impact the
 330 outcomes of concern. There have been instances
 331 where programs without initial demonstrated
 332 effectiveness have been revised and subsequently
 333 found to be effective (e.g., Project G.R.E.A.T. for
 334 early gang prevention; Esbensen 2008). Finally,
 335 there are also many programs implemented in
 336 the field that simply have not been rigorously

337 evaluated—leaving open the possibility that
338 ongoing programs actually are effective in pre-
339 venting and reducing violence and delinquency,
340 but need to be evaluated. In short, model pro-
341 grams that have been rigorously evaluated may
342 be only the tip of the iceberg, with the vast
343 portion of that iceberg (effective programs that
344 have not been evaluated) remaining submerged
345 in the unknown.

346 Given these cautions and concerns, an alter-
347 nate approach that has received support is to
348 designate elements of effective programs or
349 “evidence-based strategies” for juvenile justice
350 intervention. These have been gleaned from com-
351 prehensive reviews and meta-analyses that disen-
352 tangle features of effective programs across
353 multiple studies. These practices include both
354 desired program content and optimal conditions
355 for effective implementation.

356 Evidence-Based Strategies 357 for Juvenile Justice

358 Juvenile justice agencies are tasked with provid-
359 ing a variety of services for offenders at different
360 stages of justice system involvement including
361 diversion, court supervision, and residential treat-
362 ment. Across the U.S., communities typically
363 provide a wide range of services through con-
364 tracts with non-profit agencies as well as pro-
365 grams run by probation, law enforcement, and
366 other service providers. Most typically, the spe-
367 cific programs used depend on availability, fund-
368 ing, community perceptions of need, and other
369 factors that are not necessarily related to evidence-
370 based practice. Providing lists of these strategies
371 allows for more careful scrutiny of programs to
372 ensure they are consistent with empirically-
373 validated guidelines.

374 Much of the work on evidence-based strate-
375 gies for juvenile justice has been done by Lipsey
376 and colleagues at Vanderbilt ([http://www.
377 coalition4evidence.org/wordpress/](http://www.coalition4evidence.org/wordpress/)) and ([http://
378 www.toptierevidence.org/wordpress/](http://www.toptierevidence.org/wordpress/)). Based on
379 meta-analysis of research studies of programs for
380 juvenile offenders drawn from an archive of

381 nearly 600 controlled studies looking at program
382 effects on recidivism, this group has developed a
383 list of general program strategies (vs. specific
384 model programs) that have been found to reduce
385 recidivism among juvenile offenders.

386 Among common strategies associated with
387 the reductions in antisocial behavior and/or recid-
388 ivism are (percentage reduction in parentheses):
389 cognitive-behavioral therapy (26%), behavioral
390 interventions (22%), group counseling (22%),
391 mentoring (21%), intensive case management
392 (20%), mixed group/family counseling (16%),
393 family counseling (13%), social skills training
394 (13%), challenge programs (12%), mediation
395 (12%), coordinated wrap-around services (12%),
396 remedial education (10%), vocational training
397 (6%), and diversion with services (3%). Optimal
398 conditions for effective implementation include a
399 focus on high-risk youth, longer duration of treat-
400 ment, and regular monitoring and supervision to
401 ensure high-quality implementation.

402 The Standardized Program Evaluation 403 Protocol: Preliminary Findings

404 In order to determine whether existing programs
405 could be rated based on utilization of EBPs drawn
406 from meta-analysis of previous studies, and
407 whether these ratings predicted recidivism out-
408 comes, Lipsey and colleagues developed the
409 SPEP. This system was then evaluated in North
410 Carolina and Arizona. In part, this system was
411 developed to address state mandates that all juve-
412 nile justice programs be evaluated as a condition
413 of continued funding, without allocation of fund-
414 ing for conducting these evaluations. The SPEP
415 score rates how closely each program includes
416 characteristics shown by research to be the stron-
417 gest predictors of recidivism—in essence, repre-
418 senting an evaluation of the program’s “expected
419 effectiveness” for reducing recidivism. Programs
420 are rated based on the primary service as well as
421 any supplemental services, treatment duration,
422 and contact hours.

423 The SPEP rating process involves gathering
424 information on available services in a given
425 geographic area (e.g., county, state) and assigning

426 points based on program characteristics linked to
 427 recidivism outcomes from the available research.
 428 A SPEP score reflects the degree of similarity of
 429 the specific program to what the research litera-
 430 ture shows to be best practices for juvenile
 431 offenders. To validate this rating scheme empiri-
 432 cally, the relation between SPEP scores 6- and
 433 12-month recidivism was statistically analyzed
 434 using logistic regression, adjusting for initial
 435 risk level.

436 In both the North Carolina and Arizona study,
 437 higher SPEP scores were significantly associated
 438 with lower than predicted recidivism. Among
 439 service types that were rated as “more effective”
 440 or “much more effective” than average were
 441 community-based and residential cognitive-
 442 behavioral services, community-based and resi-
 443 dential substance abuse services, residential sex
 444 offender services, and mentoring. Interestingly,
 445 although family interventions dominate “model
 446 programs” in juvenile justice practice, both fam-
 447 ily therapy and individual counseling were rated
 448 as average in effectiveness, that is, recidivism
 449 was about the same as predicted. Group
 450 counseling and life skills programs were rated as
 451 less effective than predicted. In terms of optimal
 452 conditions for implementation, programs with a
 453 longer duration (16 weeks or more of treatment)
 454 and more contact hours (24 h or more) also
 455 were more positively related to reductions in
 456 recidivism.

457 The SPEP protocol represents an important
 458 first step in quantifying critical components of
 459 effective programs that can be mapped on to
 460 existing services and can inform the development
 461 of new interventions. It can also be used to drive
 462 program improvement and refocus efforts to be
 463 more consistent with evidence-based strategies.
 464 Still, several issues remain to be addressed. First,
 465 although the developers of the instrument consid-
 466 ered the need to rate the *quality of implementa-*
 467 *tion*, this was minimally assessed in the North
 468 Carolina and Arizona studies. Although quality
 469 ratings have become a staple in fields such as
 470 early childcare, to date, there has been relatively
 471 little effort directed at developing a rating scheme
 472 to measure the quality of implementation for
 473 juvenile justice interventions. For example,

474 characteristics such as client/staff ratios, staff
 475 training and certification, supervisory role of staff
 476 (e.g., probation officer vs. counselor), and the
 477 physical structure where services are provided
 478 may influence program outcomes.

479 In addition, more detail is needed within broad
 480 program categories. Delineating proven strate-
 481 gies with a broad sweep is a first step in focusing
 482 interventions in specific areas. However, this
 483 approach does not provide clear direction for a
 484 more fine-grained evaluation of effective
 485 components of programs within these areas. For
 486 example, a recent report commissioned by the
 487 State of California (Greenberg 2010) provides a
 488 listing of 25 broad strategies with some evidence
 489 of effectiveness for reducing substance use and/
 490 or anti-social behavior. These include cognitive-
 491 behavioral therapy, group counseling, social
 492 skills training, challenge programs, behavioral
 493 programs, and counseling/psychotherapy.

494 However, within each of these categories
 495 there can be a broad array of programs, some of
 496 which may actually be ineffective or counter-
 497 indicated. For example, “group counseling”
 498 would include programs such as Guided Group
 499 Interaction, an intervention that tries to build
 500 prosocial norms within a group counseling for-
 501 mat, and that has been shown to be ineffective,
 502 whereas group counseling in general is listed as
 503 effective (albeit less effective than other strate-
 504 gies) from the analyses. This creates some con-
 505 fusion about the benefits of group counseling.
 506 Because this is a broad term, it may be that this
 507 mechanism can work, but not when used to try to
 508 alter group norms, as is done in GGI. As this
 509 demonstrates, an important next step is to specify
 510 details of programs within each area that should
 511 increase the likelihood that a particular program
 512 will yield reductions in problem behavior, based
 513 on available research evidence from relevant
 514 empirical studies.

515 However, this task is hampered by a general
 516 lack of detail regarding key components of effec-
 517 tive programs. Looking at cognitive-behavioral
 518 programs as an example of an effective strategy,
 519 a generic framework still does not provide guid-
 520 ance for specific types of cognition that should be
 521 included in interventions. For example, although

522 considered a cognitive-behavioral program, an
 523 intervention designed to decrease an individual's
 524 learned helplessness associated with internal
 525 and stable cognitive attributions for failure (i.e.,
 526 "failure is my fault and there is nothing I can do")
 527 is more likely to impact depression than delin-
 528 quency. Further, even when cognitions are
 529 directly linked to aggression and delinquency,
 530 cognitive-behavioral interventions typically
 531 address a range of related cognitions that may
 532 vary from intervention to intervention. Some
 533 programs may promote social information-
 534 processing skills whereas others may emphasize
 535 distortions in thinking. Although the relative con-
 536 tribution of different aspects of cognition could
 537 be analyzed using statistical tests of mediation,
 538 this rarely is reported. Rather we are left to distill
 539 the most critical elements of program design
 540 from the descriptions provided.

541 An alternate approach is to rely on etiologi-
 542 cal studies of risk for delinquent and antisocial
 543 behavior to identify the strongest predictors of
 544 risk that should be targeted by preventive inter-
 545 ventions. We illustrate this approach by review-
 546 ing specific elements of social cognition
 547 gleaned from related empirical studies of cog-
 548 nition and delinquency that can provide addi-
 549 tional guidance for developing interventions
 550 for offenders.

551 **Social-Cognitive Foundations** 552 **of Delinquency**

553 There is a long history of research on the cog-
 554 nitive underpinnings of delinquent and antisocial
 555 behavior (for a review, see. In our own recent
 556 work (Guerra and Bradshaw 2008; Kim et al.
 557 2008), we have identified five "core competen-
 558 cies" that include specific components of social
 559 cognition linked to a range of youth delinquent
 560 and problem behaviors (including violence, sub-
 561 stance abuse, high-risk sexual behavior, and early
 562 school leaving). Many cognitive-behavioral
 563 interventions for delinquency and violence pre-
 564 vention incorporate some or all of these compe-
 565 tencies as well.

566 **Core Competencies for Cognitive-** 567 **Behavioral Interventions** 568 **in Juvenile Justice**

569 Multiple lists of important competencies and/or
 570 social-cognitive skills linked to adjustment and
 571 prevention of problem behaviors have been
 572 developed over the years. However, no univer-
 573 sally agreed upon list of specific aspects of social
 574 cognition or competence that should be included
 575 in cognitive-behavioral interventions for juve-
 576 nile offenders has been established. That said,
 577 some areas have received considerable empirical
 578 support from longitudinal studies of risk and most
 579 frequently are included in cognitive-behavioral
 580 programs: positive sense of self, cognitive self-
 581 control, decision-making skills, moral system of
 582 belief, and prosocial connectedness.

583 **Positive Sense of Self**

584 In order for adolescents and young adults to inte-
 585 grate and utilize specific standards for behavior
 586 and related skills, they must be consistent with
 587 their own cognitive self-views. A teenage boy
 588 who defines himself as a "tough guy" or "bad
 589 ass" is unlikely to adopt behavioral strategies
 590 that involve asking politely or waiting one's turn.
 591 A positive sense of self includes self-awareness
 592 of one's "good side" including assets and strengths.
 593 This awareness can provide motivation for prosocial
 594 behavior as well as lay the foundation for
 595 one's future life course, providing hopefulness
 596 and a sense of purpose based on positive "possible
 597 selves" rather than negative self-images.

598 Another cognitive component of positive sense
 599 of self involves personal agency, also labeled self-
 600 efficacy. This refers to individuals' beliefs about
 601 their capacity to produce designated levels of per-
 602 formance and influence relevant events in their
 603 lives. A positive and strong sense of agency or
 604 self-efficacy helps youth set challenging goals,
 605 sustain efforts, and recover in the face of failure
 606 (Bandura 1994). Without this, youth may build
 607 self-confidence by developing beliefs in their
 608 capacity for negative events, such as the ability to
 609 command respect through violence.

610 Self-esteem is a widely cited but controver-
 611 sial marker of adjustment. We include it in the

612 cognitive domain because it reflects judgments
 613 individuals make about their general and specific
 614 self-worth. Although both low and high self-
 615 esteem have been associated with violence, in
 616 general, high self-esteem has been linked to
 617 multiple measures of positive affect and life sat-
 618 isfaction (Diener 1984). Thus, it is important for
 619 cognitive-behavioral interventions to encourage
 620 high self-esteem (self evaluations) based on
 621 competence and performance in socially mean-
 622 ingful domains—school, sports, work, and
 623 community engagement—rather than based on
 624 power and aggression.

625 **Self-Control**

626 Self-control is defined as the ability to regulate
 627 and manage emotions and behaviors in a con-
 628 trolled rather than automatic fashion and in line
 629 with situational constraints. A number of studies
 630 have found a relation between low self-control
 631 and risk behaviors such as aggression and crimi-
 632 nality (Caspi et al. 1995; Gottfredson and Hirschi
 633 1990). Recent advances in neuroscience have
 634 highlighted the fact that frontal lobe activation, a
 635 determinant of behavioral inhibition, continues
 636 to develop beyond adolescence and into adult-
 637 hood (Steinberg 2008).

638 Most cognitive-behavioral interventions for
 639 juvenile offenders include a focus on cognitive
 640 self-control techniques, particularly as related to
 641 anger management. For example, lessons on self-
 642 statements for impulse control (“I can calm
 643 down” or “Count to ten and take a deep breath”)
 644 fall within this domain. In ART, one of three
 645 components is focused on self-control and anger
 646 management. To the extent that delinquency
 647 and violence are linked to reactive and angry
 648 responding, this represents an important area for
 649 cognitive-behavioral interventions.

650 However, self-control also involves resistance
 651 to temptation and inhibition of one’s desire for
 652 immediate gratification. For example, in a classic
 653 experimental study comparing 4-year-old chil-
 654 dren who took a small prize on the spot (a marsh-
 655 mallow) or waited for a more valued reward,
 656 children who took the small prize on the spot
 657 were more likely than the children who waited to
 658 have poor grades and get in trouble 14 years later

when they graduated from high school (Mischel 659
 et al. 1989). This suggests that cognitive-behavioral 660
 interventions designed to impact delinquent behavior 661
 and improve outcomes should focus on cognitive techniques for delayed 662
 gratification as well as for anger management. 663
 664

665 **Decision-Making Skills**

666 Decision making related to social behavior
 667 involves a variety of cognitive information-
 668 processing skills. These include the ability to
 669 interpret social situations accurately, plan for and
 670 anticipate the future, set goals, generate alterna-
 671 tive solutions, generate consequences, and learn
 672 from the negative consequences of past decisions.
 673 Numerous empirical studies have found that
 674 children and youth who are more aggressive,
 675 delinquent, and involved in substance use tend to
 676 be less adept at some or all of these decision-
 677 making skills (Crick and Dodge 1994).

678 Although researchers have used many differ-
 679 ent approaches to studying decision making for
 680 teenagers and young adults, most cognitive-behavioral
 681 interventions for aggressive and delinquent youth
 682 have emphasized the importance of learning discrete
 683 social-information processing skills. These skills are
 684 seen as sequential; that is, first individuals must
 685 attend to and interpret cues, followed by genera-
 686 tion of goals, solutions, and consequences, leading
 687 to a decision to follow a specific course of action.
 688 Based on the finding that aggressive and delinquent
 689 youth are particularly susceptible to *hostile attribution bias*,
 690 that is, the tendency to attribute hostile intent to
 691 others under ambiguous circumstances when interpret-
 692 ing cues, many cognitive-behavioral interventions
 693 for offenders also direct considerable attention to
 694 reducing this hostile bias. 695

696 For example, the *Viewpoints* program is a
 697 cognitive-behavioral intervention for high-risk
 698 youth and juvenile offenders emphasizing reduc-
 699 ing hostile bias and sequential decision making
 700 in problematic situations linked to possible delin-
 701 quent and antisocial behavior. The program
 702 includes lessons on self-control, particularly
 703 because controlled information processing
 704 requires individuals to “stop and think.” In eval-
 705 uation studies with incarcerated youth, the

706 Viewpoints program resulted in reductions in
 707 aggressive behavior for participants compared
 708 with the control group (Guerra and Slaby 1990).
 709 More recently, an expanded version of this
 710 cognitive-behavioral intervention, *Positive Life*
 711 *Changes*, was developed to address multiple
 712 aspects of social cognition related to delinquency,
 713 with a particular emphasis on social problem
 714 solving and decision making (Guerra 2009).

715 **Moral System of Belief**

716 This involves internalized beliefs about how
 717 people in a society should behave in relation to
 718 each other. It includes issues such as harm, fair-
 719 ness, integrity, and responsibility, and engages
 720 cognitive and psychological processes such as
 721 perspective taking and empathy. Although early
 722 work on moral development emphasized promot-
 723 ing moral growth through dilemma discussions,
 724 this work was plagued by the lack of a relation
 725 between stages of moral reasoning and moral
 726 action. More recently, the notion of “moral iden-
 727 tity” has been suggested as a mechanism linking
 728 moral thinking to moral action. In other words,
 729 individuals who score high on moral identity,
 730 defined as the centrality of moral beliefs to their
 731 sense of self, should also be more likely to act in
 732 a moral fashion (Damon 2004).

733 Previous work on a moral system of belief sug-
 734 gests that the focus of cognitive-behavioral inter-
 735 ventions in the domain of moral thinking should
 736 be to (a) promote the development of moral beliefs
 737 based on justice and fairness, and (b) increase an
 738 individual’s moral identity. Social psychological
 739 research also suggests that an effective strategy to
 740 change and/or encourage specific attitudes and
 741 beliefs is to have participants develop and present
 742 persuasive messages for the new beliefs (e.g., ask
 743 them to write an advertisement promoting caring
 744 and compassion for one’s neighbors). Rather than
 745 engaging in dilemma discussions, these strategies
 746 are more likely to strengthen prosocial moral
 747 beliefs and actions.

748 **Prosocial Connectedness**

749 In spite of a large sociological literature linking
 750 low levels of attachment and bonding to conven-
 751 tional social institutions, cognitive-behavioral

752 interventions typically have not addressed this
 753 dimension of adjustment. We argue that this is an
 754 important component of social cognition linked
 755 to delinquency. Individuals who perceive (think)
 756 they are cared for, empowered, trusted, and
 757 acknowledged within a given context are more
 758 likely to be well adjusted and less likely to engage
 759 in risk behaviors, including violence, and delin-
 760 quency (Commission on Children at Risk 2003).

761 In part, this perception depends on an indi-
 762 vidual’s social ecology. Social contexts carry
 763 with them multiple opportunities for participa-
 764 tion and connectedness, just as they can bring
 765 about alienation and withdrawal. Given that
 766 cognitive-behavioral interventions are oriented
 767 to how individuals’ understand and make sense
 768 of their social world (rather than changing dimen-
 769 sions of social contexts), a cognitive-behavioral
 770 intervention should help youth identify and solid-
 771 ify these prosocial connections where possible.

772 **Summary and Future Directions**

773 Using the general category of cognitive-behavioral
 774 interventions (a promising intervention strategy)
 775 we have illustrated the need for further detail
 776 linked to risk for delinquency in guiding specific
 777 programs and for developing a comprehensive
 778 rating system. Based on this brief review, we sug-
 779 gest several key features from the risk and pre-
 780 vention literature that should be included in
 781 cognitive-behavioral interventions in juvenile
 782 justice settings. These include an emphasis on:
 783 (a) building a positive and moral identity, (b) pro-
 784 moting self-control, including both anger man-
 785 agement and delayed gratification, (c) providing
 786 opportunities to learn and practice sequential
 787 decision-making skills for solving social prob-
 788 lems, including examining errors in thinking, (d)
 789 facilitating development of a prosocial and moral
 790 system of belief using social psychological tech-
 791 niques, and (e) increasing participants’ access to,
 792 utilization, and awareness of opportunities for
 793 prosocial connectedness in their environment.
 794 Of course, these strategies will be enhanced
 795 by multi-method interventions that also provide

796 opportunities and build supportive contexts.
 797 For example, mentoring programs offer a venue
 798 for increasing prosocial connectedness, and
 799 cognitive-behavioral interventions can provide
 800 individuals with an understanding of why these
 801 are important.

802 Looking forward, the push toward evidence-
 803 based programs and strategies in juvenile justice
 804 must be accompanied by greater specificity. In
 805 considering model programs, it is important to
 806 examine whether programs as developed (and
 807 even when implemented with high fidelity) are
 808 relevant with different populations and in differ-
 809 ent settings. More research is needed to determine
 810 adaptations that do not weaken program outcomes
 811 (or perhaps strengthen them in some settings).

812 In building new programs based on evidence-
 813 based strategies, it is important to examine fur-
 814 ther specific characteristics of effective programs
 815 within general domains (such as cognitive-
 816 behavioral interventions) and to develop rating
 817 systems that allow for a more nuanced evaluation
 818 of critical program elements. In addition, as we
 819 have pointed out, it also is important to develop
 820 guidelines for assessing quality of program
 821 implementation. In some cases, the importance
 822 of quality indicators has been evaluated empiri-
 823 cally in juvenile justice and related interventions;
 824 in other cases, it may be necessary to draw more
 825 broadly on characteristics of high quality pro-
 826 gram implementation from the broader preven-
 827 tion and intervention literature.

828 A feasible goal would be to develop guidelines
 829 for program certification based on specific pro-
 830 gram content and principles of effective imple-
 831 mentation, and to use these standards to evaluate
 832 and guide programming. Still, any type of rating
 833 system is only as good as the available evidence
 834 on which it is based. Rating systems are limited
 835 to gathering data from published studies that empiri-
 836 cally estimate program effects on recidivism. It
 837 will also be useful to examine the most robust
 838 predictors of delinquency onset, escalation, and
 839 desistance to determine whether programs for
 840 distinct groups of youth (i.e., primary prevention
 841 to prevent onset or tertiary prevention to promote
 842 desistance) are directed toward reducing these
 843 risk factors (when malleable). In all cases, rigorous

evaluations must continue to be conducted and
 published to further illuminate what works, for
 whom, and under what conditions in reducing
 youth crime and violence.

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Uncorrected Proof

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4 The annual cost of youth violence in the USA
5 exceeds \$158 billion when accounting for direct
6 and indirect effects of violence on areas such as
7 medical burden, work productivity, and quality
8 of life (Center for Disease Control and Prevention
9 2008). Therefore, preventing youth violence and
10 antisocial behavior should be a high priority for
11 researchers and policy makers. Research sug-
12 gests that approximately 80–85% of young chil-
13 dren desist from disobedience, temper tantrums,
14 physical aggression, and other behaviors that are
15 relatively normative during early childhood
16 (Nagin and Tremblay 1999; Shaw et al. 2003).
17 However, approximately 5–10% of children
18 show persistently high levels of conduct prob-
19 lems that may lead to antisocial behavior and vio-
20 lence in adolescence (Moffitt et al. 2002; Shaw
21 et al. 2003). Although a pattern of “late-starting”
22 or “adolescence-limited” antisocial behavior ini-
23 tially emerging during adolescence has been
24 shown to have more serious consequences for
25 adult functioning than originally thought, a pat-
26 tern of “early-starting” or “life-course-persistent”
27 conduct problems is associated with an even

more persistent and serious course of antisocial 28
behavior from middle childhood through adoles- 29
cence and young adulthood (Moffitt 1993; 30
Patterson et al. 1992). For example, young men 31
who followed the “adolescence-limited” trajec- 32
tory of antisocial behavior reported similar levels 33
of psychiatric symptoms as men who followed 34
the “life-course-persistent” trajectory (Moffitt 35
et al. 2002). However, men who followed the 36
“life-course-persistent” trajectory were still two 37
to three times more likely to receive a criminal 38
conviction as adults compared to men who fol- 39
lowed the “adolescence-limited” trajectory. 40
Therefore, identifying risk factors that are associ- 41
ated with early-starting patterns of conduct prob- 42
lems is essential for the health and well-being of 43
youth and other members of society. 44

We begin by presenting a brief overview of 45
risk factors for conduct problems and later anti- 46
social behavior and delinquency. The discussion 47
of risk factors will set the stage for our review of 48
prevention programs because the programs’ 49
emphases tend to vary based on the salience of 50
specific risks during different periods of develop- 51
ment (e.g., toddlerhood, adolescence). Our 52
review concludes with a synthesis of findings and 53
directions for future research. The conclusion 54
emphasizes the importance of evaluating effica- 55
cious prevention programs that have been carried 56
out in real-world community settings. We also 57
describe emerging areas of developmental 58
research on conduct problems that will undoubt- 59
edly lead to refinements in prevention programs 60
targeting youth conduct problems. 61

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Risk Factors for Conduct Problems

In accord with an ecological theory of human development (Bronfenbrenner 1979), risk factors for childhood conduct problems and later antisocial behavior range from individual temperamental characteristics and other child factors (e.g., attributional biases), to family factors, and community-level factors, including such settings as schools and neighborhoods and the peers and adults children encounter in these extra-familial contexts. Much theory and empirical research has examined the key role of temperament traits and personality characteristics in the development of conduct problems. For example, well-established links exist between temperamental traits such as negative emotionality, fearlessness, or poor impulse control and conduct problems (e.g., Bates et al. 1985; Olson et al. 1999; Shaw et al. 2003), and longitudinal research supports low impulse control measured in early childhood as a predictor of antisocial behavior in adolescence (Caspi et al. 1995). Furthermore, Eisenberg et al. (2004) have provided empirical support for a temperament-based model that highlights low effortful control and high levels of impulsivity and negative emotionality in the development of externalizing problem behavior (e.g., Eisenberg et al. 2001). Other empirically supported models of the development of conduct problems and antisocial behavior emphasize similar personality traits including negative emotionality, daring or sensation-seeking behaviors, and low levels of prosociality (Lahey and Waldman 2003). Associations have also been established between dispositional characteristics and specific conduct problem dimensions such as the relation between callous-unemotional traits and covert conduct problems (see Frick and Morris 2004). Other individual characteristics with evidence as predictors of conduct problems and later antisocial behavior include delayed language development, low intellectual performance, and impaired visual-spatial abilities (Shaw and Gross 2008).

Although child characteristics are well-established predictors of conduct problems,

contextual risk factors are also central to the development of early conduct problems and later delinquency. Furthermore, there is little evidence that infant temperament or behavior assessed prior to age 2 have long-term ramifications for delinquency or antisocial behavior in adolescence (Shaw and Gross 2008). Instead, it appears that early environmental circumstances ranging from in utero exposure to high levels of tobacco or alcohol to attachment insecurity during infancy can set the stage for conduct problems and delinquency, particularly when children reside in at-risk family contexts. An at-risk family context is often characterized by the following risk factors: young parents, less educated parents, low family income, family mental health concerns such as maternal depression, and a history of antisocial behavior in the family (Shaw and Gross 2008). Furthermore, low quality parenting plays an important role in the emergence and persistence of conduct problems, and rejecting, nonnurturant parenting accounts for much of the association between the above-mentioned family risks and the development of conduct problems (Shaw et al. 2003; Trentacosta et al. 2008; Trentacosta and Shaw 2008). Rejecting parenting in a child's life may be an especially salient factor in the emergence of conduct problems, but parenting characteristics continue to be prominent predictors of more serious conduct problems in adolescence. For example, parental knowledge of their adolescent's whereabouts is a robust predictor of lower levels of engagement in antisocial behavior during adolescence (Laird et al. 2003).

Other salient ecological factors in the development of conduct problems include peers and the family's neighborhood environment. For example, rejection by peers in the elementary school years is a well-established correlate of aggression and later antisocial behavior (Dodge et al. 2006). During adolescence, youths' association with deviant peers frequently sets the stage for increased involvement in antisocial behavior (Dishion and Patterson 2006). Neighborhoods can be especially relevant contexts for the emergence of serious delinquency and antisocial behavior among adolescents with a history of conduct problems. Youth residing in high-crime,

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156 impoverished communities typically have easier
 157 access to deviant peers and other negative influ-
 158 ences. However, the neighborhood context is less
 159 likely to directly contribute to the emergence of
 160 conduct problems prior to formal school entry,
 161 except in the context of severely adverse neigh-
 162 borhoods (Ingoldsby and Shaw 2002).

163 The preceding summary indicates that both
 164 individual characteristics and environmental
 165 factors play important roles in the development
 166 of conduct problems. With the proliferation of
 167 longitudinal datasets and the refinement of
 168 methods to examine statistical mediation and
 169 moderation, researchers are now able to take a
 170 more sophisticated approach when examining the
 171 interplay of risk factors and their co-development
 172 over time. For example, a longitudinal investi-
 173 gation of low-income families showed that boys
 174 with a propensity for daring behaviors were
 175 most at risk for antisocial behavior when they
 176 lived in dangerous neighborhoods; boys with
 177 this propensity had little risk for antisocial
 178 behavior when they lived in low-risk neighbor-
 179 hoods (Trentacosta et al. 2009). Similarly, a
 180 landmark study of gene \times environment interac-
 181 tion showed that children possessing the low
 182 MAOA risk allele were at greater risk for antisocial
 183 behavior, but only when they had experi-
 184 enced maltreatment as a child (Caspi et al.
 185 2002). Numerous studies have failed to replicate
 186 initial genotype \times environment findings (see
 187 Risch et al. 2009), including the low MAOA risk
 188 allele finding (Young et al. 2006); however, fol-
 189 low-up meta-analyses have confirmed the low
 190 activity MAOA genotype by maltreatment
 191 interaction as a predictor of antisocial behavior
 192 (Kim-Cohen et al. 2006; Taylor and Kim-Cohen
 193 2007). Overall, it appears as though innovative
 194 approaches examining personality \times environ-
 195 ment or genotype \times environment interactions
 196 will continue to increase understanding of the
 197 relative importance of risk factors at particular
 198 developmental stages and in specific contexts.
 199 Evidence from recent risk-related investigations
 200 may be especially useful as researchers refine
 201 prevention programs targeting conduct prob-
 202 lems and delinquency to increase their efficacy
 203 and improve their cost-benefit ratio.

Preventing Conduct Problems Across Childhood and Adolescence 204
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206 Below, we describe prevention programs that
 207 have either directly targeted emerging conduct
 208 problems or that have targeted other concerns
 209 (e.g., child maltreatment) and shown additional
 210 effects on reducing conduct problems and delin-
 211 quent behavior. Our review highlights a develop-
 212 mental approach to prevention that takes into
 213 account the most salient risk factors as targets for
 214 prevention programs during childhood and ado-
 215 lescence. Although our summary is primarily
 216 focused on programs geared toward family and
 217 school contexts, we conclude with a brief discus-
 218 sion of prevention approaches targeting broader,
 219 systemic-level change. With a few exceptions,
 220 the review focuses on programs that have been
 221 evaluated in randomized controlled trials.

222 It is important to note that this review focuses
 223 on prevention programs rather than intervention
 224 approaches designed for clinic-referred cases of
 225 diagnosed disruptive behavior disorders or for
 226 youth who are already involved in the juvenile ju-
 227 stice system. Eyberg et al.'s (2008) recent review in
 228 a special section of the *Journal of Clinical Child
 229 and Adolescent Psychology* provides an excellent
 230 overview of evidence-based treatments for dis-
 231 ruptive behavior disorders. Like the prevention
 232 programs we describe below, treatment approaches
 233 with empirical support typically attend to risk fac-
 234 tors for conduct problems (e.g., maladaptive par-
 235 enting; Patterson et al. 1982) and/or address
 236 multiple aspects of the child's ecological context
 237 (e.g., multisystemic therapy; Henggeler et al.
 238 1992). Furthermore, as we detail below, many of
 239 the efficacious treatment approaches targeting
 240 conduct problems have been adapted for use in
 241 prevention programs.

Infancy and Toddlerhood 242

243 In accord with evidence indicating that individual
 244 child-level factors are not robust predictors of
 245 conduct problems before age 2, prevention

246 programs during the prenatal and infant periods
 247 typically target the child's family context rather
 248 than working directly with the infant. Because
 249 adequate functioning within the family context is
 250 vital to healthy development early in life, it is not
 251 surprising that home visitation services are gain-
 252 ing traction as a prevention approach (Astuto and
 253 Allen 2009). The nurse-family partnership (NFP)
 254 is an especially promising home visitation pro-
 255 gram that has been evaluated in multiple random-
 256 ized controlled trials (Olds 2006). The NFP was
 257 designed to address three goals: health during the
 258 prenatal period, sensitive care of the infant, and
 259 improvements of the parental life course. Mothers
 260 enrolled in the NFP were visited by nurses at their
 261 home throughout pregnancy and between the
 262 child's birth and their second birthday. There
 263 were three major functions of the home visits: (1)
 264 to promote mothers' health-related behavior, (2)
 265 to build supportive relationships between moth-
 266 ers and their families and friends, and (3) to link
 267 mothers and their families with health and human
 268 services in the community.

269 Based on data from three trials of the NFP in
 270 Elmira, NY, Memphis, TN, and Denver, CO, the
 271 program has been most successful in addressing
 272 goals related to increasing parental care of the
 273 child (e.g., less child injuries) and improving
 274 maternal outcomes (e.g., fewer subsequent preg-
 275 nancies; Olds 2006). Furthermore, offspring of
 276 mothers enrolled in the original trial had fewer
 277 arrests, fewer convictions and violations of pro-
 278 bation, and fewer instances of running away as
 279 adolescents than youth in the control condition
 280 (Olds et al. 1998). For example, the mean num-
 281 ber of lifetime youth-reported arrests up to age 15
 282 was 0.36 for youth whose mothers were enrolled
 283 in the control groups, whereas the mean number
 284 of youth-reported arrests was approximately 0.17
 285 for youth whose mothers participated in the NFP
 286 program. The findings were especially robust for
 287 youth born to mothers who were unmarried and
 288 poor, and they provide important evidence that a
 289 home-visiting program implemented during the
 290 prenatal and infancy periods can reduce later
 291 youth delinquency. Based on the strength of the
 292 NFP findings from randomized controlled trials, a
 293 NFP national office was created and the program

294 has been disseminated to numerous communities
 295 across the USA and abroad with guidance from
 296 the national office (Olds 2006). Although other
 297 home visiting programs for infants have reduced
 298 problem behavior early in life (see Olds et al.
 299 2007 for a review), no other home-visiting pro-
 300 gram initiated during the prenatal period has fol-
 301 lowed youth into adolescence and tracked their
 302 level of delinquency.

303 As infants become toddlers, temperament
 304 characteristics become more predictive of future
 305 behavioral maladjustment, and parents become
 306 more motivated to directly address behaviors
 307 associated with the "terrible twos." Therefore, it
 308 is not surprising that prevention programs focused
 309 on the toddler period begin to directly target child
 310 behavior (e.g., aggression, oppositional behavior)
 311 while maintaining an emphasis on parenting and
 312 the family context. A home visitation program for
 313 2-year-old children and their families, the Family
 314 Check-Up (FCU; Shaw et al. 2006), capitalizes on
 315 parents' concerns about their child's behavior
 316 while concomitantly addressing concerns within
 317 the family context. The FCU for early childhood
 318 is an adaptation of a similar program for youth
 319 and their families during the transition to adoles-
 320 cence (Dishion and Kavanagh 2003). The FCU
 321 for early childhood involves at least three sessions
 322 in the family's home beginning at age 2. The first
 323 session involves a "get-to-know-you" visit from a
 324 parent consultant to establish rapport. The second
 325 session includes a thorough in-home assessment
 326 of the child's behavior, parenting, and the broader
 327 family context. The third session utilizes tech-
 328 niques from motivational interviewing (Miller
 329 and Rollnick 2002) to provide feedback on the
 330 findings from the assessment session and enhance
 331 parents' motivation to work toward changing
 332 problematic areas of functioning. At the conclu-
 333 sion of the feedback session, the parent is encour-
 334 aged to set goals and discuss steps to meet the
 335 goals. Often although not always, the family may
 336 set up additional treatment visits with the parent
 337 consultant to address goals related to parenting
 338 and factors that compromise the quality of care-
 339 giving (e.g., parental depression, marital quality,
 340 social support). When addressing parenting in
 341 follow-up sessions, parent consultants utilize

342 training materials from the Parent Management
 343 Training Oregon Model program (Patterson et al.
 344 1982), the only treatment for disruptive behavior
 345 with “well-established” evidence of efficacy
 346 (Eyberg et al. 2008). Because the FCU is based on
 347 a health-maintenance model of prevention, the
 348 program is designed to be repeated each year with
 349 similar procedures.

350 Results of the FCU in early childhood have
 351 been very encouraging, with evidence of positive
 352 outcomes from two randomized controlled trials.
 353 In both trials, income-eligible mothers and their
 354 toddlers were recruited from women, infants, and
 355 children (WIC) nutrition supplement programs.
 356 In the first trial conducted in Pittsburgh, PA and
 357 limited to boys, reductions in conduct problems
 358 and improvements in maternal involvement and
 359 positive parenting were documented following
 360 the first 2 years of the program (Gardner et al.
 361 2007; Shaw et al. 2006). An ongoing multisite
 362 trial that included boys and girls in Pittsburgh,
 363 PA, Charlottesville, VA and Eugene, OR also has
 364 demonstrated reductions in multiple types of
 365 problem behavior, including conduct, emotional,
 366 and co-occurring problems, with a modest effect
 367 size for reductions in child problem behavior
 368 ($d=0.23$; Dishion et al. 2008). Furthermore,
 369 decreased maternal depression and increased
 370 positive parenting mediated program effects on
 371 reduced problem behavior (Dishion et al. 2008;
 372 Shaw et al. 2009). An investigation of moder-
 373 ators of treatment effects in the multisite trial
 374 showed that the program was equally effective
 375 for families facing many ecological risk factors
 376 (e.g., young parenthood), although the program
 377 was more effective for less educated parents and
 378 two-parent families (Gardner et al. 2009).
 379 Remarkably, the two trials have achieved reduc-
 380 tions in conduct problems even though families
 381 assigned to the FCU condition have averaged
 382 fewer than four sessions per year.

383 The Preschool Years

384 With the transition to the preschool years, most
 385 children’s levels of physical aggression and non-
 386 compliance begin to decline, and deviations from

387 behavioral norms often become more apparent to
 388 parents and other care providers. Furthermore,
 389 expectations for rudimentary self-regulatory and
 390 social skills increase during this developmental
 391 period as preschoolers are expected to attend
 392 preschool learning activities and engage in prosocial
 393 interactions with their peers. As a result, it is
 394 not surprising that prevention strategies focusing
 395 on the individual child become more prominent
 396 during the preschool period. Many of the newer
 397 prevention approaches build on the legacy of
 398 early preschool programs that were designed to
 399 promote the well-being of impoverished young
 400 children. For example, the High/Scope Perry
 401 Preschool project originated in the 1960s and has
 402 showed long-term reductions in delinquency-
 403 related outcomes in adulthood for preschool pro-
 404 gram participants. Over half (55%) of the
 405 nonprogram group had been arrested five or more
 406 times by age 40, but only slightly more than one-
 407 third (36%) of program participants had a compar-
 408 able arrest record (Schweinhart et al. 2005).
 409 However, programs designed for this develop-
 410 mental period are not limited to the preschool
 411 classroom setting; parent training programs that
 412 are based on empirically supported treatment
 413 strategies for conduct problems are also an impor-
 414 tant element of the prevention strategy during the
 415 preschool years.

416 Webster-Stratton’s Incredible Years (IY;
 417 Webster-Stratton 2008) is the most thoroughly
 418 evaluated program that targets conduct problems
 419 during the preschool period, and the prevention
 420 programs are based on Webster-Stratton’s IY
 421 interventions for clinic-referred youth. The IY
 422 intervention includes separate child and parent
 423 programs, and both programs have received
 424 support as efficacious treatment approaches for
 425 disruptive behavior (Eyberg et al. 2008; Webster-
 426 Stratton and Hammond 1997). Based on social
 427 learning theory, the IY intervention pays special
 428 attention to cognitive, social, and emotional defi-
 429 cits associated with conduct problems. These
 430 highly interactive programs emphasize skills
 431 training within a group setting, and they include
 432 videotaped vignettes and role play activities.

433 Webster-Stratton and her colleagues have
 434 evaluated the IY prevention programs in multiple

435 trials conducted in collaboration with Head Start
 436 preschool programs. In the initial IY prevention
 437 program evaluation, parents of Head Start chil-
 438 dren were invited to participate in weekly 2 h
 439 group parent training sessions for a total of
 440 8–9 weeks (Webster-Stratton 1998). The program
 441 also included limited teacher training on behavior
 442 management strategies. Children of mothers par-
 443 ticipating in the program had fewer conduct
 444 problems than children in control classrooms,
 445 and mothers demonstrated less harsh discipline
 446 and more positive parenting following the pro-
 447 gram. A subsequent evaluation involved more
 448 extensive teacher training on techniques for
 449 classroom management and parenting training
 450 groups that lasted for 12 weeks (Webster-Stratton
 451 et al. 2001). This implementation also led to
 452 improvements in parenting and conduct problems
 453 at school, with the strongest effects observed for
 454 the highest-risk children. A more recent evalua-
 455 tion of the IY program focused on an adaptation
 456 of the child program (Dinosaur School) that was
 457 implemented by Head Start and kindergarten
 458 teachers emphasizing small-group activities and
 459 lessons during circle time that were co-led by
 460 research staff (Webster-Stratton et al. 2008). The
 461 evaluation showed improvements in IY teachers’
 462 classroom management approaches when com-
 463 pared to teachers in control classrooms, with the
 464 largest improvements in conduct problems and
 465 school readiness skills for children in the highest-
 466 risk classrooms. The program was also most
 467 effective for children with the highest conduct
 468 problems scores at the pre-program evaluation.
 469 The intervention effect became statistically sig-
 470 nificant ($p < 0.05$) when scores were 1.42 standard
 471 deviations above the pre-program mean, with a
 472 medium to large effect size for this group (effect
 473 size = -0.70 ; Webster-Stratton et al. 2008).

474 In addition to Webster-Stratton’s work in
 475 Seattle, prevention researchers have adapted the
 476 IY program for specific target populations (e.g.,
 477 Hutchings et al. 2007). For example, the IY parent
 478 and teacher training program has been adapted for
 479 toddler-aged children. An evaluation of the toddler
 480 program in Chicago showed improved behavior
 481 among the toddlers with the highest-risk behaviors
 482 at the pre-program assessment (Gross et al. 2003).

483 Furthermore, a recent evaluation of an adaptation
 484 of the IY program targeted preschool-aged siblings
 485 of adjudicated youth (Brotman et al. 2005a, b).
 486 This program included IY parent groups, IY child
 487 groups, and several 90-min home visits. Initial
 488 results showed improvements in parenting and
 489 child social competence but no effect on child dis-
 490 ruptive behavior. However, a longer-term follow-
 491 up showed improvements in the level of observed
 492 physical aggression relative to children in the con-
 493 trol condition (Brotman et al. 2008). Adolescent
 494 siblings of the targeted preschoolers also showed
 495 improvements based on parent and teacher reports
 496 of the adolescents’ antisocial behavior (Brotman
 497 et al. 2005a, b).

498 Other prevention research conducted during
 499 the preschool period has sought to reduce conduct
 500 problems and related concerns by promoting
 501 social skills and emotion regulation in the pre-
 502 school setting. For example, the emotions course
 503 (EC) was designed as a program to promote emo-
 504 tion competence and prevent behavior problems
 505 among children enrolled in Head Start (Izard et al.
 506 2008). Although a trial of EC conducted in an
 507 urban Head Start setting showed positive program
 508 effects on social competence but not on conduct
 509 problems, an evaluation of the program in a rural
 510 Head Start setting showed decreases in children’s
 511 aggressive behavior. The positive effects on social
 512 competence but not conduct problems are not
 513 unique to the urban trial of EC; an evaluation of a
 514 preschool adaptation of the PATHS curriculum
 515 (see description below) showed positive effects
 516 on social competence but not conduct problems
 517 (Domitrovich et al. 2007). The pattern of findings
 518 from these studies and Brotman and colleagues’
 519 (2008) evaluation of the IY program suggest that
 520 in some situations longer-term follow-ups may be
 521 necessary to elucidate the effects of early preven-
 522 tion on reduced levels of conduct problems.

523 The School Transition

524 Many of the prevention programs with the
 525 longest-term outcomes began by targeting young
 526 school-aged children’s aggressive behavior.

527 In addition to a similar emphasis on parent training as in the programs for preschoolers, many of
528 the programs for school-age children have also
529 included content related to child social skills and
530 social-cognitive abilities. For example, the
531 Montreal Prevention Research project provided
532 parent training and child social skills training to
533 high-risk boys who were randomized to the prevention
534 program condition (Tremblay et al. 1995). Boys who were involved in the prevention
535 program between ages 7 and 9 years had fewer
536 disruptive behavior problems in adolescence. In
537 other programs, the school setting itself plays a
538 central role, with many programs emphasizing
539 classroom management and the peer context. For
540 example, the Seattle Social Development Project
541 provided training to teachers on classroom management,
542 cooperative learning, and interactive
543 teaching methods in a nonrandomized evaluation
544 with a control condition (Hawkins et al. 1999).
545 Teachers also implemented the Interpersonal
546 Cognitive Skills Program that provides training
547 to children on problem-solving skills (Shure and
548 Spivack 1982), and parent training classes were
549 offered to caregivers. Participants who received
550 the full intervention during the school-age years
551 reported fewer violent acts and less problematic
552 outcomes (e.g., lower levels of heavy drinking)
553 by age 18 years. Another research group evaluated
554 a classroom management approach, the
555 Good Behavior Game, during first grade within
556 randomized schools in Baltimore (Kellam et al.
557 1994). The research team has documented long-
558 term reductions in antisocial personality disorder
559 and violent crime among high-risk males who
560 received the Good Behavior Game preventive
561 intervention (Petras et al. 2008).

564 Building upon the successes of programs targeting
565 conduct programs at school entry, the Fast
566 Track project was perhaps the largest research
567 evaluation of a program to reduce conduct problems.
568 This multisite program targeted high-risk
569 kindergarteners in four communities across the
570 US, and included both universal classroom-level
571 components and family- and individual-level
572 components for high-risk children (Conduct
573 Problems Prevention Research Group 1992). The
574 child component focused on emotion regulation,

575 social cognitive skills, and academic skills, and
576 the parent component focused on decreasing
577 harsh parenting and increasing warmth, support,
578 and involvement in the child's education. In
579 addition, all children in schools that were randomized
580 to the Fast Track program received the
581 PATHS curriculum. The PATHS curriculum
582 focuses on integrating emotional, behavioral, and
583 cognitive understanding as a means to promote
584 social-emotional competence, and it is based
585 on the Affective-Behavioral-Cognitive-Dynamic
586 (ABCD) model of development (Domitrovich
587 et al. 2007). The PATHS curriculum includes
588 teacher-implemented lessons on emotion regulation
589 and social skills, and it provides opportunities
590 to generalize skills in everyday contexts that
591 are relevant to children (Greenberg et al. 1995).

592 Initial outcomes following the first year of the
593 Fast Track program implementation showed
594 improvements in parenting and multiple domains
595 of child functioning (e.g., reading skills, emotional
596 coping skills) for the selected, high-risk
597 sample, with a median effect size of 0.33 for the
598 significant effects (Conduct Problems Prevention
599 Research Group 1999a). Although the initial outcomes
600 for the high-risk group included reduced
601 levels of observed aggression at school, group
602 differences did not emerge for other conduct
603 problem outcomes. An initial evaluation of the
604 classroom-level component of the program
605 showed positive effects based on peer ratings and
606 behavioral observations, but not based on teacher
607 reports (Conduct Problems Prevention Research
608 Group 1999b). After 4 years of the program, positive
609 effects were found for numerous outcomes
610 including reduced parent-reported aggression,
611 improved peer-rated social preference, reduced
612 involvement with deviant peers, and improved
613 teacher-rated academic and social competence.
614 Moreover, there was some support for the direct
615 targets of intervention as mediators of program
616 effects on outcomes. For example, improvements
617 in social cognitions about peers mediated relations
618 between program involvement and reduced
619 levels of deviant peer affiliation (Conduct
620 Problems Prevention Research Group 2002).
621 A more recent follow-up showed that involvement
622 in Fast Track substantially reduced the risk

623 of receiving a diagnosis of conduct disorder or
 624 attention-deficit hyperactivity disorder by ninth
 625 grade, but only among the highest-risk members
 626 of the initial selected sample. Effect size esti-
 627 mates showed that diagnoses of conduct disorder
 628 were reduced by 16% points in the highest-risk
 629 group (Conduct Problems Prevention Research
 630 Group 2007).

631 **The Transition to Adolescence**

632 As children transition to adolescence, prevention
 633 programs must interrupt the progression from
 634 early-starting conduct problems to more serious
 635 delinquency and antisocial behavior. In addition,
 636 antisocial behavior may emerge in adolescence
 637 for those youth thought to follow an “adolescent-
 638 limited” course of antisocial behavior (Moffitt
 639 1993). As such, prevention approaches at this
 640 developmental transition often target peer and
 641 family context factors. One such prevention
 642 approach, the Adolescent Transitions Program
 643 (ATP; Dishion and Kavanagh 2003), has been
 644 evaluated with multiple samples of youth enter-
 645 ing adolescence and their families. An early ver-
 646 sion of the ATP included parenting groups
 647 focused on parenting monitoring and behavioral
 648 management and adolescent groups focused on
 649 self-regulation skills and prosocial behavior. An
 650 evaluation of the ATP compared parenting
 651 groups, adolescent groups, their combination,
 652 and a control group in a sample of at-risk
 653 10–14-year-old males and females (Dishion and
 654 Andrews 1995). Both parent and adolescent
 655 groups resulted in reductions in coercive interac-
 656 tions between parents and their teens, and the
 657 parent groups resulted in short-term reductions in
 658 teacher-reported externalizing behavior. However,
 659 this study also documented iatrogenic effects of
 660 the adolescent groups such that adolescents in the
 661 groups endorsed attitudes toward substance use
 662 that were *more favorable* following the program,
 663 and 1 year later they had *higher* levels of
 664 teacher-rated behavior problems. These findings
 665 added to the literature indicating that aggregat-
 666 ing problematic peers in groups can exacerbate

667 problems (Dishion et al. 1999). The results of the
 668 ATP study highlight an important issue for future
 669 prevention and intervention programs targeting
 670 adolescents; despite the centrality of peers during
 671 this developmental period, no preventive inter-
 672 vention directly targeting peer relationships has
 673 been successfully developed.

674 More recently, the ATP has evolved into a
 675 multilevel prevention program (Dishion et al.
 676 2002). The first tier involves a universal interven-
 677 tion administered in the classroom by a parent
 678 consultant to promote adaptation during the ado-
 679 lescent transition. The second tier involves a
 680 selected intervention, the FCU (see earlier descrip-
 681 tion), that includes an initial interview, an assess-
 682 ment session, and a feedback session. Finally, at
 683 the indicated level, families can choose among a
 684 menu of options such as parent groups, family
 685 therapy, or referrals to other services. Outcomes
 686 of an implementation of the tiered version of the
 687 ATP revealed that youth enrolled in ATP class-
 688 rooms reported less substance use in ninth grade
 689 (Dishion et al. 2002). Follow-up analyses revealed
 690 that the highest-risk youth and their families were
 691 more likely to engage with the selected and indi-
 692 cated levels of the program than lower-risk fami-
 693 lies (Connell et al. 2007). Furthermore, youth
 694 from families who engaged in the program
 695 showed reduced risk for antisocial behavior and
 696 substance use by late adolescence.

697 **Broader Systemic Approaches**

698 Nearly all of the prevention research described
 699 thus far has examined parent training or other
 700 family-oriented strategies. A few prevention
 701 approaches have focused on the school context,
 702 but most of these approaches included behavioral
 703 or socio-cognitive skills training in the class-
 704 room. Because poverty and related ecological
 705 co-factors (e.g., neighborhood risk) are estab-
 706 lished risk factors for conduct problems and
 707 delinquency, it is worth considering whether
 708 approaches targeting broader aspects of the
 709 child’s ecology (i.e., the child’s exosystem and
 710 macrosystem; Bronfenbrenner 1979) might lead

711 to reductions in conduct problems. Unfortunately,
 712 randomized controlled trials generally have not
 713 targeted broader levels of the child’s contextual
 714 ecology and assessed children’s conduct prob-
 715 lems as a long-term outcome. However, encour-
 716 aging results from a natural experiment in the
 717 great smoky mountains study (GSMS) suggest
 718 that programs to transition families out of pov-
 719 erty may reduce risk for disruptive behavior dis-
 720 orders (Costello et al. 2003). American Indian
 721 youth comprised a large portion of the GSMS
 722 sample, and the opening of a casino on tribal land
 723 provided all tribal members on the reservation
 724 with substantial additional yearly income from
 725 the casino operators. Following the opening of
 726 the casino, youth from American Indian families
 727 who moved out of poverty showed a level of
 728 symptoms of conduct disorder and oppositional
 729 defiant disorder that was comparable to youth from
 730 families who were never poor. The researchers
 731 also examined non-American Indian families
 732 who moved out of poverty during the same period
 733 of time, and youth from these families also had
 734 reduced symptoms of conduct disorder and oppo-
 735 sitional defiant disorder (Costello et al. 2003).

736 Unfortunately, results from randomized con-
 737 trolled trials that have targeted the broader con-
 738 textual ecology have been less consistently
 739 positive than the findings from the GSMS natural
 740 experiment. Moving to opportunity (MTO) was a
 741 randomized controlled trial that targeted an
 742 important ecological risk factor for conduct
 743 problems, neighborhood poverty (Leventhal and
 744 Brooks-Gunn 2003). Families who were random-
 745 ized to the MTO program were moved from
 746 public housing in impoverished neighborhoods
 747 to private housing in less impoverished neigh-
 748 borhoods. An evaluation of the Baltimore MTO site
 749 indicated that participation in the MTO program
 750 reduced rates of juvenile arrests by 30–50%
 751 (Ludwig et al. 2001). However, in an evaluation
 752 of the New York MTO site, program involvement
 753 did not predict reduced antisocial behavior,
 754 although it did predict improved mental health
 755 for parents and reduced anxiety and depressive
 756 symptoms for boys (Leventhal and Brooks-Gunn
 757 2003). Furthermore, youth from low-income
 758 families who were involved in another relocation

759 program, the Yonkers Project, actually showed
 760 *more* problems in some domains following the
 761 family’s move (Fauth et al. 2007). Although theory
 762 would suggest that moving to a middle-class
 763 neighborhood would reduce a youth’s risk for
 764 problem behavior, the socioeconomic disad-
 765 vantage that is apparent relative to the family’s
 766 middle-class neighbors may increase feelings of
 767 discrimination and exacerbate problem behav-
 768 iors. It is important to note that many of the initial
 769 negative effects of the family’s move to a less
 770 impoverished neighborhood may dissipate over
 771 time (Fauth et al. 2007), and uncovering success-
 772 ful approaches to alter the neighborhood context
 773 remains a worthy goal for prevention research.

**Synthesis and Future Directions
 for Prevention Research**

774 The preceding overview of prevention approaches
 775 to reduce conduct problems indicates that several
 776 programs have empirical support. Furthermore,
 777 the empirically supported approaches target a
 778 number of risk factors, and the programs’ foci are
 779 generally grounded in developmental psychopa-
 780 thology research on conduct problems. Some
 781 interesting conclusions can be drawn from the
 782 existing literature on the prevention of conduct
 783 problems. Firstly, although most programs to
 784 reduce conduct problems already target at-risk
 785 groups, it appears that programs tend to be the
 786 most effective for the highest-risk youth, regard-
 787 less of the level of intensity of the program.
 788 Multiple research reports covering programs
 789 ranging from the Incredible Years to the Fast
 790 Track project indicate that the most at-risk
 791 members of the program group tended to receive
 792 the largest benefits relative to comparable mem-
 793 bers of the control group (Conduct Problems
 794 Prevention Research Group 2007; Webster-
 795 Stratton et al. 2001). Although this trend for
 796 stronger prevention effects for higher-risk groups
 797 is not universal across evaluation trials, the find-
 798 ings suggest that in some cases it may be most
 799 efficient to screen and target the highest-risk
 800 youth. On the other hand, it is not advisable to
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bring together high-risk adolescents into group training as a means to reduce conduct problems; indeed, such an approach may exacerbate problems (Dishion et al. 1999). Instead, school-wide programs that target all youth may be a more appropriate mechanism to improve group norms and reduce at-risk youths' propensity to engage in delinquent behavior (Dishion and Andrews 1995). Therefore, even though high-risk children and youth may be the best group to target for selected or indicated levels of prevention, universal approaches that target all members of the community may still play an important role in reducing the prevalence of conduct problems.

It is also apparent that research evaluations of prevention programs can help advance our understanding of the developmental psychopathology of conduct problems. One way prevention research has confirmed findings from basic research on the development of conduct problems is by examining mediators of intervention effects. Tests of statistical mediation evaluate *how* a prevention program reduced problematic behavior by examining a sequence from program involvement to a mediating construct and from the mediating construct to decreased problem behavior (MacKinnon and Lockwood 2003). For example, evaluations of the Fast Track project showed that a number of proximal targets of the program, including parenting behavior and children's prosocial behavior, partially mediated the program's effects on conduct problems and other distal outcomes (Conduct Problems Prevention Research Group 2002). More specifically, participation in the Fast Track program improved parenting behavior and children's prosocial behavior, and these mediators partially accounted for the effects of program participation on reduced aggressive behavior and increased peer social preference, respectively. Mediation analyses have also been conducted for the FCU program for toddlers. Improved positive parenting and reduced maternal depression were found to mediate program effects on reductions in conduct problems (Dishion et al. 2008; Shaw et al. 2009). Thus, the mediation analyses of the Fast Track and FCU program outcomes provide encouraging

validation of basic longitudinal research on risk factors for conduct problems.

Future research can take developmentally informed evaluations of prevention programs in important new directions. For example, distinctions exist between facets of antisocial behavior, such as the distinction between aggressive and delinquent antisocial behavior (Tackett et al. 2005). Applied research could examine whether specific prevention approaches are more or less effective at reducing levels of distinct types of conduct problems. Furthermore, evidence suggests that the genetic and environmental etiology for conduct problems varies depending on contextual risk characteristics (e.g., neighborhood disadvantage; see Burt 2009). Therefore, it would be important to examine whether prevention approaches show differential effectiveness depending on the nature of the setting where the programs are implemented. For example, program outcomes and mechanisms could be compared when a program is implemented in a more disadvantaged versus a less disadvantaged community.

Prevention research should also consider whether child factors such as emotionality make children more susceptible to the positive effects of prevention program participation but also more susceptible to the negative effects of non-participation (Belsky and Pluess 2009). Evidence from a program to promote maternal sensitivity and attachment showed that highly reactive infants were more susceptible to the effects of the program (Velderman et al. 2006), and it is possible that a similar process is operating in prevention programs designed to reduce conduct problems. With the emergence of neuroscientific methods, it is likely that in the coming years, potential moderators of program effects will be extended to include profiles of brain activity (e.g., reward- and threat-related function; Blair 2007).

Lastly, it is important to consider the effectiveness of the prevention programs when implemented under "real-world" conditions. Prevention program evaluations tend to be less closely tied to University-based clinics and artificial screening procedures that can hamper the transportability of many treatment approaches to real-world settings. However, the majority of the prevention

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899 evaluations described above were conducted with
 900 close supervision of the program's developers
 901 and other university researchers, and in many
 902 cases university-based research staff imple-
 903 mented the program even if it occurred in a com-
 904 munity setting. The national office established
 905 following the success of the NFP evaluations
 906 may be a good model for other effective preven-
 907 tion programs. Nonetheless, effectiveness
 908 research is needed to determine how well pro-
 909 grams function when support from the program's
 910 developers and university researchers is reduced
 911 to minimally feasible levels. Until real-world
 912 effectiveness has been established for these
 913 programs, it will be difficult to determine
 914 whether these prevention approaches can make a
 915 long-lasting impact on at-risk individuals and
 916 society.

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Treating Juvenile Offenders: Best Practices and Emerging Critical Issues

21

Paul Boxer and Sara E. Goldstein

Problems, Programs, and Principles in Treating Juvenile Offenders

According to the most recent report available from the US Office of Juvenile Justice and Delinquency Prevention (OJJDP), in 2008 juveniles accounted for about 16% of all arrests for violent crime and 26% of all arrests for property crime (Puzzanchera 2009). Although these rates represent an overall decline of 3% in juvenile arrests from the year prior, and a decline of 16% from 10 years prior, the absolute number of juvenile arrests is still daunting. In 2008, there were an estimated 2.11 million arrests of juveniles, and about 96,000 (5%) of those were for the index violent crimes of murder/nonnegligent manslaughter, forcible rape, robbery, and aggravated assault (Puzzanchera 2009).

Antisocial behavior is one of the easiest behaviors to predict (Borum and Verhaagen 2006; Hoge 2008) yet one of the most difficult behaviors to treat. Violent and nonviolent antisocial behaviors emerge as the result of multiple interacting risk

factors originating in the biology as well as proximal and distal social ecologies of the individual (Dodge and Pettit 2003; Guerra and Huesmann 2004; Guerra et al. 2008a). Recent studies and theoretical integrations demonstrate that the most severe and persistent youth offenders are likely to have lengthy histories of problem behavior beginning in very early childhood and marked throughout development by neurocognitive deficits, trait-like callousness, and emotional underreactivity (Frick 2006; Moffitt 2006). Further, juveniles in the justice system have been found to exhibit very high rates of co-occurring psychiatric disorders (Teplin et al. 2006), and antisocial behavior represents only one facet of a cluster of problem behaviors that commonly co-occur and include substance use, risky sexual behavior, and academic failure (Ary et al. 1999). Even the construct of antisocial behavior itself is complex, subsuming covert, nonviolent acts such as theft as well as overt, violent acts such as assault (Loeber 1985); in high-risk populations, researchers have observed developmental progressions from mild to more extreme expressions of antisocial activity (Tolan et al. 2000). Taken together, what these findings indicate is that the psychological, psychosocial, or psychiatric treatment of juvenile offenders often can be a challenging task with multiple intervention targets outside of the typical principal goal of reducing or preventing antisocial behavior (see Hoge et al. 2008).

There has been no shortage of efforts to develop, evaluate, and disseminate effective

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59 approaches. As of this writing, the online Model
 60 Programs Guide maintained by the OJJDP (see
 61 <http://www2.dsgonline.com/mpg/Default.aspx>)
 62 includes information on 215 different programs
 63 targeting a variety of youth outcomes relevant to
 64 the juvenile offender population, including vio-
 65 lence and delinquency as well as substance abuse,
 66 gang involvement, risky sexual behavior, and
 67 truancy. The programs included cover a broad
 68 spectrum of points for or contexts of intervention,
 69 from prevention through reentry, and a number of
 70 different intervention settings such as schools,
 71 detention centers, communities, and therapists'
 72 offices. In terms of program value, OJJDP has
 73 assigned the highest rating of "exemplary" to 39
 74 of these programs—that is, those demonstrating
 75 robust effects through high-quality experimental
 76 evaluation designs conducted within a recognized
 77 conceptual/theoretical framework. The rating of
 78 "effective" has been given to 80 programs, those
 79 producing adequate effects via quasi-experimen-
 80 tal designs and a solid conceptual/theoretical
 81 framework. Finally, a rating of "promising" has
 82 been assigned to 96 programs, or those yielding
 83 inconsistent but encouraging findings through an
 84 acceptable conceptual/theoretical framework and
 85 nonexperimental evaluation methodology.

86 Other evaluation clearinghouse centers offer
 87 similar designations for youth intervention
 88 programs targeting delinquency and related
 89 outcomes—for example, the University of
 90 Colorado–Boulder's Center for the Study and
 91 Prevention of Violence maintains the Blueprints
 92 for Violence Prevention program (see [http://www.
 93 colorado.edu/cspv/blueprints/](http://www.colorado.edu/cspv/blueprints/)), which has vetted
 94 over 800 different intervention approaches. The
 95 Blueprints program has identified 11 specific
 96 approaches as "model" programs, which show
 97 deterrent effects on youth problem behavior as evi-
 98 denced through a strong research design (i.e.,
 99 experimental or quasi-experimental evaluation),
 100 sustained effects to a minimum of 1 year post-pro-
 101 gram, and multisite replication of effects. Blueprints
 102 considers 20 other programs to be "promising"
 103 programs, which must also show deterrent effects
 104 through experimental or quasi-experimental evalu-
 105 ation, but are not required to demonstrate effects
 106 sustained over time or multisite replication.

107 Thus it seems clear that for the interested
 108 practitioner, policymaker, or researcher, there is
 109 abundant information available on specific pro-
 110 grams for tackling a variety of problems exhib-
 111 ited by the juvenile offender; both the OJJDP and
 112 Blueprints websites even offer interactive menu-
 113 based widgets to facilitate program selection.
 114 The purpose of our chapter is not to offer an
 115 exhaustive review of available best-practice
 116 approaches, for a few reasons. First, while there
 117 are several viable best-practice packages, they
 118 share important features that are not, in fact, pro-
 119 gram specific (Boxer and Dubow 2002; Boxer
 120 et al. 2005a, b; Boxer and Frick 2008a; Frick
 121 2001). For example, it has long been recognized
 122 that "cognitive-behavioral therapy," while a
 123 catch-all sort of term, actually represents a core
 124 technique in most best-practice programs target-
 125 ing child and adolescent problem behavior
 126 even if not always explicated as such. The same
 127 can be said of multisystem intervention meth-
 128 ods that link individual, family, and school-based
 129 approaches (Boxer and Butkus 2005; Guerra
 130 et al. 2005). Second, though best-practice
 131 approaches cover a broad spectrum of youth
 132 developmental levels, types and severity of prob-
 133 lem behavior, and treatment modalities, they are
 134 not universally available to all practitioners
 135 and the offenders they serve, and they have not
 136 necessarily been validated empirically across all
 137 settings, types of offenders, or racial/ethnic sub-
 138 groups. Despite these limitations, services must
 139 still be delivered when needed and thus policy-
 140 makers and practitioners require some basis for
 141 providing services to offenders or in settings that
 142 might not conform well to the extant evidence
 143 base for best-practice approaches.

144 Finally, although the principles underlining
 145 the designation of best-practice approaches are
 146 meaningful to researchers and can inform the
 147 selection of one particular program or another via
 148 empirically generated evidence, these principles
 149 might not generalize to the "real world" of actual
 150 intervention practice and policy with juvenile
 151 offenders. As noted by Weisz et al. (1995, 2005),
 152 there are striking differences between "research
 153 therapies" developed and evaluated under opti-
 154 mized controlled conditions, and those actually

implemented in everyday intervention practice. The principles that resonate with researchers in evaluating the quality of evidence supporting a particular program might not translate well to practitioners in direct service, and in fact adopting a broader evidence-based orientation is only part of the bigger picture in formulating a sound treatment approach to juvenile offenders (Guerra et al. 2008b).

Through an integration of relevant theory and research, extensive past experience in juvenile justice practice and policy, and detailed interviews conducted with a selected group of incarcerated juveniles, Guerra et al. (2008b) derived four new principles for the treatment of youth offenders. Treatments for this population should be:

1. *Closer-to-home*: All intervention delivery for youth offenders should skew toward keeping the youth as close to home as possible, with the first line of intervention beginning in the home and/or community and institutionalization used only as a last resort. If in-home placement is not possible, interventions should be based in smaller-scale residential cottage-based treatment centers or treatment foster care. Interventions also should include emphasis on building positive support networks for youth in their home communities (i.e., neighborhoods and schools).
2. *Rehabilitative*: Although society might wish to see youth offenders punished and treated harshly for their crimes, and for some crimes (e.g., homicide, rape or serious aggravated assault) a punitive response might be unavoidable politically, treatment will be maximally effective when the juvenile justice system maintains a rehabilitative stance toward youth offenders. It is important—essential—to maintain a developmental perspective on youth offenders, recognizing that the plasticity of development and potential for growth and change into young adulthood requires the justice system to adopt the view that youth can and should be rehabilitated and supported in choosing and maintaining adaptive and constructive life paths (see also Steinberg and Cauffman 2001).
3. *Evidence based*: As we discussed briefly above, there is quite a large evidence base

underpinning several different treatment approaches that have been designated as best practices by different evaluative authorities. Still, it is critical to recognize that even those programs with substantial literatures documenting robust treatment effects have not necessarily been validated for every subpopulation needing intervention services (see also Guerra and Smith 2005). Further, it also is important to bear in mind that, as we will discuss below, many best-practice approaches share key technical elements easily adaptable to everyday clinical practice with juvenile offenders (Boxer and Frick 2008a, b; Frick 2001; Guerra et al. 2005). Thus even in the absence of human and financial resources to support full implementation of established approaches, there are potentially many ways in which practitioners and policymakers can implement approaches that incorporate best-practice strategies (Boxer and Frick 2008a).

4. *Risk focused and strength based*: Evidence of program effectiveness or efficacy is not the only research evidence to which interventionists should attend. There also is a vast research literature that time and again has identified a key set of risk, protective, and promotive factors in the emergence and maintenance of youth problem behavior. Treatments for youth offenders thus should target those empirically identified factors that are dynamic, modifiable through intervention, and generalizable across situations and over time such as family interaction processes, social-cognitive skills, and behavioral coping strategies. Practitioners should target the reduction or influence of risk factors while engaging and/or strengthening promotive or protective factors. Assessment processes should identify those risk and resource factors in an individual youths' social ecosystem in order to identify more effectively an appropriate level or package of services (see also Hoge 2008).

Our goals in this chapter derive from this principled approach and are threefold, emanating from our interest in offering recommendations for policy, practice, and research that are theoretically sound, practically useful, and empirically

251 generative going forward. *First*, we will review
 252 relevant contemporary theory on the develop-
 253 ment of violent and nonviolent antisocial behav-
 254 ior and delinquency. The extant theory is deeply
 255 informative regarding why existing programs
 256 might or might not produce robust effects on
 257 reducing or preventing delinquency and problem
 258 behavior, and provides a basis for our assertions
 259 regarding the critical common factors across val-
 260 idated intervention packages. *Second*, we will
 261 review a few selected best-practice programs in
 262 order to provide exemplars for our recommenda-
 263 tions concerning specific intervention techniques
 264 that are replicable in everyday practice with
 265 youth offenders. *Finally*, we elucidate some
 266 emerging and potentially vexing new problems
 267 in research and practice with youth offenders.

268 **Contemporary Theory**
 269 **on the Development of Violent**
 270 **and Nonviolent Antisocial Behavior**
 271 **and Delinquency**

272 Juvenile offenders might be expected to show a
 273 variety of problem behaviors and emotional dif-
 274 ficulties (Hoge et al. 2008). Still, the overarching
 275 goal in treating this population should be to
 276 reduce and prevent their involvement in the anti-
 277 social behaviors that led them into the justice sys-
 278 tem. As emphasized by Boxer and colleagues,
 279 among others (Boxer and Dubow 2002; Boxer
 280 and Frick 2008a; Guerra et al. 2005; also see
 281 Hunter et al. 2001; Huesmann and Reynolds
 282 2001; Tolan et al. 1995), and underscored by
 283 organizations such as the Centers for Disease
 284 Control (CDC) (Thornton et al. 2000), the
 [A285] National Institutes of Health (2004), and the
 286 University of Colorado’s Center for the Study
 287 and Prevention of Violence (2006), programs tar-
 288 geting youth antisocial behavior will be most
 289 effective when based on a foundation of sound
 290 research on risk factors in the development of
 291 antisocial behavior. This follows the traditional
 292 model of prevention program design advocated
 293 by the Institute of Medicine in 1994 (IOM 1994)
 294 and subsuming treatment design as well (i.e.,
 295 “indicated prevention” in the IOM framework).

296 Familiarity with risk factors for the target behav-
 297 ior is the first step in a process leading ultimately
 298 to effective program implementation. However,
 299 antisocial behavior clearly is multiply-determined
 300 (Eron 1994), and efforts to treat youth offenders
 301 must take into account a complex and interacting
 302 array of risk factors.

303 There are two relatively broad approaches to
 304 research on the development of antisocial behav-
 305 ior (Boxer and Frick 2008a; Boxer et al. 2008).
 306 First, a *cumulative risk* approach focuses on
 307 individually- and contextually based risk factors
 308 for their independent and additive influences on
 309 the emergence and persistence of antisocial
 310 behavior over time. In this approach, individual
 311 risk factors and their interactive effects are
 312 thought to be less important than accumulated
 313 impact of different risk factors over time and
 314 across various domains (e.g., home, school, com-
 315 munity, media). Second, a *developmental path-*
 316 *ways* approach involves recognition that within
 317 the general population, there are subgroups of
 318 youth who demonstrate atypical patterns of
 319 aggressive behavior (Frick 2006; Moffitt 2006).
 320 In this view, although risk factors are relevant, the
 321 focus is on understanding the variables that dis-
 322 tinguish highly antisocial youth from their peers
 323 at an early age and are predictive of this distinc-
 324 tion as the youth age. Individual and contextual
 325 risk factors are evaluated in terms of how well
 326 they account for empirically- or theoretically-
 327 derived groups representing various patterns of
 328 antisocial responding over time (e.g., Broidy
 329 et al. 2003).

330 Both of these perspectives are consistent with
 331 the idea that aggression is best conceptualized
 332 from a *developmental-ecological* or *social-*
 333 *ecological* framework (Coie and Dodge 1998;
 334 Conger and Simons 1997; Dodge and Pettit 2003;
 335 Patterson et al. 1989; Tolan et al. 1995, 2003).
 336 This view posits that aggression emerges and
 337 becomes habitual through the interaction of mul-
 338 tiple individual/personal factors and contextual/
 339 environmental factors. In terms of individual/
 340 personal factors, risk for aggression is greater
 341 when the individual has the characteristics of
 342 thrill seeking, irritability, and emotional lability
 343 (e.g., Eisenberg et al. 2003; Frick and Morris

2004; Lemerise and Arsenio 2000; Rubin et al. 2003; Shaw et al. 2001). Other individual/person level factors that are important to consider are propensities toward cognitive biases in social situations (e.g., Musher-Eizenman et al. 2004) as well as well as low intelligence and learning problems (e.g., Huesmann et al. 1987). In terms of contextually based factors, family, peer, neighborhood, and school contexts are important individually and interactively. Aggression risk is higher when youth are exposed to aggressive models in the family (e.g., Dubow et al. 2003; Frick 1994; Mahoney et al. 2003; Patterson 1982), or when they experience aggressive behavior in peers, in neighborhoods, and in the media (e.g., Boxer et al. 2003, 2005b; Espelage et al. 2003; Guerra et al. 2003; Huesmann et al. 2003).

Highly relevant for understanding and treating juvenile offenders is the significant role of interactions between youth and their parents/guardians. Parent–adolescent relationship factors are very salient in determining youth problem behavior and the likelihood of youth seeking out risky peer contexts (e.g., Ary et al. 1999; Goldstein et al. 2005; Snyder et al. 1986). Adolescence is a time of transition for parent–child relationships; parental roles and expectations ideally are adjusting to meet the developmental needs of their child. Positive adolescent adjustment is facilitated by families that provide their adolescents with increased (but developmentally appropriate) levels of autonomy over time, while maintaining positive affective relationships (e.g., Eccles et al. 1996). This is especially critical in regard to parental monitoring of youth behavior: Lax monitoring is linked to increased delinquency, but the only reliable way for parents to obtain knowledge of their adolescents' activities is through adolescent disclosure and not direct parental solicitation (Kerr et al. 2010). During adolescence, if these shifts do not occur in such a manner that meets the adolescent's changing needs, then the adolescent might seek out these relational factors in other settings, such as the peer context (Eccles et al. 1997), and evidence increased susceptibility to negative peer influence (Fuligni and Eccles 1993; Goldstein et al. 2005). These findings underscore the central importance of family

dynamics in the treatment of youth offenders, as will be considered in detail in the section below on exemplary practices.

The developmental–ecological view can accurately predict population-level trends in the emergence and maintenance of aggressive behavior. However, it might be less effective in identifying pathways to more extreme manifestations of aggression such as violent and chronically delinquent behavior (Boxer 2007). Analytic procedures that identify and isolate atypical, very high-risk groups within population samples and/or more elaborated models that take interactions between risk factors into account have been necessary to understand pathways in these youth. For instance, trajectory analytic modeling of longitudinal data now is used increasingly to locate chronically aggressive youth within larger study samples; risk factor analyses then consider which risk variables predict membership in the extreme group (Broidy et al. 2003; Nagin and Tremblay 1999; NICHD Early Child Care Research Network 2004). There is quite clearly a subpopulation even in the relatively atypical general youth offender population that shows early-starting antisocial behavior, at more severe levels and accompanied by high levels of dispositional risk including neuropsychological deficits and psychopathic trait-like callousness and emotional underreactivity (Frick 2006). For example, studies of children exhibiting psychopathic traits have reported interactive effects, typically between parenting styles and psychopathic tendencies, in examining conduct problems and aggression in that group (e.g., Oxford et al. 2003; Wootton et al. 1997). Children with high levels of psychopathic traits are less sensitive to their parents' efforts—optimal or otherwise—to discipline them.

The integration of a more traditional cumulative risk view with the increasingly popular (and, to some extent, more quantitatively and conceptually elegant) pathways or trajectory modeling view is represented by the developmental life-course framework (Guerra et al. 2008a; Thornberry 2005). An essential notion in this framework is that throughout development, youth interact dynamically with a variety of risk factors as well as protective or promotive factors, and

440 that these interactions occur over time across
 441 different age-linked periods and situations. A
 442 broader life-course perspective recognizes that
 443 human development involves a number of nor-
 444 mative transitions (e.g., from childhood to early
 445 adolescence, or from elementary school to mid-
 446 dle school) as well as common but less predict-
 447 able “turning points” (i.e., major life events not
 448 tied to specific developmental periods) that can
 449 have major proximal and enduring consequences
 450 for later behavior. Thus, to understand juvenile
 451 offenders in a manner that connects to preventive
 452 interventions as well as treatments for antisocial
 453 behavior it is important to recognize that risk and
 454 protective factors are not static and that trajec-
 455 tories might not be stable. Given the potential for
 456 great change in behavior over time, the essential
 457 question in regard to implementing effective
 458 treatment and related treatment research should
 459 be, as Guerra et al. (2008a, b, p. 46) suggest:
 460 “What individual factors, life experiences, and
 461 contextual supports are most likely to foster
 462 desistance from offending?” The intervention
 463 approaches that target those factors, set a plat-
 464 form for those experiences, and bolster those
 465 supports should have the greatest success in
 466 keeping youth offenders from reoffending.

467 **Exemplary Techniques of Identified**
 468 **Best-Practice Programs**

469 As discussed, though there are many unique treat-
 470 ment packages that have shown effectiveness in
 471 treating juvenile offenders (through, for example,
 472 measured reductions in antisocial behavior, sub-
 473 stance use, or general recidivism), only a handful
 474 meet the most stringent criteria (i.e., per the
 475 Blueprints program) for best-practice designation
 476 in the youth offender population. These are
 477 Functional Family Therapy (FFT; Sexton and
 478 Alexander 2002), Multisystemic Therapy (MST;
 479 Henggeler et al. 2009), and Multidimensional
 480 Treatment Foster Care (MTFC; Chamberlain
 481 2003). Below we describe these programs and
 482 discuss their evidence base.

483 However, beyond evaluations of specific
 484 program packages, it should be emphasized that

485 specific intervention approaches or techniques that
 486 cut across various programs also have been
 487 subjected to empirical evaluation. For example,
 488 meta-analytic work conducted by Lipsey and col-
 489 leagues (Lipsey 1995; Lipsey et al. 2000) has
 490 highlighted a set of techniques and approaches in
 491 juvenile offender treatment that are most consis-
 492 tently linked to successful outcomes, divided by
 493 programs serving youth in or out of institutions.
 494 Approaches showing positive, consistent effects
 495 for institutionalized offenders were interpersonal
 496 skills training and teaching family home programs.
 497 Approaches showing positive, consistent effects
 498 for noninstitutionalized offenders were individual
 499 counseling, interpersonal skills training, and
 500 behavioral programming. It should be noted that
 501 the characterization of unique approaches from
 502 the myriad of evaluations included in the meta-
 503 analysis was of course somewhat subjective, but
 504 did permit meaningful differentiation in broad
 505 strokes across different classes of approaches.

506 But our point in noting validated program *pack-*
 507 *ages* as well as program *approaches* is this: One
 508 the one hand, there are discrete treatment pack-
 509 ages, developed through high-fidelity implementa-
 510 tion and evaluation, with great potential for
 511 adaptability and portability. On the other hand,
 512 there are the theories, principles, and techniques
 513 for positive behavioral change underpinning these
 514 treatment packages, developed and refined through
 515 basic and applied research methods, and general-
 516 izable across settings and youth offender sub-
 517 groups. With respect to deriving recommendations
 518 for the treatment of juvenile offenders, it would be
 519 most optimal for clinicians, juvenile justice offi-
 520 cials, and policymakers to implement or support
 521 the implementation of recognized best-practice
 522 packages (see also Chap. 19). Yet, it might not be
 523 most feasible for a variety of reasons including
 524 financial restrictions, human capital limitations, or
 525 local political support. Thus we focus on those
 526 exemplary treatment techniques derived from
 527 broader established theory that might be amenable
 528 to integration into everyday juvenile offender treat-
 529 ment practice. In the sections below, we first
 530 describe one of the three best-practice programs
 531 listed earlier, and then discuss common, replicable
 532 techniques used in those programs.

533 Functional Family Therapy

534 Alexander and colleagues (e.g., Alexander and
535 Parsons 1973; Morris et al. 1988; Sexton and
536 Alexander 2002) have developed a well-
537 supported model of family therapy aimed at
538 reducing aggressive and antisocial behavior in
539 adolescents (ages 11–18). The Blueprints pro-
540 gram has recognized FFT as a Model interven-
541 tion, and it has been designated effective by
542 OJJDP, the Surgeon General, and the CDC,
543 among others. FFT has been shown to be suc-
544 cessful in a number of settings including clinics
545 and clients' homes (see Alexander et al. 1998).

546 The basis of FFT is well-established behav-
547 ioral principles, which are used with the goal of
548 encouraging behavioral change. For example,
549 parent–adolescent communication issues are
550 addressed, and parental contingency management
551 is emphasized. In addition, FFT aims to modify
552 structural and systemic family processes that
553 increase the likelihood of adolescent problem
554 behaviors. FFT also addresses issues that may
555 prevent the parent from implementing behavioral
556 programs, such as inappropriate power hierar-
557 chies between parents and adolescents, or other
558 concerns like family enmeshment. There are three
559 general treatment phases in FFT, beginning with
560 *engagement and motivation* (altering family
561 dynamics and individual cognitive and emotional
562 factors that prevent engaging in behavioral
563 change). The next phase is *behavioral change*
564 (training and supporting new parent–adolescent
565 interactional styles and increasing positive par-
566 enting skills), and the final phase is *generalization*
567 (supporting the transfer of new skills to other set-
568 tings such as school or the legal system).

569 A key feature of FFT is that it is an office-
570 based, single-therapist-mediated treatment strat-
571 egy that essentially can be adapted quite well to
572 typical clinical practice across a variety of set-
573 tings. In addition, its first-phase emphasis on
574 encouraging families to engage in and commit to
575 behavior change is highly consistent with a wealth
576 of clinical research findings indicating that the
577 initial steps of family contact and engagement
578 with the therapist are critical to positive treatment
579 outcomes (see, e.g., Szapocznik et al. 1990).

580 Indeed, it is worth noting here that one program
581 similar in general approach to FFT and designated
582 as “promising” by Blueprints is *Brief Strategic*
583 *Family Therapy* (Szapocznik and Williams 2000),
584 which places great emphasis on the engagement
585 phase of treatment with the families of antisocial
586 and/or substance abusing youth in order to secure
587 significant participation by all family members.
588 In evaluating cost-effectiveness, the Washington
589 State Institute on Public Policy (Aos et al. 1999)
590 estimated the cost-per-youth of FFT at about
591 \$2,000, with benefits (to taxpayers, the justice
592 system, and victims) ranging from \$7 to \$11 for
593 every dollar spent.

594 Multisystemic Therapy

595 MST is a community-based, individual/family-
596 focused, multiple-component intervention strategy
597 for adolescents (ages 12–17) designed by
598 Henggeler and colleagues (e.g., Henggeler et al.
599 1992, 2009). It has been recognized as a “Model”
600 program by the Blueprints organization, and
601 CSAP, OJJDP, and the Surgeon General’s office
602 have identified it as effective. MST is implemented
603 as a multifaceted intervention that bridges together
604 multiple individual practitioners from various
605 community-based agencies in the service of treat-
606 ing individual youth clients. Research shows that
607 MST results in substantial short-term (Henggeler
608 et al. 1986) and long-term (up to 4 years; Borduin
609 et al. 1995) reductions in conduct problems and
610 recidivism (Borduin et al. 1995).

611 MST integrates multiple systems of a youth’s
612 social ecology; youth and their families are the
613 focus of home- and agency-based treatments
614 from several different sources. These sources
615 include individual and family therapists as well
616 as interventionists from a range of other potential
617 service providers such as youth development
618 agencies and neighborhood centers, schools, proba-
619 tion offices and diversion programs, and psy-
620 chiatric clinics. In fact, MST probably should be
621 described as a set of evidence-based interventions
622 integrated in a principled approach. Therapists
623 and other service providers adhere to best-practice
624 strategies in selecting treatments for various

625 issues, but also nine principles reflecting the
 626 ecological, strengths-oriented MST approach (see
 627 Henggeler et al. 2009). For example, MST pro-
 628 viders are expected to focus explicitly on increas-
 629 ing or enhancing positive aspects of a youth’s
 630 individual or family functioning (principle #2)
 631 and to promote generalization of new skills and
 632 interaction sequences across settings and over
 633 time (principle #9). Therapists may pick and
 634 choose from among existing best-practice, evi-
 635 dence-based strategies for various individual and
 636 family concerns. Therefore specific interventions
 637 within an MST case might include individual cog-
 638 nitive-behavioral therapy (CBT), behavioral par-
 639 ent training or family structural intervention (as in
 640 FFT), and (for comorbid psychopathologies such
 641 as ADHD) psychopharmacological therapy.

642 In MST, cases are managed by full-time thera-
 643 pists who maintain low caseloads (i.e., about
 644 three to five cases at a time) and receive frequent
 645 supervision. This permits the therapist to spend
 646 as much time as necessary on individual cases,
 647 and ongoing opportunities for expert consultation
 648 with respect to treatment selection and adherence
 649 to the MST model and principles. Therapists are
 650 expected to be available 24 h a day, 7 days a
 651 week. MST interventions are delivered in vivo—
 652 family homes, schools, and neighborhood centers.
 653 This reduces some of the typical barriers to
 654 successful treatment (e.g., transportation) while
 655 increasing ecological validity (generalizability).
 656 In the Washington State analysis (Aos et al.
 657 1999), the cost-per-youth of MST was estimated
 658 at about \$4,500, with benefits ranging from \$8 to
 659 \$13 per dollar spent.

660 **Multidimensional Treatment**
 661 **Foster Care**

662 Chamberlain and colleagues (e.g., Chamberlain
 663 2003; Chamberlain et al. 2002) have developed a
 664 community-based, multiple-component interven-
 665 tion strategy for children and adolescents (three
 666 discrete program models targeting the age groups
 667 of 3–5, 6–11, and 12–17) that shares a number of
 668 critical features with MST. The key difference
 669 between MTFC and MST, of course, is that

670 MTFC constitutes an out-of-home placement for
 671 the target youth whereas MST focuses on youth
 672 who are able to live with their parents or guard-
 673 ians. As noted, MTFC is a Blueprints “Model”
 674 program, and also has been recognized as effec-
 675 tive by the US Department of Education, OJJDP,
 676 and Surgeon General’s office. As with MST,
 677 MTFC is implemented as a multicomponent
 678 intervention that unites practitioners representing
 679 a number of different systems in the service of
 680 assisting individual youth. MTFC has been shown
 681 to exert both short- and long-term impacts on a
 682 variety of problem behaviors, including truancy
 683 from school and other community placements,
 684 substance use, and recidivism (Chamberlain and
 685 Mihalic 1998).

686 Youth referred for MTFC are placed into a
 687 foster care setting with the expectation of place-
 688 ment lasting about 6–9 months. Foster families
 689 are employees of the treatment-providing service
 690 organization and trained intensively on the imple-
 691 mentation of behaviorally oriented, highly
 692 structured interventions (e.g., contingency man-
 693 agement, behavioral contracting). Foster parents
 694 are supported and supervised by MTFC case
 695 managers who serve as the coordinators of each
 696 youth’s overall individualized, multicomponent
 697 treatment program. These case managers are in
 698 daily contact with foster parents via telephone
 699 calls designed to elicit clear information about
 700 the target youth’s behavior, problem-solve any
 701 difficult issues, and plan for the next day. Beyond
 702 the constant behaviorally oriented treatment
 703 afforded by the foster care setting, youth often
 704 are involved also in individual skills training,
 705 supervised visits and/or family therapy with their
 706 biological or adoptive families, close monitoring
 707 of their academic progress, and psychiatric con-
 708 sultation; for youth involved in the justice sys-
 709 tem, probation or parole officers also will be
 710 incorporated into the overall treatment.

711 As we suggested above, in terms of the key
 712 theoretical precepts underscoring MTFC and
 713 MST, the two approaches rely on highly similar
 714 frameworks that integrate a multisystemic social-
 715 ecological view to address environmental influ-
 716 ences and controls with a very clear behavioral
 717 treatment model to shape and maintain positive

718 behavior changes. The fundamental difference
 719 for MTFC is that youth begin their treatment in
 720 an out-of-home placement, and thus a key goal in
 721 most MTFC cases will be facilitating the transi-
 722 tion from the foster home to the biological/adop-
 723 tive family. MTFC case managers are involved
 724 directly with foster families, but also with the
 725 youths' parents/guardians, to ensure that behav-
 726 ioral approaches, contingency plans, and treat-
 727 ment gains are transferred from the foster setting
 728 to the home setting. Per the Aos et al. (1999) eval-
 729 uation conducted at the Washington State Institute
 730 for Public Policy, the cost-per-youth of MTDC is
 731 estimated at about \$2,000 (relative to regular
 732 group home treatment), with benefits ranging
 733 from about \$14 to \$23 for every dollar spent.

734 **Social-Cognitive-Behavioral** 735 **Skills Training**

736 Consistent with conclusions drawn by Lipsey
 737 et al. (2000), despite the multicomponent, multi-
 738 system nature of the three programs described
 739 above, all three—along with most other exem-
 740 plary, model, or promising programs for youth
 741 offenders identified by OJJDP—incorporate
 742 some degree of interpersonal skills training. This
 743 might be in the context of negotiating parent-
 744 adolescent conflicts, as in all three programs, or
 745 navigating the various challenges of the broader
 746 social ecology, as in MST and MTFC; most often
 747 such training proceeds via a standard cognitive-
 748 behavioral approach (Borum and Verhaagen
 749 2006; Boxer and Frick 2008a). Notably, the US
 750 Centers for Disease Control has identified this
 751 kind of social cognitive intervention as a best-
 752 practice strategy for youth violence prevention
 753 (Thornton et al. 2000). Such intervention aims to
 754 modify directly the social and social-cognitive
 755 skills youth apply in their everyday interactions
 756 and especially in the context of social conflict
 757 situations. This is consistent with contemporary
 758 views on the development and maintenance of
 759 antisocial behavior—theoretically, developmen-
 760 tal-ecological risk factors lead to *habitual*
 761 patterns of aggressive and violent behavior by
 762 shaping social-cognitive information-processing

(SCIP) skills and strategies (Anderson and
 Huesmann 2003; Boxer et al. 2005a; Huesmann
 1988, 1998).

As Boxer and Frick (2008b) described, with
 specific regard to violent youth offenders, the
 SCIP framework can be applied through the
 implementation of therapeutic exchanges
 designed to modify attributional tendencies,
 improve arousal control, teach and promote the
 acceptance of prosocial or at least nonaggressive
 alternatives to behavior, and improve individual-
 ecological transactions. These techniques should
 apply broadly to nonviolent youth offenders as
 well. However, we believe that the most important
 feature of the general SCIP approach for individ-
 ual skills training and counseling interventions is
 the fact that it offers a structured, systematic
 model for teaching basic social problem-solving
 skills. Problem-solving training (Kazdin et al.
 1992) and cognitive mediation training (Guerra
 and Slaby 1990) are approaches that rest on a
 broad base of empirical evidence and fit well
 into the general cognitive-behavioral model of
 treatment (Friedberg and McClure 2002).

Multisystem, Multicomponent **Treatment Framework**

Based on the available evidence, and critical
 commentary, it seems unlikely that interventions
 for youth offenders that involve only the self-
 system—that is, only individual counseling—can
 succeed. Even from a preventive standpoint,
 school- and classroom-based approaches that have
 psychoeducation as their principal modality often
 can involve outreach efforts to parents and teach-
 ers and modifications to school environments (see
 Boxer and Dubow 2002). Indeed, the role of
 schools in supporting intervention efforts cannot
 be understated given that schools are key central-
 ized venues for the delivery of violence/delin-
 quency prevention programming (Farrell et al.
 2001; Guerra and Williams 2003). Schools have
 established positions in the community as well as
 the ability to house interventionists supporting a
 number of critical needs for offenders (e.g.,
 special education services; Eggleston 2008).

808 It is clear that juvenile offending, or antisocial
 809 behavior more generally, evidences equifinality
 810 (Cicchetti and Rogosch 1996) or multicausality
 811 (Cowen 2000): a single outcome resulting from a
 812 variety of different risk factors that can operate
 813 on multiple levels of influence. Two of the three
 814 programs reviewed above (MST, MTFC) include
 815 at least three to four social–ecological systems in
 816 their handling of youth offender cases, and the
 817 third (FFT) deals primarily with the self and fam-
 818 ily ecosystems. From the standpoint of adopting
 819 best practices in treating juvenile offenders, with-
 820 out proper human and financial resources, it can
 821 be daunting to consider instantiating multisys-
 822 tem, multicomponent treatments in everyday
 823 work with youth offenders. However, at a mini-
 824 mum this could involve treatment components as
 825 simple as ensuring that parents/guardians are
 826 involved in aftercare programming (for offenders
 827 about to be released from detention), commu-
 828 nity-based monitoring (for offenders on proba-
 829 tion or involved in diversion), and/or school-based
 830 interventions (for offenders maintained in the
 831 community). It can mean close contact between
 832 therapists and probation officers, or among ther-
 833 apists, probation officers, and school officials.
 834 What is essential to understand from the asser-
 835 tion that multisystem interventions are requisite
 836 in treating juvenile offenders is that this asser-
 837 tion stems from longstanding, established and
 838 very clear theory that systematizing and coordi-
 839 nating environmental contingencies for behavior
 840 is essential to shaping and maintaining that
 841 behavior. Although programs such as MST and
 842 MTFC have formalized methods for ensuring
 843 such cross-system consistency, those methods
 844 are based on principles derived from recognized
 845 theory and are not intended as stepwise, “cookie
 846 cutter” procedures. Indeed, even with the limita-
 847 tion of an office-based practice in a community
 848 mental health setting, it can be possible to imple-
 849 ment treatment for antisocial youth that is multi-
 850 system in nature and strives toward enduring
 851 effects through the enhancement of communica-
 852 tion between home and school and the general-
 853 ization of treatment strategies to both of those
 854 settings (Boxer and Butkus 2005; Boxer and
 855 Frick 2008a).

**A Critical Note About Treatment
 Formats**

856
857

858 In recent years much has been made of the poten-
 859 tial for “peer contagion” processes occurring in
 860 treatment formats that rely on the intermingling
 861 of antisocial youth, such as small-group skills
 862 training or social–cognitive intervention (e.g.,
 863 Goldstein et al. 1998). The notion advanced by
 864 Dishion et al.’s (1999) seminal review in this area
 865 is that aggregating antisocial youth, particularly
 866 adolescents, in small-group therapy might pro-
 867 duce the iatrogenic effect of increasing problem
 868 behaviors in those youth. This effect is likely to
 869 accrue through “deviancy training processes”
 870 whereby youth provide mutual reinforcement for
 871 each other’s antisocial behaviors and values in
 872 the context of service delivery. This is clearly a
 873 fraught proposition for interventionists, particu-
 874 larly those working in detention settings with
 875 limited clinical staffing or other settings provid-
 876 ing therapeutic or recreational programming to
 877 groups of high-risk offenders released to the
 878 community. If group placements and program-
 879 ming are contraindicated, what are the reasonable
 880 alternatives?

881 Importantly, the evidence supporting a peer
 882 contagion effect is mixed, and socialization of
 883 behavior in small groups can occur in both direc-
 884 tions. Boxer et al. (2005b) observed *discrepancy-*
 885 *proportional peer influence*: youths’ aggression
 886 scores following a small-group intervention pro-
 887 gram depending upon the interaction between
 888 pre-intervention level of aggression of others in
 889 their group and their own level of pre-interven-
 890 tion aggression. Specifically, although less
 891 aggressive youth tended to become more aggres-
 892 sive in groups of relatively more aggressive peers,
 893 more aggressive youth tended to become less
 894 aggressive in groups of relatively less aggressive
 895 peers. A recent meta-analysis of youth psycho-
 896 therapy outcome studies suggests that iatrogenic
 897 effects are generally quite unlikely in group treat-
 898 ments (Weiss et al. 2005). Further, a recent analy-
 899 sis of data from 712 youth admitted to residential
 900 treatment for high-risk youth revealed decreases
 901 over time in problem behavior, especially for
 902 youth carrying diagnoses of Conduct Disorder,

903 and thus no negative peer influence over time
 904 (Huefner et al. 2009). Yet Shapiro et al. (2010)
 905 found that recidivism was more likely among
 906 first-time offenders evaluated in residential set-
 907 tings than among those evaluated in community
 908 settings. Thus, *the evidence base at this time is*
 909 *equivocal on the issue of whether group treat-*
 910 *ment for youth offenders should be abandoned.*
 911 The prospect of peer contagion remains, espe-
 912 cially given developmental studies showing that
 913 aggressive friends socialize one another to
 914 become more aggressive over time (Espelage
 915 et al. 2003). Therefore, group treatment with
 916 youth offenders should minimize peer reinforce-
 917 ment for inappropriate behavior within the group,
 918 rely on close adult supervision, and include a
 919 behavioral management system designed to limit
 920 problems during the group.

921 **Emerging Issues for Science,** 922 **Practice and Policy**

923 **Female Offenders**

924 Female involvement in the juvenile justice sys-
 925 tem has been rapidly increasing in recent years.
 926 In 2005, 29% of juvenile arrests involved
 927 females, which is close to twice the rate mea-
 928 sured in 1980 (Zahn et al. 2010). This increase
 929 has become especially noteworthy with regard to
 930 an increase in arrest for violent crimes for female
 931 juveniles coinciding with a decrease for males
 932 over a similar period of time. With regard to
 933 cases filed against juveniles which were handled
 934 in U.S. Juvenile Court between the years 1985
 935 and 2007, juvenile caseloads for females involv-
 936 ing crimes against persons increased by 202%,
 937 compared to a 95% increase in caseloads for
 938 males over the same time period (Knoll and
 939 Sickmund 2010). As noted by Puzanchera
 940 (2009), the rate for male and female juvenile
 941 arrests for violent crime sharply increased over
 942 the course of the 1990s, whereas afterwards male
 943 involvement stabilized or decreased across many
 944 indices of violent crime. In contrast, arrest rates
 945 for females continued to rise (or decreased less).
 946 For example, females arrested for simple assault

947 increased 19% from 1999 to 2008 (compared to a 947
 948 -6% change for males). In the only category of 948
 949 violent crime that increased for both genders, the 949
 950 number of females arrested for robbery increased 950
 951 by 38% from 1999 to 2008, whereas males 951
 952 increased by substantially less—24% (Puzanchera 952
 953 2009). Thus, girls are clearly becoming increas- 953
 954 ingly common consumers of juvenile justice ser- 954
 955 vices. Although these trends may be due to 955
 956 changes in law enforcement policy and proced- 956
 957 ures rather than to a real increase in violent 957
 958 crime perpetration (Zahn et al. 2010), the net 958
 959 effect is that more females are becoming involved 959
 960 in the juvenile justice system and needing ser- 960
 961 vices and treatment. 961

962 As reviewed extensively above, the develop- 962
 963 ment of antisocial behavior relies heavily on 963
 964 biological and socialization factors, and best 964
 965 practices in treating juvenile offenders involve, 965
 966 in essence, resocialization (see Guerra et al. 966
 967 2005, for discussion). This raises important 967
 968 issues in considering how male versus female 968
 969 youth offenders should be treated, given differ- 969
 970 ences in socialization for males and females from 970
 971 birth onward. Parents, teachers, peers, and the 971
 972 media encourage gender-typed behavior through 972
 973 their overt behavior and opinions expressed as 973
 974 well as through more subtle social messages 974
 975 (e.g., Galambos et al. 2009; McHale et al. 2003; 975
 976 Miller et al. 2006). These early learning experi- 976
 977 ences shape children's behavior into gender-typ- 977
 978 ical patterns, for example, by encouraging boys 978
 979 to be assertive and aggressive and encouraging 979
 980 girls to be emotionally sensitive, nurturing, and 980
 981 supportive (e.g., Brody 1993; Underwood et al. 981
 982 2006). Based in part on this early learning, 982
 983 behavior with the same goals (e.g., to harm 983
 984 another person) may be exhibited in different 984
 985 ways for boys versus girls. For example, although 985
 986 both boys and girls use relational, indirect, or 986
 987 "social" forms of aggression (i.e., behavior 987
 988 intended to harm another through the manipula- 988
 989 tion of social relationships; Underwood 2003), 989
 990 girls show a clear preference for this type of 990
 991 behavior when they are aggressive whereas boys 991
 992 are more likely to use physical forms of aggres- 992
 993 sion (Österman et al. 1998; Salmivalli and 993
 994 Kaukiainen 2004). 994

995 Biological factors also might underpin gender
 996 differences in the development of antisocial
 997 behavior. For example, males are more likely to
 998 experience the neurological risk factors that pre-
 999 dict problems with aggression and delinquency
 1000 that were discussed earlier, such as impulsivity,
 1001 difficulty paying attention, and learning difficul-
 1002 ties (e.g., Lin 2009; Liu et al. 2000; Thompson
 1003 et al. 2003). Gender differences in antisocial
 1004 behavior are partially attributed to the gender dif-
 1005 ferences in these risk factors, and to the way that
 1006 these risk factors are expressed in light of their
 1007 interaction with gendered social influences
 1008 (Moffitt et al. 2001; Silverthorn et al. 2001).
 1009 Other biological variables, such as early pubertal
 1010 timing, influence the development of antisocial
 1011 behavior and delinquency in both males and
 1012 females, although early puberty seems to put
 1013 girls at an especially high risk for unique prob-
 1014 lems with eating disorders, early sexual activity,
 1015 early parenthood, and lower educational attain-
 1016 ment (e.g., Ellis 2004; Ge et al. 1996, 2001;
 1017 Graber et al. 2004). These problems, in turn, can
 1018 serve as risk factors for involvement in delin-
 1019 quency for females.

1020 Several treatment programs have specifically
 1021 focused on gender in the design and/or the evalu-
 1022 ation of their treatment programs, but the results
 1023 of some of these evaluations have been less than
 1024 stellar. For example, OJJDP’s Girls Study Group
 1025 reviewed 61 programs specifically designed for
 1026 female delinquents, and they found that out of
 1027 these 61 programs, only 17 had published evalu-
 1028 ations, and of these 17 none could be rated as
 1029 effective or effective with reservation. The Girls
 1030 Study Group also reviewed 26 of the programs in
 1031 the Blueprints for Violence Prevention database,
 1032 and found that only eight out of these programs
 1033 assessed whether program outcomes *differed* for
 1034 boys versus girls, even though 23 did demon-
 1035 strate effectiveness *across* gender (Zahn et al.
 1036 2008). Part of the difficulty in measuring out-
 1037 comes by gender lies in assessment techniques
 1038 for youth offenders—another publication by the
 1039 Girl’s Study Group (Brumbaugh et al. 2010) ana-
 1040 lyzed 143 assessment instruments designed for
 1041 youth offenders in terms of the gender-based per-
 1042 formance of the instrument, in terms of whether

1043 it had gone through gender-based development
 1044 and/or analysis. According to this analysis, only
 1045 about half (73) of the instruments examined
 1046 showed favorable gender-based performance.

1047 Although significant progress has been made
 1048 in terms of establishing knowledge about the
 1049 development of antisocial behavior and delin-
 1050 quency in females relative to males, and although
 1051 much has been gained in terms of learning about
 1052 what types of programs are beneficial to females,
 1053 there is still much work to be done. For exam-
 1054 ple, along with differences in normative social-
 1055 ization experiences, it appears that female youth
 1056 offenders might present with more extensive
 1057 and/or traumatic histories of exposure to vio-
 1058 lence and associated forms of trauma (Veysey
 1059 2008; also see Chap. 30). Consequently, trauma-
 1060 focused or trauma-informed care might be a
 1061 critical component of best-practice treatment
 1062 for female offenders.

Youth Involved in Gang Activity

1063
 1064 Street gangs have been present in American soci-
 1065 ety for decades, and the most recent gang surveil-
 1066 lance available (2008 National Youth Gang
 1067 Survey) estimates that there are approximately
 1068 774,000 gang members representing 27,900
 1069 gangs with gang presence in about 32% of all
 1070 cities, suburbs, towns, and rural counties in the
 1071 US (Egley et al. 2010). Data compiled by the
 1072 National Center for Education Statistics (2009)
 1073 suggests that about one-quarter of US secondary
 1074 school students report gang presence in their
 1075 schools. It appears to be the case that many of the
 1076 factors associated with youth antisocial behavior
 1077 generally also account for youths’ involvement in
 1078 street gang activity (Thornberry et al. 2003).
 1079 Importantly, however, gang activity also is tied to
 1080 very powerful social relationship forces: mem-
 1081 bership can be spurred and maintained by youths’
 1082 desire to affiliate with close and family-like peer
 1083 networks, is typically tied to neighborhood resi-
 1084 dence, and might result from multigenerational
 1085 family ties to specific gangs (Dishion et al. 2005;
 1086 Rizzo 2003). Further, although youth appear to
 1087 select into gang activity partly on account of their

1088 elevated antisocial tendencies, gang involvement
1089 also sparks significant increases in both violent
1090 and nonviolent antisocial behavior.

1091 The issues described above underscore a very
1092 striking gap in the best practices literature for
1093 youth offenders: there are no established, recog-
1094 nized best-practice approaches for dealing with
1095 gang-involved youth (Parker et al. 2008). There
1096 are ongoing large-scale efforts to validate
1097 universally preventive gang resistance programs
1098 underway (e.g., Gang Resistance Education and
1099 Training; Esbensen 2004). But gang
1100 intervention—contending with gang activity writ
1101 large as well as youth entrenched in the gang life-
1102 style in particular—is a very complicated and
1103 vexing issue. As years of systematic research
1104 funded through the US Department of Justice has
1105 shown, multidisciplinary collaboratives are
1106 essential given that targeting gang activity
1107 requires clear coordination between law enforce-
1108 ment (i.e., specialized police units as well as
1109 prosecutors) and the social/human services net-
1110 work (National Youth Gang Center 2008). Still,
1111 as found in the different evaluations summarized
1112 by the National Youth Gang Center report, even
1113 when all stakeholders in a community collabora-
1114 tive come together for integrated intervention, the
1115 sheer intensity and scope of gang problems can
1116 be exceptionally difficult to overcome.

1117 On a broad level, multiagency collaboration
1118 and targeted law enforcement are essential, but at
1119 the level of the individual therapist or other inter-
1120 ventionist the path forward is less clear. One of
1121 the most central issues for both practitioners and
1122 applied researchers addressing the problem of
1123 youth offenders claiming gang affiliations and/or
1124 involved in antisocial behavior via their gang ties
1125 is whether youth must renounce their gang mem-
1126 berships in order to benefit from treatment. At
1127 present this is an open question. Theoretically,
1128 the answer could be both yes and no. Maintaining
1129 gang affiliation even in name only means main-
1130 taining a connection to socialization forces that
1131 promote (and perhaps require) involvement in
1132 antisocial behavior. Yet, renouncing gang mem-
1133 bership can be a dangerous proposition for youth.
1134 From the standpoint of treatment only, it might not
1135 be necessary to renounce so long as youth become

1136 increasingly involved in prosocial activities
1137 that limit their contact with gang associates.
1138 Alternatively, from the standpoint of law enforce-
1139 ment or the courts, maintaining even weak gang
1140 ties could be intolerable in the context of diver-
1141 sion, probation or reentry following detention. At
1142 present, there are no clear answers from scientific
1143 research, although interventionists dealing with
1144 gang-involved youth offenders are on reasonably
1145 solid ground in applying the program packages
1146 and/or treatment approaches described in the last
1147 section, under the general rubric of the principles
1148 outlined earlier.

1149 Concluding Remarks

1150 Despite modest documented declines in rates of
1151 juvenile arrests over the last 10 years, the abso-
1152 lute number of arrests is still strikingly high and
1153 there remains a clear need for implementation
1154 and dissemination of empirically supported and
1155 theoretically sound “best practice” interventions
1156 for juvenile offenders. As even a cursory review
1157 of best-practice guides will suggest, there are
1158 quite literally dozens of programs that have
1159 shown some degree of effectiveness in reducing
1160 and preventing delinquency and related prob-
1161 lems. However, only a handful of treatment
1162 approaches examined in youth offender popula-
1163 tions have met the most stringent evaluative
1164 criteria. These programs—FFT, MST, and
1165 MTFC—share similar theoretical foundations
1166 and rely on fairly basic but time-tested and
1167 proven intervention techniques.

1168 Though adopting such programs is facilitated
1169 by their effective dissemination models and por-
1170 tability, initial costs in terms of human and finan-
1171 cial resources can be daunting. Yet as noted, these
1172 programs are built on intervention elements—
1173 primarily, the integration of multiple systems
1174 and application of behavioral and cognitive-
1175 behavioral skills training methods—that could be
1176 incorporated into or better integrated within
1177 existing service delivery frameworks (Boxer and
1178 Butkus 2005). Implementing best-practice treat-
1179 ments should follow from a principled approach
1180 that acknowledges the need for evidence-based

1181 strategies along with programming that is closer-
1182 to-home, rehabilitative, and strengths-focused
1183 (Guerra et al. 2008b; see also Chap. 19).

1184 Improvements to the current state of interven-
1185 tions for youth offenders are occurring in tandem
1186 with the rise of new challenges to intervention
1187 science in this population. The rate of arrests for
1188 female juvenile offenders has doubled since
1189 1980, with a particularly troubling spike in vio-
1190 lent offenses perpetrated by female juveniles
1191 (Zahn et al. 2010). Treatments for juvenile
1192 offenders going forward will need to take a gen-
1193 dered approach to formulating treatment plans,
1194 for example, by focusing in a more targeted man-
1195 ner on co-occurring trauma reactions (Veysey
1196 2008; also see Chap. 30). Further, youth gang
1197 activity is widespread, and it represents a very
1198 serious threat given the elevated violence linked
1199 to youth gang affiliation. Yet there are no empiri-
1200 cally supported, targeted best-practice approaches
1201 for gang-involved youth (Parker et al. 2008).
1202 These are clear and present challenges in the
1203 area of treatments for juvenile offenders that
1204 must be addressed through comprehensive
1205 and sustained efforts in the research, practice,
1206 and policy arenas.

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Author Queries

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Queries	Details Required	Author's Response
AU1	References National Institutes of Health (2004), is cited in text but not given in reference list. Please provide publication details for the references or delete them from the text.	

Uncorrected Proof

Lenore Engel, John Abulu, and Roumen N. Nikolov

The Numbers: Children and Adolescents in Juvenile Justice Settings

In 2008, there were 2.11 million arrests of persons younger than age 18 in the USA. (Puzzanchera 2009) The Federal Bureau of Investigation (FBI) 2008 report “Crime in the United States” compiles the data reported within the FBI’s Uniform Crime Reporting Program which collects arrest statistics from law enforcement agencies across the USA. The data reflects the number of arrests, not the number of individuals arrested, and only records a count of the most serious charge for a particular arrest. Therefore it does not reflect the number of offenses resulting in a single arrest. Despite this limitation, the database offers information on the number of juvenile arrests, the number of individuals entering the justice system, the trends in these arrests and the ethnic and gender differences. For the period 1999–2008, there is a decline in all juvenile offenses leading to arrest, with the exception of robberies, which increased. Juveniles accounted for 16% of all violent crime arrests and for 26% of all property crime arrests in 2008. The violent crime index

has fallen significantly from a high in 1994. There was a 10-year decline trend in the violent crime index for the period 1994–2004, reaching a 49% decrease in 2004, then a 12% increase for 2004–2006 and a new 5% decline for 2006–2008. Youth younger than 15 accounted for more than one-fourth of all juvenile arrests, 29% for violent crime offenses and 27% for property crime offenses. Only 1% of juvenile arrests are of youth younger than age 10. In 2008, the number of reported forcible rape offenses was at its lowest since 1980. In 2008, the juvenile arrest rate on murder charges was 3.8 arrests per 100,000 juveniles ages 10–17, a decline of 5% from 2007, and 74% down from a 1993 peak of 14.4. Between 1999 and 2008, juvenile arrests for aggravated assault decreased for males, more than for females (22% vs. 17%). During the same period, juvenile male arrests declined 6%, but female arrests increased 12% for simple assault. In 2008, females accounted for 17% of juvenile violent crime arrests, 36% of juvenile property crime arrests, and 44% of the juvenile larceny-theft arrests. In 2008, there were 629,800 arrests of females younger than age 18; accounting for 30% of the total juvenile arrests. Simple assaults, larceny-theft and driving under the influence, all increased in females from 1999 to 2008, while male arrests decreased in these categories. The data shows a downward trend in juvenile crime; but increase in crime committed by females, especially “petty” crime. This may mean that the population of female delinquents in detention is on the rise, gender

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64 ratios are changing and so are pathology and
65 emotional issues encountered in juvenile justice
66 settings, posing a new set of challenges for ser-
67 vice programming.

68 In adolescents aged 10–17, African American
69 youths accounted for 52% of the juvenile violent
70 crime arrests and 33% of the juvenile property
71 crime arrests in 2008 (Puzzanchera 2009). The
72 arrest rate for robbery was ten times higher for
73 African American than for Caucasian youth.
74 Given that many African American youth do not
75 receive any or receive inadequate mental health
76 services in the community (United States
77 Department of Health and Human Services
78 (USDHHS), 1999, 2001), as they enter juvenile
79 justice setting, they probably are less likely to be
80 identified in need of mental health services.

81 In 2008, 22% of the arrests were processed and
82 released, 66% were referred to juvenile court and
83 10% were referred directly to criminal court. A
84 survey of mental health disorders in incarcerated
85 youths (Wasserman et al. 2003) reported that 65%
86 of juveniles detained in juvenile detention were
87 released within 48 hours and the rest had a mean
88 length of stay of 27.7 days. The short length of
89 stay in detention presents special challenges for
90 both identifying mental health needs and coordi-
91 nating linkage and community-based services.

92 The high number of adolescents who are
93 arrested and then flow through the juvenile jus-
94 tice system makes a case for the development and
95 integration of mental health services within the
96 juvenile justice system to identify and character-
97 ize these youth and their needs and to attempt
98 preventive interventions. This is also an impor-
99 tant area in need for future research to focus on
100 available and new treatment options (psychoso-
101 cial, educational, and psychopharmacological)
102 taking into consideration age, gender, and racial
103 differences.

104 Mental Illness in Juvenile Justice 105 Settings

106 Many children and adolescents in juvenile justice
107 settings have received behavioral health services
108 in the community, some mandated and monitored

109 by the courts. Often these children have co morbid
110 mental health and substance abuse disorders
111 (Abram et al. 2003). Most of the available epide-
112 miological data on the mental health of juvenile
113 delinquents has been generated by surveying
114 youth detained in correctional (pre- and post-
115 adjudication) settings. It has been shown that
116 emotional problems, disruptive behavior and
117 substance abuse, increase the risk for ongoing
118 symptoms of Conduct Disorder and further
119 involvement with the juvenile justice system
120 (Plattner et al. 2009). The emotional problems
121 also increase the risk for suicidal behavior in these
122 youngsters, an issue that has received significant
123 attention in detention facilities (Chapman and
124 Ford 2008).

125 The Northwestern Juvenile Project, (Teplin
126 et al. 2002) studied a random sample of male and
127 female youths ($N=1,829$) detained in Cook
128 County Juvenile temporary Detention Center
129 between November 20, 1995 and June 14, 1998,
130 for frequency of psychiatric illness and whether
131 there were differences based on age, sex, or eth-
132 nicity. Six broad categories of disorders were
133 ascertained, including affective disorder (major
134 depressive episode, dysthymia, manic episodes);
135 psychotic disorders; anxiety disorders (panic,
136 separation anxiety, overanxious, generalized
137 anxiety, obsessive compulsive disorder); disrup-
138 tive behaviors (oppositional defiant disorder,
139 conduct disorder); attention-deficit/hyperactivity
140 disorder and substance abuse. Sample character-
141 istics included, 64.1% male (1,172), 35.9%
142 female (657), 54.9% African American, 28.7%
143 Hispanic, 16.2% non-Hispanic white, and 0.2%
144 other. Mean age was 14.9 years. Diagnosis was
145 established with DISC Version 2.3. Almost two-
146 third of male and three quarter of female detain-
147 ees met diagnostic criteria for one or more
148 psychiatric disorders. Close to 60% of the male
149 and 67% of the female detainees met criteria for
150 a DSM III-R psychiatric disorder that was not
151 Conduct Disorder. Half of the male and almost
152 half of the female youth had a diagnosable sub-
153 stance use disorder. Forty percent of the male and
154 female youth met criteria for disruptive behavior
155 disorders. More than 20% of females met criteria
156 for major depressive episode, higher among

t1.1 **Table 22.1** Prevalence of psychiatric disorders among detained juvenile delinquents

	Male (%)	% Male with impairment	Female %	% Female with impairment
t1.4 Any listed disorder	66.3	63.3	73.8	71.2
t1.5 Any except conduct disorder	60.9	59.7	70	68.2
t1.6 Any affective disorder	18.7	16.1	27.6	22.9
t1.7 Major depressive disorder	13	11.0	21.6	18.9
t1.8 Dysthymia	12.2	9.9	15.8	12.5
t1.9 Manic episode	2.2	2.0	1.8	1.2
t1.10 Psychotic disorders	1		1	
t1.11 Any anxiety disorder	21.3	20.7	30.8	28.9
t1.12 Panic disorder	0.3	0.1	1.5	1.0
t1.13 Separation anxiety disorder	12.9	10.8	18.6	16.3
t1.14 Overanxious disorder	6.7	5.9	12.3	11.5
t1.15 Generalized anxiety disorder	7.1	6.4	7.3	6.8
t1.16 Obsessive-compulsive disorder	8.3		10.6	
t1.17 Attention-deficit hyperactivity disorder	16.6	11.2	21.4	16.4
t1.18 Any disruptive behavior disorder	41.4	31.4	45.6	38.0
t1.19 Oppositional defiant disorder	14.5	12.6	17.5	15.1
t1.20 Conduct disorder	37.8	24.3	40.6	28.5
t1.21 Any substance use disorder	50.7		46.8	
t1.22 Alcohol use disorder	25.9		26.5	
t1.23 Marijuana use disorder	44.8		40.5	
t1.24 Other substance use disorder	2.4		6.9	
t1.25 Both alcohol and other drug use disorders	20.7		20.9	

t1.26 Data from Teplin et al. 2002. Used with permission

157 female non-Hispanic whites. Compared to male
 158 detainees, female detainees showed higher rates
 159 of psychiatric morbidity, with the exception of
 160 conduct disorder. Similarly, rates of depressive
 161 illness for female detainees (26.3%) were signifi-
 162 cantly higher than for male detainees (17.2%). In
 163 addition, the prevalence of attention-deficit/
 164 hyperactivity disorder (ADHD) (age of onset cri-
 165 teria not used) was higher in the detained females
 166 compared to males, contrary to reported gender
 167 ratios for the disorder in community samples
 168 (Table 22.1).

169 The Northwestern Juvenile Project, (Teplin
 170 et al. 2002) also noted differences in disorder
 171 rates based on ethnicity. Non-Hispanic white
 172 males had a higher prevalence of psychiatric
 173 disorders than African Americans or Hispanics,
 174 including higher rates of disruptive behavior dis-
 175 orders, conduct disorder, and substance use
 176 disorders. Hispanic detainees had more anxiety
 177 disorders than Caucasians and African Americans.
 178 Among female detainees, non-Hispanic whites had

179 significantly more disruptive behavior disorders,
 180 conduct disorder, and substance use disorders.
 181 Female Hispanic detainees had higher rates of
 182 generalized anxiety disorder. Looking at age,
 183 older male detainees had higher prevalence of
 184 any psychiatric disorder, higher rates of general-
 185 ized anxiety disorder and substance use disor-
 186 ders, including alcohol, marihuana or combined
 187 alcohol, and other drug use disorders. Similar age
 188 differences were not found for female detainees.
 189 In the Northwestern juvenile project, juvenile
 190 detainees were also noted to have high degrees of
 191 co morbidity (Abram et al. 2003). 17.3% of
 192 females and 20.4% of males had only one major
 193 psychiatric disorder, whereas 56.6% of females
 194 and 45.9% of males met criteria for two or more
 195 disorders. After excluding conduct and substance
 196 use disorders, more females (33.6%) than males
 197 (24.2%) had two or more disorders. More females
 198 than males had two or more of the following dis-
 199 orders: affective, anxiety, substance use, and
 200 ADHD or behavior disorders. There were racial

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t1.3179
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t2.1 **Table 22.2** Prevalence of mental disorders

t2.2		Male (%)	Female (%)	Ethnic/age issue
t2.3	Psychotic illness	3.3	2.7	
t2.4	Manic symptoms	3.1	1.2	
t2.5	Major depression	10.6	29.2	
t2.6	ADHD	11.7	18.5	Lower in studies with older subjects
t2.7	Conduct disorder	52.8	52.8	Higher in older adolescents
t2.8	Data from Fazel et al. 2008			

201 and ethnic differences in frequency of comorbid- 240
 202 ity with non-Hispanic whites having two or more 241
 203 disorders more frequently than African Americans. 242
 204 There were age differences noted for males, where 243
 205 older males had more comorbid diagnoses than 244
 206 younger males. These differences were not seen 245
 207 in females. A high number of detainees had both 246
 208 a mental disorder (psychosis, mania, or major 247
 209 depressive disorder) and a substance use disorder 248
 210 (10.8% for males and 13.7% for females). 249

211 Fazel et al. (2008) conducted a systematic 250
 212 review of 25 published surveys (1966–2006) of 251
 213 psychiatric morbidity of detained adolescents 252
 214 (*N*=16740) age range 10–19, to estimate the 253
 215 prevalence of psychiatric disorders. Fifteen sur- 254
 216 veys were from the USA, four were from the UK, 255
 217 and one each from Australia, Russia, Holland, 256
 218 Denmark, Canada, and Spain. Psychotic illness 257
 219 affected 14,710 adolescents. 3.3% of males had a 258
 220 current psychotic disorder (430 of 12,468 adoles- 259
 221 cent boys). 2.7% of girls were affected by psy- 260
 222 chotic illness. Data on manic episodes was limited 261
 223 to a few surveys; four reported manic episodes in 262
 224 boys to a combined prevalence of 3.1%, while 263
 225 only one study reported mania in girls with pre- 264
 226 valence estimate of 1.2%. Eighteen surveys 265
 227 reported on major depression (*N*=4,959). In boys 266
 228 the prevalence was 10.6% (391 of 3,323 boys) 267
 229 and in girls 29.2% (457 of 1,633) with gender dif- 268
 230 ference reaching significance. Thirteen surveys 269
 231 reported on attention-deficit hyperactivity disorder 270
 232 (no age of onset criteria used) (*N*=14,639 271
 233 adolescents). The ADHD prevalence for boys 272
 234 was 11.7% and for girls 18.5%. Fifteen surveys 273
 235 reported on conduct disorder (*N*=14,667). 274
 236 Prevalence was 52.8% for boys (7,818 of 12,552 275
 237 boys) and 52.8% for girls (Table 22.2).

238 PTSD is a highly prevalent disorder among 272
 239 detained youth as a large number of them have 273
 274
 275

240 been exposed to trauma. Researchers in the 241
 242 Northwestern Juvenile project estimated 92.5% 243
 244 of juveniles experienced at least one trauma and 245
 246 84% experienced more than one (Abram et al. 247
 248 2004). More males than females experienced 249
 250 traumatic events. The most common traumatic 251
 252 event was witnessing violence. Females reported 253
 254 being forced to have unwanted sex more often 255
 256 than males. The prevalence of a PTSD diagnosis 257
 258 in the past year was 11.2%. Having a PTSD diag- 259
 260 nosis increased the likelihood of having other 261
 262 psychiatric diagnoses (Abram et al. 2007).

263 There is a dearth of data on the prevalence of 264
 265 learning and cognitive disorders in detained 266
 267 youth, but they are recognized to be widespread 268
 269 by clinicians practicing in juvenile settings. 270
 271 The schooling of juveniles, their special educa- 272
 273 tional needs and related best practices are 274
 275 deservedly becoming a focus of attention (Geib
 et al. 2010).

260 The reviewed published data indicate that 261
 262 adolescents in juvenile justice settings have high 263
 264 rates of mental health disorders. This argues in 265
 266 favor of making mental health services readily 267
 268 available to detained youth. Psychiatric expertise 269
 270 in detention settings can be instrumental in the 271
 272 identification of risk and sensitizing juvenile jus- 273
 274 tice staff to fragile adolescents, at risk for suicidal 274
 275 or violent behavior within the setting. 275

Basic Principles of the Practice of Psychopharmacology in Juvenile Justice Settings

272 The recognized nationwide “migration” of chil- 272
 273 dren with mental health needs into the juvenile 273
 274 justice system (Teplin et al. 2002) has compelled 274
 275 juvenile justice settings to develop programs for 275

276 the provision of mental health services. National
 277 agencies have established standards for care
 278 delivery in correctional and juvenile justice set-
 279 tings. Initial health screening is recommended to
 280 be performed within 1 hour of admission to a
 281 detention facility (Office of Juvenile Justice and
 282 Delinquency Prevention (OJJDP), 1994), to
 283 assess physical and mental condition, including
 284 alcohol and drug use, upon intake. Within 7 days
 285 of admission, an in-depth health appraisal, includ-
 286 ing a mental health assessment performed by a
 287 licensed health professional, is recommended
 288 (OJJDP 1994). The National Commission on
 289 Correctional Health Care standards recommend
 290 that all juvenile detention facilities provide men-
 291 tal health services by qualified professionals and
 292 establish minimum requirements for such care
 293 (NCCHC 2004). In a 1998 national survey, 61%
 294 of facilities report having services by a psychia-
 295 trist available (Goldstrom et al. 2000). Child and
 296 adolescent psychiatrists have become essential
 297 members of the clinical team, and are relied on
 298 for diagnostic and risk assessments, for psychop-
 299 harmacological evaluations and interventions
 300 and for ongoing consultation regarding special
 301 needs planning, milieu management and staff
 302 education and guidance. In some juvenile justice
 303 settings, the child psychiatrist functions as a clin-
 304 ical team leader, similar to their role in mental
 305 health settings.

306 There are no widely accepted, much less pub-
 307 lished, best practice standards of behavioral
 308 health care in juvenile detention settings (Desai
 309 et al. 2006). Pharmacological treatment is one
 310 unique service provided by psychiatrists in juve-
 311 nile justice settings. Research describing psychi-
 312 atric practices in detention settings and their
 313 impact on outcomes is lacking. The general prin-
 314 ciples of safe psychopharmacological practice
 315 apply, and we have reviewed some of these here
 316 as they apply to juvenile justice settings.

317 As in other areas of the practice of child psy-
 318 chiatry, pharmacological treatments should be
 319 offered only as part of a comprehensive treat-
 320 ment program. There are at least three essential
 321 prerequisites for successful pharmacological
 322 treatment: (1) good assessment, leading to a
 323 psychiatric diagnosis; (2) identification of target

symptoms known to respond to medication; and 324
 (3) a working therapeutic alliance. The first task 325
 of the psychiatrist practicing in a juvenile justice 326
 setting is to establish a clinical support “infra- 327
 structure,” allowing the accomplishment of 328
 these goals. 329

The Identification and Assessment 330

331 Triage is accomplished by an interview and
 332 review of available legal and treatment records.
 333 Some facilities use standardized screening tools
 334 (Grisso and Underwood 2003). Youth entering
 335 the system with preexisting mental health issues
 336 and those identified with current mental health
 337 needs are referred to a mental health profes-
 338 sional for more detailed assessment (Wasserman
 339 et al. 2003).

340 Children are exposed to unique stressors dur-
 341 ing their detainment and legal proceedings, which
 342 may precipitate a psychiatric disorder. Common
 343 stressors include, but are not limited to: separa-
 344 tion from family and support group, extended
 345 detention, peer conflict, and facing legal conse-
 346 quences for their actions. The psychiatrist is most
 347 likely to be asked to see a youth when there is
 348 history of multiple psychiatric diagnoses and
 349 treatments, when the youth is known to have been
 350 receiving pharmacological treatment for behav-
 351 ioral problems, or when there is concern for
 352 safety risks. Youth identified during the triage
 353 process with one or more of the following diffi-
 354 culties should be seen with priority:

- 355 Youth with current suicidal ideation or intent.
- 356 Youth with current homicidal ideation or intent.
- 357 Youth with symptoms of psychotic thinking or
 358 behavior.
- 359 History of suicidality (gestures or attempts) in
 360 the immediate family.
- 361 Significant trauma history or recent significant
 362 loss.
- 363 Unusual difficulties adjusting to the setting.
- 364 Serious legal charges or impending transfer to
 365 adult correctional setting.
- 366 Documented history of major psychiatric illness.
- 367 Significant shame and guilt related to being
 368 detained.

369 Youth who are assessed to be at imminent risk
 370 of self harm, or exhibit disabling and dangerous
 371 symptoms of a major psychiatric disorder, should
 372 be considered for treatment in a psychiatric set-
 373 ting until stabilized. It is important that a rela-
 374 tionship exists, where available, with psychiatric
 375 emergency services, psychiatric hospital or
 376 forensic unit. It is the psychiatrist’s responsibil-
 377 ity to advocate that treatment needs of juvenile
 378 detainees, which exceed the setting’s capacity to
 379 provide for, be met in an appropriate treatment
 380 setting.

381 Medical screening and assessment are an
 382 essential part of a thorough psychiatric assess-
 383 ment. Most juvenile settings provide medical ser-
 384 vices to detained youth, including a physical
 385 screening examination during the admission pro-
 386 cess. It is important that the psychiatrist maintains
 387 close collaboration and regular communications
 388 with the medical providers involved in the detain-
 389 ee’s care. There should be established procedures
 390 for obtaining blood samples for basic laboratory
 391 tests, and access to pediatric medical services for
 392 more complex medical studies, for example, diag-
 393 nostic imaging, electrocardiograph (EKG), and
 394 pediatric subspecialty consultation. Rapid drug
 395 testing, and for settings caring for female youth,
 396 pregnancy testing, should be readily available.

397 It is necessary for the psychiatrist to familiar-
 398 ize themselves with the assessment protocol in the
 399 facility they provide service to, and to know what
 400 information is being collected and available for
 401 review. The psychiatric assessment should focus
 402 on areas to complement and complete the col-
 403 lected information, with the goal to establish
 404 baselines in multiple domains of function, includ-
 405 ing the individual symptoms of psychiatric illness,
 406 the youth’s relationships at home, school, and the
 407 neighborhood. The psychiatrist may wish to
 408 develop a referral form that includes salient
 409 history, behavior observations, and the issues
 410 identified leading to the referral. Several general
 411 rules are helpful to remember when it comes to
 412 the psychiatric initial assessment in juvenile jus-
 413 tice settings: one is better off asking specific
 414 questions about symptoms and other pertinent
 415 issues, leading to the completion of an accu-
 416 rate psychiatric diagnosis. A symptom-oriented

descriptive interview is the “gold standard” for 417
 use in diagnosis and symptom ascertainment 418
 (Kutcher and Fletcher 1997). The language of the 419
 interview must be at the developmental level of 420
 understanding of the youth and match their cogni- 421
 tive abilities and educational attainment. One 422
 should also remember that prolonged open-ended 423
 questioning for a long period of time may tax the 424
 youth’s ability to sustain focus, prove frustrating 425
 to them and counterproductive for a therapeutic 426
 alliance. The quality of information obtained dur- 427
 ing the assessment must be scrutinized with regard 428
 to its validity and veracity, and if concerns are 429
 present, appropriate steps should be taken to 430
 assess its reliability. Obtaining collateral informa- 431
 tion can be a challenging task. Families and youth 432
 are reluctant to share any information which in 433
 their understanding can be damaging if it reaches 434
 the court. In addition, they are commonly advised 435
 to that effect by their legal counsel. Detention set- 436
 tings are also often asked to provide reports to 437
 the court on the detainee’s behavior in detention. 438
 All these realities need to be addressed and dis- 439
 cussed openly with the youth. Valuable sources 440
 of information can be educational records, pre- 441
 dispositional studies and court-ordered evaluations. 442
 Community treatment records may be accessible 443
 with consent from the legal guardian. 444

445 The objective of an initial psychiatric assess-
 446 ment is to establish a clear psychiatric diagno-
 447 sis, to identify and measure the symptoms that
 448 will be potential target for psychopharmacologi-
 449 cal treatment, and to draw up a sustainable treat-
 450 ment “contract” with the youth and their legal
 451 guardian.

The Target Symptoms 452

453 Whether a youth is admitted to a juvenile justice
 454 setting already treated with a psychotropic medi-
 455 cation, or the medication treatment is initiated
 456 within the setting, there needs to be clear ratio-
 457 nale for the treatment (NCCHC 2004). Such
 458 clarity will facilitate the communication between
 459 the psychiatrist and the youth’s legal guardian
 460 and make it easier to establish a therapeutic alli-
 461 ance. In addition, understandable and concrete

462	medication treatment objectives may make it	510
463	easier for juvenile justice staff to monitor behavior	511
464	and help assess the outcomes of treatment.	512
465	A good system of information gathering and flow	513
466	is vital to safe and effective pharmacological	514
467	treatment. We have found it extremely helpful to	515
468	educate juvenile justice staff about the basic principles	516
469	of child and adolescent psychopharmacology:	517
470	what a child and adolescent psychiatrist	518
471	does and how and the limits of pharmacological	
472	interventions. Setting up a treatment team which	
473	includes staff with primary care responsibilities	
474	for the youth (case worker, juvenile officer, etc.),	
475	the mental health clinician on site, the medical	
476	provider on site and an administrator with medical	
477	and mental health-care coordination responsibilities,	
478	and meeting with this team regularly,	
479	may be the best way to exchange observations	
480	and information about treatment. The use of rating	
481	scales to monitor target symptoms can be	
482	very helpful in adding focus and structure to the	
483	observations, provided that staff administering	
484	them is trained. Existing monitoring instruments	
485	used in the juvenile justice setting (e.g., observation	
486	logs, safety checks, sleeping logs) can be	
487	used to add to available sources informing	
488	pharmacological treatment. If the setting has a school	
489	on grounds, it would be important to solicit teachers'	
490	observations about behavior in the classroom,	
491	interactions with peers and adults, changes in academic	
492	performance etc. Simple and basic information	
493	about common potential medication side	
494	effects should be shared with the youth as part of	
495	the informed consent/assent process, but also with	
496	medical providers and direct care staff, so that they	
497	can identify adverse effects and communicate	
498	them to the psychiatrist early. It is also important	
499	to designate a primary contact within the setting	
500	for the youth's legal guardian, who can communi-	
501	cate with them as needed, and access and involve	
502	the psychiatrist in this communication. The frequency	
503	of reassessment of the youth by the psychiatrist	
504	should depend on the severity of symptoms	
505	targeted, the therapeutic agent used, and the presence	
506	or absence of adverse treatment events.	
507	During the follow-up meetings, a summary of the	
508	impressions regarding medication effects should	
509	be discussed with the youth to solicit their input	
	into the assessment and reassessment process, but	510
	also to invite and promote individual responsibility	511
	for their treatment. Such discussions with the	512
	youth facilitate treatment adherence and help	513
	avoid medication misuse. They may also mitigate	514
	possible unintended coercion (when the youth has	515
	the perception that complying with an expectation	516
	to accept medication treatment may help the disposition	517
	of their legal case).	518
	The Therapeutic Alliance	519
	A juvenile justice setting is usually not conducive	520
	to a fast and easy establishment of therapeutic	521
	rapport. The youth and their legal guardians can	522
	be suspicious of the psychiatrist and their	523
	"agenda." The psychiatrist can be perceived as an	524
	agent of the courts and detention. There can be a	525
	tendency to diminish and belittle the professional	526
	competencies of a psychiatrist working in the	527
	juvenile justice setting. Legal guardians and the	528
	youth may be not forthcoming because of confidentiality	529
	concerns and worry how information	530
	disclosed might affect their legal disposition. The	531
	youth and their guardian may be acting on perceptions	532
	and expectations created by previous	533
	treatment experiences. The best way to address	534
	these difficulties is through diligent and open	535
	communication efforts. It may help to explain to	536
	the youth the role of the psychiatrist in the setting	537
	as a consultant and care provider, and the distinction	538
	between this role and the role of a forensic	539
	evaluator. The youth may be reminded not to discuss	540
	legal charges outside of their attorney-client	541
	relationship. Often it helps to present the involvement	542
	of the psychiatrist in the context of continuity	543
	of mental health care provided to the youth in	544
	the community. It is also extremely important to	545
	contact the legal guardian as part of the informed	546
	consent for treatment process, and use this as an	547
	opportunity to introduce the psychiatrist and	548
	gather information about past medication and	549
	other treatment. Once the youth and the guardians	550
	are reassured that their concerns are listened	551
	to, and the psychiatrist is interested in their points	552
	of view, a working alliance is easier to establish,	553
	but is still fragile and subject to disruption.	554

555 **Common Psychopharmacological**
 556 **Treatment Approaches in Juvenile**
 557 **Justice Settings**

558 There is no published national data on the rates of
 559 use of psychotropic medications in detention set-
 560 tings. State surveys (Pennsylvania and Oregon)
 561 estimate that between 50 and 70% of youth
 562 admitted to detention are treated with psychotro-
 563 pic medication (Oregon Youth Authority 2002;
 564 Griffin 2000). It may be safe to assume that a
 565 substantial number of youth entering detention,
 566 may be already taking, or are in need of psycho-
 567 tropic medication.

568 The “PRN” (as needed) or “stat” (urgent) use
 569 of medications in a detention setting is usually
 570 not welcomed by the youth who may view it as a
 571 forceful attempt to control and subdue them. A
 572 youth’s family may view the behavioral difficul-
 573 ties a youth is having as a natural reaction to the
 574 restrictive setting. There are legal and ethical
 575 considerations making the administration of
 576 medication against a youth’s will a problem in
 577 detention settings (NCCHC 2004). Any other
 578 than “by mouth” medications are difficult to
 579 administer as they require professional staff and
 580 monitoring. One may argue that if psychiatric
 581 symptoms are of such acuity and severity as to
 582 necessitate fast administration (by injection) of
 583 medication, a different treatment setting may be
 584 required.

585 Initiating long-term medication treatment in a
 586 juvenile justice setting may meet with resistance
 587 from the youth and his/her family. Issues of con-
 588 trol, the side effects of medication and agency
 589 will be at the forefront. The inherent limitations
 590 to a therapeutic alliance in a detention setting,
 591 discussed earlier, add to the deliberations when
 592 deciding whether to initiate medication treat-
 593 ment. Potential medication noncompliance is
 594 often an issue and direct observation during med-
 595 ication administration by trained staff in the juve-
 596 nile setting is advisable. Therapeutic agents with
 597 narrow therapeutic tolerance and requiring close
 598 monitoring may not be a safe option for youth
 599 with history of nonadherence to treatment in the
 600 community. Considering the fragile therapeutic

alliance, we suggest using only medications with 601
 best available support for the treatment of the 602
 diagnosed psychiatric disorder. 603

Therapeutic Class Review 604

In the following section, we will discuss pharma- 605
 cological agents used in the treatment of common 606
 child and adolescent psychiatric disorders shown 607
 to be affecting youth in juvenile justice settings. 608
 The doses listed should not be considered a full 609
 description of the effective or safe range. The 610
 reader may wish to consult the Food and Drug 611
 Administration (FDA)-approved package insert 612
 for full prescribing information. 613

Stimulants 614

The stimulant medications (methylphenidate, 615
 D-amphetamine, and D-, L-amphetamine) are a 616
 well-established treatment for ADHD in children 617
 and adolescents. Strong evidence for the benefit 618
 of treatment with well-managed stimulant medi- 619
 cations was provided by the Multimodal 620
 Treatment Study of Children with ADHD (MTA), 621
 a large multicenter trial cosponsored by the 622
 National Institute of Mental Health (NIMH) and 623
 the Department of Education (MTA 1999). Motor 624
 restlessness, hyperactivity, distractibility, and 625
 disruptive behavior are common symptoms of 626
 youth in juvenile justice settings. In a random- 627
 ized controlled trial (*N*=84) Klein et al. (1997) 628
 treated children diagnosed with Conduct Disorder 629
 (CD) age 6–15 for 5 weeks with methylphenidate 630
 (MPH) up to 60 mg/day. Ratings by parents, 631
 teachers, and clinicians of antisocial behaviors 632
 specific to CD were significantly reduced by 633
 methylphenidate independent of ADHD symp- 634
 tom severity. The authors concluded that meth- 635
 ylphenidate has short-term positive effect for 636
 children and adolescents diagnosed with CD. 637

Pappadopulos et al. (2006) reviewed 45 ran- 638
 domized placebo-controlled trials (RCT) address- 639
 ing the treatment of aggression in ADHD as a 640
 primary or secondary variable. They found an 641
 overall effects size (ES) for psychotropic agents 642
 in treating aggression of 0.56. Largest effects 643
 were noted with methylphenidate for comorbid 644

645 aggression in ADHD (mean ES=0.9; combined
646 $N=875$). An earlier study by Kaplan et al. (1990)
647 included nine male adolescents diagnosed with
648 both “aggressive” CD and ADHD. Placebo controlled
649 double blind design was used after open
650 trials. The authors reported significant reduction
651 in aggression in the methylphenidate treated
652 group as measured by the Adolescent Antisocial
653 Behavior Checklist. The hyperactivity and
654 aggression subscale scores on the Conners’
655 Teachers Rating Scale also trended down, but did
656 not reach significance.

657 The most common side effects of stimulants
658 include insomnia, reduced appetite, stomachache,
659 headache, dizziness. Weight and height suppression
660 have been reported. Rare side effects include
661 psychosis, mania, syncope, and hypertension.
662 Caution should be used when treating patients
663 with cardiac history of arrhythmia, murmurs or
664 infection or systemic disease affecting the cardiac
665 muscle. In stimulant naïve patients, a baseline
666 EKG is always prudent and is necessary if
667 there is a familial history of sudden death or cardiac
668 disease. FDA warns of serious cardiovascular
669 adverse events and sudden death reported
670 with misuse. Stimulants also have a high abuse
671 potential. Diversion of medication should be a
672 consideration in all settings, as stimulants have a
673 street value and can be abused, sold or traded for
674 other drugs. Prodrugs and OROS (Osmotic-
675 controlled Release Oral delivery System)-
676 methylphenidate preparations may have lower
677 abuse potential.

678 **Nonstimulants**

679 Atomoxetine is a noradrenergic reuptake inhibitor
680 which affects the dopamine action in the
681 brain. It has an FDA-approved indication for the
682 treatment of ADHD in children and adolescents.
683 It has been found to be useful in the treatment of
684 ADHD with co morbid anxiety, tics, and depression
685 (Allen et al. 2005).

686 Recommended maximum dose is 1.4 mg/kg/d
687 for children over the age of 6 who weigh less than
688 70 lbs to 100 mg/d for children who weigh more
689 than 70 lbs. The most common side effects
690 include dry mouth, nausea, vomiting, decreased
691 appetite, headache, insomnia, dyspepsia. Rare

692 side effects include psychosis, mania, suicidal
693 ideation (black box warning), syncope, hyperten-
694 sion and liver toxicity.

695 **Alpha 2 Agonists**

696 Clonidine is an alpha 2 agonist used to treat
697 hypertension. It is commonly used in child psy-
698 chiatry for the treatment of disruptive behavior
699 disorders and ADHD, but is not FDA approved
700 for these indications. It is given in divided doses
701 (three or four times a day) of 3–5 $\mu\text{g}/\text{kg}/\text{day}$. A
702 randomized placebo-controlled trial of clonidine
703 added to stimulant treatment of ADHD with co
704 morbid Oppositional Defiant Disorder or Conduct
705 Disorder (Hazell and Stuart 2003) showed it to be
706 helpful in reducing conduct symptoms with
707 well tolerated and transient unwanted effects. A
708 3-month, randomized, blinded, group comparison
709 of methylphenidate combined with clonidine, clo-
710 nidine monotherapy or methylphenidate mono-
711 therapy in 6 to 16-year-old children diagnosed
712 with ADHD and comorbid Oppositional Defiant
713 Disorder or Conduct Disorder (Connor et al.
714 2000), suggested that clonidine is safe and effective
715 alone or in combination with methylpheni-
716 date. An open trial of clonidine in 17 aggressive
717 children aged 5–15 years (Kempth et al. 1993)
718 resulted in decrease in aggression in 15 children
719 with minimal side effects. The most common
720 side effects of clonidine are dry mouth, drowsi-
721 ness, dizziness, constipation, sedation, and low
722 blood pressure.

723 Guanfacine is an alpha 2 agonist recently
724 approved in a sustained release preparation by
725 the FDA for the treatment of ADHD in 6–17 year-
726 old children (Sallee et al. 2009). The recom-
727 mended daily dose range is 1–4 mg. Hunt et al.
728 (1995), demonstrated first in an open trial that
729 guanfacine sustained release can be beneficial in
730 the treatment of ADHD with minimal side effects.
731 The side effect profile of guanfacine is similar to
732 that of clonidine.

733 **Antipsychotics**

734 This is a group of drugs that are used to treat
735 severe psychiatric disorders in children and
736 adolescents. They are divided by convention
737 into Typical (older medications) and Atypical

(newer medications) antipsychotics. They all to a certain extent work by blocking dopamine receptors in the brain. However, other receptor-binding capabilities have been described including, but not limited to, binding to serotonergic, histaminergic, and adrenergic receptors. In other words, the antipsychotics regulate chemicals modulating many brain functions including behavior, emotions, and cognition. Most atypical antipsychotics have received FDA approval for the treatment of schizophrenia and bipolar disorder in children and adolescents. This group includes compounds brought to the market over the past 10 years as safer and better tolerated alternatives to the then existing “typical” antipsychotics. Medications in this group (the atypical) include clozapine, risperidone, olanzapine, quetiapine, ziprasidone, and aripiprazole. Target symptoms for pharmacotherapy with atypical antipsychotics typically include aggression, self injury, property destruction or severe tantrums. The advantages over the typical antipsychotics include lower risk of inducing neurological side effects such as parkinsonism in the short term and perhaps tardive dyskinesia (TD) in the long term. The Treatment Recommendations for the Use of Antipsychotics for Aggressive Youth (TRAAAY) Parts I and II promote psychosocial and educational treatment approaches as first line interventions for symptoms of aggression. How early psychopharmacological treatment is introduced may depend on the level of aggression, the severity, and pervasiveness of associated Axis I disorders and other factors (e.g., the willingness of the patient and family to engage in treatment). Using atypical antipsychotics rather than typical antipsychotics to treat aggression is recommended by the TRAAAY group (Pappadopulos et al. 2003). Risperidone is FDA approved for the treatment of schizophrenia, bipolar disorder, and symptoms of irritability in Autistic Disorder. It has the best evidence to support its use in the treatment of disruptive behavior. Numerous studies and trials in children and adolescents have described beneficial effects of risperidone in the reduction of aggressive symptoms. A placebo-controlled maintenance versus withdrawal trial of 335 youth ages 5–17 years with symptoms of

Disruptive Behavior Disorder (Reyes et al. 2006), showed evidence that patients who respond to initial treatment with risperidone continue to benefit from long-term treatment (up to 6 months). Risperidone treatment was well tolerated and modestly effective when used in combination with psycho-stimulants for treatment-resistant aggression in children with ADHD (Armenteros et al. 2007). Risperidone was more effective than placebo in decreasing aggression in a study of 20 children age 5–15 treated in an outpatient setting (Findling et al. 2000). Buitelaar et al. (2001) showed reduction in severe aggression in 38 inpatient adolescents with subaverage intelligence and Disruptive Behavior Disorder. Risperidone was more effective than placebo in decreasing disruptive behaviors in a sample of 118 children and adolescents diagnosed with Conduct Disorder, Oppositional Defiant Disorder or Disruptive Behavior Disorder Not Otherwise Specified and subaverage IQ (Aman et al. 2002). Olanzapine is FDA approved for the treatment of schizophrenia and manic/mixed episodes of bipolar disorder for age 13–17 years. It is not recommended as first line treatment for these disorders due to the risks of hyperlipidemia and weight gain. Recommended maximum daily dose is 20 mg. One open label trial in patients diagnosed with pervasive developmental disorders (Potenza et al. 1999), reported generally positive results, though significant weight gain did occur. Reports of drug-induced diabetes in adults treated with olanzapine (Bettinger et al. 2000); (Bonanno et al. 2001) may make clinicians reluctant to continue using it in children. Quetiapine is FDA approved for treatment of schizophrenia and bipolar disorder. Ziprasidone is not FDA approved for treatment of any disorders in children or adolescents. It is associated with cardiac side effects which may lead to sudden death. Aripiprazole is classified as a partial dopamine agonist due to a novel mechanism of action. It is FDA approved for the treatment of schizophrenia, bipolar disorder and irritability in autism (age 6–17 years). Clozapine is not FDA approved in children or adolescents. It is FDA approved for treatment of adults suffering from refractory schizophrenia and for schizophrenia-associated suicide prevention.

834 It is used off-label to treat children and adolescents
 835 who have refractory schizophrenia—when two
 836 or more antipsychotics have not helped. Side
 837 effects include drooling, drowsiness, extrapyra-
 838 midal side effects, hypotension, fever, weight
 839 gain, seizures, and tardive dyskinesia. It has black
 840 box warnings for possible seizures, heart inflam-
 841 mation (myocarditis), drop in blood pressure,
 842 syncope, respiratory, or cardiac arrest. Because
 843 of its ability to cause bone marrow suppres-
 844 sion (agranulocytosis), it is only used with
 845 ongoing blood tests to monitor the numbers of
 846 various blood cell components, most importantly
 847 white blood cells.

848 Typical antipsychotics include fluphenazine,
 849 haloperidol, chlorpromazine, loxapine, molin-
 850 done, thioridazine, thiothixene, trifluoperazine,
 851 and pimozide. Haloperidol and lithium (a mood
 852 stabilizer) were found both to be clinically effec-
 853 tive in 61 treatment resistant, hospitalized chil-
 854 dren aged 5–13 years with diagnosis of Conduct
 855 Disorder (Campbell et al. 1984). Antipsychotic
 856 side effects include for the typical antipsychotics:
 857 Extrapyramidal side effects—akathisia, acute
 858 dystonia, parkinsonism, seizures, weight gain,
 859 liver dysfunction, sedation, hyperprolactinemia,
 860 cardiovascular, and hematologic effects. For the
 861 Atypical antipsychotics: cardiovascular effects,
 862 weight gain, sedation, drooling, extrapyramidal
 863 side effects [including akathisia and hyperpro-
 864 lactinemia (rarely)], hyperlipedemia, and eleva-
 865 tion in blood glucose. Recommended monitoring
 866 includes weight, vital signs, monitoring for
 867 abnormal involuntary movements.

868 **Antidepressants**

869 Selective serotonin reuptake inhibitors
 870 (SSRIs) in the pediatric population are
 871 commonly used to treat depression, anxiety and
 872 Obsessive–Compulsive Disorder. Fluoxetine is
 873 FDA approved for treatment of Major Depressive
 874 Disorder (8–18-year-olds) and Obsessive
 875 Compulsive Disorders (7–17-year-olds). The use
 876 for treatment of aggression is not FDA approved,
 877 but has been entertained based on the fact that
 878 low serotonin has been associated with aggres-
 879 sive behavior and impulsivity (Kavoussi et al.
 880 1997). Escitalopram is FDA approved for treatment

of Major Depressive Disorder (12–17-year-olds); 881
 sertraline is FDA approved for the treatment of 882
 Obsessive–Compulsive Disorder (6–17-year- 883
 olds); fluvoxamine is FDA approved for the 884
 treatment of Obsessive–Compulsive Disorder 885
 (8–17-year-olds). These medications have been 886
 used also for non-FDA-approved indications in 887
 children/adolescents including Posttraumatic 888
 Stress Disorder, Anxiety Disorders (Social 889
 Phobia, Generalized Anxiety Disorder, Panic 890
 Disorder, and Separation Anxiety Disorder). 891
 Citalopram, although not FDA approved, 892
 appeared effective and well tolerated in a sample 893
 of 12 children aged 7–15 with a profile of impul- 894
 sive aggression (Armenteros and Lewis 2002). 895
 The children were treated in an open trial for 896
 6 weeks in an outpatient setting. All antidepres- 897
 sants carry a black box warning for suicidality in 898
 adolescents, extending to age 24. There have 899
 been no reported deaths by suicide in the study 900
 pool used for the analysis of suicidal ideation 901
 occurrences. Diligent monitoring (weekly for the 902
 first 4 weeks of treatment) is emphasized during 903
 treatment with antidepressants. Common side 904
 effects of the SSRIs include nausea, drowsiness, 905
 diarrhea, nervousness, and sexual dysfunction. 906
 Patients may also experience restlessness and 907
 increased anxiety when initiating treatment. The 908
 maximum recommended dose for treatment with 909
 fluoxetine is 80 mg/day. For escitalopram, the 910
 maximum recommended dose is 20 mg daily. For 911
 sertraline, the maximum recommended dose is 912
 200 mg/day. For fluvoxamine, the maximum rec- 913
 ommended daily dose is 200 mg. The tricyclic 914
 antidepressants (TCAs) may be helpful for the 915
 treatment of Anxiety Disorders and ADHD, but 916
 they are not easy to use in juvenile justice setting 917
 as they require cardiac monitoring, can be lethal 918
 in overdose, and have not been shown to be 919
 effective in adolescent depression. Clomipramine 920
 has an FDA-approved indication for Obsessive– 921
 Compulsive Disorder in 10-year-olds and above, 922
 but the more favorable side effect profile of the 923
 SSRIs, make them a preferred treatment option. 924
 Imipramine has an indication for Nocturnal 925
 Enuresis (6–18 years old). Common side effects 926
 for the TCAs include drowsiness, dry mouth, 927
 constipation, rapid heartbeat, sweating, confusion, 928

929 and disorientation among others. Rare side effects
 930 include heart damage that could lead to sudden
 931 death, hypotension, and hypertension. TCAs also
 932 carry the Black Box warning that they can
 933 increase suicidal behavior in children, adoles-
 934 cents, and young adults.

935 **Benzodiazepines**

936 Chlordiazepoxide and diazepam are approved for
 937 the treatment of anxiety in children. Common side
 938 effects are sedation, confusion, unsteady gait,
 939 nausea, constipation, and paradoxical agitation.
 940 Other serious side effects are syncope, hepatic
 941 impairment and symptoms of withdrawal if treat-
 942 ment is stopped abruptly. In the juvenile justice
 943 population, habituation to drug effects; and mis-
 944 use or diversion of these drugs may occur.

945 **Anticholinergic Agents**

946 Anticholinergic agents include: benztrapine, tri-
 947 hexylphenidyl, biperiden, diphenhydramine, and
 948 hydroxyzine. Benztrapine is an anticholinergic
 949 medication with antihistaminic activity. It is used
 950 to treat muscle stiffness, shuffled gait, and other
 951 symptoms commonly known as “extrapyramidal”
 952 side effects of antipsychotics. It should be used
 953 with caution in children and adolescents. The rec-
 954 ommended dose range is: 0.02–0.05 mg/kg daily
 955 or twice daily, 0.25–4 mg/day. Diphenhydramine
 956 is an anticholinergic and antihistaminergic medi-
 957 cation. It is FDA approved for treatment of
 958 extrapyramidal side effects from age 2 years and
 959 for short-term insomnia from age 12 years.
 960 Hydroxyzine is FDA approved for the treatment
 961 of anxiety (symptomatic relief of anxiety and ten-
 962 sion associated with psychoneurosis and as an
 963 adjunct in organic disease states in which anxiety
 964 is manifested) in children and adolescents. Its use
 965 for anxiety is only recommended for short term.
 966 Maximum recommended dose range is
 967 50–100 mg/day for less than 12 years old. Those
 968 older than 12 years may use adult doses of
 969 50–100 mg up to four times a day. Side effects of
 970 anticholinergics include constipation, dry mouth,
 971 nausea and vomiting, urinary retention, sedation.
 972 Rare side effects include psychosis, confusion,
 973 blurry vision, delirium, cardiac rhythm problems
 974 (e.g., fast heart beats), reduced sweating, and

dry skin. Diphenhydramine may also cause 975
 paradoxical reactions, extrapyramidal side effects 976
 and has had reports of abuse potential. Hydroxyzine 977
 may cause bitter taste. 978

Mood Stabilizers

979 Antipsychotics have been used as mood stabiliz- 980
 ers in the treatment of Bipolar Disorder. Other 981
 mood stabilizers are the anticonvulsants and lith- 982
 ium. Anticonvulsants have been described as 983
 helpful in targeting aggression mostly in short- 984
 term studies. No anticonvulsant has an FDA- 985
 approved indication to treat any psychiatric 986
 disorders in children. However, sodium val- 987
 proate, carbamazepine, and lamotrigine have 988
 been used off-label for treatment of Bipolar 989
 Disorder and aggression. 990

Side effects for these medications include: 991
 suppression of the function of bone marrow 992
 (which produces the cellular components of 993
 blood) leading to low counts of the various cel- 994
 lular components of blood for example, red blood 995
 cells, white blood cells, and platelets. It is impor- 996
 tant that blood levels be monitored for valproic 997
 acid and carbamazepine. Lamotrigine brings a 998
 risk of severe rash called Stevens–Johnson’s syn- 999
 drome especially if titrated quickly or due to 1000
 interactions with other anticonvulsants for exam- 1001
 ple, Valproate. Lamotrigine risk for Stevens– 1002
 Johnson is also higher with younger patients. 1003
 Lithium is approved for treatment of Bipolar 1004
 Disorder in children (acute mania), 12 years and 1005
 older. It is used off-label to treat aggression, espe- 1006
 cially in children with mood disorders (Campbell 1007
 et al. 1995). It has been noted to have antisuicidal 1008
 properties (Ernst and Goldberg 2004). Dose for 1009
 Lithium for children 12 years and older is 600– 1010
 1,200 mg/day to a maximum of 2.4 g/day in 1011
 divided doses, orally. A black box warning exists 1012
 for toxicity of Lithium. Regular blood levels are 1013
 mandatory during initiation and ongoing use. 1014
 Monitoring should be from twice a week during 1015
 initiation to every 2 months during maintenance. 1016
 Concentrations should be kept below 1.5 meq/L 1017
 and the lowest therapeutic level possible that also 1018
 maintains symptom control. Side effects even at 1019
 low blood concentrations may include fine hand 1020
 tremors, increased urinary frequency and mild 1021

1022 thirst. Early signs of an increased blood level
 1023 above 1.5 meq/L include vomiting, diarrhea,
 1024 drowsiness, and muscular weakness with lack of
 1025 coordination. As the toxic levels increase the
 1026 severity of the above increases to include giddi-
 1027 ness, unsteady gait, blurry vision, ringing in the
 1028 ears and large output of urine that when measured
 1029 in a laboratory shows that it is diluted. Very high
 1030 lithium blood concentration may lead to organ
 1031 failure especially kidney failure. Other recom-
 1032 mended laboratory tests include monitoring of
 1033 thyroid, heart and kidney function.

1034 Conclusion

1035 There are a large number of youth in the juvenile
 1036 justice system suffering from psychiatric disor-
 1037 ders both preexisting and occurring in the context
 1038 of their confinement. Despite of all the challenges
 1039 inherent to the practice of psychiatry in juvenile
 1040 justice settings (unpredictable length of stay, poor
 1041 family involvement, lack of trained staff to main-
 1042 tain therapeutic milieu among others), mental
 1043 illness needs to be treated, as failure to do so can
 1044 be construed as unethical, and ultimately, uncon-
 1045 stitutional. Psychopharmacological interventions
 1046 must be combined with educational and
 1047 nonpharmacological interventions with the goal
 1048 to optimize youth functioning and decrease recid-
 1049 ivism. Current concepts in pharmacotherapy of
 1050 psychiatric disorders of youth in juvenile justice
 1051 settings involve targeting observable and measur-
 1052 able behavior symptoms, affecting adversely the
 1053 daily functioning of individuals with psychiatric
 1054 illness. Practitioners in this setting should be cog-
 1055 nizant of the age, gender, and racial issues as they
 1056 relate to the various individuals entering the juve-
 1057 nile justice setting. Practitioners should note that
 1058 the use of FDA-approved medications should be
 1059 the first line treatment for this youth as in all chil-
 1060 dren and adolescents. They may be well served in
 1061 referring any non-FDA medication trials to com-
 1062 munity settings where issues of control and sus-
 1063 picions of practitioners being agents of the State
 1064 may not play a role. As the number of youth
 1065 with mental health needs in juvenile justice

settings is growing, so are the investigative efforts
 to determine efficacy for available and new treat-
 ment modalities, including medications, tailored
 to the specific characteristics of this group.

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IICAPS: A Treatment Model for Delinquent Youths with Co-occurring Mental Health Disorders

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More than 1.7 million youth are presently on the delinquency caseloads of the juvenile courts in the USA (Harms 2003). Youth who enter the juvenile justice system have been found to present with a range of problematic behaviors that require mental health intervention if they are to be ameliorated (Wasserman et al. 2004). Prevalence research suggests that the rate of mental health disorders among youth in the juvenile justice system is close to 70%, exceeding the 10–20% estimated rate for youths in the general population (Espelage et al. 2003; National Center for Mental Health and Juvenile Justice 2005). One large-scale study of 1,829 male and female juvenile detainees in Cook County, Illinois found that excluding conduct disorder, nearly 60% of male and 66% of female detainees met criteria for psychiatric disorders and had diagnostic-specific levels of impairment for one or more disorders (Teplin et al. 2002).

Although considerable attention has been paid to assessing the occurrence of psychiatric disorders among the juvenile justice population, there is little data regarding entry into treatment for this population. It appears that few youths with serious disorders have accessed appropriate treatment

resources prior to coming to the attention of the juvenile justice system. Moreover, those youths in juvenile justice facilities who have been identified as having a serious psychiatric disorder are unlikely to have received treatment as few facilities within the juvenile justice system are equipped to offer any mental health intervention beyond screening. (Rogers et al. 2001) Although mental health professionals believe that mental health intervention would be beneficial in reducing recidivism and improving youth functioning (Teplin et al. 2002), there is scant information in the literature concerning best practices for the treatment of this population (Wasserman et al. 2002, 2003).

Predictably, conduct and substance abuse disorders are seen frequently among youth in the juvenile justice system. However, a significant portion of youths have been diagnosed with affective disorders, including major depressive episodes (dysthymia and bipolar disorders) and anxiety disorders, such as panic and separation anxiety and posttraumatic stress (Teplin et al. 2002; Wasserman et al. 2002). Studies have also confirmed that youth in the juvenile justice system are likely to be living in families affected by chronic, pervasive psychosocial adversity, which is a significant contributor to their vulnerability. Multigenerational exposure to violence, parental substance abuse, physical and mental illness, neglect and neighborhood disintegration often define the familial and community environment in which these youths live and further dispose them toward behaviors leading to involvement in the juvenile justice system. (Teplin et al. 2002;

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67 National Center for Mental Health and Juvenile
 68 Justice 2005). The role played by environmen-
 69 tal factors in shaping behavior is well estab-
 70 lished (Patterson 1975; Rutter and Quinton
 71 1984) and predictive of the likelihood that
 72 treatment attempts will be unsuccessful if the
 73 youth’s placement in detention mitigates against
 74 the engagement of significant family members
 75 and the probability of changes in the youth’s
 76 environment.

77 In the past decade, individual states have
 78 attempted to respond to the challenges of meet-
 79 ing the complex needs of court involved youths
 80 by seeking to implement interventions designed
 81 to effect environmental as well as behavioral
 82 change. Systemically supported collaborations
 83 between mental health and juvenile justice pro-
 84 viders have shown promise of reducing the risks
 85 that youths whose behaviors bring them to the
 86 attention of the court pose to themselves and to
 87 society at large. Interventions that address the
 88 complex, multisystemic needs of both youth and
 89 their families may be able to divert youths from
 90 the justice system and promote rehabilitation,
 91 recovery, and pro-social behavior. This chapter
 92 describes the Intensive In-Home Child and
 93 Adolescent Psychiatric Service (IICAPS), a
 94 home-based, mental health program for children
 95 and youth with serious emotional disturbance
 96 (SED), which may provide a paradigmatic model
 97 for the engagement of delinquent youths and their
 98 families in behavioral health treatment.

99 **IICAPS**

100 IICAPS was developed at the Yale Child Study
 101 Center in 1995 as a home-based, family focused,
 102 intensive intervention to prevent the hospitaliza-
 103 tion, institutionalization or out-of-home placement
 104 of children and adolescents with SED. Children
 105 and youth appropriate for referral to IICAPS are
 106 those at risk for psychiatric hospital-based treat-
 107 ment, unable to be discharged from such treatment
 108 settings secondary to the lack of community and
 109 home resources or unresponsive to outpatient,
 110 clinic-based services. Presenting diagnoses are
 111 likely to include affective, anxiety, attachment,

obsessive–compulsive, psychotic and stress-related 112
 disorders. In addition to evidencing prior involve- 113
 ment in the mental health system, children and 114
 adolescents appropriate for IICAPS are between 115
 the ages of 4 and 17 years of age and residing with 116
 a family committed to their long-term care and 117
 willing to participate actively in the intervention. 118

Over time, IICAPS has evolved into a struc- 119
 tured, manualized, replicable model of care for 120
 children and youth with SED. In 1997, the 121
 IICAPS model received the support of the 122
 Department of Children and Families (DCF), the 123
 public agency responsible for the provision of 124
 child welfare, protective and mental health ser- 125
 vices in Connecticut. In the ensuing years, the 126
 program has become an officially recognized 127
 mental health intervention for children who meet 128
 the criteria for medical necessity, paid for by 129
 Medicaid and delivered at 20 provider sites 130
 within the state. A fee supported model of care, 131
 IICAPS integrates mental health treatment with 132
 an ecologically oriented and family-focused 133
 approach to meeting the needs of children and 134
 adolescents with SED and their families. 135

IICAPS was designed as a relationship-based, 136
 catalytic enhancement of outpatient services for 137
 children and youth who are not ready or able to 138
 access these services at the start of treatment. 139
 Often utilized as a bridge between hospital and 140
 home, IICAPS interventions are guided by attach- 141
 ment, object relations, problem-solving, cogni- 142
 tive behavioral and family systems theories. The 143
 IICAPS model derives from the central concepts 144
 and findings of developmental psychopathology 145
 which posit that developmental progress results 146
 from complex, continuous interactions that take 147
 place between the child’s innate capacities and 148
 his or her environmental influences. This view 149
 presumes that first order changes in the child’s 150
 environment can lead to positive changes in the 151
 child’s developmental trajectory and reduce the 152
 stress and conflict that is likely to exist among 153
 family members (Woolston et al. 2007). 154

IICAPS services are provided by teams con- 155
 sisting of a master’s level clinician (social worker, 156
 nurse, or psychologist) and a bachelor’s level 157
 mental health counselor who work under the direct, 158
 weekly supervision of a child and adolescent 159

160 psychiatrist or senior clinician. Each team is
 161 responsible for delivering the interventions
 162 that constitute the program's core: assessment,
 163 evaluation, individual psychotherapy for children
 164 and adults, family therapy, couples counseling,
 165 parent guidance, behavioral management, cri-
 166 sis intervention, and medication management.
 167 Cumulatively, each team spends 5 h/week with an
 168 individual child and family for an average length
 169 of stay of 6 months. To assure continuity of care
 170 giving, teams are available 24 h/day, 7 days/week
 171 to intervene when family crises arise. A child psy-
 172 chiatrist assumes medical responsibility for the
 173 care of all patients and presides at weekly rounds
 174 at which cases are presented and discussed by the
 175 rounds group. Throughout the intervention, the
 176 treatment process remains focused on the main
 177 problem, a critical element of IICAPS. The main
 178 problem is identified by the child and family
 179 immediately following the start of treatment and
 180 is meant to describe the behavior that they believe
 181 is most likely to lead to the child's psychiatric
 182 hospitalization or institutionalization. Because
 183 the main problem must be recognized and agreed
 184 upon by the child and the family, it provides an
 185 accepted organizing structure for conceptualizing
 186 the problems to be addressed and helps to frame
 187 the treatment plan which guides the work of each
 188 IICAPS episode of care.

189 The overarching goal of all IICAPS treatment
 190 is the enhancement of the "quality of fit" between
 191 the child and the systems in which he is embed-
 192 ded. Understanding that human behavior is the
 193 result of the complex, ongoing interactions
 194 between the individual and the environment in
 195 which he lives, IICAPS interventions target the
 196 main problem as it is manifested in four influen-
 197 tial domains: child, family, school, and commu-
 198 nity environment. Team members assist the child
 199 and family to identify and address the interplay of
 200 seemingly disparate factors which may reinforce
 201 the child's problematic behaviors in all domains.

202 A specific set of IICAPS tools structure and
 203 guide IICAPS interventions and simultaneously
 204 serve as fidelity mechanisms by which adherence
 205 to the IICAPS model is measured. Tools outline
 206 the specific tasks that are to be completed by the
 207 family at specific times during the intervention.

208 IICAPS tools function as promoters of on-going
 209 engagement, guides for clinical assessment,
 210 markers of progress throughout the intervention,
 211 aids for supervision, and the basis for quality
 212 assurance.

213 IICAPS incorporates five key principles each
 214 of which is central to the integrity of the model.
 215 Co-construction represents the IICAPS commit-
 216 ment to the development of a partnership between
 217 the child, family, and the team in the service of
 218 reaching mutual agreement on all aspects of treat-
 219 ment and placing the family in a position of lead-
 220 ership. Transparency promotes the establishment
 221 of an authentic, clearly understood dialogue
 222 between the team, the child and the family that
 223 resonates with their experiences and views.
 224 Practicality requires an on-going focus on the day
 225 to day world of the child and family and speaks to
 226 what is actually in their power to accomplish. The
 227 principle of immediacy focuses emphasis on
 228 timely implementation of the actions that the
 229 child, family and team identify as likely to lead to
 230 the successful resolution of the child's problems.
 231 Adherence to IICAPS tools functions as the fifth
 232 principle and provides assurance that the integ-
 233 rity of the model has been preserved faithfully.

IICAPS Treatment Phases

234 IICAPS interventions proceed through three
 235 treatment phases: engagement and assessment,
 236 work and action, and ending and wrap-up.
 237 Engagement and assessment, the initial phase of
 238 an IICAPS intervention, is marked by the com-
 239 pletion of specific tools which have been designed
 240 to facilitate the development of a therapeutic alli-
 241 ance able to lead to behavioral change. The work
 242 begins with the creation of an initial treatment
 243 plan and the completion of a multigenerational
 244 Genogram, which is often the first time that fam-
 245 ily members are able to recognize some of the
 246 patterns and problems which have repeatedly
 247 characterized family functioning. Central to the
 248 initial treatment plan is the identification of the
 249 main problem, which is generated by the family
 250 using the principle of co-construction, a process
 251 in which the whole family must be actively
 252

253 engaged. As stated above, the main problem is
 254 designed to capture the undesirable behaviors
 255 that the child and the family believe place the
 256 child at risk of psychiatric hospitalization or
 257 institutionalization and guide subsequent active
 258 intervention across all domains.

259 In order to help the family members under-
 260 stand themselves and their influence on the child's
 261 main problem more clearly, the team assists the
 262 child and family to identify their strengths and
 263 vulnerabilities in each of the four treatment
 264 domains: child, family, school, and community
 265 environment. Strengths are those attributes that
 266 the family believes can be used to ameliorate the
 267 main problem; vulnerabilities are attributes that
 268 serve as promoters of the problem. When the fam-
 269 ily is able to complete this activity, they are guided
 270 by the team to create a visual representation of the
 271 child's main problem and the factors which are
 272 perpetuating it using their own words. The docu-
 273 ment they produce is known as an EcoDomain
 274 Map. The EcoDomain Map highlights graphically
 275 the ways in which the interrelated characteristics
 276 of family members act upon the child's problem-
 277 atic behaviors. This information is then utilized
 278 by the family and the team to construct a final
 279 treatment plan that delineates measurable domain-
 280 specific goals and action steps. The completion of
 281 the treatment plan enables the child and family to
 282 formally enter the work and action phase, the
 283 heart of the intervention.

284 The work and action phase focuses the atten-
 285 tion of the child, the family, and the team on
 286 meeting the goals and action steps that constitute
 287 the treatment plan. Treatment itself is action ori-
 288 ented and reality based. Problem-solving strate-
 289 gies are invoked extensively in the interest of
 290 helping families to improve their decision-mak-
 291 ing skills and learn to make appropriate choices
 292 for their children and themselves. The child's
 293 safety and well-being are of primary importance;
 294 barriers to improvements in the child's function-
 295 ing are assessed regularly. The family's ability to
 296 respond appropriately to the child's individual-
 297 ized needs is evaluated in the context of his pri-
 298 mary attachments and the need of all children for
 299 continuity of care-giving, a sense of belonging,
 300 and a feeling of well-being. Parents are helped to

301 address their own issues, as appropriate, in the
 302 service of ameliorating the main problem, and
 303 facilitating their child's recovery.

304 The severity of the main problem and progress
 305 on all treatment goals is rated regularly by the
 306 child and family on a 10-point rating scale. The
 307 family and the team engage in the rating process
 308 at the start of treatment, again approximately
 309 6 weeks later when the creation of the treatment
 310 plan is expected to be completed, and at every
 311 subsequent 6-week period until the case is closed.
 312 The process of rating the child and family's treat-
 313 ment progress provides an important methodol-
 314 ogy for continuous feedback to all family members
 315 on how they are doing and how well they are able
 316 to use treatment. The on-going rating processes
 317 provide a useful strategy for obtaining data for
 318 supervision and quality assurance as well.

319 When the child is stabilized, 15 no longer at
 320 risk of hospitalization, and the child and family
 321 are satisfied with their progress toward achieving
 322 the goals they have established for themselves,
 323 the child, family, and IICAPS team are ready to
 324 move into the ending and wrap-up phase. During
 325 the ending and wrap-up phase, a plan is devel-
 326 oped by the family with the team to identify the
 327 community-based services that the child and
 328 family are likely to need in the immediate future.
 329 As children appropriate for IICAPS are likely to
 330 have been high utilizers of mental health services
 331 prior to their referral to IICAPS, it is likely that
 332 they will continue to benefit from a relationship
 333 with a community mental health provider follow-
 334 ing discharge. In approximately 4 weeks which
 335 constitutes the duration of this Phase, the team
 336 works to strengthen the linkages between the
 337 child and family and the services they believe
 338 will help them to sustain the gains they have
 339 made during treatment. Team members often
 340 facilitate meetings between the family and con-
 341 tinuing community-based providers to ensure
 342 coordination and collaboration among them, and
 343 help the family to connect with other vocational
 344 or recreational programs that can be supportive
 345 to the child or family over time.

346 IICAPS success at discharge is measured using
 347 data collected via a Web-based system that cap-
 348 tures tool completion rates, main problem, and

349 goal attainment scores. A Service Utilization
 350 Questionnaire provides data on the mental health
 351 services used by the child 6 months prior to the
 352 IICAPS intervention and during the intervention
 353 itself. The Ohio Scales (Ogles et al. 2001) mea-
 354 sure problem severity, functioning, satisfaction
 355 and hopefulness according to parent, child and
 356 worker report at intake and discharge. For those
 357 completing the treatment process, data have con-
 358 sistently revealed decreases in service utilization,
 359 decreases in problem severity and increases in
 360 functioning, hopefulness, and satisfaction across
 361 reporters. In 2006, these promising trends led the
 362 Connecticut Behavioral Health Partnership (BHP),
 363 an innovative, single managed care entity created
 364 by blending public mental health funding streams,
 365 to designate IICAPS as the first home-based men-
 366 tal health treatment model to qualify for an
 367 enriched Medicaid reimbursement rate. With
 368 funding assured for cases meeting authorization
 369 criteria, IICAPS began its transition from a DCF-
 370 contracted service to a replicable fee for service
 371 model for which there was considerable demand.

372 **CSSD/IICAPS**

373 In 2002, prior to the change in funding for Medicaid
 374 eligible children, the Court Support Services
 375 Division of the Superior Court of Connecticut
 376 (CSSD), which has responsibility for probationary
 377 services and detention facilities, selected IICAPS
 378 as a preferred treatment resource for youth in the
 379 juvenile justice system that met IICAPS referral
 380 criteria and were diagnosed with mental health
 381 disorders other than uncomplicated conduct or
 382 substance abuse disorders. The aim of CSSD/
 383 IICAPS was expanded beyond that of IICAPS to
 384 include a reduction in the use of detention facilities
 385 and a reduction in recidivism or rearrest. Initiated
 386 as a contractually funded pilot project with limited
 387 availability within the 12 Connecticut court juris-
 388 dictions, the collaboration between the judicial
 389 branch and IICAPS was expanded significantly in
 390 2007 with the support of the CT.BHP. Currently,
 391 IICAPS is available to court involved youths in
 392 every court jurisdiction in the state.

CSSD’s choice of IICAPS as its preferred
 in-home mental health intervention for youth
 with co-occurring delinquent and mental health
 issues was based upon the following analysis:
 (1) the IICAPS model is informed by theory and
 a commitment to continuous quality improve-
 ment based upon data collection and data feed-
 back, (2) probation officers, who are court
 personnel, are viewed as essential elements of the
 treatment team, (3) the intervention is delivered
 within an ecological context and relies upon fam-
 ily, school, and community involvement, (4) ser-
 vices can be accessed easily by all family
 members because home is the treatment venue,
 (5) payment for Medicaid eligible youth is cov-
 ered by a single entity, the CT.BHP, thereby elim-
 inating conflicts between providers and multiple
 insurers and (6) existing data pointed to a reduc-
 tion in the numbers of youth requiring psychi-
 atric hospitalization as well as a reduction in the
 frequency of admission and lengths of stay for
 those for whom admission was needed.

CSSD has formally contracted for CSSD/
 IICAPS teams at 8 of the 20 IICAPS sites in the
 state that have been credentialed as IICAPS pro-
 viders. However, Medicaid eligible youths can be
 referred to and served by any recognized IICAPS
 program. The Web-based data collection program
 developed for the network of IICAPS programs
 with the support of DCF collects comparable data
 for CSSD/IICAPS with the added support of that
 division. Both DCF and CSSD receive quarterly
 data reports and hold regular meetings that bring
 together the IICAPS developers, DCF and CSSD
 management and the providers who constitute
 the IICAPS Network.

Challenges Unique to CSSD/IICAPS

Tables 23.1 and 23.2 point to some of the unique
 challenges to IICAPS presented by youths with
 SED who are also involved in the juvenile justice
 system when compared with children with SED
 without court involvement. The data are drawn
 from 974 cases that closed at IICAPS and CSSD/
 IICAPS sites during fiscal year 2008/2009.

t1.1 **Table 23.1** Child and youth demographic characteristics, closed cases: fiscal year 2008/2009

t1.2	Child and youth demographics	CSSD/IICAPS (N=183)	Non-CSSD (N=791)	χ^2 , d.f.	p-Value
t1.3	<i>Sex</i>				
t1.4	Male	112 (61.20%)	491 (62.07%)	0.05, 1	0.8269
t1.5	Female	71 (38.80%)	300 (37.93%)		
t1.6	<i>Age (in years)</i>				
t1.7	<7	0 (0.00%)	88 (11.13%)	151.60, 4	<0.0001
t1.8	7–9	0 (0.00%)	180 (22.76%)		
t1.9	10–12	22 (12.02%)	216 (27.31%)		
t1.10	13–15	131 (71.58%)	242 (30.59%)		
t1.11	16+	30 (16.39%)	65 (8.22%)		
t1.12		(Mean = 14.32)	(Mean = 11.03)	(t = 12.91, p < 0.0001)	
t1.13	<i>Race</i>				
t1.14	African American	34 (18.60%)	112 (14.18%)	6.01, 3	0.1110
t1.15	Caucasian	75 (40.98%)	401 (50.76%)		
t1.16	Hispanic/Latino	56 (30.60%)	209 (26.46%)		
t1.17	Bi-racial/other	18 (9.84%)	68 (8.61%)		
t1.18	Missing		1		

t2.1 **Table 23.2** Referral diagnoses, closed cases: fiscal years 2007/2008 and 2008/2009

t2.2	Axis I diagnosis at referral	CSSD/IICAPS (N=183)	Non-CSSD (N=791)	χ^2 , d.f.	p-Value
t2.3	Disruptive behavior disorders	64 (34.97%)	305 (38.56%)	14.11, 6	0.0284
t2.4	Mood disorders	60 (32.79%)	189 (23.89%)		
t2.5	Bipolar	18 (9.84%)	59 (7.46%)		
t2.6	PTSD	11 (6.01%)	72 (9.10%)		
t2.7	Psychotic	8 (4.37%)	30 (3.79%)		
t2.8	Autistic spectrum	2 (1.09%)	43 (5.44%)		
t2.9	Other	20 (10.93%)	93 (11.76%)		

437 The data presented in Table 23.1 highlight some
 438 of the differences between CSSD/IICAPS youth
 439 and children referred to IICAPS from other
 440 sources. While no gender differences are indicated,
 441 there are considerable differences in age between
 442 children referred to IICAPS and those referred by
 443 the juvenile justice system. Racial and ethnic
 444 group differences as presented in the table are not
 445 statistically significant, although a bivariate com-
 446 parison of children who are Caucasian versus
 447 those of minority race/Hispanic indicate that
 448 CSSD/IICAPS youth have a statistically signifi-
 449 cant higher minority population than the children
 450 referred to IICAPS by other sources ($\chi^2=5.6825$,
 451 d.f.=1, $p=0.0171$). Further study is needed to
 452 determine if CSSD/IICAPS is reaching segments
 453 of the population in Connecticut that have not
 454 accessed mental health services in the past.

Table 23.2 displays the referral diagnoses of
 children referred by sources other than the court
 and the referral diagnoses of those youth referred
 to CSSD/IICAPS by the court. While the percent
 of children and youth with disruptive behaviors
 are relatively consistent across both groups, in
 this sample, youth in the CSSD/IICAPS group
 exhibit a higher percentage of mood disorders
 while children in the non-CSSD group show
 more PTSD and other nonspecified disorders.

The significant difference in the average age
 of CSSD/IICAPS referred youth (14.3 years)
 compared with non-CSSD involved children
 (11.0 years) underscores one of the more salient
 challenges for CSSD/IICAPS, the ability to
 authentically engage adolescents and their fami-
 lies in treatment. CSSD/IICAPS teams report
 increased resistance to engagement from youths

473 and their families, more willingness to blame the
 474 youth for his/her problem and less willingness on
 475 the part of the family to claim responsibility for
 476 family functioning. At the start of treatment,
 477 some parents of youth in the juvenile justice sys-
 478 tem express feelings of being “fed-up” with them,
 479 and little hope that their behaviors will change.
 480 When completing the tools parents may have dif-
 481 ficulty identifying the youth’s strengths and often
 482 label his/her behaviors as “manipulative,” put
 483 forward for “malicious” purposes.

484 Many CSSD/IICAPS families have learned
 485 not to trust the systems that purport to help them.
 486 They have had infrequent exposure to qualified
 487 mental health services and are unsure of what to
 488 expect from the CSSD/IICAPS team or what is
 489 expected of them. Many youths and their parents
 490 find it difficult to believe that they will be
 491 respected by the team or that any information
 492 they provide will be shared with them. For exam-
 493 ple, teams have learned that most parents have
 494 never been shown the outcomes of the court
 495 ordered psychiatric and psychological evalua-
 496 tions in which they have participated. As a result,
 497 they are concerned that CSSD/IICAPS reports
 498 will contain inaccurate and damaging informa-
 499 tion about them that they will be unable to con-
 500 test. Family members are wary of revealing
 501 personal information, even if in the process they
 502 might uncover some of the factors supporting the
 503 youth’s problem behaviors. To avoid the disap-
 504 proval of the team and protect their own vulner-
 505 ability, some youths minimize their verbal
 506 exchanges with the team at the start of treatment,
 507 which places stress on the engagement process
 508 and slows down the progress of the intervention.

509 It is not unusual to discover that providers
 510 who have worked with the youth and his/her fam-
 511 ily in other systems have developed negative
 512 views of them, which further complicates col-
 513 laboration and in some instances leads to con-
 514 flicts between providers. To prevent such conflicts
 515 and the splitting that is likely to occur as a result,
 516 active communication and collaboration between
 517 the IICAPS team and the youth’s probation offi-
 518 cer is strongly encouraged by both the mental
 519 health and juvenile justice system.

520 **Strategies to Engage CSSD/IICAPS** 521 **Youths and Families**

522 CSSD/IICAPS teams have found authenticity to
 523 be the gold standard for promoting active engage-
 524 ment with youth and their families in the treat-
 525 ment process. Team members have learned that
 526 “keeping it real” makes it possible for youth to
 527 trust them and develop confidence in the team’s
 528 ability to help them. Good listening skills, the
 529 ability to tolerate protracted silences, and accep-
 530 tance of the youth and the family as they present
 531 themselves are essential elements that help estab-
 532 lish the necessary therapeutic alliance. The team’s
 533 knowledge of the popular culture assists in the
 534 creation of a dialogue that youth can respect.
 535 Pretense, however, is quickly uncovered and dis-
 536 trusted. The use of “psycho-jargon” is also
 537 roundly discouraged. A useful engagement strat-
 538 egy helps the youth to view him/herself as an
 539 informed teacher able to impart specific knowl-
 540 edge or skills to team members. Enabling the
 541 youth to be seen as a competent and useful
 542 instructor is an important step in the process of
 543 increasing his/her motivation to engage in treat-
 544 ment and build hopefulness, an element essential
 545 to rehabilitation and recovery.

546 Role clarification prepares youths for what to
 547 expect in treatment. For many youths and their
 548 families, role definitions have become blurred as
 549 family structures have deteriorated. Youths have
 550 told CSSD/IICAPS teams that “they want their
 551 parents to be adults” or they “want to be cared
 552 about as a child.” These wishes can be made
 553 explicit and strategies for satisfying them can be
 554 addressed in the work of treatment. Youths may
 555 also be unclear about the roles that team mem-
 556 bers will play in their lives. Concise, clear state-
 557 ments of purpose by team members, such as “We
 558 are not here to be your friend, we are here to help
 559 you make better decisions,” go a long way toward
 560 setting the stage for the work ahead and redefin-
 561 ing the roles and expectations of all family
 562 members.

563 Working with parents of adolescents, some of
 564 whom have lost confidence in their ability to be
 565 adequate parents and others who have lost the

566 motivation to take responsibility for parenting,
 567 requires patience and acceptance. Teams report
 568 that some CSSD/IICAPS families have few
 569 effective skills with which to control deviant
 570 behaviors and have had significant difficulties
 571 setting boundaries and limits. CSSD/IICAPS
 572 parents have reported feeling hurt, embarrassed,
 573 guilty, enraged, and inadequate as a result of
 574 their child's behaviors. Often teams can be help-
 575 ful by addressing the influence of both develop-
 576 mental imperatives and life experiences on
 577 behaviors. CSSD/IICAPS treatment can assist
 578 families to gain control by reframing the prevail-
 579 ing view of the child and shedding light on the
 580 possible cognitive distortions that may have led
 581 to the problems and conflicts that threaten to dis-
 582 rupt the family and result in placement in deten-
 583 tion or a psychiatric facility.

584 **Case Illustration: Lamar**

585 Lamar is a 16-year-old, African American male
 586 who lived with his mother, her female partner, his
 587 two female siblings and his maternal grandmother
 588 in an area affected by urban blight. He was
 589 referred to CSSD/IICAPS by his probation offi-
 590 cer for the treatment of his depression and for
 591 improvement in his poor coping skills. Lamar had
 592 been placed on probation for bringing a knife to
 593 school which was discovered in his book bag fol-
 594 lowing a fight. Although Lamar denied knowl-
 595 edge of the knife, he was expelled from school for
 596 a lengthy period and given 3 years on probation.

597 All children and youth referred to IICAPS are
 598 expected to have a past history of involvement in
 599 the mental health system. Lamar had attended
 600 out-patient treatment briefly following the death
 601 of his father but his involvement with mental
 602 health services prior to his referral to CSSD/
 603 IICAPS was minimal. He was known to use alco-
 604 hol to reduce the troubling feelings of anxiety
 605 and fearfulness that often overcame him.

606 To begin the assessment and engagement
 607 phase, the IICAPS team, Lamar and his mother
 608 identified the main problem which might lead to
 609 his placement in detention as hanging with the
 610 wrong crowd. It was initially rated by Lamar and

611 his family as a five on a 10-point scale which
 612 ranged from a rarely occurring benign event to a
 613 seriously out-of-control behavioral occurrence
 614 that took place daily. The rating of 5 meant that
 615 he and his family felt that although Lamar's
 616 behaviors were not life-threatening they were
 617 fairly serious and occurred daily.

618 With the main problem in mind, the team
 619 assisted Lamar and his family to identify the
 620 strengths and vulnerabilities in each domain that
 621 might have some bearing on ameliorating or sus-
 622 taining the main problem. Lamar's strengths were
 623 described as "being motivated," "a sense of
 624 humor," "wanting to handle his responsibilities,"
 625 and "helping others." His vulnerabilities were
 626 believed by his family to be his "temper," "lack
 627 of control over what he says and does," "poor
 628 decision-making," and the ease with which he
 629 could be antagonized.

630 Goal setting and developing action steps are
 631 the primary tasks of the assessment and engage-
 632 ment phase leading to the creation of the treat-
 633 ment plan. The inventory of strengths and
 634 vulnerabilities is highly influential in this pro-
 635 cess. The family and the team utilized the
 636 strengths and vulnerabilities to fashion Lamar's
 637 treatment goals which were: (1) to work on his
 638 reactions when he becomes mad by finding alter-
 639 native, constructive ways to release his anger,
 640 such as sports, video games, or taking long walks,
 641 and (2) to hold himself accountable and accept
 642 his responsibilities, continue to "do good," and
 643 refrain from being too harsh on himself. One of
 644 Lamar's action steps was to "shut up" and listen
 645 to others.

646 In the family domain, the family's strengths
 647 were identified as the times when Lamar's rela-
 648 tionship with his mother "went well," "the fun"
 649 the family had spending time together and the
 650 fact that family members could "learn from each
 651 other." Family vulnerabilities were identified as
 652 the circumstances surrounding the death of
 653 Lamar's stepfather, Lamar's frequent arguments
 654 with his sisters, his outbursts at his mother, about
 655 whom he was ambivalent and distrustful, and his
 656 need to have a stronger voice within the family.
 657 These strengths and vulnerabilities informed the
 658 creation of the treatment goals and action steps in

659 the family domain which were: (1) to work on
660 Lamar's relationship with his mother by helping
661 him to express his feelings and opinions con-
662 structively and (2) to encourage Lamar to go to
663 his mother for help when he experienced diffi-
664 culty dealing with his sisters. He was also encour-
665 aged to talk with the team about the loss of his
666 father when he was feeling "down or lost."

667 Lamar's school-based strengths were charac-
668 terized by him as a "love of school," good atten-
669 dance, "excellence" in his studies, and good
670 relationships with his teachers. His vulnerabili-
671 ties were "getting into fights," expulsion, and dis-
672 like of his current home-bound educational status.
673 Lamar was able to establish goals in the school
674 domain that captured his wish to succeed in the
675 school environment. His goals were to work
676 toward high school graduation, complete his
677 homebound program, attend school daily, remain
678 focused on his goals, and avoid getting into trou-
679 ble going to and from school.

680 Lamar identified his strengths in the commu-
681 nity environment domain as wanting a job, doing
682 things "like going to the mall and eating out," a
683 love for sports, theater and acting, probation,
684 "which keeps him out of trouble" and his neigh-
685 borhood. Lamar also considered probation as a
686 vulnerability in the community environment
687 domain and identified problems between neigh-
688 borhoods and the fact that you "can't go outside
689 or trouble will eventually find you" as additional
690 vulnerabilities. Lamar's goals in this domain
691 were to avoid violating his probation, to pay
692 attention to his personal surroundings and pos-
693 sessions, and with the team, work on ways to
694 avoid fighting, identify times and reasons why he
695 drinks, and get a job, possibly as a volunteer in a
696 theater program.

697 **Course of Treatment**

698 Once all of the assessment and engagement tools
699 were completed, and a treatment plan developed
700 and signed by the family, Lamar and his family
701 entered the IICAPS work and action phase. Each
702 week during this phase the team met with Lamar
703 individually, with his mother individually and

704 with them together in a family session. Lamar
705 engaged well in treatment and found working
706 with the team helped him to cope with his uncom-
707 comfortable feelings, particularly in regard to his
708 stepfather's death, and improved his ability to
709 make decisions for himself. Lamar's use of alco-
710 hol as a means of controlling his anxiety and
711 reducing his fears decreased somewhat over the
712 course of treatment but continued to be an area of
713 concern. Initially, Lamar struggled with discuss-
714 ing his alcohol usage with the team, but gradually
715 was able to discuss his behavior and gain insight
716 into the difficult situations and painful experi-
717 ences that triggered his drinking. His stepfather's
718 death and his feelings of guilt because he was not
719 able to prevent the death from occurring, appeared
720 to be major factors leading to his anxious feelings
721 and depressive episodes. Because they recog-
722 nized that he was a harsh, self-deprecating judge
723 of his own actions, the team worked with Lamar
724 to help him accept his mistakes and stop seeing
725 himself as a failure.

726 Lamar's decision-making skills improved to
727 the point that he was able to state what he needed
728 and wanted in "real time." When the intervention
729 ended he stated that he wanted to continue to
730 work on stabilizing his relationship with his
731 mother. The team recognized that Lamar had a
732 deep wish for his mother's approval, although he
733 remained wary of trusting her with the full extent
734 of his feelings. He was accepting of the limits
735 established by his mother and understood that
736 they were meant to help him.

737 School continued to pose problems for Lamar.
738 His attendance suffered and his motivation
739 decreased once he learned that he was too young
740 for a vocational training program that he had
741 been eager to enter. When his period of expulsion
742 ended and he returned to high school, his anxiety
743 escalated. He reported multiple somatic com-
744 plaints and attempted to identify an alternative
745 educational plan that would focus upon learning
746 marketable skills rather than academic achieve-
747 ment. Lamar did obtain a short-term volunteer
748 job while receiving CSSD/IICAPS treatment and
749 continues to seek employment, although his age
750 and the shortage of jobs in the current economic
751 environment make his search difficult.

752 **Ending and Wrap-Up**

753 Planning for discharge was discussed with the
 754 family throughout the 30-week intervention,
 755 most specifically at seven times at which the
 756 treatment plan was rated in accordance with
 757 IICAPS policy that treatment plans be reviewed
 758 and rerated every 6 weeks from the time they are
 759 created. The rating of the main problem “hanging
 760 with the wrong crowd” improved from an initial
 761 rating of five (serious behavioral disturbance
 762 daily) at the start of treatment to a rating of nine
 763 (disruptive behavioral disturbance weekly) at dis-
 764 charge. Lamar’s success in reducing the severity
 765 of the main problem and completing the goals he
 766 had set for himself enabled him and his family to
 767 acknowledge that time had come for the ending
 768 and wrap-up phase.

769 At discharge the team felt that Lamar would
 770 benefit from a move to out-patient treatment and
 771 with the approval of the family made a referral to
 772 a neighborhood clinic. The team encouraged
 773 Lamar’s mother to continue to provide emotional
 774 support for him and recommended that the school
 775 system give consideration to placing Lamar in a
 776 small educational setting with access to a voca-
 777 tional skill building component. Most impor-
 778 tantly, the CSSD/IICAPS team worked closely
 779 with Lamar’s probation officer who was a “good
 780 fit” for him. Although Lamar was deeply affected
 781 by the team’s leaving, he believed that his proba-
 782 tion officer would be “someone he could continue
 783 to talk to.”

784 **Outcome Measures**

785 Outcome data on CSSD/IICAPS cases from fis-
 786 cal year 2008/2009 ($N=183$) indicate significant
 787 positive changes in youths served by CSSD/
 788 IICAPS following intake to the program.
 789 Table 23.3 provides data on arrests of the identi-
 790 fied youth during the 6 months prior to CSSD/
 791 IICAPS intake and during the CSSD/IICAPS

intervention. There are significantly fewer youth 792
 arrested following CSSD/IICAPS intake, and 793
 fewer arrests of youths with two or more arrests 794
 during the time period. A paired *t*-test of youth 795
 arrests during the 6 months prior to CSSD/ 796
 IICAPS intake compared to those during the 797
 CSSD/IICAPS intervention reveals a statistically 798
 significant mean difference in arrests per child of 799
 0.7 (s.d. = 1.6, *t*-value = 6.0, $p < 0.0001$). 800

Ohio Scales Data 801

The Ohio Scales are completed at intake to and 802
 discharge from CSSD/IICAPS. The parent report 803
 form is administered to the parent/primary care- 804
 giver for an identified child/youth between the 805
 ages of 5 and 18; likewise, the worker report form 806
 is filled out for an identified child/youth between 807
 5 and 18 years of age. The youth report was 808
 developed for individuals 12 years of age and 809
 over. Problem severity domain scores represent 810
 increased severity with increasing scores, and 811
 functioning domain scores represent increased 812
 child functioning with increasing scores. In con- 813
 trast, the hopefulness and satisfaction domain 814
 scores represent increased hopefulness and satis- 815
 faction, respectively, with *decreasing* scores. 816

Table 23.4a provides the paired *t*-test results 817
 for CSSD/IICAPS closed cases with Ohio domain 818
 scores at both intake and discharge for cases that 819
 completed treatment. Among cases that com- 820
 pleted treatment there are statistically significant 821
 proportional decreases in the problem severity 822
 domain per parent, youth, and worker report from 823
 11.6 to 14.4%, and statistically significant pro- 824
 portional increase in the functioning domain 825
 score per parent, youth, and worker report from 826
 11.3 to 12.8%. Scores per parent report indicate a 827
 14.5% increase in satisfaction with CSSD/ 828
 IICAPS services over previous mental health ser- 829
 vices received, and scores per youth report indi- 830
 cate a 16.5% increase in satisfaction with CSSD/ 831
 IICAPS services over previous mental health ser- 832
 vices received. 833

Table 23.3 Youth arrests at intake and discharge, closed cases: fiscal year 2008/2009 (N=183)

Arrests per identified youth	Six months prior to CSSD/IICAPS intake	During the CSSD/IICAPS Intervention ^a
None	82 (44.8%)	137 (75.3%)
1	61 (33.3%)	33 (18.1%)
2	22 (12.0%)	9 (5.0%)
3 or more ^b	18 (9.8%)	3 (1.7%)

^aMissing = 1

^bNumber of arrests per youth for 6 months prior to CSSD/IICAPS ranges from 0 to 10; number of arrests per youth during intervention ranges from 0 to 3

Table 23.4 Paired *t*-test results of Ohio domain scores at intake and discharge for CSSD/IICAPS cases that (a) completed treatment, fiscal year 2008/2009 (N=106) and (b) failed to complete treatment, fiscal year 2008/2009 (N=77)

Domains	Mean difference (s.d.)	<i>t</i> -Value	Pr> <i>t</i>	Proportional change from intake to discharge
(a)				
<i>Parent report^a</i>				
Problem severity	-14.4 (20.5)	-6.9	<0.0001	14.4% decrease in problem severity
Hopefulness	-3.4 (5.5)	-6.0	<0.0001	17.0% increase in hopefulness
Satisfaction	-2.9 (5.2)	-5.4	<0.0001	14.5% increase in satisfaction
Functioning	10.3 (20.0)	5.0	<0.0001	12.8% increase in functioning
<i>Youth report^b</i>				
Problem severity	-12.5 (17.0)	-6.7	<0.0001	12.5% decrease in problem severity
Hopefulness	-1.9 (4.5)	-3.9	0.0002	9.5% increase in hopefulness
Satisfaction	-3.3 (5.2)	-5.3	<0.0001	16.5% increase in satisfaction
Functioning	9.0 (14.5)	5.7	<0.0001	11.3% increase in functioning
<i>Worker report^c</i>				
Problem severity	-11.6 (17.4)	-6.8	<0.0001	11.6% decrease in problem severity
Functioning	9.7 (17.1)	5.8	<0.0001	12.1% increase in functioning
(b)				
<i>Parent report^d</i>				
Problem severity	-8.7 (16.6)	-3.2	0.0029	8.7% decrease in problem severity
Hopefulness	-0.5 (4.0)	-0.7	0.4991	NS
Satisfaction	-1.5 (4.2)	-2.1	0.0423	7.5% increase in satisfaction
Functioning	4.0 (11.7)	2.1	0.0449	5.0% increase in functioning
<i>Youth report^e</i>				
Problem severity	-8.5 (14.8)	-6.7	0.0139	8.5% decrease in problem severity
Hopefulness	-0.3 (4.4)	-0.3	0.7385	NS
Satisfaction	-0.7 (5.1)	-0.6	0.5339	NS
Functioning	-3.5 (21.3)	-0.8	0.4431	NS
<i>Worker report^f</i>				
Problem severity	-4.0 (12.4)	-2.6	0.0121	4.0% decrease in problem severity
Functioning	1.3 (12.1)	0.8	0.4085	NS

^aParent report missing ten observations for problem severity, hopefulness, and satisfaction domains and missing 11 observations for functioning domain

^bYouth report missing 20 observations for problem severity and functioning domains and 21 observations for hopefulness and satisfaction domains

^cWorker report missing three observations for problem severity and functioning domains

^dParent report missing 40 observations for problem severity and functioning domains and 42 observations for hopefulness and satisfaction domains

^eYouth report missing 51 observations for all domains

^fWorker report missing 14 observations for problem severity and functioning domains

t5.1 **Table 23.5** Paired *t*-test results of main problem scores: initial (or baseline, if no initial) score
 t5.2 and discharge score, CSSD/IICAPS closed cases in fiscal year 2008/2009

t5.3		Mean difference (s.d.)	<i>t</i> -Value	Pr> <i>t</i>
t5.4	Completed treatment (<i>N</i> =106) ^a	3.4 (3.2)	10.4	<0.0001
t5.5	Did not complete treatment (<i>N</i> =77) ^b	0.8 (2.0)	1.9	0.0707

t5.6 ^aMissing 11 observations

t5.7 ^bMissing 54 observations

834 Table 23.4b provides the paired *t*-test results
 835 for CSSD/IICAPS closed cases with Ohio domain
 836 scores at both intake and discharge for cases that
 837 did not complete treatment. Most of these CSSD/
 838 IICAPS cases failed to complete treatment
 839 because the family made a decision to withdraw
 840 from services, the youth was revoked to a juve-
 841 nile justice facility, or the youth was admitted to
 842 a psychiatric hospital or placed in a residential
 843 treatment facility without plans for immediate
 844 return home. Ohio domain scores for this group
 845 indicate smaller changes in scores, many too
 846 small to reach statistical significance. In addition,
 847 data integrity among these cases is considerably
 848 lower, with a large percentage of missing data for
 849 parent and youth report scores in particular.

850 **Main Problem Data**

851 Table 23.5 provides data for changes in main
 852 problem rating from the initial rating (or in
 853 absence of an initial rating, the baseline rating) to
 854 the discharge rating for closed CSSD/IICAPS
 855 cases during fiscal year 2008/2009. The mean
 856 difference in the main problem score from intake
 857 to discharge for cases that completed treatment
 858 indicates a 3.4 point change, indicating a consid-
 859 erable decrease in the severity of the main prob-
 860 lem. Among cases that failed to complete
 861 treatment the mean difference of less than one
 862 point is not statistically significant, with a large
 863 percentage of missing data.

864 **Service Utilization**

865 Data obtained using the Service Utilization
 866 Questionnaire (SUQ) allow for evaluation of
 867 changes in treatment services utilization pre-and

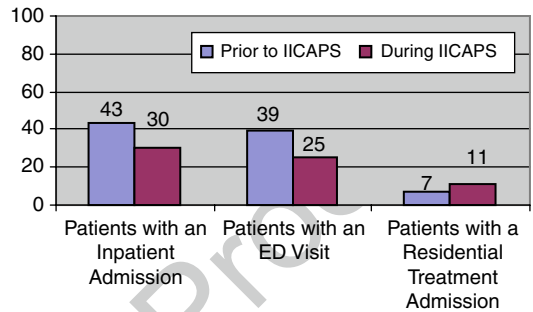


Fig. 23.1 Service utilization data: number of patients with a treatment event, fiscal year 2008/2009

post-CSSD/IICAPS intake. This instrument,
 developed by the Yale Child Study Center CSSD/
 IICAPS developers, is administered to families at
 intake for report of service utilization during the
 6 months prior to CSSD/IICAPS intake, and
 administered again at discharge for report of ser-
 vice utilization during the intervention.

Figure 23.1 provides data on the number of
 youth experiencing a treatment event in the 6
 months prior to CSSD/IICAPS intake and the
 number of youth experiencing a treatment event
 during the intervention. These data indicate that
 43 of the 185 youth (23.5%) experienced a psy-
 chiatric inpatient stay during the 6 months prior
 to CSSD/IICAPS intake, but that only 30 youth
 (16.4%) experienced a psychiatric inpatient stay
 during the CSSD/IICAPS intervention, a 30%
 decrease in patients with a psychiatric inpatient
 admission. Likewise, there were 36% fewer
 patients with an emergency department (ED) visit
 following the CSSD/IICAPS intervention than
 for the 6 months prior to the intervention. The
 data for residential treatment admissions indicate
 that although far fewer youth are admitted to resi-
 dential treatment than to psychiatric hospital prior
 or during CSSD/IICAPS, the number of patients
 experiencing a residential treatment admission

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895 during the intervention is increased. It can be
 896 hypothesized that CSSD/IICAPS may be suc-
 897 cessfully identifying those youths whose psycho-
 898 pathology and environment combine to make it
 899 impossible for them to live safely at home, even
 900 with intensive intervention, and helping them to
 901 enter into a more appropriate treatment setting.

902 **Summary**

903 As a theory-driven, structured intervention for
 904 youths with SED involved in the juvenile justice
 905 system, CSSD/IICAPS shows promise as a repli-
 906 cable model for reducing psychiatric hospitaliza-
 907 tion, preventing rearrest and helping youth to
 908 access appropriate levels of treatment. When
 909 CSSD/IICAPS is delivered in accordance with its
 910 structure, and the tools, principles, and measures
 911 that are designed to guide treatment are utilized
 912 with fidelity to the model, symptom severity is
 913 decreased and functioning, satisfaction, and hope-
 914 fulness are increased. As a result, youth are less
 915 likely to be placed in restrictive institutional place-
 916 ments such as hospitals or detention facilities and
 917 the rate of recidivism is decreased. Findings and
 918 case studies indicate that sociopathy is not the
 919 underlying reason why youth enter the juvenile
 920 justice system. It is far more likely that genetic
 921 endowment and environment interact in ways
 922 which overwhelm. The capacity of many youths
 923 to function in socially acceptable ways. Lacking
 924 sufficient limits, boundaries, and self-discipline to
 925 manage and control their impulses and emotions,
 926 they engage in behaviors that bring them to the
 927 attention of the court where constraints are
 928 imposed upon them. By bringing treatment into
 929 their homes, CSSD/IICAPS provides youths and
 930 families with the opportunity to safely unravel the
 931 complex web of experience, environment, ability,
 932 and expectation that ensnares them. The authentic
 933 engagement and commitment to working together
 934 that is highly prized by CSSD/IICAPS offers the
 935 real possibility that therapeutic gains made by the
 936 youth and his family will be internalized and lead
 937 to recovery and rehabilitation. However, even
 938 though the data are promising, much more needs

to be learned before it will be possible to testify to 939
 the effectiveness of the intervention. 940

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Serving Dually Diagnosed Youth in the Juvenile Justice System

24

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Introduction

Adolescents enter the juvenile justice system for a host of reasons, from myriad backgrounds, and with a range of offenses (e.g., Feldstein Ewing et al. 2011). Despite the heterogeneity of this population, one aspect that remains consistent is the prevalence of substance use and co-occurring disorders (e.g., Feldstein and Ginsburg 2006). Compared with their nonadjudicated peers, adolescents involved with the juvenile justice system demonstrate more profound rates of substance abuse, related consequences, and co-occurring disorders (Aarons et al. 2001; Abram et al. 2003; CDC 2006). This is problematic, as adolescents tend not to self-refer for treatment (Chung and Maisto 2006). Meaning, that despite high levels of substance use and the experience of substance-related problems, adolescents will generally not seek out resources to intervene and/or reduce their substance use. For many adolescents, substance

use by itself results in justice involvement. Once adolescents become involved in the justice system, due to staffing and financial restrictions, the standard of care for intervening with substance-related issues is often alcohol and drug education; an intervention approach that is unlikely to be effective with adolescents (Reyna and Farley 2006). And, unfortunately, studies have indicated that once justice-involved adolescents are released, they are unlikely to seek intervention—either for substance use (Lennings et al. 2006) or other mental health issues (Garland et al. 2005). While justice involvement may seem like it is only a punitive experience, for many youth being arrested may present an important and unique “teachable moment.” Adult studies have found that the arrest experience itself can be a unique and powerful motivator for change (Morgan et al. 2008; White et al. 2008). Coupled with a well-timed and empirically supported intervention, the arrest experience can provide a unique and highly salient opportunity for an adolescent to contemplate their experience, consider their future, and with the help of an interventionist, develop a prosocial plan for future behavior. Specifically, as recommended by Johnson et al. (2004), if justice programs have the resources and the opportunity, desperately needed empirically supported prevention and intervention programs can be integrated into (or immediately follow) current justice programs, providing youth with the unique and powerful occasion for the timely intervention of substance use and co-occurring disorders (dual diagnoses).

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59 In this chapter, we aim to elucidate what is
60 meant by dual diagnosis and the prevalence of
61 dual diagnoses in the US juvenile justice system.
62 In addition, we will highlight factors that are
63 important to consider in working with dually
64 diagnosed youth, prevention and intervention
65 approaches that have gained support for dually
66 diagnosed youth (in general), and prevention and
67 intervention programs that are promising for
68 dually diagnosed youth in the juvenile justice
69 system. Through this investigation, we hope to
70 give providers an overview of relevant issues for
71 consideration as well as potential, and promising,
72 approaches for intervention.

73 The US Juvenile Justice System

74 In 2006, almost 1.7 million delinquency cases
75 came forth before the juvenile courts (Puzzanchera
76 and Sickmund 2008), meaning that a significant
77 subset of the youth population were involved
78 with the justice system. This is relevant, as youth
79 involved in the justice system have been found
80 to face greater difficulties making positive
81 strides in academic achievement and income
82 (e.g., Snyder and Sickmund 2006), two condi-
83 tions that have been linked to poorer health out-
84 comes (e.g., heart disease, diabetes, obesity,
85 illness, death; US Department of Health and
86 Human Services 2000). Moreover, justice-
87 involved youth tend to be racial and ethnic minor-
88 ities (Braithwaite et al. 2003; Feldstein Ewing
89 et al. 2011). And, while historically, justice-
90 involved youth have been disproportionately
91 male, the rates of female justice involvement have
92 been steadily on the rise (Snyder 2005). While
93 many factors may contribute to the involvement
94 of youth in the justice system, including societal
95 factors, family factors, individual factors, and
96 peer factors, the role of substance use is critical
97 among them, as adolescent substance use has
98 been strongly related to juvenile *and* criminal
99 justice involvement (Slade et al. 2008;
100 Stoolmiller and Blechman 2005).

What Is Meant by Dual Diagnosis? 101

102 Due to the frequent overlap of substance use and
103 mental health issues, it is not surprising that fre-
104 quently, these two behaviors co-occur. When an
105 individual meets criteria for a substance use dis-
106 order (SUD; abuse or dependence), along with
107 another co-occurring DSM-IV-TR disorder
108 (American Psychiatric Association 2000), they
109 receive what is termed a “dual diagnosis.” While
110 the presence of an SUD is consistent across all
111 those who qualify for this term, the second disor-
112 der can vary widely (from externalizing disorders
113 like conduct disorder (CD), attention deficit
114 hyperactivity disorder (ADHD), oppositional
115 defiant disorder (ODD) to internalizing disorders
116 like anxiety disorders and major depressive dis-
117 orders, to all sorts of other types of disorders such
118 as anorexia nervosa and bulimia nervosa). Among
119 adolescents, the presence of a dual diagnosis
120 tends to be the norm rather than the exception
121 (Roberts and Corcoran 2005).

Co-occurrence with Externalizing Disorders 122

123
124 One of the predominant forms of adolescent dual
125 diagnosis includes SUDs with co-occurring
126 externalizing disorders. In terms of prevalence,
127 among mainstream and general adolescent treat-
128 ment samples, many studies have found that ado-
129 lescents with externalizing disorders have high
130 rates of co-occurring SUDs (58–80%; Arias et al.
131 2008; Chan et al. 2008). In addition, externaliz-
132 ing behaviors have been found to be a major pre-
133 dictor of future alcohol use (Kramer et al. 2008).
134 For many adolescents, the onset of externalizing
135 disorders precedes substance use (Chassin et al.
136 2002). Moreover, adolescents with comorbid
137 SUDs have been found to initiate substance use
138 earlier (Lillehoj et al. 2005) and have a poorer
139 prognosis in terms of family functioning, academic
140 achievement, and delinquent behaviors (Realmuto
141 et al. 2009).

142 **Co-occurrence with Internalizing** 143 **Disorders**

144 In terms of co-occurrence with internalizing
145 disorders in general adolescent and treatment
146 populations, Subramaniam et al. (2009) found
147 that 15–50% of adolescents with SUDs also have
148 a co-occurring depressive disorder. This relation-
149 ship tends to be bidirectional; adolescents with
150 depression may have greater substance use, and
151 those who use substances may have greater (and/
152 or more frequent) episodes of depression (Rao
153 et al. 2009). Unfortunately, for adolescents with
154 internalizing disorders, co-occurring substance
155 use may negatively influence their general func-
156 tioning. Studies have suggested that adolescents
157 with co-occurring SUDs evidence greater prob-
158 lems in school and greater problems in general
159 functioning than adolescents with isolated inter-
160 nalizing disorders (Wilens et al. 1997).

161 **Co-occurrence with Multiple Types** 162 **of Behavior Disorders**

163 Together, these studies support that most often
164 adolescents do not struggle with an externalizing
165 or internalizing disorder in isolation. Rather, most
166 adolescents must also contend with a comorbid
167 SUD. In general, adolescents with externalizing
168 disorders are at slightly higher risk than those
169 with internalizing disorders for having a co-
170 occurring SUD (Kandel et al. 1999; Wise et al.
171 2001). Notably, it is possible for adolescents to
172 have both an externalizing disorder *and* an inter-
173 nalizing disorder, in addition to an SUD. As the
174 number and complexity of behavior disorders
175 increase, there is some indication that adolescents
176 may become less responsive to traditional inter-
177 ventions (Rowe et al. 2004).

178 **Considerations in Working** 179 **with Dually Diagnosed Youth**

180 The concept of dual diagnoses has become pro-
181 gressively more important as those working with

182 adolescents observe the interplay between
183 substance use and clinically significant impair-
184 ments (Hryb et al. 2007). Many different
185 influences, extending from genetic, to prenatal,
186 to environmental, may result in the initiation
187 of externalizing, internalizing, and SUDs.
188 Specifically, “multifinality” describes the phe-
189 nomenon in which adolescents can experience
190 the same early stressor (such as early childhood
191 trauma) but respond quite differently, resulting in
192 a wide variation of behavioral outcomes (e.g.,
193 Marsh et al. 2003). This ultimately means that
194 can be quite difficult for clinicians and providers
195 to pinpoint exactly why a certain type (or types)
196 of behavioral issue may have emerged.

197 Ultimately, for treatment to be effective, the
198 point of origin may be less salient than the symp-
199 toms that an adolescent is experiencing. To that
200 end, it is quite important to consider that the
201 experience of internalizing and/or externalizing
202 disorders can be quite distressing. Adolescents
203 are likely to experience feelings of sadness and
204 confusion about why the symptoms are present,
205 particularly if they are persistent. Adolescents
206 may also feel angry and frustrated about not
207 being able to increase their positive affect, and/or
208 ability to concentrate or focus. Particularly when
209 an adolescent is a part of a substance-using peer
210 network, these feelings of sadness, frustration,
211 and disappointment, may result in an adolescent
212 shifting from nonuse to using. Similarly, adoles-
213 cents who are not in substance-using networks
214 may actually go out and seek substance-using
215 peers in order to determine whether substance
216 use can help reduce their negative affect or frus-
217 tration. On the other hand, adolescents who casu-
218 ally experiment with substance use find that they
219 subsequently function a little less effectively;
220 namely, they fail to meet basic obligations or
221 responsibilities (e.g., performing uncharacteristi-
222 cally poorly in classes, failing to meet home obli-
223 gations such as watching a sibling, doing the
224 dishes, or taking out the garbage). These over-
225 sights may cause them (or those around them) to
226 feel sad, disappointed, angry, or frustrated with
227 themselves leading them to decide to use sub-
228 stances more in order to feel better, resulting in

229 an unfortunate and self-propagating cycle, with
230 the internalizing/externalizing symptoms perpet-
231 uating the substance use, and vice versa.

232 This is important, as dual diagnoses can sig-
233 nificantly interfere with adolescents' daily func-
234 tioning. Studies have indicated that adolescents
235 with dual diagnoses have more difficulties with
236 academic performance and peer and parent rela-
237 tionships (Lewinsohn et al. 1995). Moreover,
238 they have been found to engage in more danger-
239 ous activities, such as violence and risky sexual
240 behavior (Baskin-Sommers and Sommers 2006).
241 This is quite relevant as high-risk behaviors such
242 as substance use and risky sexual behavior may
243 contribute to the contraction of fatal illnesses for
244 high-risk youth, such as the development of HIV
245 (Rowe et al. 2008).

246 **Dual Diagnoses Within**
247 **the Juvenile Justice System**

248 One of the considerations in thinking about dual
249 diagnoses for justice-involved youth is to gain a
250 sense of their prevalence. Specifically, under-
251 standing how many youth are likely to meet
252 criteria for dual diagnoses can help guide pro-
253 gram decisions in terms of prevention and inter-
254 vention efforts.

255 Recent efforts by Teplin, Abram, and col-
256 leagues have highlighted the prevalence of men-
257 tal health disorders in a large sample of youth
258 housed in Cook County (Chicago, IL) detention
259 (Abram et al. 2003; McClelland et al. 2004;
260 Teplin et al. 2005). Specifically, their work high-
261 lighted that approximately 20% of detained ado-
262 lescents met criteria for at least one diagnostic
263 disorder. More frequently (57% of females and
264 46% of males) adolescents met criteria for two
265 disorders, generally falling into the categories of
266 internalizing disorders, externalizing disorders,
267 and SUDs. Specifically, 58% of their justice-
268 involved sample evidenced some form of inter-
269 nalizing disorder, 46% of males, an externalizing
270 disorder, and 44–50% at least one SUD (Abram
271 et al. 2003; McClelland et al. 2004). Similarly, in
272 a sample of youth involved in the California pub-

273 lic systems of care, Aarons et al. (2001) found 273
274 that 62% of their justice-involved sample met 274
275 lifetime criteria for SUDs. Notably, as with recent 275
276 studies of justice-involved youth (Feldstein 276
277 Ewing et al. 2011) marijuana and alcohol consis- 277
278 tently emerged as the most frequently used sub- 278
279 stances across these studies. 279

280 Overlapping with the findings of other studies 280
281 of justice-involved youth (e.g., Bender et al. 281
282 2007), Abram and colleagues found that approxi- 282
283 mately 30% of their sample evidenced dual diag- 283
284 nosis (Abram et al. 2003). Notably, in the juvenile 284
285 justice system, dual diagnoses rates have been 285
286 found to be higher among female and White 286
287 youth, as compared with male and racial/ethnic 287
288 minority youth (Abram et al. 2003). When exam- 288
289 ining the age of onset for each component of the 289
290 dual diagnosis (internalizing/externalizing disor- 290
291 der and SUDs), Abram et al. (2003) found that 291
292 most often (for 54% of males and 63% of 292
293 females), the two types of disorders emerged dur- 293
294 ing the same year. As found among mainstream 294
295 adolescent populations, for a subsample of the 295
296 youth (approximately 25–27%), the internaliz- 296
297 ing/externalizing disorders emerged at least 297
298 1 year prior to the SUDs. For an even smaller 298
299 contingent (10–21% of youth), the SUD emerged 299
300 at least one year prior to the internalizing/exter- 300
301 nalizing disorder. 301

302 **Special Considerations in Working**
303 **with Dual Diagnosis Youth**

304 As noted, various experiences (prenatal environ- 304
305 ment, genetic influences, family, peer, and social 305
306 influences) can alter an adolescent's behavior. 306
307 Moreover, these factors also frequently interact 307
308 to shape and transform how an adolescent inter- 308
309 prets and subsequently behaves in the world. For 309
310 example, some genetic studies have indicated that 310
311 while an adolescent may have a certain genetic 311
312 predisposition that might make them more likely 312
313 to be taller than their peers, influences from the 313
314 environment, such as the availability of ade- 314
315 quate food, nutrition, or other basic medical 315
316 needs, determines if that potential is reached. 316

317 Similarly, a child born with a predisposition for
318 neurobehavioral disinhibition, a type of tempera-
319 ment/personality style that has more difficulty
320 suppressing impulsive behaviors (Tarter et al.
321 2003), might be more likely to evidence the
322 unstable aspects of that temperament if his or her
323 environment lacks important protective factors,
324 such as a safe, stable, positive, substance-free,
325 and consistent home environment.

326 Due to disparities on how adolescents may get
327 “referred” to the justice system (e.g., Aarons et al.
328 2004), it is important to consider some of the risk
329 factors that might facilitate or exacerbate the
330 presence of current mental health issues, includ-
331 ing substance use, internalizing, and/or external-
332 izing disorders.

333 Mediators and moderators can help us to con-
334 ceptualize risk and protective factors with dually
335 diagnosed youth (Beauchaine and Mead 2006;
336 Kraemer et al. 2002). Specifically, moderators
337 are factors that uniquely influence developmental
338 trajectories and generally are not changed over
339 time. For example, gender moderates the effec-
340 tiveness of some alcohol treatments (i.e., the
341 treatment is more useful for one gender over
342 another; e.g., Lynch et al. 2010). Additionally,
343 ethnicity or SES could moderate the course of
344 substance use over development. For instance,
345 Hispanic youth have higher rates of alcohol con-
346 sumption than Caucasian youth (CDC 2006). In
347 addition, while adolescents on average show
348 increasing rates of substance use over develop-
349 ment, closer examination shows that people with
350 specific genetic predispositions (i.e., protective
351 factors) have less severe use while individuals
352 with other genetic predispositions (i.e., vulnera-
353 bility factors) have more use (Meyers and Dick
354 2010; Prescott and Kendler 1999).

355 In contrast, mediators help explain how and
356 why relations between variables exist over time.
357 These are typically factors that can be changed
358 through treatment. Risk factors that mediate
359 outcomes can be, but are not necessarily, causal
360 (Kraemer et al. 2002), and are often potential
361 targets for intervention. For example, age of
362 first drink and later alcohol use could be medi-
363 ated by family conflict or life stress. A treatment
364 that targets reductions in family conflict, and

365 contributes to subsequent reductions in alcohol
366 use, demonstrates that family conflict mediated
367 the relation between age of first drink and later
368 alcohol use. However, the same factor could be
369 considered both a mediator and a moderator in
370 different contexts. For example, ethnic pride has
371 been related to strong reductions in alcohol con-
372 sumption among Hispanic youth (Gil et al. 2004),
373 making this a protective factor and a potential
374 moderator. If targeted in treatment, ethnic pride
375 could become a mediator of alcohol outcomes.
376 A list of other potentially salient moderators and
377 mediators follows.

378 Family Factors

379 *Conflict:* The family can be an important protec-
380 tive factor. However, parents overwhelmed by
381 stress may parent less effectively (Patterson
382 2002). And adolescents in households character-
383 ized by conflict, including family disruption,
384 marital conflict, and low family harmony, are at
385 higher risk for substance use (Hayatbakhsh et al.
386 2006; Richardson et al. 2002; Zhou et al. 2006),
387 as well as externalizing disorders, internalizing
388 disorders, trauma, and distress (Diamond et al.
389 2006). Notably, while SES may overlap with
390 many family stressors, family income has incon-
391 sistent predicted adolescents’ substance use
392 behaviors (Copeland et al. 2009; Hayatbakhsh
393 et al. 2006; Radin et al. 2006).

394 *Parental substance use:* In addition, having a par-
395 ent who has or is currently using substances sig-
396 nificantly increases the odds that an adolescent
397 will engage in substance use (Ehlers et al. 2006;
398 Hoffer et al. 1999; Kilpatrick et al. 2003;
399 Richardson et al. 2002). Beyond influencing the
400 environment for the developing child, a parent
401 with substance use problems may pass on genetic
402 predispositions that contribute to difficulties with
403 substance use (Meyers and Dick 2010; Prescott
404 and Kendler 1999). Of adolescents entering SUD
405 treatment, 11–23% had a parent or family mem-
406 bers at home using substances at least weekly
407 (Tims et al. 2002). Moreover, adolescents with
408 frequently substance-using family members

409 evidenced more severe SUD diagnoses, with
 410 higher rates of cannabis dependence (14%) ver-
 411 sus abuse (8%) (Tims et al. 2002). In contrast,
 412 some studies have found that parental alcohol use
 413 correlated with adolescents' higher acceleration
 414 of alcohol use, but not cannabis use (Kilpatrick
 415 et al. 2003; King et al. 2006). Unsurprisingly,
 416 having fewer substance-using family members
 417 has been related to better substance use outcomes
 418 (Chung and Maisto 2006).

419 *Parental monitoring:* Across cultural groups, high
 420 levels of parental monitoring and focus on the
 421 family (*familialism*), have been found to be pro-
 422 tective, preventing adolescents' involvement in
 423 substance use and risky sexual behavior
 424 (DiClemente et al. 2001, 2003; Ramirez et al.
 425 2004; van der Vorst et al. 2006). Adolescents' per-
 426 ceptions of the parental monitoring were integral,
 427 as adolescents who believed that their parents
 428 were high monitors had lower levels of SUDs
 429 (Shillington et al. 2005). In contrast, in terms of
 430 substance use progressions, the impact of parental
 431 monitoring is less clear. Some studies have not
 432 found any connection between maternal monitor-
 433 ing and adolescent substance use progressions
 434 (King et al. 2006). Yet, another way to investigate
 435 parent/adolescent connection and monitoring is
 436 through family dinners meals. Across adolescents,
 437 substance use, deviant peer involvement, and risk
 438 behaviors have been inversely related to family
 439 dinner frequency (Barrera et al. 2001; Fulkerson
 440 et al. 2006). Notably, rates of family dinners were
 441 significantly higher for younger, versus older ado-
 442 lescents (Fulkerson et al. 2006), indicating a pro-
 443 gression of decreased parental monitoring that
 444 likely overlays with increases in peer contact.

445 **Peer Factors**

446 While family factors are important throughout a
 447 child's development, peers play an increasingly
 448 influential role during adolescence. In some
 449 ways, separating out the influences of parents and
 450 peers may be difficult, as the influence of peers
 451 and parents may be reciprocal. Specifically, low
 452 parental monitoring likely increases the likeli-
 453 hood of involvement with deviant peers, and high

parental monitoring reduces a child's likelihood
 of becoming involved with deviant peers (Barrera
 et al. 2001).

Adolescents with SUDs tend to have peer
 groups filled with friends who use alcohol to
 intoxication (64%) and abuse others substances
 (89%) (Tims et al. 2002). Moreover, most adoles-
 cents use substances in the context of substance-
 using friends (Chung and Maisto 2006; Hoffer
 et al. 1999; Richardson et al. 2002). In addition,
 number of SUD symptoms has been found to be
 correlated with adolescents' number of substance-
 using friends (Wu et al. 2004). After SUD treat-
 ment, adolescents have been found to have more
 serious relapses when with pretreatment friends,
 older peers, and social environments character-
 ized by heavier substance use (Chung and Maisto
 2006). Adolescents with social groups with low
 levels of peer substance use have better substance
 use outcomes (Chung and Maisto 2006).

Who may be most at risk for the influence of
 deviant peers? A study of adolescents revealed
 that younger adolescents and those with feelings
 of low self-worth were the most likely to be
 swayed by the substance use behaviors of deviant
 peers (Radin et al. 2006). In addition, externaliz-
 ing behaviors may be another risk factor; adoles-
 cents with externalizing disorders reported having
 more involvement with deviant peers than
 adolescents with no psychiatric comorbidity
 (Diamond et al. 2006). Moreover, in terms of
 internalizing disorders, greater peer delinquency
 is associated with higher levels of depressive
 symptoms (Tandon and Solomon 2009). Another
 factor that appears to influence adolescents' risk
 is their perception of peer use. Outweighing the
 influence of internalizing and externalizing symp-
 toms, adolescents who believed that their peers
 were engaging in high levels of substance use
 were more likely to increase their substance use
 (D'Amico et al. 2001).

495 **Academic Factors**

Recent research has underscored the importance
 of school success as a salient developmental task
 (Roisman et al. 2004). In addition, academic
 achievement, frequently a proxy for intelligence,

500 has been suggested to be a strong protective
 501 factor against adolescent risk behavior, particu-
 502 larly among disadvantaged youth (Masten 2001).
 503 This is important, as youth living in areas of high
 504 neighborhood disorder, including those with high
 505 rates of public substance use and violence, have
 506 been found to have compromised cognitive
 507 development and academic achievement (Fauth
 508 et al. 2007). However, the relationship between
 509 academic achievement and alcohol-related risk
 510 behavior is complex, and likely, bidirectional
 511 (Masten et al. 2008). Specifically, Masten et al.
 512 (2008) posit that while academic achievement
 513 may protect adolescents from alcohol abuse, sub-
 514 stance use may interrupt critical developmental
 515 steps in school functioning.

516 **Summary: Risk or Protective?**

517 While it is easy to list all of the influences that
 518 might place an adolescent at risk, the alternative
 519 to each of these situations is likely to be protec-
 520 tive for a dually diagnosed adolescent involved
 521 with the juvenile justice system. This is critical,
 522 as identifying areas of risk for these adolescents
 523 also provides potential avenues for intervention.
 524 For example, while an adolescent who has no
 525 contact with his or her family may be at a greater
 526 liability for continued substance use, greater
 527 experience of internalizing/externalizing symp-
 528 toms, and future justice involvement, an adoles-
 529 cent who has a caring, involved, and invested
 530 family member (or family unit) is likely to have a
 531 better prognosis. Thus, identifying who might be
 532 a protective family member for an adolescent can
 533 be a solid and promising route for intervention.
 534 Similarly, helping an adolescent negotiate the
 535 transition from an antisocial to a prosocial peer
 536 environment can have sustained benefits for an
 537 adolescent. And, finally, particularly for justice-
 538 involved adolescents who may have had numer-
 539 ous interruptions in their academic development,
 540 helping them see that they still have potential,
 541 and facilitating the attainment of their high school
 542 diploma or GED can have long-standing positive
 543 effects.

Prevention and Intervention Approaches for Dual Diagnosis Youth

544 In this section, we will highlight existing preven-
 545 tion and intervention approaches for dually diag-
 546 nosed youth. While researchers and policy
 547 makers are invested in trying to determine routes
 548 to divert youth from the justice system (Sullivan
 549 et al. 2007), significantly less is known about
 550 how to intervene with high risk justice-involved
 551 youth. Thus, it is worthwhile to know what pre-
 552 vention and intervention approaches have gained
 553 empirical support with dual diagnosis youth in
 554 general.
 555

Prevention Approaches

557 Prevention approaches aim to prevent psycho-
 558 social problems by strengthening coping mech-
 559 anisms and ameliorating early-onset symptoms
 560 (Liddle and Hogue 2000). It is clearly best to try
 561 to disrupt or divert the emergence of an issue
 562 than to try to resolve it once it is present. Thus,
 563 while this is an area of much interest, research
 564 in this area has been more controversial, for
 565 many common educational approaches have not
 566 gained empirical support (McNeill and Amos
 567 2007; Skager 2007). However, one avenue that
 568 may be of assistance is improved assessment.
 569 Accuracy in assessment provides a venue for
 570 early detection of the emergence of substance
 571 use, internalizing, and externalizing disorders.
 572 An example of a current measure that has been
 573 designed to provide a broad assessment for ado-
 574 lescents is the Corcoran's Oregon Youth Mental
 575 Health Referral Checklist (OMHRC; Roberts
 576 and Corcoran 2005). It is inclusive in that it
 577 acquires information from the parents, mental
 578 health professionals and the youth in the context
 579 of critical needs (Roberts and Corcoran 2005).
 580 Beyond assessment, training of peer refusal
 581 skills has also been a popular strategy for trying
 582 to bolster adolescents' ability to not fall into the
 583 substance use patterns of their peers (Segal and
 584 Stewart 1996).
 585

Intervention Approaches

Significantly more support has been garnered in the area of intervention. Recent research has categorized treatments for dually diagnosed adolescents into three categories: serial, parallel, and integrated (Bender et al. 2006). Serial treatments include separate and sequential treatment for substance dependence and for the co-occurring externalizing/internalizing disorder. Parallel treatments involve having both types of disorders (substance use and co-occurring condition) treated at the same time but by different professionals. Integrated treatments involve a combined approach designed to treat both aspects of the dual diagnosis at once. When choosing a treatment approach, it is important to be attentive to the fact that none of the current treatments are panaceas; rather, due to the factors elucidated above (parent, peer, academic factors), the best (most effective) treatment for one adolescent may not work as well for another. However, seven interventions have gained promise with dually diagnosed youth (Bender et al. 2006). They include Multisystemic Therapy (MST), Interactional Group Therapy (IGT), Family Behavior Therapy (FBT), Individual Cognitive Problem Solving (ICPS), Cognitive Behavior Therapy (CBT), Ecologically Based Family Therapy (EBFT) and Seeking Safety Therapy (SST). For a more detailed discussion of these therapeutic approaches for treating delinquent youth, please see Chaps. 19 and 21.

1. *MST*, designed by Henggeler and colleagues, this intervention aims to address the social forces acting on an individual such as family, work, and peers by enhancing an adolescents' interpersonal skills (Brown et al. 2001; Henggeler and Borduin 1990). Specifically, in this approach, therapists work with an adolescent in their natural relationships and environments to identify problem behaviors, and to tailor intervention strategies. For this intervention to be successful, it is important to develop strong working relationships with the key people in an adolescent's life, including family members, guidance counselors, and teachers. This treatment has gained substantive

empirical support in its ability to catalyze change in adolescents' social, family, and academic settings. A recent meta-analysis showed that MST helps youth to improve their social competence ($d=0.28$), reduce their associations with deviant peers ($d=0.31$), and reduce behavior problems ($d=0.34$); families to ameliorate stress ($d=1.01$) and conflict ($d=0.62$); and parents to improve their effectiveness ($d=0.94$) and monitoring ($d=0.60$) (Curtis et al. 2004). Additionally MST facilitates reductions in adolescents' number of criminal arrests ($d=0.55$), number of substance-related crimes ($d=0.29$), the severity of their arrests ($d=1.01$), days of incarceration ($d=0.55$), and self-reported drug use ($d=0.64$) (Curtis et al. 2004). Moreover, unlike many interventions that only have a single target, MST has evidenced the ability to yield generalized changes in the adolescent's skills. Although the therapy has gained great support, and is relatively time limited (4–6 months), it requires a substantial investment of staff involvement for the scheduling and delivery of services.

2. *IGT*, developed by Yalom and Yalom (1990), focuses on improving adolescents' interactions with others, including parents, peers, and teachers. IGT is a group intervention, comprising adolescents with varying levels of interpersonal skills. This set-up is deliberately created, as youth who can positively interact with peers' with varying interpersonal levels, have a better likelihood of generalizing their interaction abilities outside of the group. A component of this treatment often focuses on openness and the ability to express emotions, a skill which can be difficult for adolescents. Some of the salient therapeutic factors in this approach include universality (sharing experiences and removing isolation), altruism, instillation of hope, imparting information, developing socializing techniques, imitating behavior, cohesiveness (acceptance and validation), and self-understanding (Butler and Fuhriman 1983). While this intervention has gained preliminary empirical support for reducing substance use ($d=0.54$) and psychological symptoms ($d=0.93$), it has been found

- 681 to result in equivalent outcomes with CBT 728
 682 (Kaminer et al. 1998). 729
- 683 3. *FBT*, developed by Nathan Azrin, uses a 730
 684 behavioral model to think about how an ado- 731
 685 lescent's family may inadvertently (or pur- 732
 686 posefully) reinforce an adolescent's behavior. 733
 687 Thus, for this therapy to be effective, all fami- 734
 688 ly members must attend the intervention. 735
 689 Subsequently, interventionists must work hard 736
 690 to engage the adolescent along with his or her 737
 691 family, and frequently do things such as mak- 738
 692 ing several reminder phone calls, and provid- 739
 693 ing food and beverages during sessions to 740
 694 improve attendance (Austin et al. 2005; 741
 695 Donohue and Azrin 2001). Once the sessions 742
 696 begin, components of the treatment may 743
 697 include contingency management, training in 744
 698 communication skills around adolescent sub- 745
 699 stance use, problem solving, and efforts to 746
 700 improve family interactions (Austin et al. 747
 701 2005). Youth show reductions in the number 748
 702 of days that they use drugs following 6 months 749
 703 of *FBT* ($d=0.49$) and 6 months after treatment 750
 704 has ended ($d=0.50$) (Azrin et al. 2001). 751
- 705 4. *ICPS*, developed by Spivack and Shure, is 752
 706 designed to improve adolescents' cognitive 753
 707 skills, with the goal of strengthening their 754
 708 decision-making abilities (Spivack and Shure 755
 709 1985). This intervention approach posits that 756
 710 decision making is a complicated process that 757
 711 requires effectively navigating several steps. 758
 712 Thus, in *ICPS*, adolescents are taught how to 759
 713 focus attention, define the problem, think 760
 714 through multiple steps, and choosing the best 761
 715 option (Azrin et al. 2001). In this approach, it 762
 716 is believed that if adolescents do not work 763
 717 through each of these steps, they have a lower 764
 718 likelihood of ultimately making the best 765
 719 choice. Researchers have documented that 766
 720 6 months of treatment contributes to reduc- 767
 721 tions in the number of days of drug use 768
 722 ($d=0.47$), which are maintained at 6 months 769
 723 posttreatment ($d=0.58$) (Azrin et al. 2001). 770
- 724 5. *CBT*, is a long-standing intervention approach, 771
 725 founded on the notion that behavioral issues 772
 726 stem from the contributions of thoughts, feel- 773
 727 ings, and subsequent behavioral choices. Thus, 774
- the goal of this intervention approach is to 728
 identify and resolve adolescents' maladaptive 729
 thoughts and feelings (Kaminer et al. 2002). 730
CBT focused on adolescent substance use, 731
 externalizing and internalizing disorders, 732
 begins with the identification of key issues 733
 (e.g., substance use, depression, conduct dis- 734
 order), and related symptoms. The second step 735
 focuses on reducing maladaptive thoughts and 736
 feelings through various approaches including 737
 self-monitoring, problem solving, and com- 738
 munication skills. Behavior is consistently 739
 monitored throughout the intervention 740
 approach to ensure that the reduction of mal- 741
 adaptive thoughts and feelings results in the 742
 reduction of negative symptoms (e.g., sub- 743
 stance use, depression, conduct disorder). 744
 Once the behaviors are improved, the inter- 745
 vention focuses on relapse prevention and 746
 long-term management skills. This interven- 747
 tion approach has gained substantial support 748
 (Kaminer et al. 2002). For example, Kaminer 749
 et al. (1998) showed that *CBT* facilitated 750
 reductions in substance use ($d=1.33$) and psy- 751
 chological symptoms ($d=0.57$) among dually 752
 diagnosed adolescents. 753
6. *EBFT* is based on the Homebuilders family 754
 preservation model (Slesnick and Prestopnik 755
 2005), which is designed to provide intense 756
 treatment during times of crisis. *EBFT* is simi- 757
 lar to *MST* in that it includes multiple levels of 758
 interactions in the adolescents' life, but is 759
 unique in that it posits that people are most 760
 open to change during a time of crisis. This 761
 therapy has gained preliminary efficacy in 762
 catalyzing and maintaining adolescent risk 763
 behaviors (Slesnick and Prestopnik 2005). 764
 Specifically, this treatment has shown imme- 765
 diate reductions in drug use ($d=0.55$), delin- 766
 quency ($d=0.34$), internalizing symptoms 767
 ($d=0.35$), and family conflict ($d=0.47$), and 768
 improvements in parental care ($d=0.43$), 769
 which are maintained (d 's=0.76, 0.65, 0.73, 770
 0.78, 0.88, respectively) at 12-month out- 771
 comes (Slesnick and Prestopnik 2005). 772
7. *SST* is designed to treat *SUDs* in the context of 773
 posttraumatic stress disorder (*PTSD*) through 774

775 targeting the improvement of coping skills
 776 (Najavits 2002). This is highly salient for
 777 high-risk and justice-involved adolescents
 778 who may have had exposure to traumatic life
 779 events. In this approach, there are five guiding
 780 principles including (1) establishing safety as
 781 the first priority, (2) integrating treatment for
 782 PTSD and SUD, (3) focusing on ideals, (4)
 783 including cognitive, behavioral, interpersonal,
 784 and case management content, and (5) being
 785 explicit about therapist processes. Among
 786 adolescents, Navavits et al. (2006) demon-
 787 strated that SST facilitated reductions in drug
 788 use ($d=0.37-1.12$ across measures), major
 789 depressive symptoms ($d=0.40$), and trauma
 790 symptoms ($d=0.50-0.71$ across measures).

791 **Promising Prevention**
 792 **and Intervention Approaches**
 793 **for Dual Diagnosis Youth**
 794 **in the Juvenile Justice System**

795 Although research has pointed toward effective
 796 treatments for dually diagnosed youth, special
 797 considerations need to be made when applying
 798 these interventions to justice-involved youth. Due
 799 to the practical limitations of having youth resid-
 800 ing in detention and/or other justice facilities,
 801 some of the aforementioned interventions may be
 802 more difficult to implement. Although empirically
 803 supported treatments, like the ones described
 804 above, have been shown to be most effective,
 805 implementation of new treatment systems could
 806 require a great deal of change in administra-
 807 tion practices (Henggeler 2003). According to
 808 Williams (2009), there is a significant gap between
 809 the needs of the dually diagnosed youth and the
 810 resources and treatment available through current
 811 juvenile justice programs. These individuals have
 812 complex treatment needs and severity of symp-
 813 toms, and there are practical time constraints and
 814 issues with retention.

815 Significantly fewer studies have been con-
 816 ducted with justice populations. One research
 817 group, Henggeler and colleagues, have explicitly
 818 focused on determining interventions that might

work with high-risk and justice-involved youth. 819
 In one of their earlier studies (1999), they found 820
 that justice-involved youth receiving MST sig- 821
 nificantly reduced their substance use in compar- 822
 ison with youth receiving the standard of care. 823
 While this highlights the promise of MST, one 824
 important consideration is feasibility. Often, jus- 825
 tice environments do not have the time and 826
 resources to develop and engage all of the partici- 827
 pants necessary in the successful implementation 828
 of MST. Thus, short individualized therapy and/ 829
 or small group therapy may also be helpful with 830
 the juvenile justice population. 831

832 One other approach that has showed promise
 833 with substance-using, high-risk, and justice-
 834 involved youth is motivational interviewing (MI;
 835 Miller and Rollnick 2002). MI is ideal for many
 836 justice settings, as it may be a solid fit with the
 837 practical constraints of juvenile justice settings
 838 (Feldstein and Ginsburg 2006). Specifically, it is
 839 a brief intervention (1–2 sessions), which focuses
 840 on eliciting an adolescent’s reasons, motivation,
 841 and strategies for change from within the adoles-
 842 cent. MI has been successfully conducted in both
 843 high-risk adolescent groups and individual con-
 844 texts (Martin and Copeland 2008; Schmiege
 845 et al. 2009).

Conclusions 846

847 As suggested in recent work (Belenko and Logan
 848 2003; Lennings et al. 2006), involvement in the
 849 juvenile justice system is a critical and salient
 850 time for intervention. While existing justice-
 851 based interventions may not be able to fully
 852 address the needs of high-risk, dually diagnosed
 853 youth, we believe that there are several promis-
 854 ing prevention and intervention approaches that
 855 could be easily and successfully integrated into
 856 juvenile justice settings. Providing timely and
 857 empirically supported intervention approaches is
 858 critical for dually diagnosed justice-involved
 859 youth, who are more likely to struggle with more
 860 severe and persistent substance use, internalizing
 861 disorders, and externalizing symptoms than their
 862 non-adjudicated peers.

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Introduction

Approximately 20% of all rapes (Brown et al. 1984; Morenz and Becker 1995; Pastore and Maguire 2007) and 30–50% of child molestations are carried out by youth under 18 years of age (Brown et al. 1984; Ryan 1999). Studies of adolescent sex offenders have shown that the majority commit their first sexual offense before 15 years of age and not infrequently before 12 years of age (Barbaree and Marshall 2006; Rubenstein et al. 1993). The younger the age of the victim, the more likely they are to have been victimized by a juvenile rather than an adult (Snyder and Sickmund 2006). Preadolescents are being referred for sexual behavior problems in increasing numbers (Araji 1997). Many juvenile sex offenders (JSOs) have more than one victim, and clearly, if they begin a pattern of sexual offending as juveniles and continue sexual offending as adults, JSOs can have many victims. Studies show that JSOs average eight to nine sexual offenses, with four to seven victims (Shaw et al. 1993). Reported crime statistics underestimate the extent of juvenile sexual offenses (Moore et al. 2004).

Most sex crimes are not reported, and the juvenile justice system has historically not prosecuted juveniles for their sexual offenses in the same way that adult offenders are prosecuted (Melton 1989). Instead of legal sanctions, juveniles have tended in the past to be referred for treatment, or their sexual offenses were dismissed as just sex play, or experimentation (Koss et al. 2006). This has changed since the juvenile “crime wave” of the 1980s and 1990s. There is now a competing movement to treat JSOs like adult sex offenders, including placing them on sexual predators registries, and trying them as adults for their crimes.

Sexual offenses by juveniles are a significant problem, and it is imperative that we understand the reasons why juveniles offend sexually, and what types of treatment are effective. Additionally, JSOs are in the midst of the normal adolescent developmental task of consolidating their identity, including their sexual identity. Adolescents’ sexual interests are not yet fixed in most cases, and treatment may help to set JSOs on a more normal developmental trajectory, and end their sexual offending. Although recidivism figures for JSOs vary widely from one study to another, most agree that recidivism figures for JSOs are lower than those for adults, and most JSOs who complete sexual offending treatment do not reoffend (Alexander 1999).

Studies have been done on JSOs since the early 1940s (Doshay 1943), but it has only been over that past 20 years that sex crimes committed by juveniles have been seen as a serious problem

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rather than an issue of experimentation. There have been an increasing number of studies, but there are still no validated actuarial instruments for evaluating recidivism risk for JSOs, and it is still unclear which treatments are best for which JSOs. Much more research is needed.

Most sexual assault is committed by males rather than females. This is hypothesized to be due to the different socialization of males and females, although there is evidence that females may be less likely to be prosecuted for sexual offenses, and/or less likely to be referred to juvenile treatment centers (Bourke and Donohue 1996). Studies of JSOs provide conflicting evidence in many areas, but research has consistently shown that JSOs are a heterogeneous population (Hunter et al. 2003). This makes generalizability of results difficult, and highlights some of the difficulties of research with this population. In the past, research from adults was simply extrapolated to use with adolescents. Only in the past several decades has more specific research on JSOs emerged as more than just isolated studies.

Terminology

Terminology related to JSOs can be confusing, and different terminology can be used by different disciplines to refer to the same population.

JSO is a legal term. It refers to someone who is convicted of a sexual offense and is considered by the court as old enough to be held criminally responsible but not old enough for full adult criminal sanctions (Barbaree and Marshall 2006). Sexual *acting out*, a term derived originally from psychoanalytic literature refers to maladaptive sexual behavior that may or may not involve a violation of the law. For example, sexual promiscuity in youth above the age of consent, which varies by state, would constitute maladaptive/problematic sexual behavior but would not constitute sexual offending. *Juvenile* usually refers to persons between 12 or 13 and 18 years old. The term *adolescent* refers to the same age range as *juvenile* but carries the additional connotation of persons who are pubertal to postpubertal rather than prepubertal.

Persons who commit sexual offenses at the age of 12 or younger are usually referred to as *sexually reactive* children, or children with sexual behavior problems. Both of these terms reflect the legal and developmental beliefs that there are differences between children who sexually offend, and adolescents who sexually offend. The Association for the Treatment of Sexual Abusers (ATSA) task force defines children with sexual behavior problems as “children 12 and younger who initiate behaviors involving sexual body parts...that are developmentally inappropriate or potentially harmful to themselves or others” (Chaffin et al. 2008, p. 200).

Sexual abuse is defined as sexual activity against a nonconsenting person. Children are considered nonconsenting even if they assent, due to their age and lack of ability to comprehend the full implications of sexual activity. Sexual abuse can occur between same age juveniles if there is coercion or a power imbalance. With juveniles, sexual offending needs to be distinguished from normal sexual behavior. The exact definition of normal versus deviant sexual behavior can be difficult to state with children and adolescents, due to developmental issues and the relative lack of research on normal sexual development compared to the wealth of research on abnormal sexual development (Barbaree and Marshall 2006). Behavior can be considered deviant if it occurs an earlier age than is usual. The age of consent for sexual activity varies by state and country. In the USA, the age of consent ranges between 14 and 18.

Some JSOs show signs of *paraphilia*, which is a mental disorder involving deviant sexual behavior. One form of paraphilia is pedophilia, or sexual interest in children. Pedophilia is much more difficult to determine with juveniles than with adults, and becomes essentially meaningless when considering sexual behavior by children. According to the World Health Organization, adolescents age 16 and older can qualify if they have a sexual preference for prepubescent children who are at least 5 years younger (ICD-10 2007). Paraphilic interest occurs in perhaps 50% of JSOs (Seto and Lalumiere 2006).

153 Many authorities consider it important to
 154 reserve the term juvenile sex offender for adoles-
 155 cents who commit sexual assault, not to deviant
 156 sexual behavior per se if it does not involve sexual
 157 assault or to consensual adolescent sexual
 158 behavior.

159 **Typology**

160 The JSO population is heterogeneous (Becker
 161 et al. 1993; Bourke and Donohue 1996).
 162 Adolescent males comprise approximately 90%
 163 of JSOs (Davis and Leitenberg 1987). The rest
 164 comprises children 12 and under and adolescent
 165 females. Children with sexual behavior problems
 166 and female JSOs are discussed separately below.
 167 Unless otherwise specified, the rest of this chap-
 168 ter refers to male JSOs.

169 There are many developmental pathways that
 170 can lead to sexual offending, and several research-
 171 ers have attempted to classify JSOs utilizing vari-
 172 ous combinations of offender and victim
 173 characteristics. Offender characteristics have
 174 included personality traits, associated psychopa-
 175 thology, histories of nonsexual offending, and
 176 use of violence. Victim characteristics typically
 177 focus on relationship to the offender, age (espe-
 178 cially pubertal status), and gender. Many typolo-
 179 gies include various theoretical relationships
 180 between these variables and putative etiologies
 181 of offending. The underlying assumption is that a
 182 reliable and empirically supported scheme can
 183 facilitate efforts to prevent and treat juvenile sexual
 184 offending as well as reduce eventual offend-
 185 ing in adults.

186 Utilizing California Psychological Inventory
 187 scores from 112 adolescent male sexual offend-
 188 ers, Worling (2001) identified four subgroups:
 189 antisocial/impulsive, unusual/isolated, overcon-
 190 trolled/reserved, and confident/aggressive. While
 191 subgroup membership was found to be unrelated
 192 to factors such as victim age, victim gender, and
 193 offender’s history of sexual victimization, indi-
 194 viduals in the two groups deemed more patholog-
 195 ical—the antisocial/impulsive and unusual/
 196 isolated were most likely to be charged with a

subsequent violent offense (sexual or nonsexual) 197
 or nonviolent offense. 198

A second classification scheme (Hunter 2006) 199
 divides JSOs into three subgroups: lifestyle delin- 200
 quent youth; adolescent onset, nonparaphilic 201
 youth with sexual offending toward prepubescent 202
 females; and early adolescent onset, paraphilic 203
 juveniles with deviant sexual interests, and sexual 204
 offending targeting prepubescent males and 205
 females. 206

Oxnam and Vess (2006) identified three sub- 207
 groups among 25 male adolescents in a commu- 208
 nity-based treatment sample using the results of 209
 the Million Adolescent Clinical Inventory: an 210
 antisocial group, a socially withdrawn inadequate 211
 group, and a group that displayed relatively few 212
 traits of clinical significance. Support was found 213
 for the hypothesis that adolescent sexual offend- 214
 ers often display personality profiles similar to 215
 nonsexual offenders and is similar to other typol- 216
 ogies in identifying both an antisocial subtype as 217
 well as a subtype characterized by social 218
 inadequacy. 219

There is mixed evidence as to whether JSOs 220
 progress to adult sexual offending. Becker and 221
 Kaplan (1988) propose that JSOs follow one of 222
 three pathways. One group comes to a “dead end” 223
 and stops offending. A second group develops 224
 deviant sexual interests and continues these as 225
 adults. A third group follows a delinquency path- 226
 way. Some authorities estimate that 10% of JSOs 227
 progress to become adult pedophiles, some 228
 become adult criminals who commit nonsexual 229
 crimes, and in 50% there is no recidivism. The 230
 sexual offending was part of adolescent delin- 231
 quency, and adolescents grow out of it, some 232
 with, and some without treatment (Moffit 1993). 233

Etiology of Juvenile Sex Offending 234

Research supports the fact that a higher propor- 235
 tion of JSOs were abused as children than in the 236
 general population, with some groups, such as 237
 adolescents who offend against children, or 238
 against males, reporting higher rates of sexual 239
 abuse in their own histories. Sexual behavior 240

241 occurs earlier than the norm for approximately
 242 25% of maltreated children (Barbaree and Langton
 243 2006). In children with sexual behavior problems,
 244 sexual victimization was their most common vic-
 245 timization, followed by physical abuse.

246 The family environment of JSOs is often char-
 247 acterized by instability, and few resources.
 248 According to Barbaree and Langton (2006), there
 249 are five common features in the family environ-
 250 ments of adolescent sex offenders: lack of finan-
 251 cial resources, poor attachment between parent
 252 and child, early exposure to sexual material and
 253 behavior, a high risk environment for sexual and
 254 physical abuse, and a lack of resources to cope
 255 with the abuse after it has happened, such as
 256 parental rejection or detachment.

257 There is debate as to whether childhood sexual
 258 abuse causes sexual offending. The evidence is
 259 strongest for a subgroup of JSOs: male adoles-
 260 cents who offend against younger boys. There are
 261 problems with data collection, since sex offend-
 262 ers both over and under report their own abuse.
 263 JSOs who begin offending at a younger age are
 264 more likely to have a history of childhood sexual
 265 abuse than those who begin offending at a later
 266 age (Seto and Lalumiere 2006).

267 The relationship between conduct disorder or
 268 antisocial tendencies and sexual offending has
 269 also been examined. Those JSOs who offend
 270 against child victims are less likely to have con-
 271 duct disorder. Interestingly, a meta-analysis com-
 272 paring JSOs and juvenile offenders showed that
 273 JSOs are more likely to have a history of fire set-
 274 ting, especially those who offend against younger
 275 children. However, overall, JSOs show less con-
 276 duct problems than juvenile offenders (Seto and
 277 Lalumiere 2006).

278 Anomalous neurodevelopment, of whatever
 279 etiology, increases a male’s risk of problematic
 280 sexual behavior, especially pedophilia. In adult
 281 studies, lower IQ is associated with offenses
 282 against younger victims (Blanchard et al. 2006).
 283 JSOs commonly have psychiatric comorbidities,
 284 such as conduct disorder, attention deficit hyper-
 285 activity disorder, mood disorders, learning disor-
 286 ders, and substance abuse (Galli et al. 1999).
 287 These comorbidities are more common in female
 288 than in male JSOs (Mathews et al. 1997).

289 Psychiatric and substance use disorders may
 290 involve decreases in impulse control, which can
 291 lead to sexual offending.

292 Healthy sexual development necessitates an
 293 ability to manage intimacy, as well as a stable
 294 sexual identity. These are normal tasks of adoles-
 295 cence, with which some teens have difficulty, and
 296 which can lead to sexual acting out (Marshall
 297 et al. 1993). Disorders of attachment and prob-
 298 lems with the developmental tasks of adolescence
 299 can lead to coercive sexual actions. These studies
 300 are mostly retrospective, though some cross-sec-
 301 tional studies have been done (Smallbone 2006).

Types of Offenses 302

303 JSOs can also be classified by the age of their
 304 victims—prepubertal versus pubertal, same age,
 305 younger, or adults, whether they offend against
 306 males, females, or both, whether the assaults are
 307 penetrative versus nonpenetrative, known vic-
 308 tims versus strangers, incest versus nonrelatives,
 309 number of victims, and use of verbal threats,
 310 homicidal threats, physical force or use of a
 311 weapon (AACAP 1999).

Victim Characteristics 312

313 The majority of victims of male JSOs are females,
 314 but adolescent sex offenders commit most of the
 315 sexual assaults against boys (Hunter and Becker
 316 1999). The majority of the victims of JSO are
 317 younger than 9 years old (Ryan et al. 1996) and
 318 when males are victimized, they tend to be
 319 younger than the females who are victimized.

Evaluation of the Juvenile Sex Offender 320

321 The purpose of the clinical assessment is to assess
 322 amenability to treatment, required level of care,
 323 individualized treatment goals, and risk of recidi-
 324 vism (Center for Sex Offender Management 2006).
 325 Holistic assessments should include evaluation of
 326

327 risk for substance abuse, self-injurious behavior,
 328 nonsexual offending, and victimization. Ideally,
 329 the clinical evaluation of the JSO will be done after
 330 adjudication and prior to sentencing, to allow the
 331 evaluation to be maximally helpful in guiding sen-
 332 tencing and treatment, and to minimize the juve-
 333 nile's tendency to deny, minimize, or lie about the
 334 offense(s.)

335 Assessments should involve objective instru-
 336 ments whenever possible, and should be used to
 337 formulate individualized treatment plans. As with
 338 other juvenile offender populations, higher risk
 339 juveniles generally need more intensive treat-
 340 ment than lower risk populations. Repeated
 341 assessments are necessary at least annually, to
 342 evaluate the efficacy of treatment and need for
 343 continued treatment. Due to the rapid develop-
 344 mental changes in juveniles, the types of treat-
 345 ment from which they may benefit needs to be
 346 reevaluated periodically.

347 It is helpful to have the JSO fill out a question-
 348 naire about sexual offenses, sexual history, and
 349 other personal history, rather than obtaining the
 350 information verbally. It is important to obtain all
 351 the facts and details about the JSO's offenses, and
 352 not to accept vague generalities.

353 Reporting laws and limits of confidentiality
 354 should be discussed. The JSO and guardian should
 355 sign an informed consent form, including (if
 356 applicable) consent for "off label" medication use,
 357 or controversial assessment techniques, such as
 358 phallometric assessment. Information should be
 359 obtained from multiple sources, including medi-
 360 cal and psychological reports, offense reports,
 361 victim statements, child protective services
 362 reports, and probation reports. It is not adequate
 363 to rely solely on the juvenile's self-report, due to
 364 the risk of the juvenile lying or minimizing.

365 A structured clinical interview should be done
 366 with the juvenile, containing all the normal elements
 367 of a complete psychiatric evaluation, such as devel-
 368 opmental and psychosocial history, medical history,
 369 past psychiatric history, substance abuse history,
 370 and school history with special attention to learning
 371 problems. The clinical interview should include
 372 specific assessment of the juvenile's sexual history,
 373 and is often referred to as a *psychosexual clinical*
 374 *evaluation, or sex offender-specific evaluation.*

375 Important points in the sexual history include the
 376 juvenile's knowledge and understanding of normal
 377 sexual activities, exposure to sexually explicit
 378 behavior or material, sexual development, and sex-
 379 ual experiences, including abuse history. It is impor-
 380 tant to determine the established pattern of sexual
 381 offenses, such as victim profile, internal and exter-
 382 nal triggers for the acts, use of threats, aggression,
 383 and preferred pattern of sexual activity. A history of
 384 physical abuse, emotional abuse, or neglect should
 385 be obtained. The interviewer should ask about other
 386 disruptive behavior, illegal activities, aggression,
 387 and arrests not related to sexual offenses. Cognitive
 388 performance should be assessed, looking in particu-
 389 lar at IQ and learning disabilities. A medical exami-
 390 nation should be obtained, to rule out neurological
 391 conditions, as well as other common pediatric medi-
 392 cal problems.

393 Psychological testing is an important part of
 394 the assessment of the JSO, though no self-report
 395 instruments or clinician administered instruments
 396 have been validated for use with JSOs. Commonly
 397 used instruments include The Adolescent Sexual
 398 Interest Card Sort, The Adolescent Cognitions
 399 Scale, the Multiphasic Sex Inventory, SCL-90,
 400 Psychopathy Checklist-Revised, MMPI (Bourke
 401 and Donohue 1996). The Adolescent Sexual
 402 Behavior Inventory (ASBI; Friedrich et al. 2004)
 403 obtains information about inappropriate sexual
 404 behaviors from both the adolescent and caregiver.
 405 More general psychological testing assessing
 406 mental health symptoms, delinquency, and sub-
 407 stance use, are also important. Projective testing
 408 methods such as Rorschach, and human figure
 409 drawings have been utilized in the assessment of
 410 child sexual abuse but their use has become
 411 increasing controversial with some studies sup-
 412 porting their use and others concluding that they
 413 are ineffective. West (1998) in a meta-analysis of
 414 12 studies involving sexual abuse and four
 415 involving physical abuse concluded that projec-
 416 tive testing was effective in discriminating sexu-
 417 ally abused children from nonsexually abused
 418 children. However, Garb et al. (2000) reanalyzed
 419 the same studies and concluded that West's origi-
 420 nal analysis was flawed and concluded that pro-
 421 jective testing could not be recommended in the
 422 detection of child sexual abuse.

423 Actuarial assessments of recidivism risk have
 424 been studied and validated in adult males, and are
 425 now the standard of care, but have not been ade-
 426 quately studied in adolescent males to recom-
 427 mend their use in the JSO population, especially
 428 for long-term risk assessment (Worling and
 429 Langstrom 2006). However, the instruments can
 430 help identify relevant risk factors. The Juvenile
 431 Sex Offender Assessment Protocol-II (JSOAP-II,
 432 Righthand et al. 2005) is designed to assess the
 433 short-term recidivism risk of juvenile males
 434 between 12 and 18 years of age. The items explore
 435 static, or historical factors such as sexual preoc-
 436 cupation, antisocial behavior, as well as dynamic,
 437 or changeable, factors such as clinical interven-
 438 tion and community stability. It has not yet been
 439 cross-validated. The ERASOR (Worling 2004) is
 440 a relatively short-term (less than 1 year) risk
 441 assessment tool for juvenile males between the
 442 ages of 12 and 18, which also includes static fac-
 443 tors but focuses more on dynamic risk factors to
 444 aid in the development of treatment targets.

445 More controversial assessment instruments in
 446 JSOs include penile plethysmography, and poly-
 447 graph testing. Penile plethysmography, which
 448 measures blood flow to the penis, is used in adult
 449 male sex offenders to measure their level of sex-
 450 ual arousal to specific sexual content. It has gen-
 451 erally not been advised with JSOs, due to lack of
 452 demonstrated efficacy and ethical concerns,
 453 including exposing minors to deviant sexual
 454 material. Recently, however, a study showed that
 455 posttreatment inability to suppress deviant
 456 arousal—sexual arousal to paraphilic or unusual
 457 objects and themes, such as male and female chil-
 458 dren—was associated with sexual offense recidi-
 459 vism over 6-year follow-up (Clift et al. 2009). If
 460 used, these assessment instruments are generally
 461 reserved for older adolescents, in select cases.

462 In evaluating the JSO, it is important to take
 463 developmental factors into account while doing a
 464 holistic assessment that includes both a general
 465 multifaceted evaluation and specific psychosex-
 466 ual evaluation of the youth. Although actuarial
 467 assessment instruments can be helpful, the evalu-
 468 ator must keep in mind that none of them have
 469 been adequately validated for predicting recidi-
 470 vism risk in juvenile males, much less for use in
 471 younger males or in females.

Best Practices for Assessment

472

1. Have the juvenile fill out a questionnaire giving the details of sexual offenses, sexual history, and other pertinent history. 473-475
2. Obtain and review all available reports: forensic, police, child protective services, victim impact statements, offender’s version of the offense(s), psychological testing, psychoeducational testing. 476-480
3. Perform a detailed clinical interview of the juvenile, including past medical history, psychiatric history, substance abuse, abuse history, social, educational, family, and legal history. 481-485
4. Perform a psychosexual clinical evaluation. 486
5. Interview collateral contacts (parents or guardians, other family members, child protection professionals, school officials). 487-489
6. Perform a medical examination to screen for neurological and other problems. 490-491
7. Perform psychological testing to evaluate personality functioning, cognitive functioning, learning disabilities, and psychiatric comorbidity. 492-495
8. Consider actuarial risk assessment using instruments such as JSOAP-II or ERASOR. 496-497
9. Consider use of penile plethysmography or polygraph testing in certain older adolescents. 498-499
10. Evaluate stability of juvenile’s placement, and the ability of family/placement to provide supervision and safeguards for any potential victims in the home. 500-503
11. Evaluate community support systems, and individual/family and community protective factors. 504-506

Treatment

507

508 Treatment for JSOs ranges from highly structured
 509 residential programs to unstructured outpatient
 510 programs. The need to protect the community
 511 must be balanced against the obligation to treat
 512 the juvenile in the least restrictive setting. There
 513 are more community-based programs than resi-
 514 dentially based programs, in an approximate ratio
 515 of 2:1 (Burton et al. 2006). Indications for resi-
 516 dential treatment of JSOs include safety issues

517 for both the juvenile and his potential victims.
518 See Bourke and Donohue (1996) for a review.

519 Historically, treatment programs for juveniles
520 were modeled upon similar programs for adult
521 males, and made use of cognitive behavioral
522 therapy–relapse prevention (CBT-RP)-based
523 treatment. Treatment programs grew out of the
524 need for such programs, rather than from an evi-
525 dence base as to what does or doesn't work with
526 JSOs. Most programs still use this model
527 (McGrath et al. 2003).

528 Given the similarities in risk factors for juve-
529 nile sex offending and juvenile nonsexual offend-
530 ing, and the recognition that JSOs' problems are
531 multidimensional, there has been a shift in focus
532 in the past few years from predominantly cogni-
533 tive behavioral-focused treatment, to family and
534 community-based treatments, such as multisys-
535 temic therapy (MST) and functional family ther-
536 apy (FFT) (Letourneau et al. 2009; Letourneau
537 and Borduin 2008).

538 Both CBT-RP and MST have been modified to
539 target the needs of the JSO population, and treat-
540 ment programs, whether community based or
541 residential, often combine elements of both CBT
542 and MST (Borduin and Schaeffer 2002; Walker
543 et al. 2004).

544 Cognitive Behavioral Therapy–Relapse 545 Prevention

546 CBT-RP has been the gold standard for sex
547 offender treatment (Gray and Prithers 1993). It
548 may be provided in either residential or commu-
549 nity-based programs. Treatment involves the
550 offender accepting responsibility for his behav-
551 ior, dealing with denial, identifying the cycle of
552 sex offending behavior, exploring his own his-
553 tory of abuse and family factors related to the
554 sexual offending, developing empathy with the
555 victim(s), correcting cognitive distortions,
556 decreasing deviant arousal, identifying and man-
557 aging risk factors, improving social skills and
558 developing prosocial skills, improving sexual
559 knowledge, treating substance abuse, and relapse
560 prevention (Center for Sex Offender Management
561 2006; Ertl and McNamara 1997).

562 Cognitive restructuring is a technique used to
563 correct the cognitive distortions that feed sex
564 offending, such as the thought that the victim
565 wants or deserves the abuse. The offender is
566 taught to verbalize the thoughts and beliefs that
567 justify the sexual offending. These statements are
568 then challenged by the therapist and group mem-
569 bers (Ertl and McNamara 1997).

570 To decrease deviant sexual arousal, CBT-RP
571 may include aversive techniques, such as covert
572 sensitization, imaginal desensitization, and satia-
573 tion training. Although aversive behavioral treat-
574 ment has been shown to be helpful with adult
575 male offenders, there is not the same evidence
576 base for its use in youths, and there are concerns
577 regarding the ethics of using some of its tech-
578 niques with minors (Bourke and Donohue 1996).
579 As discussed above, not all JSOs have pedophilia,
580 and sexual preferences among juveniles are not
581 fixed. Therefore, the application of adult treat-
582 ment models designed to uncover and treat devi-
583 ant sexual arousal may not be appropriate or
584 necessary for most juveniles (Hunter 1999;
585 Johnson 2005; Rich 2003).

586 In covert sensitization, the sexual offender
587 visualizes a scene of sexually deviant behavior,
588 followed by visualization of a “repulsive” image
589 with the aim of pairing the two images in order to
590 decrease the offender's interest in the deviant
591 behavior. This technique has not been well stud-
592 ied in juveniles (Bourke and Donohue 1996). It
593 relies on offender's self-report, and thus will not
594 work in an unmotivated individual or in one with
595 cognitive limitations.

596 In imaginal desensitization, the offender per-
597 forms progressive muscle relaxation, then, in a
598 state of relaxation, imagines beginning a behav-
599 ior which has led to deviant sexual behavior in
600 the past. The offender imagines the scene just up
601 to the point where he would engage in the deviant
602 behavior, and at that point the imagined scene is
603 modified so that he does not engage in the devi-
604 ant behavior, and remains calm and relaxed
605 (McConaghy et al. 1989). Research indicates that
606 this technique is more effective than covert
607 desensitization.

608 Satiation training involves having the offender
609 masturbate to ejaculation while thinking about or
609

610 viewing appropriate sex scenarios, then continu-
 611 ing to masturbate post ejaculation while thinking
 612 about or viewing deviant sexual scenarios.
 613 Satiation training is believed to work by produc-
 614 ing boredom and “physical depletion” to the devi-
 615 ant material. This technique is usually modified
 616 with juveniles to involve either verbal satiation or
 617 laboratory satiation due to ethical concerns about
 618 showing juveniles deviant sexual material (Bourke
 619 and Donohue 1996; Hunter and Goodwin 1992).

620 CBT-RP may also include victim impact
 621 groups, in an effort to help the JSO develop
 622 empathy for his victims, and anger management
 623 training to help decrease the offender’s physical
 624 aggression and coercive behavior.

625 JSOs are often ill informed about sex, or can
 626 have serious misinformation (Prendergast 2004).
 627 Most treatment programs for JSOs include sex
 628 education, although there is little to no research
 629 on the efficacy of this intervention with JSOs
 630 (Bourke and Donohue 1996).

631 **Multisystemic Therapy**

632 MST is an evidence-based treatment developed
 633 for youths with conduct disorder and its associ-
 634 ated problems (Boxer and Goldstein *in press*;
 635 Guerra and Williams *in press*). Several studies of
 636 MST with JSOs indicate that it is also effective
 637 for this population (Borduin and Schaeffer 2002;
 638 Henggeler et al. 1998, 2009).

639 MST addresses the multiple determinants of
 640 antisocial behavior, and is provided in a commu-
 641 nity setting (Letourneau and Borduin 2008).
 642 Common goals include improving family func-
 643 tioning, improving parenting skills, increasing
 644 the adolescent’s association with prosocial peers,
 645 improving the adolescent’s social and problem
 646 solving skills, improving school performance,
 647 and increasing community supports. The MST
 648 team works with the adolescent, parents, and
 649 other systems involved in the adolescent’s life,
 650 such as the school. The treatment team usually
 651 consists of a therapist, case manager, and behav-
 652 ior management specialist. The work is intensive,
 653 occurring multiple times per week. Therapists
 654 carry a low case load, and someone on the team

655 is available to the family 24 h a day, 7 days a
 656 week. Examples of community-based multisys-
 657 temic treatments include Wraparound Milwaukee
 658 and the Norfolk Juvenile Sex Offender Program
 659 (Hunter et al. 2004).

660 Advantages of MST in the treatment of JSOs
 661 include its ability to address the multiple factors
 662 leading to juvenile sex offending, its community
 663 rather than residential treatment focus, which
 664 makes it a lower cost option than residential treat-
 665 ment, and its emerging evidence base. Henggeler
 666 et al. (2009) found that MST decreased both anti-
 667 social behavior and deviant sexual interest among
 668 the youth studied, and that these outcomes were
 669 mediated by increased caregiver follow-through
 670 on discipline and oversight of the youth’s choice
 671 of friends.

672 **Functional Family Therapy**

673 FFT has been advocated as a treatment for JSOs
 674 by researchers such as Carr (1995, 2000). It has
 675 been shown to decrease recidivism in this popula-
 676 tion, and is a relatively short-term, cost-effective
 677 treatment (Mendel 2000). The coercive style of
 678 family interaction found in many families of
 679 JSOs is thought to lead to the cognitive bias that
 680 social interactions lead to conflict. FFT helps to
 681 externalize the problem rather than seeing it as
 682 something intrinsically wrong with the adoles-
 683 cent, and works with the entire family unit, not
 684 just the adolescent (Boxer and Goldstein *in press*;
 685 Guerra and Williams *in press*). Like MST, FFT
 686 helps families to provide more appropriate struc-
 687 ture, limits, and supports to youth, and targets the
 688 family factors such as lack of supervision that
 689 can lead to youth sex offending.

690 **Individual Versus Group Therapy**

691 Therapy groups can be helpful in minimizing the
 692 offender’s ability to manipulate the therapist, and
 693 can often be provided at a lower cost than indi-
 694 vidual therapy. Therapy groups should contain a
 695 mix of youths with different offending histories.
 696 A mixed group increases the ability of group

697 members to confront each other's denial and
 698 rationalization and decreases the chance that
 699 group members will increase each other's behav-
 700 ior problems (Dishion and Dodge 2005).
 701 Adolescence is developmentally a time when
 702 peers and their opinions are crucially important,
 703 often more important than the opinions of adults.
 704 This can make group therapy especially power-
 705 ful, but can also make it intimidating.

706 With adolescents, individual therapy may
 707 need to occur prior to beginning group therapy,
 708 due to adolescents' fear of appearing in a bad
 709 light in front of their peers, and their develop-
 710 mental need to become stronger as individuals
 711 prior to being able to work productively in a
 712 group. This is in contrast to sex offender pro-
 713 grams for adults, which often begin with group
 714 therapy work (Prendergast 2004).

715 **Additional Forms of Therapy**

716 McMackin et al. (2002) describe the importance
 717 for relapse prevention of identifying potential
 718 traumatic triggers in JSOs that have histories of
 719 victimization in order to avoid the progression of
 720 an offense cycle that begins with feelings of
 721 intense fear, helplessness and horror and ends
 722 with a deviant act. The JSO sample in this study
 723 identified a very high rate of trauma exposure at
 724 95% with sexual abuse occurring in all but 12.5%
 725 of the sample.

726 JSOs, like other juveniles, benefit from family
 727 involvement in their therapy and treatment of the
 728 family itself. For children with sexual behavior
 729 problems, family therapy may be the primary
 730 therapy modality. For adolescents, it is a critical
 731 component of treatment, and should be provided
 732 no matter which theoretical model of treatment is
 733 being used.

734 Social skills training is a usual component of
 735 both CBT and MST-based treatments. Juveniles
 736 are influenced by their peer group, and adoles-
 737 cents can become involved in sex offending as
 738 part of gang initiation, or as a way to ingratiate
 739 themselves with peers. In these cases, the treat-
 740 ment to increase an adolescent's sense of auton-
 741 omy and self-efficacy can be effective.

Substance abuse treatment and educational/
 vocational rehabilitation are important foci of
 treatment for most JSOs. Due to the high comor-
 bidity of psychiatric problems in JSOs, psychiatric
 evaluation and treatment, including pharmaco-
 therapy of comorbid psychiatric disorders, should
 be a part of treatment. In a study by McGrath et al.
 (2003) it was noted that not all treatment programs
 provided psychiatric consultation.

Pharmacologic Treatment

There are four main types of pharmacological
 treatment used for sex offenders: selective sero-
 tonin reuptake inhibitors (SSRIs), naltrexone,
 anti-androgens, and gonadotropin-releasing hor-
 mone agonists (GNRH). Pharmacological treat-
 ment is designed to reduce the sex offender's sex
 drive through either hormonal or nonhormonal
 means. None of the treatments are FDA approved
 for this use. Additional concerns about their use
 in juveniles include the potential adverse effects
 of anti-androgens on the pubertal growth and
 physical development of adolescents. Concerns
 have also been voiced about their efficacy in
 adult sex offenders (Prendergast 2004). If com-
 pulsive sexual behavior has already been estab-
 lished, sex offenders can buy testosterone on the
 black market to counteract the effects of the treat-
 ment, or can engage in nonpenetrative abuse.

SSRIs and naltrexone are both nonhormonal
 treatments. SSRIs are used in the treatment of
 depression and anxiety disorder, and have long
 been known to interfere with sexual functioning
 in some patients. This side effect has suggested
 their use in the treatment of sex offenders. Studies
 in adult male sex offenders have been generally
 positive, with reductions in paraphilic urges,
 masturbation, and hypersexual behavior (Kreuger
 and Kaplan 2002). Naltrexone is an opioid antag-
 onist that affects the central nervous system's
 processing of pleasure and pain. One study in
 JSOs (Ryback 2004) showed benefits.

Hormonal treatments interfere with testos-
 terone, thereby lowering the sex offender's sex
 drive. These medications include finasteride,
 cyproterone acetate, and medroxyprogesterone

787 acetate. GNRH agonists include leuprolide, gos- 832
 788 erelin, and triptorelin. Their use is at times called 833
 789 *chemical castration* since they effectively elimi- 834
 790 nate testosterone production. They carry the risk 835
 791 of significant side effects, including hot flushes, 836
 792 impotence, weight gain, and bone demineraliza- 837
 793 tion. To a lesser extent, these side effects are also 838
 794 found with the other hormonal treatments. 839

795 Pharmacological treatment for JSOs is gener- 840
 796 ally reserved for older adolescent males with 841
 797 paraphilias, and significant risk of recidivism. 842
 798 Treatment generally begins with an SSRI, and 843
 799 only in rare cases would hormonal treatments be 844
 800 used, and then in low doses. GNRH analogs 845
 801 would virtually never be used in JSOs. 846

802 **Caveats About Treatment of Juvenile** 847
 803 **Sex Offenders** 848

804 JSOs, like their adult counterparts, can lie, deny, 852
 805 and minimize, so it is relatively easy for inexpe- 853
 806 rienced therapists and other personnel working 854
 807 with sex offenders to be “conned” into thinking 855
 808 the sex offender has been rehabilitated when he 856
 809 has not, or that he has told the truth about all his 857
 810 offenses when he has not. It is suggested that cli- 858
 811 nicians obtain a second opinion regarding treat- 859
 812 ment, risk of recidivism, and recommendations 860
 813 to the legal system, due to this risk. 861

814 In working with JSOs, as with all adolescents, 862
 815 and all adjudicated persons, the limits of confi- 863
 816 dentiality should be clearly specified. Clinicians 864
 817 treating JSOs will be required to communicate 865
 818 with professionals from various agencies, and cli- 866
 819 ents should be made aware of this explicitly. Sex 867
 820 offenders will be unlikely to be truthful if the 868
 821 information they give to their treatment provider(s) 869
 822 can be used against them legally. It is difficult for 870
 823 them to be truthful about their actions at the best 871
 824 of times, due to factors ranging from shame to 872
 825 fear of legal actions against them for other 873
 826 offenses for which they have not been caught. 874

827 Specialized training of therapists and other pro- 875
 828 viders is generally recommended due to the spe- 876
 829 cialized nature of the treatment provided, the high 877
 830 stakes if treatment is unsuccessful, and the 878
 831 increased risk of professional burn out or vicarious 879

traumatization due to listening to stories of 832
 abusive/deviant sexual behaviors, and the attitudes 833
 of the JSO that go along with this. However, the 834
 effectiveness of MST suggests that specialized 835
 training in sex offender treatment may not always 836
 be required (Chaffin 2008). 837

838 The cold, confrontational style used by some 839
 840 therapists in the past with sex offenders has been 841
 shown to be less effective than a warm, support- 842
 ive style (Marshall 2005). A punitive approach 843
 by therapists and other treatment personnel can- 844
 not be recommended. There is evidence that it 845
 can increase shame, inhibit healthy sexual devel- 846
 opment, and replicate earlier experiences of abuse 847
 (Marshall 2005). Instead, current concepts of 848
 engagement with sex offenders emphasize the 849
 development of partnership between therapist 850
 and juvenile, and the need for the juvenile to 851
 identify his or her own reasons for change 852
 (Jenkins 2006). 853

854 Psychodynamic psychotherapy and supportive 855
 856 therapy have not been proven to be effective 857
 (Bourke and Donohue 1996; Prendergast 2004). 858

859 The primary goal of treatment for JSOs is to 860
 861 decrease criminal behavior, not to cure or fix a 862
 863 mental health problem, though this can also be a 864
 865 goal. Treatment is usually involuntary therefore 866
 867 motivation can be low, or the motivation can be 868
 869 to avoid or minimize legal sanctions, or to get out 869
 870 of treatment, rather than to solve the problem 870
 871 with sexual behavior. 871
 872

873 **Aftercare** 874

875 Aftercare is essential, no matter whether the sex 876
 877 offender treatment was residential or community 877
 878 based. It is more common for residential pro- 878
 879 grams to assist in aftercare than for community- 879
 880 based programs to do so, and the Safer Society 880
 2002 nationwide survey reviewed by McGrath 881
 et al. (2003) indicated that 100% of residential 882
 programs provided aftercare, compared to 73% 883
 of community-based programs. Relapse preven- 884
 tion is a main goal of aftercare. Assistance in 885
 finding appropriate housing, schooling, or jobs, 886
 or other case management needs are also 887
 important. 888

877 Juveniles will usually return to live with their
878 families. Attention needs to be paid to whether
879 their victim(s) live in the home, and the family's
880 ability to support the juvenile in not reoffending.
881 This highlights the need for family therapy while
882 the offender is in treatment, and aftercare includ-
883 ing the family in ongoing family therapy or mon-
884 itoring is advisable in most cases.

885 **Recidivism**

886 JSOs have a low rate of recidivism, especially
887 with treatment. Recidivism for JSOs who have
888 received treatment for sexual reoffending is
889 approximately 10% (Davis and Leitenberg 1987;
890 Fortune and Lambie 2006) though estimated fig-
891 ures vary widely, from 0 to 40% (Worling and
892 Langstrom 2006). Recidivism rates for children
893 are even lower, as discussed above, and children
894 who receive treatment have recidivism rates for
895 sexual behavior problems similar to those of chil-
896 dren with attention deficit hyperactivity disorder.
897 Recidivism rates for untreated youth are higher.
898 Worling and Curwen (2000), looking at youth
899 who received cognitive behavioral treatment with
900 family interventions versus untreated youth found
901 that the untreated youth recidivated at a rate of
902 18%, whereas the recidivism rate for treated
903 youth was only 5%. In addition, they found that
904 treated youth had lower recidivism rates for sex-
905 ual offenses, nonsexual violent offenses, and
906 nonsexual and nonviolent offenses.

907 Recidivism rates for nonsexual offending are
908 higher, between 8 and 52%. In those JSOs with
909 antisocial behavior, there can be extremely high
910 rates of nonsexual reoffending. Hagan et al.
911 (1994) found 8% sexually reoffended, whereas
912 46% nonsexually reoffended in 2 years. Risk fac-
913 tors for reoffending nonsexually differ from those
914 for reoffending sexually, and include conduct
915 disorder, death threats, and/or use of a weapon.

916 When looking at recidivism rates for JSOs, it
917 is essential to look at relative risk rather than
918 absolute risk since some juveniles who are adju-
919 dicated for nonsexual crimes, with no history of
920 sex offenses, later offend sexually, with rates up
921 to 10% (Worling and Langstrom 2006).

922 Recidivism risk assessment is extremely
923 important for a variety of reasons, including rec-
924 ommendations regarding length and type of treat-
925 ment, criminal sentencing, aftercare, and sex
926 offender registration. Within the heterogeneous
927 JSO population, there are subgroups with a low
928 risk of reoffending, and ones with a high risk of
929 reoffending.

930 Factors predicting sexual recidivism have
931 been examined by Langstrom and Grann (2000)
932 who concluded that JSOs were three and a half
933 times more likely to reoffend sexually if they had
934 a history of sexual offending prior to the index
935 offense, poor social skills, male victims, and
936 more than two victims. According to Worling and
937 Langstrom (2006), the empirically supported risk
938 factors for sexual reoffending are: deviant sexual
939 interest (either prepubertal victims, or use of vio-
940 lence), history of previous offenses and/or con-
941 victions, more than one victim, victimizing
942 strangers, social isolation, and not completing
943 specific JSO treatment. There is less evidence for
944 the following: problematic parent-adolescent
945 relationship and attitudes supportive of sexual
946 offending, such as the belief that the victim
947 wanted or deserved the offense.

948 Evidence is lacking or mixed for the following
949 factors: high stress family environment, impul-
950 sivity, antisocial traits, interpersonal aggression,
951 negative peer associations, sexual preoccupa-
952 tions, male victims, child victims, violence or
953 threats or weapons used, an environment that
954 supports reoffending.

955 Evidence is against the following as risk fac-
956 tors, although many of these are often cited as
957 risk factors: the adolescent's own history of sex-
958 ual victimization, the commission of nonsexual
959 crimes, victim penetration, and denial of offend-
960 ing. Some researchers have found that JSOs who
961 deny their crimes are actually less likely to reof-
962 fend (Langstrom and Grann 2000). However,
963 denial of responsibility can lead to lack of com-
964 pletion of treatment (Hunter and Figueredo 1999).
965 There is no data to support the claim that low vic-
966 tim empathy is a risk factor for recidivism.

967 The Adam Walsh Child Protection and Safety
968 Act (2006) organizes sex offenders into three
969 tiers. It mandates registration for all offenders

970 convicted of sex crimes, and requires offenders
 971 to update their whereabouts at frequencies of every
 972 3 months to 1 year, depending upon the tier. It
 973 mandates lifelong registration for Tier 3 offenders,
 974 and 15 year registration for Tier 1 offenders.
 975 Minors 14 years and older convicted of a sex
 976 offense are required to register as Tier 1 offenders
 977 if their offense is against a child under the age
 978 of 12 (Chaffin 2008).

979 There have been concerns voiced by many
 980 researchers and others involved in the care of JSOs
 981 regarding this mandatory registration of juveniles
 982 as sex offenders. Evidence suggests that sex
 983 offender registries and community notification for
 984 juveniles do not decrease sexual recidivism rates
 985 (Caldwell and Dickinson 2009; Letourneau and
 986 Armstrong 2008). Sex offender registries may in
 987 fact increase the likelihood of reoffending due to
 988 the adverse effects of increasing social isolation
 989 and stigma (Zimring 2004). Furthermore, sex
 990 offender registries go against the original aim of
 991 the juvenile justice system, to act in the best inter-
 992 est of the child. Organizations such as ATSA voice
 993 further concerns (Prescott and Levenson, ATSA).
 994 The lack of empirically validated actuarial indi-
 995 vidual risk assessment tools means that the actual
 996 reoffense risk for a particular juvenile cannot be
 997 known. Sex offender registries assume ongoing
 998 recidivism risk for many years to life, and this is
 999 not true for most juveniles, who are still develop-
 1000 ing cognitively and emotionally, and will change
 1001 dramatically during their adolescence. Furthermore,
 1002 juveniles suffer increased negative social conse-
 1003 quences of sex offender registries compared to
 1004 adults, such as interference with their ability to
 1005 obtain housing or to finish their education or estab-
 1006 lish employment.

1007 **Effectiveness of Treatment**
 1008 **for Juvenile Sex Offenders**

1009 Treatment effectiveness for JSOs has been mea-
 1010 sured through recidivism rates, self-report, and
 1011 physiological assessment, with recidivism rates
 1012 the most popular method (Camp and Thyer 1993).

1013 There have been several randomized controlled trials of MST, all showing efficacy 1014
 1015 (Borduin et al. 1990, 2009; Borduin and Schaeffer 1016
 1017 2002). Recently, several studies have compared MST with treatment as usual, which is generally 1018
 1019 a combination of group CBT and individual treatment. Juveniles in the MST treatment showed 1020
 1021 significantly lower recidivism rates for both sexual and nonsexual offenses, as well as less devi- 1022
 1023 ant sexual interest, less substance abuse, and less out-of-home placement (Letourneau et al. 2009). 1024
 1025 Many researchers now recommend MST as the treatment of choice for JSOs (Chaffin 2008; 1026
 1027 Letourneau et al. 2009).

1028 There have now been several meta-analyses of sex offender treatment for juveniles. In the meta- 1029
 1030 analysis by Walker et al. (2004) of ten studies of treatment effectiveness, results were positive, and 1031
 1032 were significantly higher than effect sizes of treatment for adult male sex offenders. Cognitive 1033
 1034 behavioral treatments had the largest effect sizes, and treatment appeared more effective when 1035
 1036 delivered by more highly trained clinicians.

1037 Reitzel and Carbonell (2006) performed a meta-analysis of nine studies, concluding that the 1038
 1039 sexual recidivism for those who received sexual offender treatment was 7.37%, versus control 1040
 1041 group sexual recidivism rate of 18.93%. Their meta-analysis did not demonstrate the superiority 1042
 1043 of CBT programs over other treatment programs, but every study included showed a positive effect 1044
 1045 size, and studies of MST, which showed good effect sizes, were not counted as CBT-based treat- 1046
 1047 ment. They note that JSO treatment is so new that there have only recently been enough studies 1048
 1049 available for inclusion in meta-analysis, and those studies that do exist have enough method- 1050
 1051 ological flaws that it is difficult to conclude which type of treatment is superior.

1052 In summary, the evidence suggests that the treatment of JSOs decreases recidivism of both 1053
 1054 sexual and nonsexual reoffending, and is more effective than the treatment of adult male sex 1055
 1056 offenders. More research is needed to determine whether MST will prove to be more effective than 1057
 1058 CBT-RP, and if so, in which subgroups of JSOs.

1059 **Commonalities and Differences**
1060 **Between Adult and Adolescent Data**

1061 Both JSOs and adult sex offenders target known
1062 victims, cause harm to victim, plan their attacks,
1063 have cognitive distortions, have some social defi-
1064 cits, and are a heterogeneous group.

1065 There are similarities and differences between
1066 recidivism risks for adults and adolescents, and as
1067 with every other factor of treating JSOs one must
1068 beware of extrapolating from adult data. Many of
1069 the differences between JSOs and adult sex
1070 offenders are related to adolescent development.
1071 As discussed previously, adolescents are less
1072 fixed in their sexual interests and orientation. It is
1073 more difficult to evaluate adolescents for psy-
1074 chopathy since a degree of self-centeredness is
1075 developmentally normal and adolescents cannot
1076 be diagnosed with antisocial personality disorder
1077 before the age of 18. However, due to the often
1078 severe nature of the antisocial behavior that is fre-
1079 quently associated with the presence of the psy-
1080 chopathic syndrome, characterized by lack of
1081 empathy, remorse or guilt, extreme egocentricity
1082 and irresponsibility, and the fact that these traits
1083 are frequently noted to begin early in develop-
1084 ment (Blair et al. 2005) a youth version of the
1085 Hare Psychopathy Checklist was developed
1086 (Forth et al. 2003). Impulsivity is developmen-
1087 tally more normal, and results in some opportu-
1088 nistic perpetration. There is evidence that more
1089 juvenile offenders than adult offenders have a his-
1090 tory of sexual or physical abuse. This is especially
1091 true for female JSOs. Social environment, family
1092 functioning and the parent-child relationship are
1093 more important for juveniles than for adults.

1094 **Special Populations**

1095 **Children with Sexual Behavior Problems**

1096 The incidence of sexual offending by children is
1097 rare, and no population-based figures are avail-
1098 able (Chaffin et al. 2008). Recently, there has
1099 been an increase in referrals of children with sex-
1100 ual behavior problems, but it is not known whether

this represents a true increase in incidence, or an
increase in awareness of the problem and of the
referral.

Evidence indicates that children with sexual
behavior problems are a distinct population, and
do not represent the same population as adult sex
offenders (Chaffin et al. 2008). As with adoles-
cent sex offenders, they are a heterogeneous pop-
ulation. There appears to be a higher percentage
of female children with sexual behavior problems
than in the adolescent JSO population (Silvosky
and Niec 2002). Children with more severe sex-
ual behavior problems tend to have more comor-
bid family and mental health problems, but
distinct taxonomic subgroups have not been iden-
tified (Pithers et al. 1998).

It was originally thought that sexual abuse
was the cause of children’s sexual behavior prob-
lems, and evidence supports the fact that children
who have been sexually abused engage in more
sexual behaviors than children who have not been
sexually abused (Friedrich et al. 2005). Current
thought is that although sexual abuse may be a
cause of children’s sexual behavior problems, it
is not the sole cause, since many children with
sexual behavior problems have no history of sex-
ual abuse. Other factors are similar to the factors
identified in the histories of JSOs: maltreatment,
adverse family environments, including violent
and sexualized environments, and exposure to
sexually explicit material. For some children,
sexual behavior problems are part of overall
problems with disruptive behavior (Friedrich
2007). Other reasons for children’s sexual behav-
ior problems include curiosity, anxiety, imitation,
attention seeking, and self-calming behavior
(Silvosky and Bonner 2003).

It is important, and at times difficult, to distin-
guish sexually inappropriate behavior from nor-
mal childhood sex play. However, normal sex
play rarely involves sexual intercourse or oral
sex, is rarely a persistent preoccupation, and,
when it occurs with others, does not involve
force. Normally, a child will change his or her
behavior if prompted to by adults, as for example
when an adult instructs a child that it is okay to
engage in masturbatory behavior when alone in
his room, but not in public areas such as at school.

1149 It is important to determine whether the sexual
1150 behavior is normal for a child's age and culture,
1151 since these activities vary depending upon a
1152 child's age, developmental stage, and culture
1153 (Friedrich et al. 2001).

1154 Assessment should be individualized, and
1155 includes determination of whether or not there is a
1156 need for treatment, and what type of treatment is
1157 indicated. Clinical assessment is not the same as an
1158 investigation into whether or not a particular sexual
1159 behavior occurred, nor is it a forensic evaluation.
1160 In contrast to work with JSOs, where comprehen-
1161 sive assessments are generally indicated, a more
1162 limited assessment can often be done, at times in
1163 one session. The assessment should include clini-
1164 cal interview of the child, interview with caregiv-
1165 ers, and administration of selected assessment
1166 instruments (Chaffin et al. 2008). It is essential to
1167 determine the risk to the child or other children of
1168 the child remaining in his/her environment.

1169 Children with sexual behavior problems can
1170 have comorbid psychiatric and learning prob-
1171 lems, and these should be evaluated. Other
1172 behavior problems should also be evaluated.
1173 Adversities in the environment, and abuse histo-
1174 ries should be explored. Occasionally, children's
1175 sexual behavior problems may be part of a major
1176 psychiatric disorder, such as bipolar disorder.

1177 As with adolescent sex offenders, it is impor-
1178 tant to obtain a clear, detailed history of the sex-
1179 ual behavior problems, their progression over
1180 time, and their relation to events in the child's
1181 life. Vague generalities are not sufficient. When
1182 evaluating the sexual behavior problems, it is
1183 important to know whether it involves just the
1184 child, or others, if it is planned or impulsive, and
1185 if it involves coercion or force. In interviewing
1186 children about sexual matters, it is important to
1187 be aware of the child's developmental level, to
1188 be aware that children may lie about any negative
1189 behavior, or, alternatively, may agree with the
1190 interviewer for a variety of reasons, even if
1191 the interviewer is suggesting something that is
1192 not true. Children must be interviewed in a sensi-
1193 tive, supportive manner, and leading questions or
1194 intimidation must be avoided. The goal is not to
1195 obtain a confession (Chaffin et al. 2008).

1196 There are several assessment instruments that
1197 can be used with this population. The Child

Sexual Behavior Inventory-III (CSBI-III, 1198
Friedrich 1997) is designed for children ages 1199
2–12. Age and gender norms are available. It can 1200
be used to help discriminate between develop- 1201
mentally normal and abnormal sexual behavior. 1202
The Child Sexual Behavior Checklist (CSBCL- 1203
2nd Revision, Johnson and Friend 1995) is 1204
designed for children 12 years and younger, and, 1205
similar to the CSBI-III, gathers a wide range of 1206
information, including contributing factors that 1207
can help with assessment and treatment planning. 1208
The Weekly Behavior Report (WBR, Cohen and 1209
Mannarino 1997) is a shorter instrument, useful 1210
for tracking ongoing changes in behavior and 1211
sexual behavior. 1212

1213 Short-term outpatient treatment is usually suf- 1213
ficient, and the more intensive residential-based 1214
treatments or MST recommended for many ado- 1215
lescents are rarely required. Treatment should 1216
involve parents or caregivers, and both the clini- 1217
cal and the research literature supports the con- 1218
clusion that treatment works better with caregiver 1219
involvement. Parenting and behavior manage- 1220
ment skills are taught and a variety of approaches 1221
have been used and appear to be successful: 1222
group therapy involving the parent, parents 1223
group, joint dyadic sessions, and parent collateral 1224
sessions (Chaffin et al. 2008). Parental involve- 1225
ment also helps to make the changes in the chil- 1226
dren's environment that can be necessary to 1227
change their behavior, such as providing increased 1228
supervision, removing sexually explicit material 1229
from the home, and so on. Work with caregivers 1230
also helps to improve the emotional quality of the 1231
child/caregiver relationship. 1232

1233 The research on treatment outcomes for chil- 1233
dren with sexual behavior problems recommends 1234
short-term outpatient CBT treatment as the first- 1235
line treatment for most children with sexual behav- 1236
ior problems. Exceptions include children at risk in 1237
an outpatient environment, such as psychotic or 1238
acutely suicidal children. Research indicates that 1239
structured, sexual behavior problem-focused CBT 1240
treatment including caregiver involvement works 1241
better than unstructured supportive therapy or play 1242
therapy (Carpentier et al. 2006). In fact, at 10-year 1243
follow-up of children with sexual behavior 1244
problems randomly assigned to either a 12-week 1245
CBT treatment or a 12-week play therapy group, 1246

1247 the children treated with CBT showed no more
 1248 sexual behavior problems (2%) than a clinic compar-
 1249 ison group of children without sexual behavior
 1250 problems (3%), whereas the play therapy group
 1251 children's rate of sex offenses was 10% (Carpentier
 1252 et al. 2006). Good treatment outcomes have been
 1253 obtained for both boys and girls, children with mild
 1254 and severe sexual behavior problems, children
 1255 with only sexual behavior problems and children
 1256 with sexual behavior problems as part of an overall
 1257 problem with disruptive behavior. For children
 1258 with comorbid trauma symptoms, or posttraumatic
 1259 stress disorder (PTSD), CBT targeting both their
 1260 PTSD and their sexual behavior problems has been
 1261 successful (Chaffin et al. 2008). CBT treatment
 1262 may be provided in group or individual formats,
 1263 and group treatment can be done in mixed sex
 1264 groups. The most important factor appears to be
 1265 treatment approach (i.e., CBT) rather than treat-
 1266 ment modality.

1267 When providing sexual behavior problem-
 1268 focused CBT for children, it is important to take
 1269 into account children's developmental differences.
 1270 For example, children with sexual behavior prob-
 1271 lems are usually not able to plan the "grooming"
 1272 of victims engaged in by some juvenile and adult
 1273 sex offenders. Thus, the focus in older juvenile/
 1274 adult CBT treatment on correcting cognitive dis-
 1275 tortions, and learning about the cycle of sexual
 1276 behaviors and how to interrupt the cycle is less
 1277 relevant for the treatment of children. Children,
 1278 compared to juvenile and adult sex offenders, are
 1279 more likely to be helped by learning rules about
 1280 behavior, such as "good touch and bad touch" and
 1281 "don't touch other children's private parts."

1282 Recidivism risk is very low with proper treat-
 1283 ment, and the vast majority of children with sex-
 1284 ual behavior problems who receive proper
 1285 treatment do not have an elevated risk of future
 1286 sex offenses.

1287 Female Juvenile Sex Offenders

1288 The prevalence of female JSOs is difficult to
 1289 determine due to low incidence, and lack of
 1290 reporting (Becker et al. 2001). Arrest data of
 1291 female adolescent sex offenders handled by the
 1292 juvenile courts shows that females are responsible

1293 for 3% of forcible rape and 5% of other violent
 1294 sex offenses, and 19% of nonviolent sex offenses
 1295 annually (Snyder and Sickmund 2006).

1296 The backgrounds of female JSOs are similar
 1297 to those of male JSOs, with sexual abuse and
 1298 physical abuse being common. In general, child-
 1299 hood maltreatment history is stronger for female
 1300 than for male JSOs. Most girls who sexually
 1301 offend come from backgrounds of severe family
 1302 dysfunction and low social support.

1303 Female JSOs typically offend against younger
 1304 children, usually less than 6 years old, and do so
 1305 while babysitting or engaged in child care. Thus,
 1306 they know their victims. 20–25% of female JSOs
 1307 use force when offending, similar to the statistics
 1308 for male JSOs (Hunter et al. 2006). Most act
 1309 alone, which is different from adult female sex
 1310 offenders, who commonly offend with a male
 1311 partner. More than 50% offend against more than
 1312 one victim, and most offend against victims of
 1313 either gender, in contrast to male JSOs who, when
 1314 they offend against children, typically offend
 1315 against girls. When adolescent females sexual
 1316 offending involves penetration, it is more often
 1317 against the same sex, in contrast to male JSOs.

1318 Research on female JSOs is extremely limited.
 1319 Mathews et al. (1997) identified three subgroups:
 1320 Group 1 are naive females who offend out of curi-
 1321 osity about sex and a desire to experiment. Group 2
 1322 are sexually reactive girls who victimize younger
 1323 children in a pattern similar to their own victimiza-
 1324 tion, and have offended against children for several
 1325 months. These females are more likely to have psy-
 1326 chiatric problems, and to come from dysfunctional
 1327 families. Group 3 are more severely disturbed ado-
 1328 lescents with more extensive sex offending. Their
 1329 sexual acting out has been present for a longer
 1330 period of time, involving more victims. Sexual act-
 1331 ing out may involve force. They are likely to come
 1332 from families with severe dysfunction.

1333 There is high psychiatric comorbidity, with
 1334 more than 70% having received previous mental
 1335 health treatment (Mathews et al. 1997). Common
 1336 psychiatric disorders include PTSD and mood
 1337 disorders, conduct disorder, and attention deficit
 1338 hyperactivity disorder. Risk factors for sexual
 1339 offending in adolescent girls include a history of
 1340 sexual and physical victimization, coming from a
 1341 dysfunctional family, parent/child relationship

1342 difficulties, antisocial peers, academic failure,
 1343 pregnancy, early onset of puberty, mental health
 1344 problems, and substance abuse (Blanchette and
 1345 Brown 2006; Chesney-Lind and Shelden 2004).

1346 There is a lack of sex offense-specific assess-
 1347 ment instruments for female JSOs. One exception
 1348 is the Youth level of Service/Case Management
 1349 Inventory, which has been validated on juvenile
 1350 females, though it was developed based upon the
 1351 risks and needs of males (Schmidt et al. 2005).
 1352 Assessment of female JSOs consists primarily of
 1353 clinical interview, review of records, and psycho-
 1354 logical testing. As with the assessment of male
 1355 JSOs, use of multiple informants and multiple
 1356 sources of data is essential. Physiological assess-
 1357 ment is possible with females, through vaginal
 1358 photoplethysmography, and viewing time, but its
 1359 use in adolescent females is not advised, due to
 1360 the lack of research on the validity of use in this
 1361 population, and the lack of research on whether
 1362 deviant arousal and sexual preferences are asso-
 1363 ciated with recidivism in females (Center for Sex
 1364 Offender Management 2007).

1365 Sex-specific treatment programs are recom-
 1366 mended (Hunter and Mathews 1997) and have
 1367 become the norm in recent years. As with male
 1368 JSOs, treatment should be individualized and
 1369 occur along a continuum from less to more inten-
 1370 sive. Hunter et al. (2006) report that Group 1 can
 1371 usually be treated in the community, with a com-
 1372 bination of individual, group, and family therapy.
 1373 Sex education, therapy to increase their self-
 1374 esteem, and social skills training, are important.
 1375 Treatment often can be completed in 3–6 months
 1376 and prognosis is good. Group 2 also have a good
 1377 prognosis with appropriate treatment. Treatment
 1378 may require out-of-home placement in a setting in
 1379 which there are no younger children, and should
 1380 include the treatment for psychiatric comorbidity
 1381 and psychoeducation about normal female sexu-
 1382 ality. Group 3 is more difficult to treat, due to their
 1383 psychiatric comorbidities, and problems with
 1384 trust. Treatment is generally residential or in treat-
 1385 ment foster homes, and should involve the treat-
 1386 ment of PTSD and other psychiatric problems.

1387 In treating female JSOs, it is important to
 1388 recognize that they are often victims as well as
 1389 offenders. Girls and women grow up with different

sociocultural messages than men, have different
 problems with self-image, and more importance
 is given to interpersonal relationships. Focus in
 treatment on intimacy and relationship skills,
 family reunification, and communication skills
 are important. Data about treatment outcomes are
 lacking. It is not known whether restrictions on
 unsupervised contact with minors or on jobs that
 could bring them into contact with potential vic-
 tims are applicable to female JSOs, due to a lack
 of research in this area.

Research Issues and Needs

1401
 1402 There is need for further research in all aspects of
 1403 work with JSOs. Due to the heterogeneity of male
 1404 JSOs, and the further differences with children
 1405 and females, typology research is needed to eval-
 1406 uate treatment effectiveness with different sub-
 1407 groups (Hunter et al. 2003; Worling 2001). To aid
 1408 in determining subgroups of JSOs, it is important
 1409 to include the age and pubertal status of victims.

1410 Treatment effectiveness research is needed.
 1411 Recidivism rate, the most popular method in use,
 1412 has several methodological flaws. The low base
 1413 rate of recidivism for JSOs, combined with short
 1414 follow-up intervals makes it difficult to obtain
 1415 statistically meaningful results. The fact that
 1416 many sex offenses go unreported further con-
 1417 founds the picture. It has been recommended
 1418 (Walker et al. 2004) that future studies use mul-
 1419 tiple methods to measure recidivism, and that
 1420 more head-to-head comparison of CBT-based
 1421 treatments and multisystemic-based treatments
 1422 be done. In adult males, it is clear that recidivism
 1423 is related in part to the degree of paraphilia/devi-
 1424 ant sexual interest, and to the degree of psychop-
 1425 athy. This is less clear in adolescent males, and
 1426 even less clear in adolescent females or children.

1427 Assessment and actuarial instruments have
 1428 been relatively well delineated and validated for
 1429 adult male sex offenders. Several instruments
 1430 show promise for work with male JSOs. There is
 1431 a particular need for further research on assess-
 1432 ment instruments and actuarial assessments for
 1433 females, where there has been no published study
 1434 specifically looking at recidivism.

1435 Further areas in need of research include
 1436 normal childhood and adolescent sexuality and
 1437 research looking specifically at minority adoles-
 1438 cent sex offenders.

1439 **Conclusion**

1440 JSOs are a heterogeneous group, with both simi-
 1441 larities and differences from adult sex offenders.
 1442 Children less than 12 years old, and females,
 1443 need to be assessed and treated in separate, age
 1444 and sex-specific programs.

1445 Treatment for JSOs is more effective than it is
 1446 for adult sex offenders, and there is a lower recid-
 1447 ivism rate than for adults. Both cognitive behav-
 1448 ioral and family–community-based treatments
 1449 appear to work. Many JSOs are more like other
 1450 youth with conduct disorder than they are like
 1451 adult sex offenders. Further study is needed in
 1452 order to elucidate whether one form of treatment is
 1453 more effective overall, or for particular subgroups
 1454 of JSOs. Logically, MST or other community–
 1455 family-based treatments would be most helpful
 1456 for those JSOs whose sexual offending is part of
 1457 conduct problems. For JSOs with paraphilias,
 1458 CBT-based treatment would make sense. The
 1459 more deterrent-based approaches used in adult
 1460 males, such as aversion therapy, biological thera-
 1461 pies, and sex offender registries do not appear to
 1462 be useful or advisable in the vast majority of
 1463 cases of JSOs.

1464 Although more research is needed, it is clear
 1465 that optimism is justified in the treatment of JSOs.

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3 William L. Risser and Jan M. Risser

4 **Significance of the Problem**

5 An obvious question about sexually transmitted
6 infections (STIs) in juvenile offenders is: why
7 should we be concerned? Several reasons are rel-
8 evant. First, individuals have significant personal
9 risks that include: human immunodeficiency
10 virus (HIV) infection; pelvic inflammatory dis-
11 ease (PID) in females infected with chlamydia,
12 gonorrhea, and/or bacterial vaginosis (BV); cer-
13 vical cancer in females infected with the human
14 papilloma virus (HPV); recurrent painful initial
15 episodes and recurrences in both sexes if they are
16 infected with the Herpes simplex virus (HSV);
17 chronic infections leading to eventual liver can-
18 cer and liver failure in youth who have chronic
19 hepatitis B or C infections; increased risk of HIV
20 infection in persons who have STIs associated
21 with genital or rectal inflammation; congenital
22 infections in infants of mothers infected with
23 gonorrhea, chlamydia, HPV, and, most seriously,
24 HIV, syphilis, and HSV; pregnancy complica-
25 tions in females who are have syphilis, bacterial
26 vaginosis, or trichomoniasis; and psychological

distress and disturbance of personal relationships 27
caused by a STI diagnosis. 28

Second, STIs in juvenile offenders have public 29
health implications. Adolescents in the age group 30
15–19 years have among the highest prevalence 31
of several STIs, and juvenile offenders have 32
among the highest prevalence of most STI infec- 33
tions in this age group. Therefore juvenile offend- 34
ers are an important potential source of infection 35
for others in their communities. 36

In this review, we will begin by discussing the 37
epidemiology of STIs. Even non-clinicians may 38
find this information useful in understanding 39
which incarcerated youth are at risk of these var- 40
ious infections. We then briefly discuss diagno- 41
sis and treatment. Although clinicians need this 42
information, others may wish to know how STIs 43
must be managed. We cover risk factors; anyone 44
interested in STI prevention must be knowledge- 45
able about these. Finally, we review preventive 46
interventions. Only two have been used in incar- 47
cerated youth, but the others have been applied 48
to adolescents who have similar demographic 49
backgrounds. 50

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51 **Epidemiology of STIs in Juvenile**
52 **Offenders**

Among adolescents 15–24 years of age, 98% 53
of all cases of notifiable infectious diseases reported 54
in 2007 were STIs, including: 779,280 cases of 55
chlamydia; 209,678 cases of gonorrhea; 2,305 56

57 cases of AIDS; and 2,481 cases of primary and
58 secondary syphilis (Hall-Baker et al. 2009).

59 The prevalence of almost all STIs is highest in
60 Blacks, intermediate in Hispanics, and lowest in
61 Whites (Centers for Disease Control and
62 Prevention [CDC] 2009c). This has an obvious
63 implication for juvenile offenders, who are dis-
64 proportionately from minority groups. Most of
65 the research about STI prevalence in juvenile
66 offenders has been in those who are incarcerated;
67 a much larger number are either arrested and
68 released or are in community diversionary pro-
69 grams. However, it is reasonable to assume that
70 this larger group has a similar risk of STIs as the
71 incarcerated subgroup.

72 **Chlamydia and Gonorrhea Infections**

73 The most common treatable STIs are infections
74 with *Neisseria gonorrhoeae* (gonorrhea) and
75 *Chlamydia trachomatis* (chlamydia). Adolescent
76 females age 15–19 years have the highest preva-
77 lence of chlamydia and gonorrhea infection of
78 any other age group among both men and women.
79 Adolescent males 15–19 years have the second
80 greatest prevalence of these two infections among
81 men; the highest prevalence is among males
82 20–24 years old.

83 Among adolescents 15–19 years of age, Blacks
84 have eight times the prevalence and Hispanics
85 twice the prevalence of gonorrhea, compared to
86 Whites. For chlamydia, Blacks have 15 times the
87 prevalence and Hispanics almost twice the preva-
88 lence, compared to Whites (CDC 2009c).

89 The CDC monitors several STIs in adolescents
90 12–18 years of age entering juvenile corrections
91 facilities. In 2008, the overall prevalence of chla-
92 mydia was 14.5% and the prevalence of gonor-
93 rhea 4.6%. In males, the prevalence of chlamydia
94 was 6.4% and the prevalence of gonorrhea was
95 1.1% (CDC 2009c). These values are in contrast
96 to those found in a private practice, where 0.9%
97 of males and 2.7% of females aged 15–24 years
98 had chlamydia and no males and 0.5% of females
99 had gonorrhea (Best et al. 2001).

100 The most significant risk of these infections
101 is the complication of PID in females, with its

relatively common long-term sequelae of infertility, 102
ectopic pregnancy, and ectopic pregnancy. The 103
incidence of PID is unclear because it is hard to 104
assemble a cohort of at-risk adolescent females 105
and follow them longitudinally. However, it is not 106
a rare infection; one study found 8.6% of women 107
to have PID at the time of admission to a juvenile 108
facility and an additional 8.0% developed PID 109
during their first month of incarceration (Risser 110
et al. 2005). 111

112 We determined the prevalence of chlamydia
113 and gonorrhea in incarcerated youth at the Harris
114 County (Houston, Texas) Juvenile Detention
115 Center in 2006 and 2007 (unpublished findings),
116 using an accurate nucleic acid amplification test
117 (NAAT) on urine. We evaluated 6,805 sexually
118 active, mostly heterosexual males: 49% were
119 Hispanic, 38% black, 12% white, and 1% Asian.
120 Mean age was 15.2 years. Almost all were hetero-
121 sexual: three had practiced survival sex with a
122 male partner, three others were gay, and two
123 reported intravenous drug use. Seventy-eight per-
124 cent were sexually active the month before admis-
125 sion, 69% reported using a condom at last
126 intercourse, and 29% had had a new partner in the
127 previous month. Of these, 7.7% had positive urine
128 tests for chlamydia, 0.68% for gonorrhea, and
129 1.0% for both organisms. The total prevalence of
130 infection with either organism was 9.4%.

131 We also evaluated 1,425 sexually active het-
132 erosexual females: 45% were black, 31%
133 Hispanic, and 24% white. The mean age was 15.4
134 years. Five were gay or bisexual, one reported
135 intravenous drug use, and 8.5% had traded sex for
136 drugs or money. Seventy-four percent were sexu-
137 ally active the month before admission, 49% had
138 used a condom at last intercourse, 19% had had a
139 new partner in the previous month, and 8.5% had
140 traded sex for drugs or money. Of these, 17.2%
141 had positive urine tests for chlamydia, 4.6% for
142 gonorrhea, and 5.8% for both organisms, for a
143 total prevalence of infection of 27.6%.

144 **HIV**

145 Although it is possible that many of the HIV-
146 positive young adults in the 20–29 year-old age

147 group were infected as adolescents, and that
 148 infections are undoubtedly being missed, the
 149 number of adolescents who have new diagnoses
 150 of HIV infection is quite low and the majority
 151 are gay males and/or injection drug users. In
 152 the United States during 2007, approximately
 153 1,200 males and 525 females aged 15–19 years
 154 received a new diagnosis of HIV/AIDS (CDC
 155 2009a).

156 In our detention center study, youth received
 157 HIV tests (serum EIA and Western Blot if
 158 needed) if they had suspicious symptoms, had
 159 not tested for greater than 1 year, had another
 160 STI, reported that they sold sex, or requested
 161 testing. Two of 2,524 males (0.08%) were posi-
 162 tive for HIV infection; their only admitted risk
 163 behavior was heterosexual intercourse, and we
 164 could not rule out congenital infection. None of
 165 807 females (0%) was positive for HIV infection
 166 (unpublished data).

167 While our detention center population has
 168 high rates of chlamydia and gonorrhea, and
 169 clearly have unprotected sex, they were not at
 170 significant risk of HIV infection.

171 Syphilis

172 Syphilis is of concern because of the risk of an
 173 infected mother infecting the fetus or newborn,
 174 which can result in stillbirth, low birth weight,
 175 and/or congenital infection. If congenital infec-
 176 tion is not recognized and treated, it can be fatal
 177 or can permanently damage a variety of organs of
 178 the baby (Risser et al. 2005). Syphilis also causes
 179 genital inflammation that can increase the risk of
 180 HIV infection. In adolescents and adults with
 181 new infections, progression of untreated syphilis
 182 infection to tertiary syphilis with its devastating
 183 organ destruction is rare in the US.

184 Syphilis in adolescents is at a low level cur-
 185 rently, although it is increasing. The high-risk
 186 groups include gay youth and homeless youth who
 187 practice survival sex. In 2008, 575 cases of early
 188 syphilis (primary or secondary) were reported in
 189 males and 31 cases were reported in females in
 190 the 15–19 year old age group (CDC 2009c).

191 We also screened for syphilis among our
 192 detained youth. Two of 2,524 males had syphilis
 193 (0.08%), as did four of 807 females (0.5%). The
 194 same comments concerning the low risk of HIV
 195 infection in these youth despite their high risk of
 196 infection with gonorrhea and chlamydia apply
 197 for syphilis as well.

Herpes Simplex Virus Infection 198

199 HSV is of concern because congenital infections
 200 may be devastating, and because genital inflam-
 201 mation caused by HSV may increase the trans-
 202 mission of HIV. Infections are frequently
 203 recurrent. This infection may cause physical and
 204 emotional distress. A national probability sample
 205 found that 6% of adolescents ages 12–19 had
 206 antibodies to HSV-2, the virus subtype that is
 207 transmitted sexually (Risser et al. 2005). Among
 208 incarcerated males and females 13–18 years, the
 209 prevalence of HSV-2 was 6%.

Human Papilloma Virus Infection 210

211 HPV is probably the most common STI in males
 212 and females less than 25 years of age (Risser
 213 et al. 2005). It is not a reportable disease, and is
 214 difficult to study in males, and so the epidemiol-
 215 ogy of HPV infection is incompletely known in
 216 adolescents. In a national study of a probability
 217 sample of US residents, the prevalence of infec-
 218 tion in female adolescents aged 14–19 years was
 219 approximately 25% (Dunne et al. 2007). It is rea-
 220 sonable to assume that the prevalence in juvenile
 221 offenders is at least that high. Prevalence varies
 222 by race/ethnicity and is highest among Black
 223 women (39%) compared to White and Hispanic
 224 women (both 24%) (Dunne et al. 2007).

225 HPV infection can cause cervical cancer.
 226 While cervical cancer is rare in adolescents, HPV
 227 infection is not: 20% of adolescents aged 18–25
 228 years are infected with at least one of the high-
 229 risk HPV types (Manhart et al. 2006). A vaccine
 230 is now available against the HPV types that cause

231 70% of cervical cancer. It has been available for
 232 females for several years; recently it has been
 233 approved for use in males.

234 **Bacterial Vaginosis**

235 This infection occurs in sexually active females but
 236 is not sexually transmitted; it results from a distur-
 237 bance in the normal vaginal bacterial flora. Women
 238 with BV are at increased risk of adverse pregnancy
 239 outcomes and of PID (Hillier et al. 2007). BV
 240 has been shown to increase the risk of acquiring
 241 other STIs, including chlamydia and gonorrhea
 242 (Koumans et al. 2007). BV infection also
 243 increases the risk of acquiring HIV, and in those
 244 infected with HIV, BV infection increases viral
 245 shedding (Cu-Uvin et al. 2001; Myer et al. 2005).

246 The prevalence of BV among women aged
 247 14–49 years is approximately 30%, and the prev-
 248 alence varies by race/ethnicity. In the 2001–2004
 249 NHANES population-based study, the prevalence
 250 of BV infections was 40% among blacks, 33%
 251 among Hispanics, and 17% among whites
 252 (Allsworth and Peipert 2007). Juvenile offenders
 253 probably have values at least this high.

254 **Trichomoniasis**

255 *Trichomonas vaginalis* is an STI caused by a
 256 pathogenic protozoan parasite that causes vaginitis
 257 in women (Hobbs et al. 2008). Untreated trichom-
 258 oniasis increases the risk for both acquiring and
 259 transmitting HIV infection. Adverse pregnancy
 260 outcomes are also associated with trichomoniasis
 261 during pregnancy. Trichomoniasis is also a marker
 262 of risk for infection with more serious STIs.

263 *Trichomonas* is not a notifiable infectious dis-
 264 ease; an estimate of the national prevalence in
 265 2001–2002 was 3%. Prevalence was 11 times
 266 higher in Black women (13.5%) than White
 267 women (1.2%) and Mexican American women
 268 (1.5%) (Helms et al. 2006). Studies in female
 269 adolescents have found a prevalence ranging
 270 from 3 to 48%. Among 12–18-year-old women at
 271 a juvenile detention center in Seattle, 48% were
 272 infected (Sorvillo et al. 2001).

Hepatitis Infections

273

Hepatitis A and B can be sexually transmitted; 274
 this most commonly occurs in gay males. 275
 Although some hepatitis C cases are sexually 276
 transmitted, the majority result from sharing of 277
 drug equipment and needles. Hepatitis A rarely 278
 results in acute liver failure and does not cause 279
 chronic infection. Hepatitis B and C infections 280
 can result in chronic infection that can cause cir- 281
 rhosis and liver failure. At some point in their 282
 life, approximately 30% of the US population has 283
 been infected with hepatitis A, 5% with hepatitis 284
 B, and 2% with hepatitis C (CDC 2010). Most 285
 clear the infections with no further medical 286
 complications. 287

Diagnosis and Treatment

288

We now move on to diagnosis and treatment. 289
 These are complex topics that cannot be ade- 290
 quately covered in a chapter of this length. We 291
 will provide resources for those areas that we 292
 cannot discuss fully. The discussion that follows 293
 is based on the authors’ personal experience and 294
 on the definitive source of information on all 295
 aspects of STIs, namely the textbook *Sexually* 296
Transmitted Diseases (Holmes et al. 2008). 297

An essential resource for clinicians who 298
 manage STIs is the CDC’s *Sexually Transmitted* 299
Diseases Treatment Guidelines; the most recent 300
 version was published in 2006 (CDC 2006b). 301
 These are available online at www.cdc.gov; they 302
 also can be downloaded to mobile devices or 303
 printed. Occasional updates occur on this website. 304
 The guidelines have useful information on the 305
 epidemiology and diagnosis of many STIs, and a 306
 thorough discussion of treatment for the usual 307
 patient and for those who have medication aller- 308
 gies, are pregnant, or who have HIV infection. 309
 In the discussion that follows, we will mention 310
 the most commonly used therapies; for a more 311
 thorough discussion, the reader should read the 312
 CDC guidelines. 313

Pictures of STI lesions, including those of 314
 syphilis, HSV, and HPV infection, can be found 315

316 online, for example, in the “Images” section of
317 Google Scholar. Information on specific diseases
318 can be found in a variety of electronic databases,
319 for example STAT!Ref, a resource developed by
320 the American College of Physician.

321 To prevent reinfection, it is important to treat
322 the sexual partners of individuals who have a
323 STI. Partner notification will be discussed in
324 section “Prevention.”

325 Chlamydia and Gonorrhea

326 Diagnosis of these infections has been greatly
327 improved by the development of NAATs that can
328 be used on urine, vaginal, urethral, or cervical
329 samples. NAATs have made testing for these two
330 infections much more acceptable because urethral
331 or cervical swabs are no longer required; NAATs
332 are also more accurate than cultures. Some pro-
333 grams have arranged for patients to provide urine
334 or vaginal samples by mail, and screening can be
335 done at non-clinical sites. Gonorrhea in symptomatic
336 males can also be reliably diagnosed by gram
337 stain of urethral discharge.

338 Because of the large proportion of chlamydia
339 and gonorrhea infections that are asymptomatic
340 (gonorrhea > 50% and chlamydia > 75%), screen-
341 ing of asymptomatic patients is important. The
342 CDC recommends at least yearly chlamydia
343 screening of sexually active females 25 years old
344 and younger. In those found to be infected,
345 research has shown that reinfections within 3
346 months are common, and both males and females
347 with a previous infection should be screened
348 every three months (both sexes). Although there
349 is not complete agreement about universal screen-
350 ing of young males for chlamydia infection, the
351 CDC recommends it in high-risk settings that
352 include juvenile detention facilities (CDC 2006b).
353 The CDC’s recommendations for screening for
354 gonorrhea are less specific, but include the test-
355 ing of high-risk individuals, including juvenile
356 offenders (CDC 2006b).

357 For uncomplicated chlamydia and gonorrhea
358 (asymptomatic or symptomatic urethritis in males
359 and females, and asymptomatic and symptom-
360 atic cervicitis in females), single dose therapy is

361 available. For gonorrhea, this includes ceftriaxone, 361
125 mg intramuscularly, or cefixime, 400 mg 362
orally. For chlamydia, the treatment is azithro- 363
mycin, 1 g orally. Single dose oral therapy has 364
obvious advantages, including the possibility of 365
directly observed therapy in a clinical setting. 366
The CDC does not recommend tests of cure 367
for either organism in patients who defi- 368
nitely received adequate therapy (CDC 2006b), 369
although a careful recent study found that 8% of 370
females treated with azithromycin experienced 371
treatment failures (Batteiger et al. 2010). If a 372
patient has only been tested for one of these two 373
infections and has a positive test, it is important 374
to treat for both, because an individual infected 375
with one of these organisms has approximately a 376
25% chance of being infected with the other. 377

378 For upper genito-urinary tract infection 378
(epididymitis, orchitis, or prostatitis in males, 379
PID in females), or for rectal or oral infections, 380
single dose therapy is not appropriate. Patients 381
require 10–14 days of therapy with at least two 382
antibiotics. 383

384 Treatment of sexual partners is essential but 384
complicated. Although newly infected individu- 385
als are usually told to inform their sexual partners 386
of the infection and encourage them to seek med- 387
ical care and to get treated, this often does not 388
happen, and re-infection rates are quite high. 389
Many states have laws that prevent physicians 390
from prescribing treatment to persons whom they 391
have not examined; in the absence of such laws, 392
physicians may still be reluctant to provide part- 393
ner prescriptions. However, in areas that do allow 394
dispensing doses of medications to the sexual 395
partners of their infected patients, reinfection rates 396
have been reduced (*NEJM* Feb 17, 2005—Matthew 397
Golden). 398

399 Among women, the most common serious 399
complication of these two infections is PID. Most 400
patients with PID have relative mild lower 401
abdominal pain without systemic symptoms. The 402
minimal diagnostic criteria recommended by the 403
CDC are adnexal, cervical motion, or uterine ten- 404
derness on bimanual pelvic examination (CDC 405
2006b). Oral treatment for patients who are not 406
severely ill, pregnant, or vomiting is as effective 407
as hospital treatment. A commonly used regimen 408

409 is ceftriaxone, 250 mg intramuscularly once,
410 combined with doxycycline, 100 mg orally twice
411 a day for 14 days.

412 **HIV Infection**

413 The CDC now recommends testing patients in all
414 health-care settings for HIV. High-risk persons
415 should be tested at least annually. Pregnant
416 women should be tested early in pregnancy and
417 again in the third trimester if they are at high risk
418 of infection (CDC 2006a). Early detection may
419 allow timely treatment, for example of pregnant
420 women to prevent congenital infection, and may
421 lead to safer sex behavior by some infected indi-
422 viduals, thereby preventing HIV transmission to
423 their sexual partners. The standard test is an
424 ELISA test that has high sensitivity, resulting in
425 very few missed diagnoses at the cost of some
426 false positive tests, followed by a Western blot
427 test that has high specificity and therefore elimi-
428 nates these false positives.

429 Although some investigators state that many
430 young adults infected with HIV were infected
431 while adolescents, the prevalence of HIV at test-
432 ing among adolescents is quite low. Positive tests
433 usually occur in the high-risk groups of MSMs,
434 males who practice survival sex (sex with men to
435 make money to live on), and intravenous drug
436 users who share needles. Although heterosexual
437 transmission to black females is relatively com-
438 mon in adults, the level of risk to black adoles-
439 cent females is not well understood.

440 The treatment of HIV infection is complex
441 and is best provided by an experienced infectious
442 diseases expert.

443 **Syphilis**

444 Syphilis testing should be done yearly in sexually
445 active males and females and probably more
446 often in MSMs; in patients with recent syphilis
447 infections; and in patients who have suggestive
448 symptoms that include symmetrical rashes with
449 or without other symptoms such as fever and
450 malaise, or who have suspicious lesions on the

451 genitals, anal outlet, or mouth. Most patients will
452 be asymptomatic and identified by routine screen-
453 ing. Syphilitic ulcers are called chancres and are
454 usually painless. If they are on the genitals, non-
455 tender enlargement of the inguinal lymph nodes
456 may be present. However, diagnostic error is
457 common in the evaluation of genital ulcers, and
458 more than one infection may be present, so that
459 syphilis testing should be routine when any geni-
460 tal ulcer is present.

461 A commonly used screening test for syphilis is
462 the quantitative rapid plasma reagin (RPR) test.
463 This evaluates for antibodies that are induced by
464 this infection but that are not specific to the syphi-
465 lis organism, *Treponema pallidum*. The result is
466 reported as a titer in the form 1:X, for example
467 1:32, which means that the antigen is still present
468 in a 1:32 dilution of the serum sample. A positive
469 test requires confirmatory testing for specific
470 treponemal antigens using one of several tests, for
471 example, the microhemagglutination-Treponema
472 pallidum test (MHA-TP) test, because the RPR
473 test can be falsely positive in normal individuals
474 or those with several other diseases.

475 The RPR test can be negative early after infec-
476 tion, so that repeat testing is needed if the diagno-
477 sis is suspected.

478 The treatment of choice for syphilis is 2.4 mil-
479 lion units of intramuscular benzathine penicillin.
480 If the duration of infections is thought to be more
481 than a year, or is unknown, three injections at
482 weekly intervals are required. There are alterna-
483 tive regimens for persons allergic to penicillin.
484 Because this is the most reliable treatment, the
485 CDC recommends desensitizing pregnant women
486 allergic to penicillin and using this drug, to pre-
487 vent congenital infection of the fetus or newborn.

488 Following treatment, repeat quantitative RPR
489 testing is recommended to determine if the titer is
490 falling, indicating successful treatment. A four-
491 fold decrease in titer, for example from 1:32 to
492 1:8, is considered evidence of successful treat-
493 ment. The longer the infection has been present,
494 the slower the decline in titer. Some successfully
495 treated individuals continue to have a positive
496 titer indefinitely and are called "serofast."

497 Syphilis is one of only a few STIs for which
498 health departments try to identify sexual partners

499 of infected individuals to provide testing and
 500 treatment. Using the information provided by the
 501 patient, disease intervention specialists go into
 502 the community to find sexual contacts. Success is
 503 limited by the failure of the patient to provide
 504 useful identifying information and by the inabil-
 505 ity to find contacts even if their names and
 506 descriptions are known.

507 **Herpes Simplex Virus Infection**

508 Symptomatic HSV infections cause painful vesi-
 509 cles that quickly unroof and become shallow ulcers.
 510 Systemic symptoms may be present. Genital lesions
 511 often cause tender, enlarged lymph nodes in the
 512 inguinal area. Diagnosis can be made by culture or
 513 by the more sensitive DNA amplification test; the
 514 probability of a positive test in an infected indi-
 515 vidual decreases the longer the lesion is present.
 516 Antibodies appear after several days, but usually
 517 cannot differentiate new from previous disease,
 518 unless they are known to be absent at the onset of
 519 symptoms. Recurrence of infection is common.

520 Several antiviral antibiotics are available for
 521 treatment in a patient who is sick enough to need
 522 them [see the CDC STD treatment guidelines
 523 (CDC 2006b)]. They do not decrease the likelihood
 524 of recurrent symptomatic outbreaks. Treatment of
 525 recurrences can benefit patients who have more
 526 than mild symptoms. Antiviral agents can also be
 527 used on a regular basis to decrease the frequency
 528 of recurrences.

529 **Other STIs**

530 **Human Papilloma Virus Infection**

531 HPV infection can cause characteristic lesions in
 532 males and females, most commonly on the geni-
 533 talia, although some presentations can be con-
 534 fused with other skin problems. Diagnosis is
 535 usually clinical. Papanicolaou (Pap) testing is
 536 used to diagnose cervical infection that has
 537 caused precancerous or cancerous changes.
 538 Because cervical cancer is rare in adolescents,

the current recommendations are for this testing 539
 to begin at age 21. 540

Advanced precancerous or actual cancerous 541
 lesions are uncommon in adolescents. If a Pap 542
 smear has been done and is mildly abnormal, a 543
 schedule of Pap retesting is usually recom- 544
 mended. Females who have another abnormal 545
 testing during this testing period, or who have 546
 advanced precancerous lesions, need a colpos- 547
 copy for more definitive evaluation. 548

A variety of topical agents can be used to treat 549
 visible warts [see CDC treatment guidelines 550
 (CDC 2006b)], although these frequently disap- 551
 pear over the course of several months. Some of 552
 these therapies can be used at home. None is 553
 100% effective. Extensive or symptomatic lesions 554
 can be treated more aggressively with laser ther- 555
 apy or surgical removal. 556

Effective immunizations are available (see the 557
 “Prevention” section of this chapter). 558

Bacterial Vaginosis 559

BV is often asymptomatic, but it can also cause a 560
 discharge that is typically gray, thin, and homoge- 561
 neous and that causes an unpleasant odor. This 562
 discharge and odor are the symptoms that cause 563
 women to seek medical attention. Diagnosis is 564
 commonly made clinically using Amsel’s criteria. 565
 If a woman has three of the following four find- 566
 ings, she is considered to be infected: a thin, gray, 567
 homogeneous discharge; abnormal epithelial cells 568
 called clue cells on a saline preparation of vaginal 569
 discharge; an elevated pH of the discharge (>4.5); 570
 and a positive “whiff test,” which is the release 571
 of the odor of organic amines when discharge is 572
 combined with 10% potassium hydroxide. 573

One of several effective treatments is doxycy- 574
 cline, 100 mg orally twice a day for 7 days, if the 575
 patient is not pregnant [also see the CDC treat- 576
 ment guidelines (CDC 2006b)]. 577

Trichomoniasis 578

This infection also causes a vaginal discharge 579
 that may be yellow and copious. The diagnosis is 580

581 usually made when motile trichomonads are
 582 seen on a saline wet preparation of the discharge;
 583 the organism may also be cultured. A single oral
 584 dose of 2 g of metronidazole is usually effective
 585 treatment.

586 **Hepatitis Infections**

587 These infections often are asymptomatic but may
 588 present with jaundice, fever, malaise, anorexia,
 589 and/or nausea and vomiting. The diagnosis is
 590 made by the presence of serum antibodies, anti-
 591 gens, or sometimes the virus. Both hepatitis B
 592 and C may resolve spontaneously or may cause
 593 chronic infection. The latter are recognized by
 594 persistent hepatitis B surface antigen or by hep-
 595 atitis C virus in the bloodstream. Therapies are
 596 available to treat chronic infection; these are not
 597 always effective. Immunization can prevent hep-
 598 atitis B (see the “Prevention” section).

599 **Risk Factors**

600 The following discussion is adapted from our two
 601 previous reviews (Risser et al. 2005, 2008) and
 602 from the review by DiClemente et al. (2008).
 603 Primary references are available there. Note that
 604 many of these risk factors are present in juvenile
 605 offenders.

606 Adolescents’ risk factors include personal
 607 behavioral factors such as early age of sexual
 608 debut, many partners, concurrent partners, older
 609 partners, frequent partner change, inconsistent or
 610 incorrect condom use, sex traded for drugs or
 611 money, sex partners who inject drugs, and inabil-
 612 ity to notify partners that they need to be treated
 613 for an STI in order to prevent reinfection.
 614 Douching may be associated with an increased
 615 risk of developing chlamydia infection and PID.
 616 Anal-receptive sex in both homosexual and het-
 617 erosexual adolescents increases the risk for HIV
 618 and hepatitis B and C infection, syphilis, and
 619 chlamydial and gonorrheal proctitis. Oral-anal
 620 sex in gay males can result in hepatitis A infection
 621 and infection with intestinal bacterial pathogens

such as Salmonella. Lesbians are at lower risk of 622
 acquiring STIs than are heterosexual adolescent 623
 females but have the same infections. If a lesbian 624
 has had sex with men, she may contract STIs and 625
 spread them to her female partners. 626

Adolescents may not perceive themselves to 627
 be at risk of infection or may not have the social 628
 skills to insist on condom use and other protec- 629
 tive behaviors. Alcohol or drug use may lead to 630
 failure to use condoms or to other high-risk sex- 631
 ual behaviors. Adolescents who have a history of 632
 sexual abuse are more likely to practice risky sex, 633
 as are those who have low self-esteem, are 634
 depressed, or have other mental illnesses. 635

Parental and peer factors can affect the likeli- 636
 hood of risky behavior (DiClemente et al. 2008). 637
 Parental factors include lack of support, lack of 638
 supervision, poor communication, failure to pro- 639
 vide sex education, and, especially, failure to 640
 monitor adolescents’ activities and friendships. If 641
 adolescents think that their peers are having 642
 unprotected sex, they are more likely to do so. 643

Social issues are important. Adolescents can 644
 be reasonably conservative in their sexual behav- 645
 ior but be at increased risk of infection if their 646
 partners come from a group with a high preva- 647
 lence of STIs. This is one explanation for the 648
 increased STI risk in black women, who usually 649
 have sex with black men. Black women may have 650
 sexual behaviors that are similar to other racial/ 651
 ethnic groups who are at lower risk of STIs, but 652
 the men they are having sex with may have high- 653
 risk behaviors. 654

The sexual content presented in the media may 655
 increase the likelihood of risky sexual behavior. 656

Lack of health insurance or absence of a con- 657
 fidential source of health care even if adoles- 658
 cents are insured may result in failure to receive 659
 treatment for STIs, increasing the risk that part- 660
 ners will be infected. Even if free STI clinics are 661
 available, adolescents may not know about 662
 them, may not be able to get to them, or may not 663
 choose to go. 664

Some studies have found that adolescents who 665
 use hormonal contraceptives are less likely to 666
 develop PID. Women who use an intrauterine 667
 device have an increased incidence of PID in the 668
 first month after insertion, a risk that can be 669

670 lowered by identifying and treating gonorrhea,
671 chlamydia, and bacterial vaginosis before inser-
672 tion. A biologic factor common in female adoles-
673 cents is the presence of cervical ectopy, which
674 probably makes chlamydia and gonorrhea infec-
675 tions more likely.

676 We have mentioned that inflammatory STIs
677 increase the risk of acquiring HIV infection.
678 These include gonorrhea, chlamydia, trichomo-
679 niasis, syphilis, and HSV infection.

680 Prevention

681 Developing interventions that change the behav-
682 ior of adolescents, including juvenile offenders,
683 to prevent STIs is a daunting prospect. Prevention
684 must begin with a thorough education about the
685 risk factors for STIs. Once educated, adolescents
686 must be able to adopt the behaviors to prevent
687 infection. These behaviors include males having
688 the forethought and self-discipline to use con-
689 doms, and their partners having the determina-
690 tion and negotiating skills to insist on condom
691 use. To avoid infection and its complications,
692 adolescents must understand that screening and
693 treatment are important, even though they often
694 do not know if they are infected because many
695 STIs are asymptomatic. If the poor impulse con-
696 trol and judgment, learning difficulties, substance
697 abuse, concrete thinking, and mental health prob-
698 lems (including attention deficit disorder) of
699 many juvenile offenders are added to the other
700 obstacles to practicing preventive behaviors, the
701 prospect of success seems dim.

702 A recent study of adolescents illustrates these
703 difficulties. Batteiger et al. (2010) followed a
704 group of adolescent females for 4 years. Initially
705 10.9% of the youth were infected with chlamydia;
706 after 18 months, 10.6% were infected; and after
707 4 years, 10.4% were infected. Most (84%) were
708 reinfections. Even though these young women
709 had contact at least every 3 months with the study
710 staff and had been thoroughly educated about
711 how to avoid STIs, some of them had unprotected
712 sex with a new or an untreated partner and became
713 re-infected.

Interventions need accurate evaluations of
effectiveness. Self-reports of changes in behavior
are commonly used but are subject to error. For
example, Rose et al. (2009) studied black females
15–21 years old who reported consistent condom
use in the 14 days before they were evaluated. Of
186, 63 (34%) had genetic material from sperm
in their vaginal fluid. Condom use has to be both
consistent and correct; intervention studies have
generally not addressed errors in condom use.

Length of follow-up is also important in evalu-
ating the success of a behavior-change interven-
tion; long-term changes in behavior are the goals
of these interventions. At least 1 year of follow-
up is desirable, and preferably more.

It is well known that results of randomized
controlled trials (RCTs) are usually better than
results when the same intervention is used under
non-experimental circumstances; intervention
success during routine use should be evaluated.
Some prevention programs have been developed
for use in indigent, minority adolescents who
share the demographic characteristics of many
juvenile offenders.

In their review, DiClemente et al. (2008) dis-
cussed the elements that they have identified in
many of the successful programs. These include
tailoring and targeting the intervention to a spe-
cific group of adolescents; the use of a theoretical
framework to guide the program, most commonly
Social Learning Theory and Social Cognitive
Theory; and implementing a broad range of
approaches that address areas such as self-esteem,
social competence, and problem-solving. Some
of the effective programs have been brief and oth-
ers more time-intensive. They have been imple-
mented in a variety of settings: clinics, community
sites, schools, inpatient substance abuse pro-
grams, and detention centers.

Below we describe several well-known STI
prevention programs proven effective in RCTs
that have targeted minority youth, as well as
two small programs for incarcerated juveniles.
Note that all have used self-report of sexual
behavior as primary outcomes; some also evalu-
ated incident STIs. Project RESPECT has
received great attention because of the brevity
of its intervention.

Jemmott et al. (2005) performed an RCT of a program to reduce HIV risks among 682 inner city black and Hispanic females, mean age 15.5 years, at an adolescent medicine clinic. The results of three 250-min skills-based interventions based on cognitive-behavioral theories and elicitation research were compared to those of a health-promotion control intervention. At the end of a year, the subjects receiving the intervention reported significantly fewer sexual partners than the control subjects and were less likely to test positive for an STI (10.5% vs. 18.2%).

Kamb et al. (1998) A large RCT called Project RESPECT was conducted at five public STI clinics and compared enhanced counseling (four interactive theory-based sessions); brief counseling (two interactive risk-reduction sessions); and two brief didactic messages typical of routine care (control sessions). The brief counseling sessions consisted of two 20-min interventions, one at the first clinic visit and the second at a follow-up visit to receive test results. The subjects included 5,758 heterosexual, mostly indigent minority males and females 14 years old and older. At 1 year, 20% fewer participants in the two counseling interventions had new STIs compared to those in the control group. This result was similar for men and women and was greater for adolescents (although the data for adolescents is not provided). The authors concluded that short counseling interventions using personalized risk-reduction plans can increase condom use and prevent new STIs.

St. Lawrence et al. (1995) conducted a RCT called "Becoming a Responsible Teen (BART)" among 236 indigent black male and female adolescents aged 14–18 years attending community health centers. The program compared an educational intervention with an 8-week program that combined education with behavioral skills training. One year later, the intervention subjects reported significantly less unprotected vaginal intercourse and had discontinued altogether unprotected anal intercourse, a risk factor for HIV infection.

DiClemente et al. (2004) conducted at community health agencies an RCT called "Sistas Informing, Healing, Living and Empowering

(SiHLE)." The intervention for black adolescent females consisted of four 4-h group sessions. These addressed ethnic and gender pride, HIV knowledge, communication, condom use skills, and healthy relationships. At 12 months, compared to the control group, the intervention group reported improvement in several STI-prevention behaviors, including using condoms more consistently over the 12-month period (adjusted odds ratio 2.01, 95% confidence interval 1.28–3.17).

In a detention facility, 58 male adolescents aged 16–19 received a four-session AIDS education program. Ten months later, their self-reports of sexual behavior were compared to those of 99 control youth. The intervention group was significantly more likely to report increased condom use (Magura et al. 1994). In contrast, an intervention for 396 black and white male and female adolescents aged 14–19 years, including 228 incarcerated youth, that included skills-based condom use training was not successful in changing self-reported condom use at 3 and 6 month follow-ups (Gillmore et al. 1997).

When individuals are found to have an STI, informing their partners ("partner notification") can prevent their being re-infected and can protect their partners from possible adverse effects of the infection. Partner notification can be performed by the infected individual, or by someone else, for example, a health department worker or the treating physician. US health departments generally have limited resources, and syphilis is usually the only disease for which their workers assist in partner notification. Physicians rarely make the partner contacts. No specific approach has yet been proven to be very effective, but promising techniques include providing patients with medications or prescriptions for their partners; with home sampling kits that the partners can mail in; or with information for partners explaining the need for treatment (Trelle et al. 2007).

Immunization is one way to prevent some STIs. Since the early to mid 1990s, hepatitis B vaccine has been administered to most infants. Hepatitis A vaccine is now recommended for children and adolescents living in high-risk areas. The immunization to HPV is now widely available

858 to both males and females to prevent the subtypes
859 of HPV that cause visible lesions and the sub-
860 types that cause 50–70% of cervical cancer. This
861 immunization often is free to indigent adoles-
862 cents but may not be required for school entry.
863 Incarcerated youth who are sent to long-term
864 facilities may be required to have at least the
865 immunizations required by the school system.

866 Research is underway for vaccines to HIV
867 (with disappointing results so far); gonorrhea;
868 chlamydia; HSV; and syphilis. Biologic factors
869 are making vaccine development difficult
870 (Holmes et al. 2008).

871 Conclusion

872 An important part of health care for incarcerated
873 youth is the diagnosis and treatment of STIs,
874 which are common and significant problems for
875 these adolescents. Many of the risk factors for
876 STIs are in theory modifiable, but the behavior
877 changes necessary to reduce risk are not easy
878 for this population. However, some preventive
879 interventions have been successful in similar
880 adolescents, and their application to incarcerated
881 youth deserves consideration.

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A Self-Regulation Model for the Treatment of Pathological Juvenile Firesetters

27

Alan I. Feldberg and John H. Lemmon

The USA has had a substantial and persistent fire problem that, despite intervention, has remained remarkably consistent over the years. In 2005, fires in the USA claimed 3,675 lives, caused 17,925 injuries, and accounted for property losses of over ten billion dollars (National Fire Protection Association 2006a). Approximately 32,500 intentionally set fires (arsons) claimed the lives of 295 people and caused property damages of approximately \$733 million in 2007 (U.S. Department of Justice 2008; U.S. Fire Administration 2007a). Furthermore, since 1977, arsons have claimed the lives of 13,405 people and caused property damages in excess of \$29 billion (U.S. Fire Administration 2007a).

Arson is a particularly serious problem among juveniles. According to recent Uniform Crime Report data, children under the age of 18 accounted for almost half (49%) of all arson arrests in 2006, even though they accounted for just under one quarter of the U.S. Population (24%) (Federal Bureau of Investigation 2007; U.S. Census Bureau American FactFinder 2007). The findings indicate that children are substantially overrepresented among arsonists by a rate

two times higher than expected in the population. Tragically, children are also the most likely victims of juvenile firesetting accounting for 85% of all fatalities (Putnam and Kirkpatrick 2005; U.S. Fire Administration 2004). In terms of demographics, 81% of all juveniles arrested for arson were Caucasians and 88% were males (Snyder and Sickmund 2006).

One of the key research questions have been the delineation of juvenile fire play, the relatively normal explorations of fire, from juvenile firesetting, habitual and serious firesetting behavior that is often driven by pathological dynamics. Kolko (2002) indicates that approximately one-half of all boys have engaged in inappropriate “fire play” during their childhood. Fire play behaviors which include “playing with matches” or setting toys on fire have the potential for devastating effects on life and property even in the absence of any destructive intent. However, by all indications juvenile fire play can be effectively addressed through fire safety education programs.

Conversely, juvenile firesetting is more problematic to understand and more difficult to address. Since juvenile firesetting has not received as much attention as other adolescent problems, (i.e., gang behaviors) the development of effective interventions has been impeded. Nevertheless, some knowledge has been gained about the risk factors associated with firesetting behaviors along with some logical treatment ideas that may mediate those effects. Due to the complexity and severity of the problem there is a pressing need to formulate treatment strategies.

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64 The purpose of this essay is to present a definitive
65 model for treating pathologically motivated
66 juvenile firesetters.

67 **Firesetting as a Predictor**
68 **of Serious Criminality**

69 Apart from the seriousness of the act, firesetting
70 should be considered a developmental step on a
71 pathway to deviant criminality (Farrington 1986;
72 Loeber and Farrington 2001; Loeber and Hay
73 1994; Loeber and LeBlanc 1990; Patterson 1982;
74 Patterson et al. 1991). The existence of ecologi-
75 cal stressors during childhood (Belsky 1980;
76 Bronfenbrenner 1979; Garbarino 1999; Loeber
77 and Farrington 2001) such as child maltreatment,
78 trauma, impulsiveness, or family dysfunction,
79 serve to reinforce deviant emotional processes
80 that can trigger firesetting along with other seri-
81 ous deviant behaviors. Earlier research by
82 MacDonald (1963) indicated that firesetting, ani-
83 mal cruelty, and enuresis made up a triad of pre-
84 dictors associated with aggression in psychiatric
85 inpatients. McDonald’s work was corroborated
86 by Douglas and Olshaker (1995) who reported
87 that several of America’s most heinous criminals
88 had childhood histories of firesetting. Research
89 derived from the National Youth Study (Loeber
90 and Farrington 2001) also reports that juvenile
91 firesetting is a robust predictor of future antisoc-
92 ial behavior. Merz-Perez and Heide (2004)
93 recently reported that a history of childhood
94 arson and animal cruelty were significant predic-
95 tors of violent adult offending. The literature
96 consistently indicates that firesetting is symp-
97 tomatic of serious antisocial behavior. This fact
98 certainly highlights the need for a definitive
99 understanding of firesetting etiology and the
100 development of treatment models that can medi-
101 ate these effects.

102 **A Review of Firesetting Etiology**

103 In contrast to general theories of firesetting (see
104 discussion in Bachelard 1964; Lewis and Yarnell
105 1951) that emphasize a singular cause, current

theory development features a comparative 106
approach that features multiple causations. In 107
Fineman’s (1980) review of the juvenile fireset- 108
ting literature, he questioned the assumption that 109
children who set fires have similar backgrounds, 110
motives, drives, and reinforcement histories. 111
Fineman argued that there were four motivational 112
typologies of juvenile firesetting. The majority 113
are motivated by curiosity. Fineman indicated 114
that curious firesetters usually set only one fire 115
which generally frightens them and prompts them 116
to call for help. He suggested that good educa- 117
tional programs would generally be effective in 118
eliminating this type of firesetting. Fineman also 119
identified children motivated by crises as well as 120
those who use fire for delinquent purposes. 121
Fineman finally speculated a fourth typology 122
which he described as pathological firesetting. 123
He believed that pathological firesetters had var- 124
ied motivations that required extensive psycho- 125
therapy. Elaborations on these pathological 126
motivation types are certainly in order to advance 127
our understanding of firesetting behaviors. 128

Other theorists have also suggested that the 129
motivation for firesetting can be classified into 130
specific typologies. Canter and Fritzon (1998) 131
have also suggested a four part typology classi- 132
fied along two dichotomously arranged dimen- 133
sions that include firesetting directed at persons 134
versus objects and firesetting motivated by 135
expressive (emotional) needs versus instrumen- 136
tal (goal-directed) incentives (e.g., expressive- 137
person firesetting motivated by anxiety compared 138
to instrumental-person firesetting motivated 139
by revenge, (see also the discussion in Santtila 140
et al. 2003). 141

Santtila and his colleagues found some evi- 142
dence to support Canter and Fritzon’s typology. 143
Using a sample of 230 juvenile firesetters in 144
England, they were able to classify 35% of the 145
fires as instrumental-person (motivated by 146
revenge), 59% as instrumental-object (motivated 147
by pragmatic reasons such as covering up a 148
crime), 29% as expressive-object (motivated by 149
fire fascination), and 14% as expressive-person 150
(motivated by a cry for help). They also identified 151
specific risk-factors associated with each typol- 152
ogy (e.g., the expressive-person typology was 153

154 associated with a history of institutionalization
 155 for child maltreatment and a diagnosis of depression;
 156 while the instrumental-object typology was
 157 associated with a history of prior convictions for
 158 thefts, vandalisms, and burglaries). One implication
 159 of the Santtila study (2003) is that different
 160 motivations to set fires follow different develop-
 161 ment pathways.

162 The idea of relating risk factors to motiva-
 163 tional types was proposed by Kolko and Kazdin
 164 in the 1980s with their presentation of a three-
 165 part ecological model of fireplay and firesetting
 166 (see discussion in Kolko and Kazdin 1986).
 167 Their ideas offered a conceptual blueprint of
 168 firesetting derived from reviews of the existing
 169 literature and included (1) a learning element
 170 suggesting that juvenile firesetting was related
 171 to early exposure to firesetting activities; (2) an
 172 individual risk-factors element that could
 173 include factors such as a limited awareness of
 174 fire hazards, emotional deficits including dis-
 175 comfort with human interactions, difficulties in
 176 handling face-to-face conflicts, social immatu-
 177 rity, or isolation, and (3) a parent/family risk-
 178 factors element that could include poor parental
 179 supervision, parent-child attachment disorders,
 180 parental pathologies such as histories of alcohol
 181 abuse, mental health problems, criminal behav-
 182 iors, and stressful family life events like divorce
 183 or the death of a parent. One implication of
 184 Kolko and Kazdin's ecological model is that
 185 specific motivational types might be associated
 186 with the different risk-factors. Furthermore,
 187 motivational types may be dynamic meaning
 188 they vary from early childhood through adoles-
 189 cence while others may be static meaning they
 190 remain constant throughout each stage of child
 191 development.

192 Kolko (2002) later reported four psychologi-
 193 cal profiles among juvenile firesetters. These
 194 included curious firesetters who set fires out of
 195 fascination, pathological firesetters who set fires
 196 as a symptom of their psychopathology, expres-
 197 sive firesetters who set fires as a cry for help, and
 198 delinquent firesetters who set fires as a function
 199 of their antisocial behaviors. In contrast, Putnam
 200 and Kirkpatrick (2005) argued that there are only
 201 two motivational types; expressive, (e.g., arson as

202 an expression of psychopathology or unresolved
 203 trauma) and instrumental, where firesetting is
 204 employed to achieve an established goal (e.g.,
 205 arson for profit, to conceal a crime, and so forth).
 206 The authors (see discussion in Putnam and
 207 Kirkpatrick 2005) have also outlined a number of
 208 causal explanations.

209 Researchers (Kolko and Kazdin 1990; Santtila
 210 et al. 2003) have also identified specific fireset-
 211 ting risk factors. Their findings suggest that fire-
 212 setters exhibit higher levels of antisocial behavior,
 213 conduct disorder, impulsivity, lower levels of
 214 sociability, and that their families exhibit more
 215 dysfunctional parental systems and pathological
 216 family dynamics. However, little is known about
 217 the impact of these risk factors on the develop-
 218 ment of different motivational typologies.
 219 Additionally, Putnam and Kirkpatrick (2005)
 220 emphasize the need for a validated classification
 221 system that distinguishes high and low risk youth
 222 firesetters.

223 In addition, little is known about the factors
 224 that transition a child from fireplay to more serious
 225 firesetting. From a developmental perspective,
 226 Kolko and Kazdin (1986) discussed a risk assess-
 227 ment explanation stating that firesetting behavior
 228 evolves as the child matures and is produced by
 229 individual and environmental risks and that fire-
 230 setting motivations change as children mature.
 231 Unfortunately, there is a paucity literature that
 232 elaborates on how firesetting behaviors emerge
 233 or change over time.

234 A Typology of Juvenile Firesetting 235 Motivation

236 In an effort to answer some of the firesetting
 237 etiology questions, Feldberg et al. (2007) have
 238 developed a seven-part typology of firesetting
 239 motivation that isolates two domains of fireset-
 240 ting pathology; both of which are driven by a
 241 need to regulate emotions.

242 Pathological motivation include *inhibitory*
 243 types in which firesetting is used to calm or
 244 diminish emotions and *excitatory* types in
 245 which firesetting is used to stimulate emotions.
 246 Feldberg's typologies address a range of fire play

247 (curious or accidental) and firesetting behaviors; 295
 248 and in regard to the latter include both instrumental 296
 249 (*delinquency motivated*) as well as the two patho- 297
 250 logical typologies.

251 *Curious and accidental fires* are generally set 298
 252 by younger children who witness adults setting 299
 253 appropriate fires are try to imitate them. A combi- 300
 254 nation of fire safety instruction and increased 301
 255 structuring for safety by the responsible adults is 302
 256 usually a sufficient intervention.

257 Firesetting can also be prompted by a *crisis* 303
 258 and is often motivated as a purposeful *cry for* 304
 259 *help*. This type of firesetting behavior often 305
 260 involves a child who is under unusual psycho- 306
 261 logical duress but who feels inhibited from shar- 307
 262 ing the duress with an appropriate adult. This 308
 263 child, usually in the elementary school years, 309
 264 uses firesetting as a way to escape the situation 310
 265 that is creating duress. Although fire safety edu- 311
 266 cation is an important element in the intervention, 312
 267 therapy is also necessary to help the child resolve 313
 268 the underlying crisis and to safely and effectively 314
 269 learn how to voice their problems in order that 315
 270 more effective problem solving can ensue.

271 *Delinquency motivated firesetting*, although 316
 272 motivated by criminal intent, is also purposeful 317
 273 in nature. Firesetting of this kind is driven by a 318
 274 means–ends calculus where fire is used as an 319
 275 instrument such as the concealment of crimes or 320
 276 the destruction of evidence. Although firesetting 321
 277 of this nature is serious, it is different from 322
 278 pathologically motivated behavior in that the 323
 279 delinquent firesetter does not have the emotional 324
 280 connection to fire that the pathological offender 325
 281 has. Delinquent firesetters usually respond to clear 326
 282 consequences for their behavior that may also 327
 283 include restitution and community service. Other 328
 284 restorative justice practices including victim– 329
 285 offender mediation and circles are helpful in 330
 286 establishing positive relationships with victims 331
 287 and healthier relationships with their community. 332

288 Pathologically motivated firesetting is the 333
 289 most problematic to treat since it is driven by 334
 290 irrational content. Feldberg identified four cate- 335
 291 gories of pathological firesetters that fall into 336
 292 two specific typologies. The cardinal feature of 337
 293 each typology is that fire is used to regulate emo- 338
 294 tions. There are two *inhibitory* types in which 339

emotion is calmed or diminished by firesetting 340
 and two *excitatory* types in which emotions are 341
 stimulated. 342

The first inhibitory type is the *revenge fireset-* 295
ter who is motivated by rage. Associated with the 296
 affective arousal are cognitions that an injustice 297
 has been done. After this fire is set, affective 298
 arousal rapidly diminishes and the fire setter usu- 299
 ally has a smug sense of validation. The second 300
 inhibitory type is the *maladaptive coping fireset-* 301
ter. This type of youth offender is usually a loner 302
 with a limited capacity to cope with anxiety, 303
 depression, or damaged self-esteem. Starting and 304
 watching fires inhibit emotional arousal. It can 305
 also be a source of comfort and the stimulus for 306
 self-esteem-enhancing fantasies. Extreme exam- 307
 ples of the maladaptive coping firesetters include 308
 youths who set several fires on a daily basis, usu- 309
 ally in a somewhat repetitive pattern or even a 310
 ritualized manner. 311

Excitatory types include the *fire-fascinated* 312
 youth who develops a compelling attachment to 313
 some features of fire, most usually relating to the 314
 colors and/or motion of flames. This dynamic 315
 usually is set in force at a relatively early age, 316
 perhaps 4 or 5 years old. When in proximity to 317
 fire, this type experiences heightened and posi- 318
 tive emotions, an excitatory process. These types 319
 of firesetters may experience a tremendous sense 320
 of existential aliveness that can be so intense that 321
 outsiders can easily witness affective arousal in 322
 their facial and postural features, sometimes even 323
 if there is no fire present but the person is only 324
 thinking about fire. The second excitatory type is 325
 the *thrill-seeking* firesetter who achieves a sig- 326
 nificant “adrenaline rush” from firesetting. The 327
 thrill seeker enjoys the destructive impact of fire 328
 and may rapidly progress from setting small fires 329
 to setting much bigger fires to bigger structures 330
 such as a warehouse. The thrill seeker usually 331
 enjoys a cluster of grandiose cognitions in which 332
 they are certain of their ability to outwit authori- 333
 ties and investigators. These offenders are quite 334
 dangerous and treating the more serious ones 335
 cannot be safely accomplished in an outpatient 336
 setting. 337

There are two etiological factors that motivate 338
 pathological firesetting. Our explanatory model 339
 340
 341
 342

describes how neglect creates attachment pathology. Maltreatment along with other adverse experiences such as domestic violence, crime, accidents, or natural catastrophes traumatize children. The second feature of our explanatory model involves understanding of the effects of trauma and the dynamics of trauma recovery. Both attachment and trauma lead to deficits in self-regulation and neural-psychological functioning resulting in pathological firesetting. In terms of physiology, neural-scientists (see discussion in Kandel 2006) have established that encoding of experience, basically memory, particularly long-term memory, is essentially a bio-chemical and electrical process that over time becomes a neural pathway that directs cognition, emotion, and behavior. In terms of self-regulation, psychologists including (Schore 2001; Siegel 2007) indicate that neural pathways are responsible for deficits in self-regulation capacities. Siegel has explicated nine forms of psychological and physiological integration that result in increased of self-regulation.

Our intervention approach provides a comparative set of clinical strategies that emphasizes restoration of healthy brain functioning. In order to accomplish this task, it is prudent to begin by mapping out a developmental framework for understanding two key etiological features of pathological firesetting.

Attachment Insecurity and Pathological Firesetting

Understanding the Effects of Child Neglect

There has been a consistent and growing body of research that singles out maltreatment as a prominent risk factor in delinquency in general and specifically in juvenile firesetting. (Feldberg, et al. 2007; Kolko and Kazdin 1990; Root et al. 2007; Sakheim and Osborn 1986; Yarnell 1940) Neglect has been given considerable attention in the etiology of childhood fire play dating back to the work of Yarnell (1940) and other (Kaufman et al. 1961)

psychoanalytic theorists. Yarnell's (1940) study of hospitalized juvenile firesetters emphasized fire setting as an aggressive response by neglected children to the trauma of parental rejection.

Sakheim and Osborn (1986) have also identified a history of maltreatment as a common characteristic in the psychological profiles of institutionalized juvenile firesetters. Sakheim and Osborn (1999) later identified characteristics that differentiated children with severe firesetting behaviors from minor and non-firesetters. Child neglect in the form of maternal rejection and abandonment was one of the key family risk factors identified. In addition, a variety of individual risk factors including defiance of authority, fire fascination, early exposure to fire, lack of empathy, revenge fantasies, and cognitive impairment were cited.

Other researchers (Kolko 1985; Kolko and Kazdin 1986; Slavkin and Fineman 2000) have also cited the importance of neglect/parental rejection as a prominent risk factor in the etiology of firesetting. Studies by Kolko and Kazdin (1990, 1991, 1994) have focused on the quality of parenting and reported that parents of firesetters experience greater psychological distress, marital maladjustment, exposure to stressful life events, less acceptance of their children, less involvement in activities that enhances the child's personality development and family relationships, and less supervision and discipline than parents of non-firesetters.

Parental neglect and rejection has also linked to motivational tactics employed by children who set fires out of revenge (Root et al. 2007) or as a "cry for help" (Fineman 1995) motivated by the need to be removed from an abusive family environment. In their study of outpatient juvenile firesetters, Root et al. (2007) found that maltreated children had more fire incidents and demonstrated greater versatility in their firesetting.

Feldberg and his colleagues (2007) reports similar findings in a study of institutionalized juvenile firesetters in Pennsylvania. Clinical reports indicated neglect as a *constant* in the histories of the firesetting youths while the prevalence of physical abuse was extraordinarily high

433 (75%) in contrast to the prevalence rate of mal- 474
 434 treatment among a comparable group of delin- 475
 435 quent offenders.¹ Feldberg concluded that neglect 476
 436 triggered clinically substantive attachment disor- 477
 437 ders that were profoundly prevalent among patho- 478
 438 logically motivated firesetters. 479

439 The diverse and consistent findings document- 480
 440 ing the connection between maltreatment and 481
 441 serious youth firesetting compels attention to 482
 442 how neglect impacts both the psyche and the 483
 443 brain. In terms of the psyche, attachment theory 484
 444 (Bowlby 1980a; Crittenden and Ainsworth 1989; 485
 445 Heide and Solomon 2004) provides a theoretical 486
 446 vantage point for understanding how neglect con- 487
 447 tributes to the risks of juvenile firesetting. 488
 448 To make a succinct but accurate point, juveniles 489
 449 with healthy attachments do not purposively set 490
 450 destructive fires. 491

451 From a relational perspective, serious juvenile 492
 452 firesetters typically have difficulties with trust. 493
 453 Furthermore, they encounter major problems 494
 454 with modulation of feelings and regulation of 495
 455 behavior. Unfortunately, they usually reject 496
 456 opportunities for guidance and support. These 497
 457 difficulties reflect attachment problems. Bowlby 498
 458 (1980a, 1973, 1980a, b) postulated that there is a 499
 459 biologically driven two-person developmental 500
 460 psychology between the infant and the primary 501
 461 attachment figure, usually the mother that has 502
 462 implications for healthy life-long development. 503

463 Attachment Dynamics

464 Secure attachment provides a healthy base for the 504
 465 infant in which behavioral repertoires organize, 505
 466 feelings develop, and relationships prosper. This 506
 467 attachment style provides the infant with external 507
 468 support during times of overwhelming affect 508
 469 (e.g., when the infant becomes frightened, angry, 509
 470 or sad) that later develops the individual's ability 510
 471 to self-regulate emotion (Kopp 1989). Securely 511
 472 attached infants have caretakers who also respond 512
 473 to and mirror positive affects, providing a very 513

474 salient expectation of relationship being a 475
 476 potentially feeling good experience (Goldberg 477
 478 et al. 1994). External supports offered by a com- 479
 480 petent and caring parent leads to the critical for- 481
 482 mation of an infant's internal relational map built 483
 484 on two key assumptions. One, when distressed 484
 485 the person is able to reach out to others and expect 485
 486 help. Two, the person learns that if someone can 486
 487 successfully soothe their emotions, they can also 487
 488 learn to soothe their own emotions. Additionally, 488
 489 securely attached people are better able to cope 489
 490 with stresses such as loss and abuse. Their resil- 490
 491 ience is more robust. 491

492 Secure attachment also has a very important 492
 493 impact on the capacity for one to have integrated 493
 494 memory, the kind of memory that is necessary for 494
 495 a person to develop a coherent personal narrative 495
 496 history. Thus, people with secure attachment 496
 497 have a sense of their own developmental history 497
 498 and the continuity between their personal history 498
 499 and their current life. They have rich memories. 499
 500 People who have not achieved attachment secu- 500
 501 rity encounter memory blockage that can some- 501
 502 times be profound. Unfortunately, these memory 502
 503 blockages are all too noteworthy in the treat- 503
 504 ment of the serious juvenile firesetter. Clinically, 504
 505 "I don't/can't remember my past" is a statement 505
 506 that is frequently cited in psychotherapy sessions 506
 507 with this population. Such clients are all too aware 507
 508 that their memory processes are faulty and many 508
 509 have the perception that "my head isn't right." 509
 510 510

511 Attachment disruptions may have an enduring 511
 512 impact on personality functioning, capacity for 512
 513 adaptive and maladaptive coping, and on the 513
 514 health of positive relationships, including both 514
 515 intimate relationships and parenting relationships. 515
 516 Three pathological variants to secure attachment 516
 517 have been identified. Crittenden and Ainsworth 517
 518 (1989) identified the anxious-ambivalent and the 518
 519 avoidant types. Bolen (2000) identified the third 519
 520 variant, known as the disorganized-disoriented 520
 521 type. These insecure attachment styles are com- 521
 522 monly referred to as anxious, avoidant, and 522
 523 disorganized. 523

524 In the anxious attachment, the child's bid for 524
 525 proximity is frustrated by a conflicted parent. 525
 526 When mothers do respond to their distressed 526
 527 child, their ambivalence limits their ability to 527
 528 528

¹Lemmon (1999) reported the prevalence of abuse at 33% and neglect at 52% in a study of low-income, inner-city delinquent youths in Pennsylvania.

522 fully engage. When separated from the mother,
523 the child does not have the capacity to feel secure
524 and thus reacts with even more distress. Under
525 this condition, the child develops persistent and
526 intense attachment-driven behaviors that may be
527 mingled with anger. These relationships are
528 driven by the dynamics of clinging, control, and
529 manipulation in order to achieve relief from dis-
530 tress. In this attachment style, the parents may
531 resort to threats of abandonment as a means to
532 assert control over the child whereas the child
533 may resort to antisocial behaviors as a means to
534 control the parent. The two-person psychology in
535 the anxious attachment pattern is frustrating to
536 both parent and child. The critical features set in
537 place in this attachment pattern include a demand-
538 ing but unsatisfying relationship style. Personality
539 pathology arising from this pattern may include
540 a mix of passive aggressive and dependent fea-
541 tures. According to Mikulincer et al. (2003),
542 when under distress, anxiously attached people
543 are prone to *hyperactivating* strategies in which
544 they seek support through clinging and control,
545 while making efforts at minimizing distance
546 from others.

547 In the anxious attachment, a parent-child rela-
548 tionship exists, albeit a conflicted one. With
549 avoidant attachment, the child has no meaningful
550 relationship with others. In this case, the attach-
551 ment figure's anxiety prohibits her from becom-
552 ing psychologically accessible to her child. The
553 child "attunes" to the fact that proximity-seeking
554 behaviors are ineffective. This child displays lit-
555 tle stress when separated from the mother and
556 upon reunion avoids rather than seeks proximity
557 with her. The child becomes used to meeting his
558 or her needs through self-absorbed gratification
559 without concern for the impact of their behaviors
560 on others. Bowlby (1980a) argued that in cases of
561 severe avoidant attachment, the autonomic ner-
562 vous system becomes impaired and the person
563 develops a condition referred to as "*defensive*
564 *exclusion*," preventing the child from experienc-
565 ing love. Under conditions of distress, Mikulincer
566 et al. (2003) state the avoidant attached person
567 uses *deactivating strategies* and become overly
568 self-reliant. Because consideration of others is
569 avoided, in extreme cases, such children may

570 develop narcissistic and sociopathic tendencies
571 related to this attachment pattern. If it feels good
572 and does not have painful consequences, persons
573 with this attachment configuration may just as
574 well do whatever their impulses suggest.

575 Bolen (2000) identified a third variant of inse-
576 cure attachment, disorganized attachment. The
577 disorganized attachment pattern includes a pri-
578 mary attachment figure who behaves unpredict-
579 ably when the child displays proximity-seeking
580 behaviors. These parents may themselves be vic-
581 tims of unresolved trauma, including the unre-
582 solved loss of their own attachment figures, or
583 unresolved maltreatment; therefore, they are
584 frightened and inadvertently frightening to their
585 children. Disorganized children have no coherent
586 coping strategies in order to draw a figure toward
587 them when distressed and they display diverse
588 and sometimes contradictory behaviors upon
589 their parent's return. These behaviors can include
590 strong avoidance along with undirected expres-
591 sions of fear, distress, or apprehension. They may
592 appear confused or disoriented in both their
593 behaviors and their affects. Bolen points out that
594 the disorganized child may display autistic-like
595 symptoms and may be misdiagnosed as such. In
596 response to stress, these children thus appear
597 ineffectual and disorganized. Personality func-
598 tioning may cluster in the disorganized range of
599 paranoid and schizotypal functioning and, such
600 persons may appear with autistic spectrum disor-
601 der symptoms.

602 Attachment styles have implications through
603 development. During adolescence, there is a nor-
604 mative transition from the child's relationships
605 with his family members into the peer group.
606 Research demonstrates that the adolescent task of
607 increasing relationship with friends is highly
608 influenced by the earlier attachment patterns.
609 From a peer perspective, secure attachment
610 appears to allow for better judgment about peer
611 relationships, the maintenance of primary family
612 relationships concurrent with peer relationships,
613 and the use of peers in healthy co-regulating rela-
614 tionships. In contrast, serious juvenile firesetters
615 frequently either have difficulty forming rela-
616 tionships with others and become loners or become
617 involved in superficial relationships in which

618 delinquent activities and thrill-seeking defiant
619 actions are encouraged.

620 Therapists who use an attachment model seek
621 to help people with problematic attachment move
622 toward what is known as earned attachment secu-
623 rity. People can be helped to grow beyond their
624 attachment difficulties (Bolen 2000; Fahlberg
625 1970) particularly in a growth-inducing environ-
626 ment. According to the attachment therapeutic
627 model, it is possible to alter deactivating and
628 hyperactivating patterns and help adolescents to
629 attune to other people, thus improving their inter-
630 personal functioning and reducing their risk for
631 recidivism. Attachment therapists well under-
632 stand how memories pertinent to attachment can
633 be encoded in two major ways, explicit and
634 implicit memories. These memory systems pro-
635 vide a segue into brain processes relevant to the
636 therapy of juvenile firesetters.

637 **Trauma as a Confounding**
638 **Etiological Factor**

639 In addition to the findings of neglect in the back-
640 grounds of pathological firesetters, there are
641 also indications of exceedingly high levels of
642 trauma in the developmental histories of these
643 juveniles. Feldberg et al. (2007) reported that
644 almost three quarters of a studied sample had a
645 history of physical abuse while almost one third
646 had been victims of sexual abuse. Both of these
647 numbers are considerably higher than delin-
648 quent children who are not pathological fireset-
649 ters (Lemmon 1999).

650 There is a clinical relationship between attach-
651 ment pathology and trauma. First, it is very likely
652 that attachment pathology children are more vul-
653 nerable to being traumatized than those with
654 secure attachments. Those who do not achieve
655 attachment security are not as likely to be pro-
656 tected by adults and do not develop the capacities
657 to protect themselves. They do not regulate them-
658 selves as well and thus may arouse frustration in
659 others. They are also compelled to engage in rela-
660 tionships that are deviant and destructive. Second,
661 attachment pathology dramatically reduces a
662 person’s resilience to trauma. Once traumatized,

663 attachment pathology lessens one’s capacity to
664 seek solace, support, and comfort in the presence
665 of another human being, probably one of, if not
666 the most, reparative factors for trauma injury.

667 Part of the body’s response to trauma occurs
668 within the autonomic nervous system. This is
669 made up of the parasympathetic and the sympa-
670 thetic systems. The parasympathetic system can
671 be thought of as the system’s brakes. It is a system
672 that slows and calms down our biological activa-
673 tion such as heart rate. The sympathetic system is
674 more like the accelerator, speeding up the system.
675 Thus, in the face of stress, the sympathetic system
676 readies us for our more activated survival responses,
677 such as flight or fight. Specifically, the response of
678 the autonomic nervous system, though not typi-
679 cally under our conscious awareness or control,
680 sends messages from the heart to the brain, thus
681 affecting our brain functioning. Under threat or
682 trauma, the sympathetic system may become too
683 stimulated, leading to an overly variable heart rate
684 rhythm and a lack of heart rate coherence. This
685 chaos gets sent through nerve fibers up to the brain,
686 interfering with optimal functioning.

687 Within the brain, a whole cascade of responses
688 to trauma can occur. The amygdala, the brain’s
689 epicenter of primitive fear and rage, responds by
690 activating the hypothalamus, the pituitary gland,
691 and the adrenal gland, known as the HPA axis.
692 These processes occur on a fast track, without
693 mediation by our thinking brain, the cerebral cor-
694 tex. Adrenaline is released, quickly heightening
695 alertness and memory. Next in the response chain
696 is the release of cortisol that prepares the body for
697 the fight–flight response. While these emergency
698 processes are quickly switched on, downregula-
699 tion is not as speedy or as easy (see discussion in
700 Siegel 2007).

701 The best way to “turn off” the emergency
702 apparatus is within the matrix of a supportive and
703 atoned relationship. Unfortunately, the person
704 with an insecure attachment history is at a tre-
705 mendous disadvantage in accessing relationship
706 to downregulate. Consequently, cortisol levels
707 remain elevated and the trauma memory does not
708 become part of a healthy narrative memory that
709 allows for psychological perspective and healing.
710 Instead, the traumatic memory plays havoc with

711 the mind, leading to fragmentation of the psyche.
 712 Additionally, negative affect can remain as an
 713 overly potent force within the amygdale, giving
 714 rise to easily triggered affective arousal of nega-
 715 tive affects such as rage and fear of such intensity
 716 that behavioral responses can be irrational and
 717 destructive. Only when the thinking cortex is
 718 turned on can the juvenile firesetter re-appraise
 719 his firesetting as problematic.

720 Neural pathways connect the mid brain (home
 721 of the limbic system) to the frontal cortex (home
 722 of executive functioning), and the emotional acti-
 723 vation undermines the capacities of the frontal
 724 executive system, leading to poor executive func-
 725 tioning. In such cases, there can be interference
 726 with attention, delaying gratification, impulse
 727 control, causal reasoning, decreased organiza-
 728 tional levels, difficulty forming an integrated
 729 one's self (identity), stunted problem solving, and
 730 poor regulation of affective responses. Many of
 731 these features aptly describe juvenile firesetters.

732 An especially important area of concern has
 733 to do with the tremendous academic deficits in
 734 the juvenile firesetter. Typically, these teens aca-
 735 demically function below grade level, become
 736 disenfranchised with school, and drop out of an
 737 active learning process. This may be partly
 738 explained by the impact of trauma on memory,
 739 particularly when we begin to realize how cen-
 740 tral memory is for learning. Memory consolida-
 741 tion following trauma becomes much more
 742 difficult. The hippocampus is vitally important
 743 for consolidation of new memories. In fact, there
 744 is evidence that the hippocampus actually may
 745 become smaller as a consequence of trauma
 746 (Bremner and Narayan 1998). One result is that
 747 the memory consolidation required for future
 748 learning becomes compromised.

749 **An Integrated Treatment Model** 750 **of Self-Regulation**

751 The treatment needs for the pathological firesetter
 752 are diverse and demand a range of clinical
 753 responses from the helping professional. The
 754 integrated model includes six elements which are
 755 described below.

Promoting a Fire-Safe Therapeutic Framework

756 A safe therapeutic framework is imperative in
 757 providing clinical services and it is even more of
 758 an issue in situations in which there is a risk of
 759 additional fires. Issues of safety will require close
 760 attention and may begin with a focus on residen-
 761 tial fire safety. While all dwellings should be fire
 762 alarmed and have extinguishers, many families
 763 and even treatment facilities may fail to meet
 764 these basic safety features. Putting safety systems
 765 into place realistically increases safety. However,
 766 there is also another important benefit. A family's
 767 capacity to activate themselves by procuring and
 768 installing safety equipment may send an impor-
 769 tant message of concern and safety to the child, a
 770 message that fire can be dangerous and that safe-
 771 guards are to be valued.
 772

773 Furthermore, safety is imperiled as many fami-
 774 lies express a cavalier attitude toward ignition
 775 devices such as matches and lighters. Youngsters
 776 may gain overly easy access to such devices espe-
 777 cially when family members are smokers, often
 778 light candles, and families that heat their shelters
 779 with heaters that need to be lit. These families
 780 may need therapeutic coaching, encouragement,
 781 and support so that they become much more con-
 782 scientious about where they store their lighters
 783 and matches. Often times, parents of these fami-
 784 lies may think that they have already safeguarded
 785 these materials by putting them somewhere that
 786 they believe, erroneously, that is either secret from
 787 or non-accessible to their children. Aiding the
 788 family to have a more responsible attitude toward
 789 matches and lighters can be quite important.
 790

791 A contemporary problem is that many lighters
 792 are made in a variety of interesting and entertain-
 793 ing shapes and colors, sometimes as a facsimile
 794 of other items such as a firearms or a car. Such
 795 lighters may have an appeal to many people as
 796 curiosity items that can be symbolic of a person's
 797 interests and passions. A fire-safe attitude may be
 798 enhanced by discussion of these issues in juve-
 799 nile firesetter families.

800 Currently, most households rely on a host of
 801 flammable petrochemicals, many of which are
 802 at least combustibles, if not accelerants. These

803 chemicals can provide quite a laboratory for the
 804 curious child and a dangerous treasure trove for
 805 the child who is developing a pathological con-
 806 nection to fire. Thus, it can be helpful to guide a
 807 family to conduct an inventory of and minimize
 808 flammable household chemicals.

809 Aerosol products are particularly attractive to
 810 the juvenile firesetter who use these as torches.
 811 Unfortunately, spray cans may explode with dire
 812 medical consequences. These activities are com-
 813 monly viewed on Internet movie sites and pro-
 814 mote further experimentation.

815 Our treatment model focuses on changing the
 816 individual’s psychology from the use of fire as a
 817 self-regulation mechanism to having a more
 818 responsible and safe attitude about fire. Fire
 819 safety education is an important component of
 820 this approach. Fire safety education teaches fac-
 821 tual information about fire, how it burns, the dan-
 822 gers of firesetting, and the impact of firesetting
 823 legally, economically, and in terms of risk to
 824 human health.

825 Many communities have structured opportu-
 826 nities for juvenile firesetters to receive such edu-
 827 cation, frequently made available through a
 828 juvenile firesetter coalition or multi-disciplinary
 829 team. Unfortunately, not all communities have
 830 developed such resources. If this is the case, the
 831 therapist should provide fire safety education,
 832 either formally, or interwoven throughout treat-
 833 ment sessions. However, therapists need to be
 834 mindful that some clients will use this informa-
 835 tion to increase their proficiency in setting fires
 836 and to avoid detection. It is important to monitor
 837 each client’s reactions about fire safety informa-
 838 tion as a means to explore their attitudes toward
 839 fire. If the client appears to be using the discus-
 840 sion about fire to emotionally regulate them-
 841 selves by becoming excited by even the discussion
 842 of fire, this reaction should be therapeutically
 843 addressed.

844 **Addressing Minimization and Denial**

845 Clinical experience suggests a number of resis-
 846 tances to candid firesetting disclosure, some
 847 centered on external issues and some focused on

848 deeper psychological issues. It is important to
 849 understand such resistances in order to aid the
 850 client to overcome these barriers so that treatment
 851 is effective.

852 One of the most important resistances to
 853 acknowledging firesetting has to do with the
 854 juvenile’s attempts to avoid legal culpability.
 855 Juveniles frequently exert effort in order to avoid
 856 detention, criminal proceedings, legally imposed
 857 fines, being placed on probation, or placed in a
 858 residential center. Their creative attempts to
 859 evade responsibility often persist even after they
 860 have been adjudicated generally by shifting the
 861 blame onto others.

862 Several forms of clinical resistance need to be
 863 addressed in working with the juvenile firesetter.
 864 First, the juvenile firesetter may exhibit pride in
 865 his ability to evade detection. While many of
 866 these youths are failing to succeed at home,
 867 school, and the community, they construct nar-
 868 cissistic defenses against these failures. This is
 869 commonly observed in connection to scholastic
 870 achievement. Despite very poor grades, the fire-
 871 setter maintains an inner sense that they are still
 872 “smarter than” those who are achieving far more
 873 than they are. This same narcissism approach is
 874 often displayed in terms of juvenile firesetting
 875 and results in the youth’s sense that he is smart
 876 enough to avoid detection and, failing that, he is
 877 at least smart enough to successfully deny his
 878 responsibility once he has been detected.

879 A second form resistance involves avoiding
 880 internal shame that may exist even in those who
 881 display the narcissistic tendencies discussed
 882 above. Though a juvenile may have set a multi-
 883 tude of fires and expressed a smug pride in their
 884 ability to do so while avoiding detection, there
 885 is usually a deeper sense of shame attached to
 886 the commission of arson. Among delinquent
 887 offenders, arsonists are rarely seen as high status
 888 criminals.

889 A third form of resistance involves adolescent
 890 identity. These juveniles can be diagnostically
 891 puzzling, hard to place and sometimes fitting sev-
 892 eral diagnostic categories including the autism
 893 spectrum disorders, pervasive developmental dis-
 894 orders, reactive attachment disorders, schizoa-
 895 ffective disorder, bipolar disorder, and/or

borderline personality disorder. Frequently, these diagnostic conundrums are mirrored within the firesetters themselves who have a sense of themselves as being odd, not fitting in, and feeling different. Their own firesetting activities may well reinforce their sense of being different. Fears that their sense of oddness will be exposed are quite private and sometimes provide a reason for tenacious defenses.

Dealing with firesetter resistance demands clinical flexibility. There are times when the therapist must be hard, confrontational, and non-yielding with the firesetter. At other times, the therapist may make a compassionate appeal to the firesetter and his future health, telling the firesetter that he will feel better after he faces his problems directly. There are other times when the therapist must intervene by using his or her therapeutic capacity for empathy to “un-stick” the resistances described above. All of these tools may need to be applied with reference to the Index fire, the fire that brings the child or adolescent to treatment and then likely will need to be applied again as the clinician helps the firesetter to explore their firesetting history.

921 **Guiding Changes in Firesetter Attitudes**

922 An important concept is that most juvenile firesetters have very distorted attitudes about fire. 923 A sense of fire danger is largely absent from the firesetter’s psyche. Unfortunately, the concept of 924 fire as dangerous is misrepresented by the mass media. Guiding the juvenile firesetter to accept 925 that fire is destructive and dangerous is an important step in the treatment process. 926 927 928 929

930 For other firesetters, the danger and destructive aspects of setting fires is one of the reasons 931 that fire becomes so attractive. They already understand that fire is dangerous. Helping these 932 types of firesetters develop strong cognitions for avoiding the destructive and dangerous aspects of 933 firesetting is challenging. This task is facilitated by the use of fire safety education in combination 934 with confrontation of the firesetter’s attitude that fire is an acceptable tool to regulate emotions. 935 936 937 938 939 940 The therapeutic message must always be clear

and it must assert that the use of fire to regulate 941 emotions is unhealthy. The message must not be 942 one that is perceived as rejecting of the client and 943 must respect that an individual may use fire to 944 decrease uncomfortable feelings or to increase a 945 sense of excitement and existential aliveness. The 946 formation of a sound psychotherapeutic alliance 947 with the firesetter, however, should rest (at least 948 partially) on weakening the attachment to fire and 949 the associated replacement of the individual’s 950 psychological regulation by fire with more adaptive and safer forms of regulation. 951 952

Addressing Firesetter Motivation 953

Understanding firesetting motivation is critical in 954 matching appropriate treatment to each firesetter, 955 an important aspect of maximizing positive outcome. In fact, failure to recognize the motivational 956 issues for the firesetter can undermine successful treatment in some cases and can, 957 potentially, lead to an iatrogenic outcome with 958 others. An example of reducing the success of 959 treatment can occur if the therapist ignores the 960 excitatory forces within the fascinated and thrill-seeking firesetter. In this case, the therapist will 961 totally miss some of the most potent forces that 962 propel the firesetter’s activities. This firesetter 963 may well become even more dangerous. 964 965 966 967

For instance, the *cry for help* firesetter requires 968 special therapeutic consideration. In these cases, 969 the underlining crisis that precipitated the fire 970 will likely remain in effect afterwards. The therapist may detect the child’s anxiety and evasiveness 971 in these circumstances. Misinterpretation of 972 evasiveness may lead to a false conclusion that 973 the child has more delinquent or pathological motivations, resulting in a form of treatment that 974 “misses the boat.” Under such circumstances, the 975 *cry for help* firesetter may increase his resistance 976 to dealing with the issue of crisis in their life and 977 become cynical about the potential of adults to be 978 helpful. 979 980 981

There may be confusion about the category of 982 the delinquent firesetter. Many older children 983 may begin to set fires in the presence of a delinquent group. Delinquent dynamics are clearly at 984 985

986 work in such situations. However, we have found
 987 that there is oftentimes a pathological firesetter
 988 within the delinquent group, who is using fire as
 989 a self regulatory process consistent with fireset-
 990 ting pathology. An example of this was a group
 991 of five teenagers who set at least a dozen fires
 992 within their community to buildings, cars, and a
 993 motorcycle. Assessment of four of these fireset-
 994 ters led to the conclusion that three of them met
 995 the criteria for the delinquent firesetter. However,
 996 one of the youngest of the group had strong path-
 997 ological firesetting motivations, *even though he*
 998 *was a member of a delinquent subgroup*. This
 999 pathological firesetter required more extensive
 1000 treatment efforts that his peers.

1001 One of the challenges in assessing firesetting
 1002 motivation is in understanding that the assess-
 1003 ment of motivation is much more about the cli-
 1004 ents rather than the fires they set. This is not to
 1005 say that the firesetting history is not vitally
 1006 important. In cases in which there is progres-
 1007 sively serious firesetting, pathological motiva-
 1008 tions can frequently and accurately be inferred.
 1009 However, in cases of less severe firesetting, it is
 1010 vital that the therapist focus on the understand-
 1011 ing of the motivation, not the impact of the fire.
 1012 Even very serious fires can be set with less seri-
 1013 ous motivations.

1014 **Increasing Self-Regulation**

1015 The unhealthy relationship with fire which char-
 1016 acterizes pathological firesetters is a function of
 1017 structural abnormalities within the brain that arise
 1018 largely out of experiences. Neural pathways that
 1019 provide healthy children with mechanisms to
 1020 regulate emotion even when they are stressed do
 1021 not exist among these children. Our treatment
 1022 model is designed to help them develop new neu-
 1023 ral pathways that are requisite to regulate emo-
 1024 tion. These new neural pathways open channels
 1025 for self regulation through person-to-person
 1026 relationship and healthy activities. While we
 1027 generally advocate a comprehensive treatment
 1028 approach, we assert that the most effective
 1029 change agent to help the brain to heal itself is an
 1030 interpersonally informed therapy experience that

1031 occurs within an environment in which safety is
 1032 secure and there is sufficient structure to preclude
 1033 both maladaptive and dangerous attempts at self
 1034 regulation. In some cases, we strongly encourage
 1035 the use of other modalities in the treatment of the
 1036 firesetter in an effort to activate a brain function
 1037 that is not responding sufficiently to the interper-
 1038 sonal therapeutic approach mentioned above.

1039 Because pathological firesetting includes an
 1040 unhealthy relationship with fire, the presence of
 1041 pathological firesetting strongly suggests that the
 1042 pathological firesetter has attachment problems.
 1043 In a sense, the relationship the firesetter has in
 1044 using fire to regulate means that something has
 1045 not developed along proper developmental lines
 1046 in respect to relationships with people. The chal-
 1047 lenge for understanding the development and
 1048 treatment of those with attachment disorders is
 1049 that attachment processes, though enormously
 1050 influenced by experience, are not always easily
 1051 accessible within our verbally mediated minds.
 1052 This is not simply a matter of resistance in a clas-
 1053 sical sense in which that which makes one anx-
 1054 ious or painful is moved out of consciousness. It
 1055 is due to the way the brain develops biologically.
 1056 Because of this, painful memories are not so
 1057 easily accessible within the therapeutic process.
 1058 This is a phenomenon that needs to be differentiat-
 1059 ed from therapeutic resistance as the solution
 1060 to it is different than that of dealing with the
 1061 resistance process. Neural science can help to
 1062 explain this issue.

1063 The human brain is asymmetric in size, func-
 1064 tion, and development. The right hemisphere
 1065 develops more robustly during the first 2–3 years
 1066 of life, responding to attachment patterns and
 1067 lays the neurological substrate for secure or inse-
 1068 cure attachment. During the time frame in which
 1069 attachment processes are so vitally being orga-
 1070 nized, the brain’s dominant activity is centered in
 1071 the right hemisphere. Furthermore, primal emo-
 1072 tional material, particularly negative emotions
 1073 such as fear and anger, easily stimulated by abu-
 1074 sive, chaotic, and neglectful parenting that many
 1075 of these firesetters have grown up within, rests in
 1076 a lower brain center, the amygdala, a part of the
 1077 limbic system (see discussion in Badenoch 2008;
 1078 Siegel 2007).

1079 Verbal processing is a task that does not
 1080 develop until later in life and is a left brain domi-
 1081 nated activity. Left brain processing, even in the
 1082 mature brain, occurs at a slower pace than right
 1083 brain processing and the processing of raw emo-
 1084 tion often occurs by a fast track so that we may
 1085 find ourselves responding to emotion faster than
 1086 we are aware. Memories that we can more easily
 1087 access are part of our slower but easier to know
 1088 explicit memory system. Memories that are
 1089 harder to access are usually part of our implicit
 1090 memory system. For better or worse, problematic
 1091 attachment memories are encoded within our
 1092 implicit memory systems, not easily accessible in
 1093 normal situations.

1094 The implication of neurological development
 1095 is that our brains, even in healthy development,
 1096 are built to pick up, process, and react to relational
 1097 data faster than we can rationally think through
 1098 these processes. With less secure attachment,
 1099 more disparate and less integrated brain function-
 1100 ing will occur. In other words, more insecurely
 1101 attached people are more prone to problems stem-
 1102 ming from a lack of integration of brain functions.
 1103 Additionally, they have greater difficulty in rela-
 1104 tionship formation, one of the necessities in devel-
 1105 oping a therapeutic relationship, as well as in
 1106 accessing and modifying the material encoded
 1107 within their brains based on memories (Badenoch
 1108 2008; Bowlby 1980a, b; Crittenden and Ainsworth
 1109 1989). A therapeutic problem is that the serious
 1110 juvenile firesetter frequently is impacted by mem-
 1111 ories that he cannot easily “grab a hold of” within
 1112 his own mind, much less verbalize to the thera-
 1113 pist, *even if the firesetter is not resistant*.

1114 From the neurobiological perspective, the
 1115 therapeutic task is to help the firesetter to more
 1116 effectively utilize left brain systems of cognition
 1117 while they also overcome their implicit right
 1118 brain and amygdalar memories, so that they can
 1119 function in a healthier, safer manner in which fire
 1120 no longer becomes a solution to deep-seated psy-
 1121 chological problems. We refer to our treatment
 1122 model as a *brain geography model*. This model
 1123 entails four therapeutic dimensions for consider-
 1124 ation in the treatment of the firesetter.

1125 The first group of interventions is known as top-
 1126 down interventions. Top-down approaches refer to

1127 both a geographical positioning of interventions
 1128 as well as the concept of improving the individu-
 1129 al’s system of control system in an effort to increase
 1130 regulation of the emotional over-reactivity and the
 1131 implicit memory systems that become activated
 1132 within the juvenile firesetter, creating risk for fire-
 1133 setting recidivism (as well as other destructive
 1134 behaviors). Essentially, these approaches rely on
 1135 developing cortical processes, mostly within the
 1136 frontal and prefrontal cortex, to counteract and
 1137 suppress emotional activity that derives from
 1138 implicit memories.

1139 Top-down approaches are facilitated by a cog-
 1140 nitive-behavioral approach in which issues of
 1141 impulse control, anger management, affect dif-
 1142 ferentiation, and affect tolerance can be worked
 1143 on in a step-by-step approach with the firesetter.
 1144 The success of this work depends on the capaci-
 1145 ties of the client to review and accept areas of
 1146 weakness and to apply rational thought to over-
 1147 coming such weaknesses.

1148 The top-down approach also has implications
 1149 for the development of a psychotherapeutic rela-
 1150 tionship. This is an approach that demands col-
 1151 laboration between therapist and firesetter. This
 1152 work is not so intrusive as to bring forward major
 1153 defensive operations. In other words, client and
 1154 therapist can frequently engage in this work with-
 1155 out untoward de-stabilization and, in fact, with a
 1156 sense of comfort. As the client collaborates in
 1157 such work, there is a deepening of rapport.
 1158 In many cases, this gets the therapy off on a posi-
 1159 tive track. The client thus can build a more sig-
 1160 nificant psychotherapeutic relationship as this
 1161 work progresses. In this phase, clients are helped
 1162 to develop and practice specific skills that help
 1163 them to feel more in control in their daily lives. In
 1164 the best of cases, the client applies new skills suc-
 1165 cessfully and develops a sense of increased self
 1166 efficacy. A positive outcome with the cognitive-
 1167 behavioral approach is that it reinforces a positive
 1168 working alliance with the therapist.

1169 An important aspect of top-down work is to
 1170 build a realistic sense of fire as dangerous into the
 1171 minds of the juvenile firesetter, a concept hereto-
 1172 forth absent from the firesetter’s psyche. This task
 1173 is facilitated by the use of fire safety education in
 1174 combination with confrontation of the firesetter’s

1175 attitude that fire is an acceptable tool to regulate
 1176 emotions. Using fire to decrease uncomfortable
 1177 feelings or to increase a sense of excitement and
 1178 existential aliveness is a problem that the authors
 1179 believe requires active intervention.

1180 The work of top-down interventions often
 1181 times has to be extensive due to the overall prob-
 1182 lems with self regulation within the firesetter.
 1183 These useful interventions include evidence-based
 1184 training of anger management, anxiety control,
 1185 and impulse control. Mindfulness training is
 1186 another form of top-down intervention as it seeks
 1187 to invigorate the capacities of the prefrontal cor-
 1188 tex and the integrative functions that emanate
 1189 from that region (see discussion in Siegel 2007).
 1190 These interventions focus on activating the pre-
 1191 frontal and frontal cortex, the locations largely
 1192 responsible for executive functioning. Helping
 1193 these structures to “get on board” increases inhib-
 1194 itory resources in order to control impulses and
 1195 affects arising from the midbrain. Impulse con-
 1196 trol, judgment, capacity for affect modulation,
 1197 frustration tolerance, and the ability to anticipate
 1198 consequences all largely emanate from this region
 1199 of the brain. Helping the client to establish capaci-
 1200 ties at self-regulation is an essential focus of treat-
 1201 ment. It is within this arena that cognitive
 1202 behavioral strategies can be very effective.

1203 The second group of interventions focuses on
 1204 healing within the brain’s right hemisphere and
 1205 can be considered *bottom-up*. The task is to acti-
 1206 vate attachment processes and to help the fireset-
 1207 ter move toward attachment security for the many
 1208 firesetters who have problems in this area. As
 1209 explained previously, the lack of relatedness that
 1210 many serious juvenile firesetter’s exhibit appears
 1211 to be one of the very serious sequeli of a neglect-
 1212 ful past. In order to understand this area, the cli-
 1213 nician needs to assess the quality of the firesetter’s
 1214 relationships. A caution is mentioned here. Often
 1215 times, the more delinquent juvenile firesetter fre-
 1216 quently talks extensively about their “friends,”
 1217 often times either accomplishes or spectators in
 1218 firesetting. However, examination of these rela-
 1219 tionships usually reveals very superficial quali-
 1220 ties in the relationship as well as a drive to prove
 1221 oneself as powerful and courageous through the
 1222 commission of delinquent acts.

1223 Therapy interventions focused on attachment
 1224 issues require a greater degree of clinical sophis-
 1225 tication than do the top-down approaches enu-
 1226 merated above. This is because attachment
 1227 difficulties present a formidable clinical chal-
 1228 lenge. In treatment, the implicitly encoded old
 1229 attachment experiences must be disconfirmed
 1230 and their power must be reduced. Meanwhile,
 1231 new experiences that occur within treatment must
 1232 transfer from working, or short term memory,
 1233 into long-term memory while, simultaneously,
 1234 processes cascading from problematic implicit
 1235 memory must be stemmed, modified, or replaced.
 1236 In other words, a positive relationship with the
 1237 therapist is not enough for the firesetter. It is only
 1238 when this relationship challenges the past implicit
 1239 memory damage that real change occurs.

1240 In dealing with attachment issues, the client
 1241 must have some positive rapport with the thera-
 1242 pist. The therapist needs to monitor the fireset-
 1243 ter’s distancing and avoidant maneuvers in the
 1244 sessions, energetically “pulling the firesetter into
 1245 a psychological orbit” as the client becomes more
 1246 able to tolerate this. This process usually arouses
 1247 anxiety within the firesetter and the nature of the
 1248 anxieties can be diverse. Nevertheless, the thera-
 1249 pist, by being attuned to such anxieties, can help
 1250 the client to explore and work through the rele-
 1251 vant issues, sometimes on more than one level.

1252 A recent clinical example is of a 16-year-old
 1253 male who was able to describe that he wanted to
 1254 develop more trusting relationships in residential
 1255 care but also noted “I really don’t want to get too
 1256 dependent, when I go home I’ll have to get used
 1257 to depending only on myself.” Initially, the anxi-
 1258 eties of this teenager were talked about in terms
 1259 of the very real possibilities he would have for
 1260 follow up care. However, the issue was also
 1261 examined in relationship to his significant peer
 1262 issues as well as family of origin relationship
 1263 issues. As these issues were attended to, the cli-
 1264 ent began to re-appraise his fears and increased
 1265 his capacity for relatedness with the therapist.
 1266 The client first began to notice that he felt better
 1267 after clinical sessions and then observed that his
 1268 improvement in organization and regulation
 1269 began to sustain between sessions. He was able
 1270 to make movement toward attachment security.

1271 He began to find some measure of compassion
1272 for others whom, during his past, he had seen
1273 as weak and vulnerable, prone to exploitation
1274 by him.

1275 The bottom-up approach focus on the move-
1276 ment toward attachment security from anxious,
1277 avoidant, and disorganized attachment styles to a
1278 more secure style brings with it new develop-
1279 ments in organization, self-regulation, and empa-
1280 thy development. Within the context of a healing
1281 relationship, the firesetter activates a self and
1282 other caring capacity within his brain. Cognitive-
1283 behavioral strategies become better integrated
1284 into the developing personality of the firesetter.

1285 In the area of attachment issues, if the thera-
1286 pist's own attachment experience has been basi-
1287 cally sound, this is an area in which the therapist
1288 may productively allow their own intuition about
1289 the relationship issues the client has in the here
1290 and now to be given verbal expression, mostly in
1291 a supportively manner. At times, the therapist
1292 will need to be pointedly critical of the neglectful
1293 and/or abusive caretaker behaviors the firesetter
1294 endured, especially as these are re-enacted in the
1295 here and now. Of course, the therapy task is to
1296 offer this criticism in the service of the firesetter's
1297 development, not in the service of the counter-
1298 transference aroused within the therapist.
1299 At selected times, the therapist may need to
1300 actively contrast their own attunement with the
1301 firesetter with the parent's lack of attunement,
1302 setting the stage for the firesetter to discover the
1303 possibility of healthy interaction and its contribu-
1304 tion to self-regulation.

1305 Because of attachment pathology, juvenile
1306 firesetters frequently have problems with a coher-
1307 ent narrative or biographical memory. In one
1308 example, a 15-year-old firesetter who lost his
1309 father to cancer when he was 9 could recall any
1310 memories of his father prior to his illness, during
1311 the illness, or of the adjustments the family had to
1312 make following the death. Furthermore, the same
1313 teenager had amnesia for most of his early life
1314 events. He claimed, as children like him fre-
1315 quently do, "I can't even remember what I did
1316 yesterday." As he developed a secure therapeutic
1317 relationship, he began "filling in" the gaps in his
1318 autobiographical memory.

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1319 A critical component in the treatment of juvenile
1320 firesetters is in the area of memory retrieval and
1321 the integration of associated emotions. As fireset-
1322 ters begin to piece together the "what happened"
1323 of their past they then retrieve the emotional
1324 memories associated with these events. In the
1325 case covered above, our client was able to recall
1326 memories of his father and then had an outpour-
1327 ing of grief. Once the affect is processed, there is
1328 a reduction in the power of that affect to trigger
1329 future destructive behaviors. Therapists can track
1330 their clients' filling in the blank areas of their nar-
1331 rative puzzles as explicit memories crystallize. 1332

1333 Many missing memories in juvenile firesetters
1334 involve abusive and neglectful experiences. There
1335 is a strong tendency among these children to deny
1336 their maltreatment or that the abuse or neglect
1337 has had a deleterious impact. Social pressures
1338 can affect psychological processes especially
1339 when children are told to "forget about the past."
1340 Family therapy can sometimes be very helpful in
1341 resolving such situations. To illustrate, one of our
1342 firesetters had been abducted and brutally sexu-
1343 ally abused by an unknown assailant when he
1344 was a small child. When the family located the
1345 child, a confrontation occurred with the assailant
1346 who murdered the boy's uncle and shot his father.
1347 His mother's attempt to deal with this overwhelm-
1348 ing trauma had urged her son "to forget the past
1349 and focus on the present." In family therapy, she
1350 began to disclose that she had recurring traumatic
1351 nightmares of the events. At this point, the family
1352 transitioned from a defensive stance in which each
1353 member dealt with their pain in isolation to a sup-
1354 portive stance in which each member could effec-
1355 tively share their trauma. 1355

1356 Maltreatment is a common traumatic experi-
1357 ence associated with juvenile firesetting behav-
1358 ior. Processing experiences of abuse and neglect
1359 is painful and creates a sense of vulnerability.
1360 Thus, there are powerful intra-psychic reasons
1361 that the firesetter wants to avoid this work. 1361
1362 Admission of either abuse or neglect within his
1363 family can be difficult for adolescents. Both may
1364 imply to the adolescent a sense of betrayal of his
1365 own family system that, however, harmful in
1366 the past, the adolescent may still have hopes of 1366

1367 creating a healthier bond with. Also, vulnerability
 1368 to abuse and neglect experiences may well create
 1369 an uncomfortable impingement on the adoles-
 1370 cent’s desire to see himself as powerful, stereo-
 1371 typically adequate in terms of his emerging
 1372 masculinity, and capable.

1373 Therapists must utilize sound clinical judg-
 1374 ment in evaluating how to proceed with defenses
 1375 to disclosing and working through traumatic
 1376 experiences. In some cases, they may have to
 1377 assert that neglect and abuse actually occurred.
 1378 However, one issue that may be difficult for ther-
 1379 apists is to balance empathic support without
 1380 reinforcing externalization of responsibility.
 1381 There are times in which discussion of maltreat-
 1382 ment may reinforce the strength of externalizing
 1383 defenses. Therapists must be clear that, whatever
 1384 the obstacles to healthier development, the choice
 1385 to set a fire is never an acceptable one.

1386 A third aspect in the treatment of the juvenile
 1387 firesetter centers on trauma recovery. Whereas
 1388 neglect seemingly results in global attachment
 1389 problems, the impact of trauma is that highly
 1390 emotional memories are created within the sub-
 1391 ject. Neither neglect nor trauma provides for
 1392 healthy conditions for development but they
 1393 appear to have different impacts. Neglect is a
 1394 usually a diffuse condition that involves an
 1395 *absence of attunement*. It is processed within the
 1396 brain considerably differently than the *encoding*
 1397 *of specific events*.

1398 Traumatic memories are potent emotional
 1399 memories. They exact tremendous pressure on
 1400 the psyche. There is commonly a formation of
 1401 rigid defensive processes intermixed with activa-
 1402 tion, sometimes quite unconscious, of very emo-
 1403 tional expressions. From the point of view of
 1404 brain geography, midbrain activation within the
 1405 amegdala creates an upsurge of rage and fear.
 1406 Additionally, sensory data from memories
 1407 appears to be stored within the structure that pro-
 1408 cessed the data at the time it first occurred. Thus,
 1409 the triggers to activation of traumatic memories
 1410 may occur through stimulation of the visual, tac-
 1411 tile, olfactory, or auditory senses. Primary regions
 1412 for these senses are in the occipital lobes, sen-
 1413 sory–motor strip, mid brain, and temporal lobes
 1414 and association areas are frequently within the

parietal lobes. Trauma activation is thus a complex 1415
 brain event and this fact may be one of the factors 1416
 that make recovery so difficult. 1417

1418 Often times, abuse and neglect issues are
 1419 lumped together and considered as identical
 1420 issues. Although attachment and trauma are diffi-
 1421 cult psychological issues, the absence of differen-
 1422 tiation confounds therapeutic work. Abuse and
 1423 neglect are distinct psychological and neural-bio-
 1424 logical processes. An understanding of the differ-
 1425 ences and interconnections between attachment
 1426 and trauma is important in informing therapists as
 1427 to how to intervene with pathological firesetters.

1428 Abuse experiences are discrete, traced in
 1429 memory in a similar manner that a video camera
 1430 would record an historical event. These memo-
 1431 ries may or may not be available to conscious
 1432 awareness but they are still explicit. Memory pro-
 1433 cesses will record the traumatic event within the
 1434 context of how the child interpreted it at the time
 1435 it occurred. One of our firesetters recalled the fol-
 1436 lowing traumatic event from early childhood. His
 1437 mother placed his brother and himself into a
 1438 bathtub filled with scalding water in an attempt to
 1439 punish them. When he shared this memory with
 1440 his mother, she denied that the event had occurred.
 1441 This denial was worked through when the mother
 1442 received independent confirmation of the inci-
 1443 dent from her other son. While the firesetter had
 1444 difficulty understanding and processing the emo-
 1445 tional significance of this event on his develop-
 1446 ment and his firesetting issues, his retrieval
 1447 indicated an exquisitely nuanced and sequential
 1448 set of memories from before the bath tub inci-
 1449 dent, his mother’s affect at the time, the pain of
 1450 the event itself, and his humiliation that his
 1451 mother had maltreated him.

1452 In contrast, neglect experiences are harder for
 1453 the memory system to encode simply because
 1454 these are memories of events that did not happen.
 1455 This can be like trying to video air, creating
 1456 memories that have little form and content. It is
 1457 hard for the human psyche to store memories of
 1458 events and interactions that never occurred. These
 1459 memories are implicit memories.

1460 From a neurological standpoint, the interper-
 1461 sonal attunement that is the foundation for secure
 1462 attachment is a process that is dominated by right

1463 hemisphere brain processes. This hemisphere is
 1464 more connected than the later developing left
 1465 hemisphere with lower brain centers responsible
 1466 for emotional processes such as emotional expres-
 1467 sion and control. Schore (2001) points out early
 1468 attachment problems lead to “a blunting of the
 1469 stress-regulating response of the right (and not
 1470 left) prefrontal cortex that is manifest in adult-
 1471 hood.” Thus, in his view, vulnerability to post
 1472 traumatic stress disorder (PTSD) is laid down in
 1473 quite early life even though the traumatic event
 1474 that leads to PTSD can arise much later in life.
 1475 The implication is clear. Those with attachment
 1476 security have more robust healthy adaptation to
 1477 trauma than those with attachment insecurity.
 1478 Without attachment security, the individual’s
 1479 capacity to regulate negatively emotionally
 1480 charged mental events suffers.

1481 Lack of attachment security is a deficit-based
 1482 psychology. With the introduction of trauma,
 1483 psychological injury is amplified. However, in
 1484 contrast to attachment processes, trauma is an
 1485 activating event. Trauma activates hard wired
 1486 survival processes such as fight or flight. However,
 1487 once survival processes are triggered, they remain
 1488 activated beyond their functional utility and
 1489 prompt the victim to respond as though they con-
 1490 tinue to face real danger. This causes social and
 1491 psychological dysfunction.

1492 In terms of clinical issues, explicit memories of
 1493 trauma are usually addressed by the juvenile fire-
 1494 setter prior to a focus on implicit memory issues
 1495 related to attachment processes. However, the cli-
 1496 ent’s sense that the therapist has the capacity to
 1497 appropriately attune with the client as they process
 1498 trauma lays the groundwork for the client’s move-
 1499 ment toward attachment security. In a sense, the
 1500 “good enough” capacity for the therapeutic dyad
 1501 to work through trauma issues provides for a deep-
 1502 ening of the therapeutic relationship, a harbinger
 1503 of more secure attachment.

1504 **Biofeedback as an Aid** 1505 **for Self-Regulation**

1506 There is an inverse relationship between attach-
 1507 ment pathology and the client’s ability to establish

a therapeutic relationship. Youths with the most
 severe attachment disorders are the least capable
 of utilizing traditional treatment. This is not a
 problem of resistance. The key issue with attach-
 ment impaired youths is that they lack the rela-
 tionship tools to enter into therapeutic alliances.
 Essentially, the therapist–client dyad is set up for
 superficial but mutually frustrating interactions.
 Introduction of biofeedback shifts the counsel-
 ing environment from one beset with frustration
 to one in which the therapist and the client can
 share an activity that is perceived as therapeutic.
 It empowers the client through learning self-
 regulation.

Biofeedback is a process in which clients learn
 to regulate processes that were typically thought
 to be outside of conscious control. This process
 involves activities that are considered autonomic,
 or involuntary, processes such as heart rate,
 peripheral skin temperature, muscle tension, and
 heart rate coherence (Thompson and Thompson
 2003). Biofeedback instruments collect informa-
 tion about autonomic processes and provide feed-
 back about these processes (in colorful computer
 screen images). This modality gives clients power
 over processes heretoforth thought to be outside
 of their control.

The client who cannot relate to others usually
 becomes interested in the auditory and visual
 images on the computer screen that reflect his
 “involuntary” bodily processes. As the client
 learns to manipulate the feedback parameters he
 gains a sense of control and accomplishment. For
 example, clients learn how to regulate processes
 such as skin temperature, which reflect their level
 of anxiety. Thus, learning how to regulate tem-
 perature provides an avenue for people to learn to
 regulate anxiety. Biofeedback involves multiple
 techniques, two of which have important applica-
 tions in treating juvenile firesetters. These include
 heart rate coherence training (HRCT) and elec-
 troencephalogram (EEG) feedback. These tech-
 niques can be used in treating the attachment and
 trauma issues related to serious firesetting. In our
 formulations, HRCT is capable of reaching those
 with relatively moderate attachment pathology
 whereas EEG feedback is able to impact those
 with severe attachment pathology.

1556 HRCT is a moment-to-moment measure of the
 1557 balance between the two branches of the auto-
 1558 nomic nervous system (ANS), the sympathetic
 1559 and the parasympathetic. In brief, the sympathetic
 1560 system is the activator within the ANS while the
 1561 parasympathetic is the system that slows down
 1562 processes. Heart rate variability is impacted by
 1563 mental and brain processes such as emotions and
 1564 thoughts. Emotional stress increases sympathetic
 1565 activity and decreased parasympathetic activity.
 1566 Heart rate variability training has increased a posi-
 1567 tive balance, bringing a stronger sense of control
 1568 to our firesetters. The heart rate variability tech-
 1569 nique is easily accessible and gives our clients a
 1570 sense of how biofeedback works. Attaching the
 1571 sensor apparatus is quite easy. Our clients become
 1572 aware that their training is not dependent on visual
 1573 motor skills; what happens on the screen is a func-
 1574 tion of “no hands” training. The fact that our cli-
 1575 ent’s ANS controls the computer generated
 1576 feedback is often an intriguing and compelling
 1577 connection for them. They train themselves to
 1578 enter a more regulated state. As the client becomes
 1579 more intrigued about internal processes, they
 1580 begin to form rapport with our therapists.

1581 A clinical example of our use of HRCT
 1582 involved a 16-year-old (referred to as Mike) who
 1583 had a history of lighting approximately 35
 1584 destructive fires. Mike’s background was fraught
 1585 with loss, the most troublesome of which was the
 1586 death of his mother who was largely inadequate
 1587 in providing for his basic needs, preoccupied
 1588 with her own substance abuse. Mike, though shy
 1589 and superficial initially, was slowly able to
 1590 develop rapport with his therapist and enjoyed
 1591 the human interaction and a sense that his thera-
 1592 pist was attuned to his emotional needs. When
 1593 sad, guilty, or angry, Mike was incapable of regu-
 1594 lating his behaviors. This had a detrimental impact
 1595 on his self-esteem. While Mike cognitively under-
 1596 stood this deficit, the use of cognitive-behavioral
 1597 techniques only appeared successful in sessions.
 1598 In the calmness of the sessions, Mike’s left hemi-
 1599 sphere processing was adequate to regulate his
 1600 emotions. In real-life situations, however, the
 1601 arousal within his limbic system incapacitated
 1602 the cognitive-behavioral strategies Mike had
 1603 learned and practiced in sessions.

Using HRCT, Mike could watch the graphic
 design of his heart rhythm on the computer
 screen. He then began to effect control over his
 heart rhythm by applying breathing and relax-
 ation techniques. He soon became adept at mold-
 ing his heart rate coherence to meet the system’s
 reward criteria. Mike quickly became more capa-
 ble of regulating himself in sessions and was able
 to transfer these skills in real-life situations.
 HRCT is a straight forward skill that allowed
 Mike to gain emotional control, replace his sense
 of treatment frustration with a sense of success,
 and raise his self-esteem. The value of HRCT is
 that it is simple to learn, rapidly improves self-
 regulation, and is relatively inexpensive to apply.

Firesetters with severe attachment pathology
 are so disorganized or avoidant that they cannot
 establish the beginnings of therapeutic rapport
 that is essential for the workings of therapy. EEG
 feedback is the appropriate treatment modality
 for these types of cases. A clinical example
 involved a 17-year-old firesetter (referred to as
 Tom) who burned down three separate buildings
 and set multiple trash can fires in his community.
 Simply put, Tom did not seem to care about him-
 self or others except when engaged in fast-paced
 activities. Tom was not suicidal but routinely
 injured himself in activities such as BMX riding.
 Consequently, he had a history of multiple frac-
 tures and other injuries, which left him with
 deformities. Tom’s mother had a history of severe
 psychiatric problems resulting in the termination
 of her parental rights. Tom had spent time living
 with a variety of relatives usually wearing out his
 welcome in short order. Even over a fairly long
 period of time, his investment of energy, affect,
 and meaningful dialogue did not develop suffi-
 cient traction to move toward a therapeutic alli-
 ance. Tom displayed no interest in getting help.
 The relational aspects of Tom’s right hemisphere
 brain seemed to be nonfunctional. Since there
 was no stability within the transference, the
 promise of short term progress never material-
 ized. Sessions were an ordeal for both Tom and
 therapist.

We used brain EEG in an attempt to activate
 his right hemisphere. EEG feedback (also known
 as neurofeedback therapy) collects data on the

1652 brain's bio-electrical activity and organizes these
 1653 data into meaningful auditory and visual feed-
 1654 back. Using EEG feedback, clients learn to shift
 1655 their brain wave activity into more self-regulated
 1656 states. There is evidence (Demos 2005; Thompson
 1657 and Thompson 2003) that this technique can be
 1658 successfully applied to the treatment of related
 1659 mental health problems including attention defi-
 1660 cit disorder and depression. More specifically
 1661 (Huang-Storms et al. 2006), EEG feedback is
 1662 effective in treating acting out children with mal-
 1663 treatment histories. Fisher (2007) also reports
 1664 that EEG feedback is a useful therapeutic tool in
 1665 working with traumatized and attachment disor-
 1666 dered clients, by facilitating client capacities for
 1667 meaningful engagement.

1668 The focus on EEG feedback for Tom involved
 1669 remediation of his right hemisphere processes.
 1670 As Tom began EEG feedback, he demonstrated
 1671 progress by becoming more clinically engaged.
 1672 For the first time, he expressed care for and about
 1673 family members. Later, at his own initiative, Tom
 1674 began to focus on increasing his impulse control
 1675 using EEG feedback at sites designed to modify
 1676 the frontal brain processes. He continues to make
 1677 progress regarding attachment and impulse con-
 1678 trol by utilizing this combination of biofeedback
 1679 and therapy.

1680 Summary

1681 It is evident that juvenile firesetting is a serious
 1682 problem that places people and communities at
 1683 risk. However, the treatment of serious juvenile
 1684 firesetters has been hindered by the lack of a
 1685 coherent clinical model. Under traditional
 1686 approaches, many of these juveniles appear to be
 1687 untreatable because their attachment pathology
 1688 interferes with adequate capacities to form even a
 1689 tentative psychotherapeutic relationship. In this
 1690 essay, we have addressed some of these limita-
 1691 tions by offering a comprehensive model of fire-
 1692 setting etiology, motivation, and treatment. The
 1693 key issue in addressing this problem is to under-
 1694 stand the pathological firesetter. Pathological
 1695 firesetters have deficits in self-regulation that are
 1696 caused by underlying attachment pathology and

1697 trauma issues. Child neglect and abuse weigh 1697
 1698 heavily as critical factors in the etiology and 1698
 1699 treatment of pathological firesetters. 1699

1700 A variety of self-regulation strategies have 1700
 1701 been outlined that can maximize safe and effec- 1701
 1702 tive treatment. Our comprehensive approach 1702
 1703 calls for increasing clients' capacities for self- 1703
 1704 regulation, therapeutically working through 1704
 1705 significant trauma, and aiding them in moving 1705
 1706 toward attachment security. For clients who are 1706
 1707 difficult to treat, we proposed and explained the 1707
 1708 use of biofeedback as a method to increase their 1708
 1709 engagement in meaningful therapy. Hopefully, 1709
 1710 this information will lead to more viable ways 1710
 1711 to treat these impaired children and thus prevent 1711
 1712 further entrenchment in the criminal justice 1712
 1713 system while increasing successful treatment 1713
 1714 outcomes. 1714

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3 Donna Macomber and Elena L. Grigorenko

4 *The real voyage of discovery consists not in seeking new lands but seeing with new eyes*

Marcel Proust (1871–1922) 5

6 Mentor–protégé relationships have existed
7 throughout history in politics, music, business,
8 and entertainment—Aristotle mentored Alexander
9 the Great, Bach was a mentor to Mozart, Richard
10 Branson was a protégé of Freddie Laker, Sir
11 Anthony Hopkins was mentored by Sir Laurence
12 Olivier, and Harry Potter had his Dumbledore.
13 The origin of the term for sage advisor has been
14 traced to the period when Odysseus left his son,
15 Telemachus, under the care of his wise friend,
16 Mentor, when he departed for the Trojan War
17 (Lytle 2009). Mentors are trusted friends, coun-
18 selors, or teachers, acting as positive role models,
19 who share their knowledge with a younger, less
20 experienced person. Modern mentoring programs
21 have strong face validity—they seem like they
22 should work, instinctually we believe they can
23 work, and, furthermore, we want them to work
24 (Roberts et al. 2004). Mentoring is said to be one
25 of the most popular social interventions in
26 American society (Rhodes and DuBois 2008),
27 and there exists a “good news only” mindset
28 within the media that tends to undercut the impact
29 of any legitimate empirical findings (Rhodes and

30 Lowe 2008). The Office of Juvenile Justice and
31 Delinquency Prevention (OJJDP) supports men-
32 toring as an effective way to prevent at-risk youth
33 from becoming involved in delinquency ([http://](http://www.ojjdp.gov/)
34 www.ojjdp.gov/). An estimated three million
35 youth are in individual mentoring relationships in
36 the U.S. In the twenty-first century, federal fund-
37 ing for mentoring programs has increased consid-
38 erably with appropriations by Congress of \$100
39 million (Rhodes and DuBois 2008).

At-Risk Youth 40

41 Children and youth considered to be at-risk tend
42 to be from large, often single-parent, families
43 coping with chronic poverty. Parents work long
44 hours and children are unsupervised and often
45 left to their own devices after school.
46 Neighborhoods are prone to gangs, drugs, and
47 violence, and community resources are negligi-
48 ble. Many at-risk youth suffer from physical or
49 sexual abuse, neglect, or have witnessed violent
50 behavior within their families or neighborhoods.
51 Schools are poor, and children and youth do not
52 perform well academically and may engage in
53 disruptive and aggressive behaviors while in
54 school. Potential outcomes for at-risk youth are
55 daunting and include teenage pregnancy, drug
56 use/abuse, chronic truancy, mental health issues,
57 and/or criminal or antisocial behavior (Stephens
58 2010). As adults, at-risk children and youth have
59 a high rate of divorce, chronic unemployment,
60 physical and psychiatric problems, substance

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61 abuse, demands on the welfare system, and crim- 105
62 inal activity (Keating et al. 2002). 106

63 **Risk and Protective Factors** 107

64 Resilience is the ability to positively cope with 108
65 stress and adversity. Three clusters of protective 109
66 factors that foster psychological resilience have 110
67 been identified: (1) individual, (2) family, and 111
68 (3) community. Individual characteristics include 112
69 intelligence, self-esteem, and disposition; family 113
70 characteristics involve consistent and close rela- 114
71 tionships; and community characteristics entail 115
72 bonding to nonrelated individuals who are posi- 116
73 tive role models, connections to community 117
74 organizations, and good schools (Rhodes and 118
75 Lowe 2008). “Mentoring programs for at-risk 119
76 youth seek to minimize risk factors (e.g., behav- 120
77 ior problems, academic failure, association with 121
78 delinquent peers) and maximize protective fac- 122
79 tors (involvement with supportive adults and 123
80 peers, problem-solving skills, self-esteem, and 124
81 social and interpersonal skills)” (Britner et al. 125
82 2006, p. 749). 126

83 Hart et al. (2007) investigated risk and protec- 127
84 tive factors of violent juvenile offenders. On the 128
85 basis of whether they had ever been convicted of 129
86 a violent or nonviolent offense, youth participants 130
87 were placed into three categories: nondelinquent, 131
88 nonviolent delinquent, and violent delinquent. 132
89 Significant risk factors were determined to be 133
90 substance use, age of first substance use, and 134
91 learning problems; while protective factors 135
92 included negative attitudes toward violence, hav- 136
93 ing contact with a caring adult in the community, 137
94 parenting style, and GPA. High rates of juvenile 138
95 crime are embedded in a number of intercon- 139
96 nected social problems (e.g., substance abuse, 140
97 child abuse and neglect, family violence, teen 141
98 parents, latchkey children, and poor parenting 142
99 skills) (Hinton et al. 2003). As one might expect, 143
100 violent delinquent participants were found to be 144
101 high on risk factors and low on protective factors. 145
102 More importantly, the authors established that 146
103 although non-delinquent participants had some 147
104 of the same risk factors as violent delinquent 148

youth, they also had significantly more protective 105
factors, suggesting that if at-risk adolescents have 106
protective factors in place, they are less likely to 107
engage in delinquent behavior. When gender dif- 108
ferences were considered, an important predictor 109
of delinquent and violent behavior was having a 110
caring adult at school for females, and for males, 111
predictors included GPA, power and security 112
related to aggression and violence, learning dif- 113
ficulties, and substance use/abuse at an early age 114
(Hart et al. 2007). 115

116 Although the impact on community-based 117
118 mentoring on risk factors for delinquency is 119
120 well established, less is known about the 121
122 effects of mentoring on delinquency and anti- 123
124 social behavior (Roberts et al. 2004). The 125
126 Study Group on Serious and Violent Juvenile 127
128 Offenders (SVJ) convened by the OJJDP deter- 129
130 mined that programs that address both risk 131
132 factors and the introduction of preventive fac- 133
134 tors are the most promising prevention in early 135
136 intervention programs for SVJ offenders 137
138 (Catalano et al. 1999). Problems that exist 139
140 within multiple levels (e.g., school, family, 141
142 peers, and culture) should be addressed and 143
144 the dysfunctional interactions between each of 145
146 these systems should be the focus of preven- 147
148 tive approaches to juvenile offender treatment

Developmental Considerations 134

135 During the period of childhood and adolescence, 136
137 interpersonal relationships are evolving, self- 138
139 esteem is tenuous, and individual identity is 140
141 formed. According to psychosocial development 142
143 theory, younger children enter a stage of “Industry 144
145 versus Inferiority” during the ages of 5–11, while 146
147 adolescents (ages 12–18) begin the “Identity ver- 148
149 sus Confusion” phase (Erikson 1968). Younger 150
151 children learn, create, and accomplish new skills 152
153 and knowledge and significant relationships 154
155 move outside of the home and parental influence. 156
157 Parents are important but they are no longer the 158
159 authorities they once were. Children develop a 160
161 sense of pride in their accomplishments and abilities 162

149 during this time. According to Erikson (1968),
 150 unsuccessful navigation of this stage of develop-
 151 ment can result in unresolved feelings of inade-
 152 quacy among peers leading to low self-esteem
 153 and doubts about ability for success. The associa-
 154 tion between an adolescent's self view and behav-
 155 ior is of special relevance for at-risk youth
 156 (Spencer and Jones-Walker 2004). Subsequently,
 157 adolescents find that life is becoming more com-
 158 plex as they are neither child nor adult, and they
 159 begin to struggle with social interactions, grapple
 160 with moral issues, and embark on a search for
 161 individualism and identity (Erikson 1968), as
 162 well as independence (Langhout et al. 2004).
 163 During the "Identity versus Confusion" stage,
 164 adolescents enter a period of withdrawal from
 165 responsibilities (e.g., a "moratorium"). A mora-
 166 torium is a postponement of decisions concern-
 167 ing long-term commitments, and an exploration
 168 of new experiences or adventures. Successful
 169 navigation of this stage can lead to more sound
 170 decisions about the future; however, unsuccess-
 171 ful navigation results in role confusion and tur-
 172 moil manifesting into insecurity and uncertainty
 173 about themselves and the future. As expected,
 174 the most significant relationships for adolescents
 175 are with peer groups (Spencer and Jones-Walker
 176 2004) as adolescents developmentally shift from
 177 parental or family influences and do not engage
 178 in close relationships with teachers as in the ele-
 179 mentary school years (Darling et al. 2006).
 180 During this period, issues of acceptance or rejec-
 181 tion in relationships are especially significant
 182 (Grossman and Rhodes 2002). Not only are at-
 183 risk children and youth exposed to a multitude of
 184 environmental and societal stressors that exert
 185 indirect and direct influences on behavior, but
 186 they are coping with inherent developmental
 187 changes as well.

188 Theoretical Frameworks

189 The following is a brief review of several frame-
 190 works in socialization and development theory,
 191 and their relevancy to mentoring programs for
 192 at-risk youth.

Acceptance-Rejection Theory

193

194 Parental love is essential to a child's healthy
 195 social and emotional development. Self-reported
 196 levels of parental acceptance rejection have been
 197 linked to personality and functioning (Britner
 198 et al. 2006). Anxiety and insecurity, a disposition
 199 toward behavior problems and conduct disorders,
 200 depression or a depressed affect, and involvement
 201 in drug or alcohol abuse has been linked to youth
 202 perception of parental rejection, and these per-
 203 sonality characteristics can manifest throughout
 204 the lifespan with perceived rejection by a signifi-
 205 cant other at any point in life (Rohner 2008).
 206 Unintended or negative effects and the risks asso-
 207 ciated with prematurely terminated mentor rela-
 208 tionships should be studied particularly in light
 209 of the histories of some at-risk youth (Britner
 210 et al. 2006; Grossman and Rhodes 2002).

Attachment Theory

211

212 Relationship experiences during the first few years
 213 of a child's life create a guideline that children fol-
 214 low to navigate their world outside of the parent-
 215 child relationship. With successful attachments,
 216 children form solid bonds to parental figures early
 217 in life. Successful attachments take place when a
 218 child in distress cues a parent/caregiver who then
 219 provides support, comfort, and affection. A recip-
 220 rocal relationship develops where comfort, secu-
 221 rity, and love are exchanged. Unsuccessful
 222 attachments occur when the child feels inade-
 223 quately soothed and comforted, and over time,
 224 may eventually reject parental support. When chil-
 225 dren fail to use parents for support and comfort, a
 226 void develops that over time fosters anger and
 227 frustration in the parent-child relationship
 228 (Goldsmith 2010). Several studies have found that
 229 an indirect effect of solid mentoring relationships
 230 was improvement in the quality of the parent-
 231 child relationship (Big Brothers Big Sisters of
 232 America, <http://www.bbbs.org>; Britner et al. 2006;
 233 Generations United, <http://www.gu.org>; Grossman
 234 and Tierney 1998; Langhout et al. 2004; Rhodes
 235 2002; Rhodes et al. 2000; Taylor et al. 1999).

236 **Host Provocation Theory**

237 As described above, at-risk youth face a multi-
238 tude of internal and external challenges. Host
239 Provocation Theory holds that when at-risk youth
240 are negatively influenced by antisocial stressors
241 and provocations and lack internal (self-regula-
242 tory capacity) and external (parental control)
243 safeguards, they are more likely engage in unlaw-
244 ful activity. Good mentors may successfully
245 monitor children and shield them from antisocial
246 inducements (Britner et al. 2006).

247 **Oppression Theory**

248 Multiple oppressors (e.g., racial minority status
249 and poverty) influence the at-risk youth and may
250 lead to feelings of powerlessness and lack of con-
251 trol limiting opportunities to experience ambition
252 and success. A mentor can be a compelling role
253 model—providing connections to resources and
254 opportunities, and serve as a paradigm of possi-
255 bilities (Britner et al. 2006).

256 **Rhodes Model**

257 This model stresses the importance of mentor
258 responsibility. Long-term commitments, careful
259 screening procedures, adequate and ongoing
260 training, and continuing support are identified as
261 integral components to the successful mentor-
262 mentee relationship. Mentors can act as positive
263 role models and encourage youth to feel con-
264 nected to their communities and help them in goal
265 setting, academics, and positive extracurricular
266 activities (Britner et al. 2006). The Rhodes Model
267 maintains that caring, enduring mentoring rela-
268 tionships impact youth outcomes through social,
269 emotional, cognitive, and identity development
270 (Rhodes 2005; Rhodes and DuBois 2008).

271 **Social Support Theory**

272 A plain and simple description of social support
273 is a positive association or helpful behavior
274 provided to a person in need. In Social Support

Theory, mentors provide resources that are of
275 value (e.g., guidance, information, and skill
276 acquisition). Support from mentors may help
277 youth to avoid a range of negative outcomes (e.g.,
278 drug and alcohol abuse, teen pregnancy, dropping
279 out of school) (Britner et al. 2006) 280

Sociomotivational Model of Mentoring 281

Relevant behavior in context is predisposed by
282 three categories of needs (connection, self-reli-
283 ance, and competence). Three aspects must be
284 present in the satisfaction of these needs: struc-
285 ture (e.g., mentors providing guidance and
286 information while clearly stating expectations
287 and consequences), involvement (e.g., invest-
288 ment of time, attention, instruction, and
289 resources), and support for autonomy (e.g.,
290 encouragement toward independent thinking,
291 recognition and respect for individuality). This
292 model links characteristics of the mentoring
293 relationship, motivational goals, and outcomes
294 (Britner et al. 2006). 295

At-Risk Youth and Crime 296

Included in the numerous negative outcomes for
297 at-risk youth is criminal or antisocial behavior.
298 Nationwide, law enforcement made an estimated
299 13,687,241 juvenile arrests (excluding traffic
300 violations) in 2009. Of these arrests, 581,765
301 were for violent crimes and 1,728,285 were for
302 property crimes (Uniform Crime Reports 2009).
303 Of note, among juvenile detainees, males from
304 minority and low-income backgrounds, are over-
305 represented (Morrison 2002), as are youth with
306 special learning needs (Leone 2004; Quinn et al.
307 2005). “It is a complicated braid of inadequate
308 education, criminalization, unjust hiring practices,
309 poverty, and racism that forms a pathway that for
310 many Black males is inescapable” (Woodland
311 2008, p. 557). 312

With the brief increase in youth violence in the
313 1980s and 1990s, there was a shift in the juvenile
314 justice system from one of paternal benevolence
315 to a more penal reactionary stance (Merlo and
316 Benekos 2003; Piquero and Steinberg 2010). 317

318 This was a simple “quick fix” knee-jerk reaction
 319 to juvenile crime brought about by three factors:
 320 (1) media perpetuation of public fear by report-
 321 ing random acts of violence by youth and the vic-
 322 timization of strangers, (2) the demonization of
 323 youthful offenders as dangerous and unremorse-
 324 ful, and (3) misgivings of the system’s ability to
 325 control youth violence (Merlo and Benekos
 326 2003). Public outcry influences public policy, and
 327 to gain support for re-election, policymakers act
 328 based on what they believe the public desires.
 329 “From 1985 to 1997, the number of youth younger
 330 than age 18 sentenced to adult state prisons
 331 increased from 3,400 to 7,400, and the number
 332 held in state prisons increased from 2,300 to
 333 5,400” (Merlo and Benekos 2003, pp. 278–279).
 334 A juvenile who enters the adult system is labeled
 335 a convict and carries the accompanying negative
 336 social circumstances (Jones-Brown and Henriques
 337 1997) undermining successful reentry into the
 338 community (e.g., gainful employment, a return to
 339 school and eventual graduation, refraining from
 340 substance use). After Columbine and other school
 341 shootings in the 1990s, zero tolerance laws for
 342 fighting, bullying, weapons possession, and drug
 343 possession were established and adopted by
 344 school districts throughout the country. The objec-
 345 tive of the zero tolerance laws was to make schools
 346 safer; however, broad interpretations have resulted
 347 in an excessive number of suspensions and expul-
 348 sions for seemingly trivial offenses.

349 At this time, there is evidence of a withdrawal
 350 from the punitive, rigorous approaches character-
 351 istic of the 1990s. Perhaps this is due to lowered
 352 crime rates (particularly among juveniles), and
 353 lack of evidence that harsher punishments deter
 354 criminal activity. Arrests of juveniles for all
 355 offenses decreased 8.9% in 2009 when compared
 356 with 2008, while arrests of adults declined 1.2%
 357 (Uniform Crime Reports 2009). There also appears
 358 to be a change in public perception as well.

359 Piquero and Steinberg (2010) surveyed
 360 approximately 2,000 adults from across four
 361 states as to their preference for rehabilitation or
 362 incarceration of juvenile offenders. Their find-
 363 ings discredit conventional belief that the public
 364 favors incarceration of youth over rehabilita-
 365 tion. In fact, a greater number of respondents

366 favored additional rehabilitation over additional
 367 confinement, and were willing to pay additional
 368 taxes to pay for it (Piquero and Steinberg 2010).
 369 In May of 2010, Senator Frank Lautenberg
 370 (D-NJ) introduced the Juvenile Mentoring
 371 Program (JUMP) Act of 2010 (S.3353). JUMP
 372 2010 is an amendment to the Juvenile Justice
 373 and Delinquency Prevention Act of 1974 ([http://](http://www.govtrack.us/congress/)
 374 www.govtrack.us/congress/), and proposes
 375 availing funds to local agencies for putting into
 376 practice mentoring programs that serve at-risk
 377 youth in high crime areas. At this time, S.3353
 378 has been read twice and referred to the
 379 Committee on the Judiciary for review ([http://](http://www.govtrack.us/congress/)
 380 www.govtrack.us/congress/). Informal feedback
 381 from a JUMP-sponsored mentor program from
 382 1995 indicated that 30% of participants showed
 383 improvement in school attendance and academ-
 384 ics, 35% showed improvement in their general
 385 behavior, and 48% showed increased frequency
 386 of appropriate interactions with peers (Jones-
 387 Brown and Henriques 1997).

388 With the shift from a punitive response to a
 389 rehabilitative stance to juvenile offenders, mentor
 390 programs have become a popular prevention/
 391 intervention strategy. An attractive feature of
 392 mentoring programs for delinquent youth is that
 393 they take place in the community where youth
 394 learn to manage daily situations that affect their
 395 lives (Jones-Brown and Henriques 1997), as well
 396 as the capacity to change the underlying causes
 397 of delinquency (e.g., poverty, unemployment) by
 398 tapping into the unique strengths of different
 399 communities (Spencer and Jones-Walker 2004).
 400 However, juvenile offenders, upon reentry into
 401 the community, receive services from school,
 402 health and human service, law enforcement, and
 403 family court professional teams, but mentor pro-
 404 gramming is rarely integrated into these services
 405 (Britner et al. 2006).

**Mentor Programming Impact
 on Recidivism**

406
 407
 408 Mentoring has been implemented as an interven-
 409 tion in the criminal justice system as a method of
 410 reducing reoffending (recidivism) and increasing

411 positive life outcomes. The success or failure of
 412 mentoring programs for juvenile offenders is
 413 often determined by recidivism rates. The
 414 dilemma with this approach is how recidivism is
 415 defined and measured (Stoodley 2010). Should
 416 recidivism be considered as rearrest, readjudica-
 417 tion, or reconfinement? Does recidivism occur
 418 even if the charges are not sustained or are status
 419 offenses (i.e., those that can only be committed
 420 by juveniles)? What if new charges are relatively
 421 minor or technical program violations? Using
 422 recidivism rates as the sole measure of program
 423 effectiveness is an easy way to dismiss other
 424 potential positive effects and claim “nothing
 425 works” (Jones-Brown and Henriques 1997). The
 426 Council of Juvenile Correctional Administrators
 427 (CJCA), with support from the OJJDP, identified
 428 three goals related to recidivism measurement:
 429 (1) reduced reoffending, (2) increased support for
 430 evidence-based programs (proven and promising),
 431 and (3) support the continuous quality improve-
 432 ment of programs and systems of services
 433 (Stoodley 2010, p. 86).

434 A study by Blechman et al. (2000) compared
 435 three intervention strategies to prevent recidivism
 436 among juvenile offenders upon reentry into the
 437 community: Juvenile Diversion (JD), JD plus
 438 skills training (JD + ST), and JD plus mentoring
 439 (JD + MEN). Participants with prevalent charges
 440 of theft, burglary, criminal mischief, assault, dis-
 441 orderly conduct, and possession of controlled
 442 substances were randomly assigned to the three
 443 groups. Recidivism rates were determined by
 444 review of official records of the dates of arrests
 445 and associated criminal charges preceding and
 446 following the intake arrest on charges of auto
 447 theft, criminal mischief, and disorderly conduct
 448 (though most participants were found to have
 449 multiple charges). Those in the JD program wrote
 450 letters of apology and performed community ser-
 451 vice; the JD + ST group wrote apology letters,
 452 performed community service, and attended
 453 anger management, personal responsibility and
 454 decision-making classes; and the JD + MEN par-
 455 ticipants wrote apology letters, performed com-
 456 munity service, and were matched with adult
 457 volunteer mentors by a community agency. Data
 458 analysis indicate that 63% of the JD + ST group

459 were not arrested 2 years or more after first arrest
 460 compared to 49% in the JD + MEN and 54% in
 461 the JD group (Blechman et al. 2000). In this
 462 instance, mentoring was found to be the least
 463 effective intervention in reducing recidivism rates
 464 than either the Skills Training or Juvenile
 465 Diversion group.

466 Bouffard and Bergseth (2008) compared out-
 467 comes for youth returning from out-of-home
 468 placement who received reentry programming in
 469 addition to traditional probation services with
 470 comparable youth returning from out-of-home
 471 placement with no reentry services. Out-of-home
 472 placement facilities and juvenile probation staff
 473 work in tandem to provide juvenile offenders
 474 support and services before, during, and after
 475 they transition into the community. Reentry ser-
 476 vices included a paid transitional coordinator
 477 who engaged in a number of mentoring and
 478 supervisory activities. Juvenile offenders partici-
 479 pated in or completed a substantial portion of ser-
 480 vices referred by transitional coordinators. The
 481 preliminary results of this study suggest that the
 482 addition of a transitional coordination providing
 483 comprehensive reentry services may improve
 484 both adjustment to the community and success in
 485 desisting from crime and delinquency, and that
 486 control approaches alone (probation with no
 487 reentry services) may not be sufficient (Bouffard
 488 and Bergseth 2008). Here, several recidivism
 489 measures were taken into account: (1) criminal
 490 and noncriminal (status) reoffending rates; (2)
 491 analysis of the time to reoffending; and (3) analy-
 492 sis of the number of later official contacts.

493 As with the reentry program described above,
 494 the Intensive Aftercare Program (IAP) (Altschuler
 495 and Armstrong 1994), is a reentry program for
 496 juveniles that includes: a three-phase design, a
 497 needs assessment, and coordinated case manage-
 498 ment (Bouffard and Bergseth 2008). Case man-
 499 agers and rehabilitative services are coordinated
 500 over three phases: prerelease planning phase,
 501 reentry preparation (short-term postrelease
 502 phase), and community-based services phase
 503 after release from placement. The Serious and
 504 Violent Offender Reentry Initiative (SVORI)
 505 (Winterfield and Brumbaugh 2005) is a similar
 506 model for adults as well as juvenile offenders

507 returning to the community. The authors claim
508 that with these programs, the rates of recidivism
509 can be decreased with supervision and support.
510 Services and support should be individualized to
511 the needs of the offender while in custody, conti-
512 nuity of required services should be secured,
513 placement services in the community should be
514 determined by the needs of the offender, and pro-
515 vision of treatment services during placement
516 should be continued by the aftercare community.

517 Jolliffe and Farrington (2007) of Cambridge
518 University conducted a meta-analysis of 18 stud-
519 ies of mentored and control/comparison groups
520 and their impact on reoffending. All but two of
521 these studies were conducted in the US; the oth-
522 ers were carried out in England and Wales. The
523 overall results show that mentoring significantly
524 reduced subsequent offending. However, the
525 effectiveness of mentoring was related to key
526 components of the individual studies. The suc-
527 cessful mentoring programs differed from less
528 successful mentoring programs on the following
529 attributes:

- 530 • Interventions where the mentor and mentee
531 spent more time together per meeting.
- 532 • Interventions where mentors and mentees met
533 once a week or more.
- 534 • Those interventions in which the intervention
535 was a part of a multimodal treatment plan
536 (e.g., behavioral modification, supplementary
537 education, or employment programs) (Jolliffe
538 and Farrington 2007, p. 8).

539 It should be noted that reoffending was generi-
540 cally defined as “apprehended by police” in this
541 meta-analysis (Jolliffe and Farrington 2007, p. 8).

542 Recent Research

543 Perhaps the largest and most prominent mentor-
544 ing program is the Big Brothers/Big Sisters of
545 America (BBBSA). BBBSA was founded over a
546 hundred years ago and currently operates through-
547 out the U.S. and in 12 countries around the world
548 (<http://www.bbbs.org>). At-risk children and
549 youth from single-parent families are matched
550 for approximately 1 year with appropriate men-
551 tors who undergo a screening and training process.

552 Several studies on the effects of the BBBSA
553 mentoring program have been conducted and
554 are described below. The Substance Abuse
555 and Mental Health Services Administration
556 (SAMHSA) Registry of Evidence-based Program
557 and Practices (NREPP) (<http://www.samhsa.gov>), an online registry of independently reviewed
558 and rated interventions, assessed BBBSA as an
559 “effective program”; while a similar program,
560 Across Ages, received “model” program status
561 (Rhodes 2008).
562

563 Across Ages (<http://acrossages.org>) is an
564 intergenerational, multisystemic approach to
565 mentoring at-risk children and youth. Adults
566 aged 55 or older are recruited, trained, and
567 matched to youth in their community. Older adult
568 mentors are invaluable because they have an
569 opportunity to feel significant and invested in the
570 future, while young people receive extra atten-
571 tion, guidance, and support from a caring adult
572 (Generations United, <http://www.gu.org>). In
573 addition to spending 1–2 h/week with their
574 assigned Across Ages mentor, youth perform
575 community service hours, undergo social compe-
576 tence training, and participate in monthly family
577 activities. Outcomes from a randomized pretest/
578 posttest, control group study design include
579 improvement in knowledge about and reactions
580 to drug use, decrease in alcohol and tobacco use,
581 improvement in school-related behaviors,
582 improvement in attitudes toward school and the
583 future, improvements in attitudes toward adults
584 in general and older adults in particular, and
585 improvement in well-being. Family outcomes
586 included increased participation in school-related
587 activities, more positive communication with
588 children, engagement in more positive family
589 activities, improved access to community
590 resources, and expanded support (Taylor et al.
591 1999).

592 Other intergenerational mentoring programs
593 include Mentor Link—a mentoring program that
594 matches older adults with high school students
595 who need guidance and assistance to resolve social,
596 educational or employment problems and to
597 counsel youth in setting realistic goals for them-
598 selves. Mentors of the Bridges Intergenerational
599 Mentoring program offer assistance to immigrant

600 children with their assimilation to a new culture,
601 provide academic support, improve communica-
602 tion skills, and foster personal development
603 (Generations United, <http://www.gu.org>).

604 Public/Private Ventures conducted a study of
605 youth from eight different BBBSA programs in
606 the United States. Participants were matched with
607 appropriately screened and trained mentors while
608 a corresponding control group was placed on a
609 waiting list for 18 months (Grossman and Tierney
610 1998). At the 18-month follow-up, findings indi-
611 cated that youth who participated in the program
612 felt more competent about doing school work,
613 attended school more, received better grades,
614 were less likely to start using illegal drugs or
615 alcohol, were less likely to hit someone, and had
616 better relationships with parents (Grossman and
617 Tierney 1998; Big Brothers Big Sisters of
618 America, <http://www.bbbs.org>; Generations
619 United, <http://www.gu.org>).

620 Participants from the Grossman and Tierney
621 study (1998) were further evaluated on multiple
622 domains: academic adjustment (Rhodes et al.
623 2000), duration of relationships (Grossman and
624 Rhodes 2002), relationship styles (Langhout
625 et al. 2004), and same-race and cross-race mentor
626 matching (Rhodes et al. 2002). A brief descrip-
627 tion of each evaluation follows.

628 Rhodes et al. (2000) examined direct and indi-
629 rect influences of mentor relationships with
630 regards to academic adjustment. The treatment
631 group (e.g., those youth that were in matched
632 mentor relationships) reported improved parental
633 relationships, enhanced scholastic competency,
634 and better school attendance at 18-month follow-
635 up although the treatment group and nontreat-
636 ment group were equivalent at baseline
637 assessment. Indirect effects of mentoring led to
638 statistically significant improvements in increased
639 school value and improved grades (Rhodes et al.
640 2000). Grossman and Rhodes (2002) examined
641 the effects of length and duration of mentoring
642 relationships. Interpersonal relationships are key
643 components in the developmental stages of chil-
644 dren and adolescents. Abused or neglected youth
645 who have experienced mistreatment may have
646 difficulty trusting adults which may hinder the
647 relationship building process (Britner et al. 2006).

648 The authors found that youth in mentor matches
649 that lasted longer than 12 months reported sig-
650 nificant increases in self-esteem, perceived social
651 acceptance, perceived scholastic competence,
652 quality of parental relationships, school value,
653 and decreased drug and alcohol use. Conversely,
654 youth in matches that terminated within the first
655 3 months of the relationship indicated decreases
656 in self-esteem and perceived scholastic compe-
657 tence; while matches that lasted less than 6
658 months indicated no significant positive effects
659 and an increase in alcohol use. Prematurely ter-
660 minated mentor relationships may arouse feel-
661 ings of rejection and disappointment manifesting
662 in negative emotional, behavioral, and academic
663 outcomes (Grossman and Rhodes 2002). Not
664 only do early terminations have a negative impact
665 on the child, but it negatively impacts program
666 staff and financial resources given the effort
667 involved in recruiting, screening, training, and
668 matching volunteers (Rhodes and Lowe 2008). In
669 a similar study, results indicate that positive
670 effects of youth outcomes became increasingly
671 stronger as the mentor–mentee relationship per-
672 sisted for longer periods of time. In addition,
673 regular mentor contact was found to augment
674 security and attachment in the mentor relation-
675 ship as well as in other important relationships
676 (Rhodes and Lowe 2008), and mentor relation-
677 ships that end prematurely due to problem behav-
678 iors result in disappointment, rejection, and
679 betrayal (Rhodes et al. 2009).

680 Quantity is not the only important factor in
681 mentor relationships—quality is also a funda-
682 mental component of the mentor–mentee rela-
683 tionship. Youth from BBBSA study (Grossman
684 and Tierney 1998) were asked to characterize
685 their matched mentors on four parameters: (1)
686 moderate, (2) unconditionally supportive, (3)
687 active, and (4) low-key (Langhout et al. 2004).
688 Ratings were determined by youth responses to
689 survey questions regarding the frequency and
690 type of activities mentors engaged in with men-
691 tees and youth impressions or feelings toward his
692 or her mentor. Those youth that reported the larg-
693 est number of benefits (e.g., decreased alienation
694 from parents, decreased conflict and inequality
695 with friends and improved sense of self-worth

696 and school competence) characterized their
697 relationships in terms of “moderate” levels of
698 activity and structure. Those in the “active” group
699 and “low-key” groups were shown to have
700 improved school and peer relationships, and less
701 peer conflict, respectively. Surprisingly, those
702 from the “unconditionally supportive” group
703 showed no positive effects and reported an
704 increase in parental alienation (Langhout et al.
705 2004). Finally, an analysis of the impact of same-
706 race versus cross-race mentor matches was
707 undertaken by Rhodes et al. (2002). It is assumed
708 that an adult of a different racial and ethnic back-
709 ground cannot connect to youth or teach youth
710 how to cope in society if he or she has not had the
711 experience of being of minority status.
712 Unfortunately, the shortage of minority mentors
713 may result in longer wait for mentor matches. On
714 the other hand, cross-race mentoring may be a
715 way to bridge social distances and increase
716 awareness by challenging cultural beliefs, and
717 the quality of the mentor relationship should be
718 more important than race. Results indicate that
719 youth in cross-race relationships were more likely
720 to talk to their mentors and perceived their men-
721 tors as providing more unconditional support
722 compared to youth in same-race relationships.
723 Parents of same-race matches were more sup-
724 portive of the relationship than were parents of
725 youth in cross-race matches; while parents of
726 youth in cross-race matches were more likely to
727 believe that the relationship improved their chil-
728 dren’s peer relationships, the mentor tried to build
729 on the youth’s strengths, and that mentors took
730 them places they wanted to go. Adopting a flexi-
731 ble, youth-centered style in which the young per-
732 son’s interests and preferences are emphasized
733 can further close enduring ties (Rhodes and
734 DuBois 2008). When gender was considered,
735 however, negative effects were reported. Minority
736 boys in cross-race matches experienced a greater
737 decline in perceived academic competence and
738 self-worth than minority boys in same-race
739 matches, and minority girls in cross-race matches
740 experienced a greater decrease in school value
741 and self-worth than did minority girls in same-
742 race matches. The authors concluded that trust-
743 ing and supportive relationships appear to be

744 possible for minority youth in same- and cross-race
745 relationships, and the quality of these relation-
746 ships appears to be in combination with other
747 factors (e.g., gender, interpersonal inquiry, paren-
748 tal attitudes) (Rhodes et al. 2002).

749 Data from Project Youth Connect (PYC), a
750 multisite evaluation focused on the prevention,
751 reduction, and delay of substance abuse among
752 at-risk youth, was used to evaluate the influence
753 of the mentor-youth bond (Thomson and Zand
754 2010). Study findings further validate Rhodes
755 et al. (2000), Grossman and Rhodes (2002),
756 Spencer (2006), and Darling et al. (2006)—that
757 mentoring relationships play a significant role in
758 positive relationships between youth and other
759 adults particularly when youth perceive mentors
760 as genuine, compassionate, and as companions.

761 Keating et al. (2002) examined an intensive
762 mentoring program focused on youth deemed at-
763 risk for mental illness or juvenile delinquency, but
764 who were not yet court involved. Pre- and postinter-
765 vention data were collected from youth, parents,
766 and teachers. Mentors reported the number of
767 hours spent with youth and the activities com-
768 pleted. The study sample consisted of primarily
769 male, African American youth between the ages
770 of 10 and 17 years old. Post-intervention data
771 indicated that mentoring was successful in
772 decreasing problematic behaviors, but the authors
773 question whether this change can be credited
774 exclusively to mentor support and guidance, other
775 factors, or combination (Keating et al. 2002).

776 An examination of aggressive and delinquent
777 behaviors among Chicago urban youth found that
778 neighborhood level resources such as social cohe-
779 sion and collaboration between neighbors, avail-
780 able organizations and services (e.g., parks/
781 playgrounds, community newsletters, neighbor-
782 hood watch programs, tenant associations), and
783 accessible youth services (e.g., recreation pro-
784 grams, after-school programs, intervention ser-
785 vices, and mentoring/counseling programs) are
786 protective factors against highly aggressive
787 behavior (Molnar et al. 2008). This study cohort
788 was from the Project on Human Development in
789 Chicago Neighborhoods (PHDCN) (Earls and
790 Buka 1997)—a longitudinal, interdisciplinary
791 study of how families, schools, and neighborhoods

792 affect child and adolescent development and to
 793 enhance the understanding of the developmental
 794 course of both positive and negative human
 795 behaviors. The PHDCN specifically examined
 796 the pathways to juvenile delinquency, adult crime,
 797 substance abuse, and violence.

798 **After-School Programs**

799 Parents working long hours result in children
 800 and youth being left to their own devices upon
 801 school dismissal. After-school programs provide
 802 various activities to these children including ath-
 803 letics, the arts, tutoring/academic study, social
 804 skills and communication, or are focused on
 805 improving behaviors. These programs are often
 806 delivered in a group format by paid mentors
 807 through school or community programs; how-
 808 ever, others are lead by volunteers who individu-
 809 ally interact with youth.

810 Middle school students with a history of
 811 school suspension and/or expulsion were nomi-
 812 nated by principals and administrators for a men-
 813 toring program which targeted at-risk youth for
 814 delinquent behavior (Jackson 2002). Mentors
 815 were junior and senior undergraduate students
 816 with prerequisites in child development, psycho-
 817 pathology, and intervention who spent an average
 818 of 15–20 h/week with their matched mentees
 819 over a two semester period (Jackson 2002).
 820 During and at the end of the program, parents
 821 reported significant decreases in internalizing
 822 and externalizing behaviors; however, teachers
 823 reported no significant changes although partici-
 824 pants had few to no school violations by the end
 825 of the program. In a comparable study, eighth
 826 grade students from middle schools with signifi-
 827 cant academic and disciplinary problems partici-
 828 pated in a mentor program aimed at reducing
 829 school-related disciplinary problems (Rollin
 830 et al. 2003). Students participated in the program
 831 for approximately 2 h/day, 4 days/week through-
 832 out the school year. At-risk factors included
 833 involvement in the juvenile justice system, fight-
 834 ing or other disciplinary problems at school, high
 835 absenteeism, or overage for grade. Study results
 836 indicate that students in the mentoring program

837 had less in-school suspensions, fewer days of
 838 out-of-school suspensions, and a decrease in the
 839 number of infractions on school property as com-
 840 pared to those students not receiving mentorship
 841 services (Rollin et al. 2003).

842 According to Woodland (2008), there are three
 843 types of after-school programs that appear to be
 844 promising in the lives of young Black males: (1)
 845 the extracurricular model which provides sports,
 846 arts, tutoring, homework assistance, etc.; (2)
 847 the mentoring model such as BBBSA, and (3)
 848 Cultural Rites of Passage programs—culture-
 849 based interventions to supplement and support
 850 the transition of Black youth to adulthood. Urban
 851 African American students entering the middle
 852 school environment participated in a group
 853 mentorship program which emphasized reme-
 854 dial education and an appreciation of African
 855 American heritage (e.g., the Village Model of
 856 Care) in promoting school bonding, social skills
 857 development, and academic achievement (Hanlon
 858 et al. 2009). Employing culturally sensitive prin-
 859 ciples and methods, the Village Model of Care is
 860 a program developed by African American pro-
 861 fessionals, and preventive interventions incorpo-
 862 rated structured group mentoring (mentors were
 863 from the community who acted as educators and
 864 advisors), parental empowerment and support
 865 services, and community outreach services. At
 866 1-year follow-up, parental participation in the
 867 intervention program was found to be positively
 868 related to improvement of grade point average of
 869 these children, and there was evidence of
 870 improvement in their school adaptation and
 871 achievement (Hanlon et al. 2009). Participants at
 872 risk for academic failure and expulsion due to
 873 office referrals, suspensions, and fighting in
 874 school were selected to participate in the Maat
 875 Academy—a culturally sensitive mentoring
 876 model to improve school behavior, academic
 877 performance, and social skills (Mitchell et al.
 878 2002). Black male adults were employed to
 879 improve the academic and social skills of the
 880 participants. After 1 year, students demonstrated
 881 increased classroom participation, were less
 882 likely to be directed to leave classes, and received
 883 significantly fewer office referrals (Mitchell
 884 et al. 2002).

And last but not least, a meta-analysis of 55 evaluations (some of which may be described here) of the effects of mentor programs on youth realized a mean effect size of 0.14–0.18 on a variety of outcome measures (Bouffard and Bergseth 2008), and that at-risk youth appeared to reap the largest benefit from participating in mentoring programs (DuBois et al. 2002). Overall findings, however, suggest that although significant positive effects were found for the psychological, social, academic, and employment outcomes, as well as for the reduction of problem behaviors for youth, these effects were, in fact, small (DuBois et al. 2002). Of note, the authors were not able to differentiate effects for juveniles involved in the justice system and those who were not (Bouffard and Bergseth 2008). As in Grossman and Rhodes (2002), the authors propose that “frequency of contact, emotional closeness, and longevity of relationships may each make important and distinctive contributions to positive youth outcomes” (p. 187). The authors support continued implementation and dissemination of mentoring programs for youth, but they suggest innovation and experimentation with enrichment to program design.

It should be noted here that several authors described limitations to their research. The most recurrent include: (1) significant but modest positive outcomes (Catalano et al. 1999; Jolliffe and Farrington 2007; Grossman and Tierney 1998; DuBois et al. 2002; Langhout et al. 2004; Rollin et al. 2003); (2) primary reliance on self-reports; (3) nonrandom assignment to treatment and control groups (Hanlon et al. 2009; Hart et al. 2007; Jackson 2002; Keating et al. 2002; Roberts et al. 2004; Rollin et al. 2003); (4) small sample sizes (Jackson 2002; Keating et al. 2002; Rollin et al. 2003); and (5) that cause–effect relationships were unclear (Hart et al. 2007; Jackson 2002; Keating et al. 2002).

Mentor Characteristics

Descriptions of at-risk children and youth and several different mentoring programs have been provided throughout this chapter. However, little

has been said about mentor characteristics. What particular attributes and skills are necessary for an individual to be a successful mentor? Few guidelines exist to address the ethical responsibilities and commitment of adult mentors, or even provide a clear agreement as to what they should be (Rhodes et al. 2009). For volunteer programs, potential mentors typically undergo a screening process and background check before they are matched to a youth in the program. Although some programs describe this screening process as “intensive” (e.g., BBBSA, <http://www.bbbs.org>), specifics are not provided. Some programs take the intergenerational approach and recruit older individuals (e.g., Across Ages, Mentor Link, Bridges Intergenerational). For goal-oriented mentor programs (e.g., skills training, employment, academics/tutoring), mentors are typically paid, and the screening process is, in all probability, designed as employer/employee interview (e.g., inquiry of educational background, work experience, qualifications to administer a particular program, etc.).

One can assume that program administrators screen potential mentors for past criminal history so as to protect their clients from any harm. Rhodes et al. (2009) recommend explicit guidelines similar to the American Psychological Association’s (APA) ethical principles and conduct code of psychologists to address the ethical responsibilities and obligations of mentors. The proposed five guiding principles are:

1. Promote the welfare and safety of the young person. Work to benefit youth or at the very least do not harm.
2. Be trustworthy and responsible. Satisfy meeting frequency and match duration as predetermined by the program.
3. Act with integrity in mentees’ schools, homes, and communities by being respectful and not in such ways that require programs to run interference.
4. Provide justice for young people. Exercise good judgment and take precautions to ensure biases do not result in prejudicial treatment of the mentee.
5. Respect the young person’s rights and dignity, right to privacy and confidentiality. Understand

978 the youth’s personal goals, desires, and values
979 and involve youth in decision making.

980 Youth and mentors determined specific traits
981 as instrumental in creating satisfying relation-
982 ships: the mentor should understand the youth’s
983 reluctance to trust, the mentor should under-
984 stand that at least initially the relationship would
985 be unidirectional, the mentor should acknowl-
986 edge the youth’s interests and take them seri-
987 ously (e.g., do not criticize or preach), the
988 mentor should make an effort to relate to the
989 youth’s experience without prying into private
990 matters, and the mentor should attempt to under-
991 stand the youth’s family (Jones-Brown and
992 Henriques 1997).

993 As mentioned previously, at-risk children face
994 a multitude of psychosocial stressors and may
995 present with symptoms of psychopathology.
996 Chief of among these are externalizing behaviors
997 [e.g., attention deficit hyperactivity disorder
998 (ADHD), aggression, oppositional defiant disorder
999 (ODD), or conduct disorder (CD)]. Internalizing
1000 pathology may also be present (e.g., depression or
1001 anxiety). For youth who are exposed to violence,
1002 posttraumatic stress disorder (PTSD) may mani-
1003 fest itself in externalizing behaviors, internalizing
1004 behaviors, or both. Mentors should be cognizant
1005 of how these challenges, in addition to inherent
1006 developmental changes, may affect the youth’s
1007 attitude in developing a successful mentor rela-
1008 tionship. Quality leaders need skills to be able to
1009 intuit and assess complex psychological and envi-
1010 ronmental situations and act accordingly (Larson
1011 and Walker 2010).

1012 Because such complex situations can be
1013 encountered while mentoring at-risk youth, pro-
1014 grams must be honest with potential mentors
1015 regarding the expectations, time commitment,
1016 and the risks versus benefits of working with spe-
1017 cial populations of youth (Britner et al. 2006).
1018 Additional, ongoing training and supervision
1019 should familiarize mentors with the problems
1020 imposed by low-income, urban settings, and a
1021 clear identification of the goals of the mentoring
1022 relationship can provide guidance as to how men-
1023 tors are trained to be effective in reaching those
1024 goals (Langhout et al. 2004). Rhodes and Lowe
1025 (2008) suggest that the importance of consistency,

handling terminations, ethical quandries, advo- 1026
cacy on behalf of the child, gifts and money, 1027
working with the child’s family/school diversity 1028
issues could be potential topics for supplemental 1029
mentor training: 1030

To improve practice and program quality, the youth 1031
development field would benefit from open discus- 1032
sion and ongoing training on the diverse dilemmas 1033
that leaders encounter, and the appropriateness of 1034
different types of responses. 1035

(Larson and Walker 2010, p. 347) 1036

Final Thoughts 1037

Given the importance of providing preventive 1038
interventions to at-risk children and youth and 1039
the potential benefits of youth mentoring pro- 1040
grams, evidence-based practice from longitudinal 1041
research is crucial in the pursuit of positive out- 1042
comes. Research evaluations employing systemic 1043
evaluation that address overlapping populations, 1044
risks, and interventions are a necessity to test the 1045
efficacy of programs, implement changes to 1046
existing programs, and guide the development of 1047
new endeavors. Current research supports the 1048
idea that an inclusive multisystemic approach to 1049
the individual, the family, the school, and the 1050
community increases the likelihood of positive 1051
outcomes for at-risk children and youth (Hinton 1052
et al. 2003). 1053

Public opinion and public policy are currently 1054
very supportive of mentor programming, and 1055
believe in its potential for success. The JUMP Act 1056
of 2010 proposes to avail public funds to local 1057
agencies for mentor programming, and in a plan to 1058
continue the 2009 “Be a Mentor” campaign, the 1059
OJJDP expected to reach 3.5 million people 1060
through its ad in the game programs for Major 1061
League Baseball’s 2010 American League and 1062
National League Championship Series and the 1063
World Series inviting adults to “Step Up to the 1064
Plate” by becoming a mentor. This ad will also 1065
appear in the program for the 2011 All-Star game. 1066

In January of 2010, President and Mrs. Obama 1067
celebrated National Mentoring Month by bring- 1068
ing together mentors and mentees from across 1069
the country to participate in a conversation about 1070

1071 the importance of volunteers being involved in
1072 the life of a young child.

1073 Every person in this room remembers a teacher or
1074 mentor that made a difference in their lives. Every
1075 person in this room remembers a moment in which
1076 an educator showed them something about the
1077 world—or something about themselves—that
1078 changed their lives. It could be a word of encour-
1079 agement, a helping hand, a lesson that sparked a
1080 question, that ignited a passion, and ultimately
1081 may have propelled a career.

1082 President Barack Obama
1083 White House Press Release
1084 January 6, 2010

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Steven Marans, Deborah Smolover, and Hilary Hahn

Introduction

Through years of experience working directly with children and families exposed to violence, and developing, implementing, evaluating and supporting multidisciplinary programs that interrupt the cycle of violence, the Yale Child Study Center's National Center for Children Exposed to Violence (NCCEV) has developed a unique vantage point from which to understand the phenomenon of children's exposure to violence. In this chapter, the scope of the problem and the effects of exposure are described. The ways in which unaddressed exposure to trauma and violence constitute both a dire threat to public health and a significant criminal justice crisis are presented. Trauma is placed at the center of the cycle of violence and the mecha-

nisms by which a multitude of risk factors (such as unaddressed exposure to child abuse, domestic violence, school violence, and community violence; substance abuse; and school failure) aid in the perpetuation of the cycle of violence from child victim/witness to juvenile/adult offender are described. Several NCCEV programs are described to illustrate the ways in which multidisciplinary, integrated approaches to prevention, early identification and early intervention, and collaborative responses that incorporate law enforcement, mental health, and social services are critical to effectively addressing the needs of children exposed to violence. An argument is made for increased support for such programs to break the cycle of violence.

Children Exposed to Violence: The Scope of the Problem

Across America children are exposed to violence at alarming rates. A 2009 national survey reveals that in the previous year 60% of children and adolescents suffered at least one victimization, 46.3% experienced a physical assault, 25.3% witnessed violence, 9.8% witnessed intra-family assault, 10.2% were subjected to child maltreatment, 10.2% experienced a victimization-related injury, and 6.1% experienced sexual victimization (Finkelhor et al. 2009b). The sheer number of child victims is equally striking. The US Department of Health and Human Services reports that during 2007 an estimated 794,000 children were confirmed by child protection

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51 agencies to be victims of abuse or neglect (US
 52 Department of Health and Human Service
 53 Administration on Children Youth and Families
 54 2009b), and during 2008, 463,000 children were
 55 placed in the foster care system (US Department
 56 of Health and Human Service Administration on
 57 Children Youth and Families 2009a). Of the over
 58 22 million children between the ages of 12 and
 59 17, close to two million have been victims of
 60 serious sexual assault, nearly four million have
 61 been victims of serious physical assault, and
 62 nine million have witnessed serious violence.
 63 Children are victims in 58% of all forcible rapes,
 64 and 15.5 million children are exposed to domes-
 65 tic violence every year. As authors of the 2007
 66 article *Best Interests of Society* (Harris et al.
 67 2007) observe, while the number of children
 68 exposed to violence and potentially traumatic
 69 events (PTEs) alone should raise enormous con-
 70 cerns, the psychological and physiological
 71 impact of childhood traumatic events constitutes
 72 an urgent public health crisis (Bremner 2003;
 73 Harris et al. 2004; Sharfstein 2006; van der Kolk
 74 et al. 2005).

75 **The Effects of Violence Exposure**
 76 **on Children**

77 Children who are victims of, or witnesses to, vio-
 78 lence suffer potentially devastating consequences.
 79 Exposure to violence affects how children feel,
 80 act, think, and learn. Children with histories of
 81 traumatic reactions to PTEs and those living in
 82 families affected by multiple social adversity fac-
 83 tors are at greatest risk for poor long-term adapta-
 84 tion and adverse psychological outcomes
 85 (Cooley-Quille et al. 2001; Overstreet and Braun
 86 2000; Overstreet et al. 1999; Pine and Cohen
 87 2002). These children are at highest risk for a
 88 host of psychiatric disorders and maladaptive
 89 behaviors, including: PTSD, chronic depression
 90 and anxiety, alcohol and drug abuse (Anda et al.
 91 2006; Harris et al. 2007), personality disorders
 92 (Boney-McCoy and Finkelhor 1995; Campbell
 93 and Schwarz 1996; Freeman et al. 1993), conduct
 94 problems (Mrug and Windle 2009), school fail-
 95 ure (Schwartz and Hopmeyer Gorman 2003),

96 repeat victimization (Finkelhor et al. 2007, 96
 2009a), and violent criminal conduct that often 97
 mirrors the violence to which they were origi- 98
 nally exposed (Herrenkohl et al. 2007; Herrera 99
 and McCloskey 2003). Not surprisingly, children 100
 who have experienced the greatest number of 101
 contributing risk factors are at greatest risk of 102
 perpetuating the cycle of violence. 103

Specifically, exposure to violence in early 104
 childhood is associated with higher risk for physi- 105
 cal aggression, delinquency and violent behavior 106
 in adolescence (Jenkins and Bell 1997; Lansford 107
 et al. 2007; Mersky and Reynolds 2007; Shakoor 108
 and Chalmers 1991; Thornberry 1994). Being 109
 abused or neglected as a child increases the likeli- 110
 hood of arrest as a juvenile by 53% and the likeli- 111
 hood of arrest for a violent crime as an adult by 112
 38% (Widom and Maxfield 2001). Traumatic 113
 childhood events are documented in the histories 114
 of as much as 98.6% of juvenile delinquents 115
 (Carrion and Steiner 2000). A comparison of 116
 delinquent and non-delinquent youth found that a 117
 history of family violence or abuse is the most sig- 118
 nificant difference between the groups (Lansford 119
 et al. 2007). Mothers who were abused or neglected 120
 as children are significantly more likely to abuse 121
 or neglect their children than mothers who were 122
 not abused (Heyman and Smith Slep 2002), and 123
 children who have been exposed to domestic vio- 124
 lence are more likely to be victimized by violence 125
 themselves than counterparts from nonviolent 126
 households (Mitchell and Finkelhor 2001). 127

While the mental health, education, and crimi- 128
 nal justice consequences of childhood exposure 129
 to violence are well documented, the public health 130
 consequences have only recently been explored. 131
 The Centers for Disease Control and Prevention 132
 Adverse Childhood Experiences (ACE) study is a 133
 landmark investigation of the links between child- 134
 hood maltreatment and later-life health outcomes. 135
 The ACE study reviewed over 13,000 enrollees in 136
 Kaiser Permanente health insurance plans and 137
 their experience of a number of traumatic child- 138
 hood events, including the following: psychologi- 139
 cal, physical, and sexual abuse; violence against 140
 the mother; living as a child with a household 141
 member who abused substances, was suicidal or 142
 mentally ill; and physical and emotional neglect. 143

144 These experiences were found to have had a
 145 dose–response or “significant graded relation-
 146 ship” to each of the adult health-risk behav-
 147 iors and diseases that were examined (Anda et al.
 148 2006; Felitti et al. 1998). For example, compared
 149 to individuals who had not experienced any of the
 150 listed adverse childhood events, respondents who
 151 had experienced four or more of these adversities
 152 had a 4- to 12-fold increased likelihood of alco-
 153 holism, drug abuse, depression, and suicide
 154 attempts and a 2- to 4-fold increased likelihood of
 155 chronic smoking and sexually transmitted dis-
 156 eases (Dube et al. 2002; Felitti et al. 1998).

157 Furthermore, these adverse childhood events
 158 emerged as the most significant predictors of
 159 ischemic heart disease (Dong et al. 2004), cancer,
 160 chronic lung disease, skeletal fractures, and liver
 161 disease, which rank among the leading causes of
 162 death in adulthood (Felitti et al. 1998). What
 163 explains this profound linkage between traumatic
 164 childhood events and dire adult physical condi-
 165 tions? ACE investigators posit that health-risk
 166 behaviors may serve as the connection between
 167 traumatic childhood events and the development
 168 of adult disease years later because individuals
 169 exposed to violence and trauma often turn to
 170 chronic smoking, alcohol, and drug use to cope
 171 with anxiety, depression, and anger. As the ACE
 172 study clearly illustrates, childhood adversity, par-
 173 ticularly exposure to trauma and violence, pres-
 174 ents an enormous public health crisis.

175 Who “Sees” Children Exposed 176 to Violence?

177 Professionals in the fields of psychology, psychi-
 178 atry, law, criminal justice, medicine, education,
 179 and other child- and family-serving disciplines
 180 confront daily the consequences of childhood
 181 exposure to violence and trauma. However, each
 182 professional who works with children—each
 183 policy maker and public official; each police offi-
 184 cer, prosecutor, judge, and corrections officer;
 185 each social service worker, mental health profes-
 186 sional, and child advocate; each clergy member,
 187 teacher, mentor and parent—views the phenom-
 188 enon and outcome of children’s exposure to vio-

189 lence from a unique perspective. Each of these
 190 viewpoints represents a unique and important
 191 part of the picture. Yet, when the wide array of
 192 professionals who work with, and care for, chil-
 193 dren approach the problem of children exposed to
 194 violence solely from their independent profes-
 195 sional vantage points and service silos, viewing
 196 the issue only through the lens of their discrete
 197 professional training, the “big picture” of how
 198 the pieces come together is obscured. The teacher
 199 sees the traumatized child as the “discipline prob-
 200 lem” who is unable to learn, behaves disruptively
 201 in the classroom, and is at risk of dropping out.
 202 The police officer sees the traumatized child as a
 203 “witness” on yet another domestic violence call
 204 to the same address of parents who were them-
 205 selves so often victimized as children. The emer-
 206 gency room doctor and the prosecutor see last
 207 month’s traumatized gunshot victim return as this
 208 month’s “patient” and “perpetrator.” Tragically,
 209 this approach often leaves parents (who may not
 210 always recognize the impact of violence expo-
 211 sure at the time of the original event or during the
 212 period of chronic exposure) struggling and with-
 213 out coherent, integrated support when their child
 214 subsequently develops crippling psychiatric
 215 symptoms; fails in, or drops out of, school; begins
 216 chronically abusing substances; or enters the
 217 criminal justice system. Moreover, a mental
 218 health professional may never see the affected
 219 child until years later, when severe psychiatric
 220 outcomes of untreated trauma demand the atten-
 221 tion of overstretched clinical services, social ser-
 222 vices, drug abuse programs, prisons, and
 223 probation officers.

224 Focusing on Trauma

225 Children who are at high risk for posttraumatic
 226 disorders and developmental derailment as a result
 227 of adverse experiences and exposure to trauma
 228 may be the least likely to become engaged in tradi-
 229 tional trauma-focused or other mental health treat-
 230 ments (Burns et al. 2004). Yet, they are seen by
 231 different child-serving professionals every day.
 232 Thus, it is important to focus on the psychological
 233 roots of trauma precisely because it is *not* where

234 service providers holding each piece of the puzzle
 235 usually begin. Using a trauma lens to view the
 236 problem of children exposed to violence can have
 237 a unifying effect across service providers strug-
 238 gling to understand and address children's needs.
 239 As individual pieces of a child's experiences and
 240 behavior are brought together, a more complete
 241 picture is revealed. Service providers begin to see
 242 the multifaceted nature of the problem of children
 243 exposed to violence and effective multifaceted
 244 solutions are forged (Harris et al. 2007).

245 What Is Trauma?

246 To understand the anatomy of trauma in a vis-
 247 ceral way take a moment to experience this exer-
 248 cise suggested in *Listening to Fear* (Marans
 249 2005):

250 Sit back in your chair. Perhaps close your
 251 eyes. Picture yourself at 7 years old. You are
 252 asleep in bed. Imagine that you have just had a
 253 nightmare. Not simply a bad dream, but a night-
 254 mare where the worst eventuality that you can
 255 imagine has become a reality in your mind. Take
 256 a moment to think about what would have consti-
 257 tuted that personal terror to you as a child. That
 258 experience cycles in your mind without abate-
 259 ment. Your feelings of fear and helplessness
 260 mount and you become overwhelmed. You can-
 261 not tolerate it anymore. You wake up. Your heart
 262 is racing, your chest pounding, perhaps you are
 263 sweating. You look around. Disoriented, you ask
 264 "Where am I?" Your thinking is chaotic, disorga-
 265 nized. The external world is completely confus-
 266 ing. At first you cannot move, but then you
 267 run—hopefully to a parent or other trusted
 268 adult—for comfort. And what, in this vision, do
 269 those adults do? They may simply tell you, "It's
 270 only a dream, go back to bed now." Or, they may
 271 listen as you talk about your fear and try to con-
 272 sole you. In more clinical terms, they may help
 273 you reassert pre-event capacity. By talking calmly
 274 with you and listening to your thoughts, the
 275 trusted adults help decrease confusion and rees-
 276 tablish causal thinking. They talk with you about
 277 nightmares and provide you with information
 278 about the predictable nature of your individual

279 response to these overwhelming events. You
 280 begin to separate fantasy from reality. Your expe-
 281 rience starts to feel tolerable. You start to reestab-
 282 lish a sense of control. Your body begins to
 283 regulate. You are able to go back to sleep.

284 What were the sources of danger you imag-
 285 ined in this nightmare scenario? In all likelihood
 286 you may have just imagined loss of your own
 287 life; the loss of the life of a significant other; the
 288 loss of love of another or of oneself; severe dam-
 289 age to your body; frightening loss of control of
 290 your impulses, affects and thoughts; or a world so
 291 disrupted by disaster, destruction and danger that
 292 it is no longer recognizable, no longer available
 293 as a reliable frame of reference for the routines of
 294 daily life.

295 Now what happens if you are a child and this
 296 nightmare is not a textbook exercise, but a daily
 297 reality? When the unwanted feelings of helpless-
 298 ness and terror do not, and cannot, subside? When
 299 the cycle of acute reactions, hyper vigilance and
 300 the search for protection cannot end, and eventual
 301 reassertion of regulation and safety does not hap-
 302 pen? Research indicates myriad negative seque-
 303 lae of trauma exposure, in both the immediate
 304 aftermath of an event and in the longer term
 305 (Margolin and Gordis 2000; Osofsky 1999).
 306 Exposure to trauma activates our stress-response
 307 systems. Our alarm systems go off, attention gets
 308 focused and reactivity changes from goal-directed
 309 reflection to survival responses. Overwhelming,
 310 unanticipated danger leads to subjective experi-
 311 ences of helplessness, loss of control, terror, and
 312 the immobilization of usual methods for decreas-
 313 ing danger and anxiety (fight or flight), resulting
 314 in neuro-physiological dysregulation that com-
 315 promises affective, cognitive, and behavioral
 316 responses to stimuli. In turn, information pro-
 317 cessing changes and executive decision-making
 318 processes are altered.

319 Following a traumatic event, children may
 320 exhibit some or all of the following symptoms:

321 *Signs and symptoms of children's exposure to*
 322 *violence: Peri-traumatic responses*

- 323 • Sleep disturbances
- 324 • Separation anxiety
- 325 • Hypervigilance
- 326 • Physical complaints

327	• Irritability	375
328	• Reexperiencing/reenactment of the event	376
329	• Nightmares	377
330	• Impulsivity and distractibility	378
331	• Regressive behaviors	379
332	• Blunted emotions	380
333	• Changes in social functioning	381
334	• Social avoidance	
335	• Dissociation	
336	• Emotional numbing	
337	• Social avoidance	
338	• Aggressive play/behaviors	
339	• School difficulties/failure	

340 There is evidence to suggest that psychological trauma in fact constitutes injury, which can result in sometimes severe deviations from the normal trajectory of human development and a host of adverse and debilitating psychological, physical, and social consequences (Marans and Adelman 1997; van der Kolk 1987). Event factors including physical proximity to the event, emotional proximity to the event (e.g., whether there is a direct threat to a child, whether the child is a victim, whether the perpetrator is a parent or other trusted adult), and secondary effects of primary importance (e.g., the extent of physical displacement and social disruption that result from the event), combine with individual factors including genetic vulnerabilities and capacities, prior history (i.e., consistent stress or one or more stressful life experience/s), history of psychiatric disorder, familial health or psychopathology, levels of family and social support, and the age and developmental level of the child exposed, to determine the unique trajectory of sequelae following violence exposure. When both psychological and neuro-physiological alterations are unremitting, posttraumatic stress reactions can become chronic; if left untreated, they can persist for long periods of time and extend into adulthood. Following prolonged or intense exposure, neural systems can change and a person's brain can literally become altered or "rewired."

370 *Longer-term consequences of traumatic exposure can include the following:*

- 372 • Attachment problems
- 373 • Eating disorders
- 374 • Suicidal behavior

• Anxiety	375
• Mood disorders	376
• Substance abuse	377
• Violent/abusive behaviors	378
• Somatic problems	379
• Sexual problems	380
• Personality disorders	381

Trauma and the Cycle of Violence 382

Trauma can be viewed as the hub of the cycle of violence, circling from childhood exposure to violence to adult perpetration of violence back to childhood exposure. The spokes of the wheel that propel its revolution are represented by the hosts of risk factors. These risk factors, including unaddressed exposure to child abuse, domestic violence, school violence, and community violence; substance abuse; and school failure, aid in the perpetuation of the cycle of violence from child victim/witness to juvenile perpetrator to adult offender. (Conversely protective factors, such as familial supports, become the breaks on the wheel.) Unaddressed exposure to childhood trauma and violence thus constitutes both a considerable public health threat and a significant criminal justice crisis. Understanding trauma and its psychological sequelae as central to the issue of children's exposure to violence is thus essential to the forensic, juvenile justice, and criminal justice systems.

What Works? Prevention, Early Identification, and Collaborative Intervention 404

Clinic-based treatments alone are often incapable of addressing the magnitude of traumatic burdens and the devastating effects of children's exposure to violence. Indeed, there is some evidence that adolescents who are victimized are less likely to seek mental health services (Burns et al. 2004; Guterman et al. 2002), and far too often when children are exposed to PTE, the impact of their trauma exposure and their subsequent needs go unrecognized and unaddressed for years.

417 These failures are particularly significant given
 418 the well-established role that support—especially
 419 familial support—plays as a primary protective
 420 factor for children exposed to a PTE (Hill et al.
 421 1996; Kliewer et al. 2004a, b; Ozer et al. 2003).

422 In order to provide adequate support to chil-
 423 dren exposed to violence, children affected by
 424 PTEs must be identified early. In addition, broader
 425 systems of care must increase their awareness and
 426 understanding of childhood trauma and identify
 427 collateral responses (e.g., reestablishing safety,
 428 provision of basic needs, return to routines, and
 429 assessment and treatment of affected parents).
 430 When professional perspectives remain discon-
 431 nected and isolated in service silos, the picture of
 432 both the problems and potential solutions associ-
 433 ated with children’s exposure to violence remains
 434 fragmented. Utilizing a trauma lens to collectively
 435 view and understand the needs of children exposed
 436 to violence, however, can lead to a shared frame
 437 of reference and a basis for coordinated action
 438 (Harris et al. 2007). Multidisciplinary, integrated
 439 approaches to prevention, early identification and
 440 early intervention, and collaborative responses
 441 that incorporate law enforcement, mental health
 442 and social services, are critical to effectively
 443 addressing the needs of children exposed to vio-
 444 lence and breaking the cycle of violence.

445 Since its inauguration in 1999, the NCCEV at
 446 the Yale Child Study Center has continued to
 447 develop, implement, test and replicate just these
 448 types of collaborative, multidisciplinary inter-
 449 vention strategies that address the needs of chil-
 450 dren and families exposed to violence and help
 451 interrupt the cycle of violence. Four of these
 452 innovative strategies are described here.

453 **The Child Development-Community**
 454 **Policing Program**

455 The Child Development-Community Policing
 456 (CD-CP) program is a national model of law
 457 enforcement-mental health collaboration designed
 458 to reduce the negative impact of children’s expo-
 459 sure to violence by coordinating the response of
 460 law enforcement, mental health, and other social
 461 service professionals from the initial moment of

462 crisis (Marans 1996; Marans et al. 1995; Marans
 463 and Berkman 2007). CD-CP originated as a part-
 464 nership between the Yale Child Study Center’s
 465 NCCEV and the New Haven Department of Police
 466 Service in 1991. While the city of New Haven
 467 remains the center of CD-CP theory and practice
 468 development and training and technical assis-
 469 tance, the program has been adopted or adapted in
 470 more than a dozen communities across the coun-
 471 try, with Providence, RI, Wilmington, DE, and
 472 Charlotte, NC representing the leading replication
 473 sites. The CD-CP program is based on three prem-
 474 ises deeply rooted in the day-to-day experiences
 475 of both law enforcement and mental health pro-
 476 fessionals serving children exposed to violence:
 477 (1) police officers are the most significant first
 478 responders to violent and catastrophic events that
 479 affect children’s lives, yet they frequently lack
 480 both the specialized training and necessary part-
 481 nerships to meaningfully respond to the children
 482 exposed to violence whom they served; (2) at the
 483 same time, mental health and other social service
 484 professionals are often unlikely to come into con-
 485 tact with the vast majority of children at risk of
 486 developing negative outcomes as a result of their
 487 violence exposure at a time when early interven-
 488 tion could make a meaningful difference in those
 489 children’s lives; and (3) without effective early
 490 identification and intervention strategies the same
 491 police officers too often will see the same children
 492 continue on a trajectory from child victim/witness
 493 to juvenile/adult offender; and without effective
 494 early identification and intervention strategies
 495 mental health and other social services providers
 496 are frequently hampered in their ability to render
 497 meaningful support to these children and aid in
 498 the interruption of the cycle of violence. Thus,
 499 CD-CP partners law enforcement officers with
 500 mental health and other social service providers at
 501 the earliest opportunity and offers multidisciplinary
 502 acute and follow-up services that provide
 503 the early identification and intervention that are so
 504 critical to improving children’s lives and keeping
 505 children and communities safe.

506 In CD-CP communities, mental health profes-
 507 sionals are on call 24 h a day, 7 days a week, to
 508 respond immediately to police calls involving
 509 child victims or witnesses to violence. Police
 509

510 officers play a central part in the intervention,
 511 capitalizing on their roles as representatives of
 512 control and authority in the face of violent
 513 and traumatic events. Working together, police,
 514 mental professionals, child protective service
 515 professionals, and other providers, coordinate
 516 multisystem interventions that reestablish safety,
 517 security and well-being in the immediate wake of
 518 violent events. In partnership, CD-CP clinicians
 519 and officers help set the most vulnerable children
 520 and families on the path to recovery, interrupting
 521 a trajectory that otherwise frequently leads to
 522 increased risk of psychiatric problems, academic
 523 failure, encounters with the criminal justice sys-
 524 tem, and perpetuation of the cycle of violence.

525 The CD-CP intervention typically begins with
 526 the identification, by police, of children and fami-
 527 lies deemed to be at-risk due to their exposure to
 528 violence and PTEs. Children and families are
 529 usually seen by the CD-CP team acutely, or within
 530 36 h of a PTE and police-initiated call for service.
 531 In addition, children and families are referred to
 532 the CD-CP program through child protective ser-
 533 vices, hospitals, emergency departments, special-
 534 ized sexual abuse clinics, and other community
 535 agencies and practitioners. As part of the *acute*
 536 *crisis response*, the multidisciplinary team works
 537 together to provide order and containment to the
 538 situation; attend to basic needs of the victims;
 539 remove children from further threat; make imme-
 540 diate plans for safety; consult with social service
 541 providers; make necessary assessments, diagno-
 542 ses, and triage of victims; provide acute services;
 543 and arrange for clinical, policing and other social
 544 agency follow-up services. CD-CP then supports
 545 and augments the acute response with *follow-up*
 546 *services*, including the following: (1) *consulta-*
 547 *tion services* that provide police officers with the
 548 opportunity to confer with NCCEV clinicians
 549 about cases in which children have been victims
 550 of or witnesses to violence prior to the clinician's
 551 direct involvement with families; (2) *weekly case*
 552 *conferences* that enable all members of the CD-CP
 553 team (including police officers, mental health
 554 professionals, educators, social service workers,
 555 and juvenile justice professionals) to confer about
 556 new and ongoing cases and plan individualized
 557 follow-up to meet the safety and security needs of

558 children and families; (3) *cross-training* which 558
 559 trains police and other professionals in child 559
 560 development, human behavior, and the effects of 560
 561 violence exposure and which trains mental health 561
 562 clinicians in policing procedure and practices; 562
 563 and (4) *trauma-focused treatment* which is pro- 563
 564 vided to children and families in need through 564
 565 NCCEV's trauma treatment clinic. 565

566 An independent evaluation of the CD-CP pro- 566
 567 gram, funded by the US Department of Justice 567
 568 Office of Juvenile Justice and Delinquency 568
 569 Prevention and conducted by ICF International 569
 570 (formerly Caliber Associates), was completed in 570
 571 2008. Using a mixed method design that included 571
 572 comparative case studies of children and families 572
 573 exposed to violence, law enforcement survey data, 573
 574 and interviews and focus groups with key stake- 574
 575 holders, the evaluation describes how children, 575
 576 families, law enforcement, and clinicians benefit 576
 577 from the CD-CP program in New Haven and the 577
 578 value CD-CP adds for those providing and receiv- 578
 579 ing services. Specifically, the evaluation found 579
 580 that: (1) acute responses removed barriers to ser- 580
 581 vices (many families that received CD-CP acute 581
 582 responses voiced appreciation for the program 582
 583 because they were provided with an immediate 583
 584 entrée to wraparound services that they never knew 584
 585 existed or might be available to them); (2) police 585
 586 officers' knowledge and understanding of the 586
 587 issues faced by children and families improved as 587
 588 a result of CD-CP (officers reported a greater 588
 589 awareness of how violence and other trauma 589
 590 impacts children, and a greater sense of profes- 590
 591 sional efficacy in their work with children and 591
 592 families as a result of the program); and (3) CD-CP 592
 593 clinicians benefited from immediate and ongoing 593
 594 access to families (allowing greater insight into the 594
 595 needs, challenges and resources of children and 595
 596 families exposed to violence, and offering more 596
 597 opportunities to engage families in services). 597

598 The Domestic Violence Home Visit 598

599 Intervention 599

600 Over 15.5 million children are exposed to domes- 600
 601 tic violence each year in the USA, and seven mil- 601
 602 lion are exposed to intra-familial violence 602

603 characterized as chronic and severe (McDonald
 604 et al. 2006). The rates of domestic violence, chil-
 605 dren exposed to domestic violence, and child
 606 abuse and maltreatment often increase in times of
 607 high unemployment and economic downturn.
 608 Children exposed to domestic violence are par-
 609 ticularly vulnerable to negative outcomes. They
 610 are at substantially higher risk of psychological
 611 and behavioral difficulties, and they have a sig-
 612 nificantly increased likelihood of perpetuating
 613 the cycle of violence as adults—both as victims
 614 and as offenders. Children who have been exposed
 615 to domestic violence are 158% more likely to be
 616 victimized by violence themselves than counter-
 617 parts from nonviolent households (the risk is
 618 115% higher for boys and 229% higher for girls)
 619 (Mitchell and Finkelhor 2001), and children
 620 exposed to domestic violence are at greater risk
 621 of repeating their experiences as perpetrators of
 622 violence in their own intimate relationships.
 623 Evidence also suggests a disturbing linkage
 624 between domestic violence and child abuse
 625 (Osofsky 2003), with researchers estimating that
 626 in more than half the households where there is
 627 domestic violence, children are also physically
 628 abused (Straus and Gelles 1990). Yet, despite the
 629 magnitude of the problem, and the long-lasting
 630 and devastating consequences of exposure to
 631 interpersonal violence in the home, the needs of
 632 children exposed to domestic violence are regu-
 633 larly overlooked by parents and professionals,
 634 and meaningful opportunities to interrupt the
 635 cycle of violence are frequently lost.

636 In addition to causing incalculable human suf-
 637 fering primarily to women and children, domes-
 638 tic violence results in staggering social costs.
 639 Domestic violence constitutes 15–50% of police
 640 calls for service across the USA (Friday et al.
 641 2006; Hendricks 1991; Klein 2009); these calls
 642 are often repeat calls to the same address; and
 643 these repeat calls are often a result of marked
 644 escalation of violence within the home (which
 645 initial calls did not prevent or abate). Accordingly,
 646 officers often report frustration with domestic
 647 violence work, as they find themselves limited in
 648 their capacity to intervene meaningfully with
 649 families caught in the cycle of violence, in spite
 650 of significant expenditure of law enforcement
 651 time and resources. Moreover, it is estimated

652 that the annual costs of domestic violence to US
 653 businesses in lost work time, increased health-
 654 care costs, higher turnover and lower productiv-
 655 ity is between five and ten billion dollars. In a
 656 2003 report, the Centers for Disease Control esti-
 657 mated that the health-related costs of intimate
 658 partner violence in the USA exceed \$5.8 billion
 659 per year (Centers for Disease Control and
 660 Prevention 2003). Of this \$5.8 billion, \$1.8 bil-
 661 lion represented indirect costs such as lost wages
 662 and productivity, and nearly \$4.1 billion was
 663 associated with victims requiring direct medical
 664 and mental health-care services. In addition, inti-
 665 mate partner violence victims lose nearly 8 mil-
 666 lion days of paid work each year—the equivalent
 667 of more than 32,000 full-time jobs and nearly 5.6
 668 million days of household productivity (Centers
 669 for Disease Control and Prevention 2003).

670 To address the overwhelming personal devas-
 671 tation and mounting social costs associated with
 672 domestic violence, NCCEV developed the
 673 Domestic Violence Home Visit Intervention
 674 (DV-HVI). DV-HVI is a specialized component
 675 of the CD-CP program, currently operating in
 676 New Haven. Versions of the DV-HVI are also
 677 being employed in select CD-CP sites (e.g.,
 678 Charlotte, N.C., Providence, R.I., and Wilmington,
 679 DE). The intervention focuses on the central role
 680 of domestic violence in perpetuating the cycle of
 681 violence, and translates what has been learned
 682 about the impact of interpersonal violence into
 683 the development and implementation of effective
 684 collaborative law enforcement strategies that
 685 address the needs of women and children exposed
 686 to domestic violence. DV-HVI aims to decrease
 687 the level of violence to which women and chil-
 688 dren are exposed; reduce children's repeat expo-
 689 sure to escalating episodes of violence; address
 690 the complex and intertwined legal, psychologi-
 691 cal, and practical issues that confront families
 692 exposed to domestic violence; reduce isolation
 693 experienced by affected women and children;
 694 ease the practical and psychological burdens on
 695 battered women that can interfere with their abil-
 696 ity to maintain safety and security for their chil-
 697 dren; and increase women's and children's access
 698 to social supports that can help ensure the free-
 699 dom from fear essential to optimal levels of self-
 700 determination, family health, and well-being.

701 The cornerstone of DV-HVI is *home visit*
 702 *outreach* by teams of law enforcement officers,
 703 domestic violence advocates, and mental health
 704 clinicians, to households in which there has been
 705 an incident of domestic violence reported to the
 706 police. The police/advocate team home visits
 707 occur within 72 h of a domestic violence incident
 708 and are designed to: (1) assist in immediate safety
 709 planning; (2) provide information regarding the
 710 criminal justice system (e.g., protective orders),
 711 advocacy services, and other available assistance
 712 (e.g., 911 phones, lock changes, shelters); (3)
 713 establish personal contact between families and
 714 local officers; (4) enhance domestic violence
 715 enforcement; (5) increase parents' awareness of
 716 children's responses to PTEs; and (6) facilitate
 717 connections between families and community
 718 services, including mental health assessment, and
 719 treatment for affected children. Following the initial
 720 outreach visit, a wide array of advocacy, mental
 721 health, and social support services are offered
 722 and may be provided, depending on the needs
 723 and preferences of the individual woman and her
 724 children. These include assistance with criminal
 725 and family court proceedings, assistance with
 726 basic needs, and engagement in clinical services
 727 for children and adults.

728 DV-HVI is specifically designed to address
 729 the unique and particular concerns of women of
 730 diverse backgrounds and their children, and the
 731 model is sensitive to cultural and linguistic difference
 732 among families and communities. For
 733 example, in New Haven, DV-HVI has been
 734 implemented with a mostly low-income population,
 735 including a high percentage of Latina
 736 women. Parent guides and other materials have
 737 been translated into Spanish, and the program
 738 seeks to match advocate/clinician and/or officer
 739 ethnicity to victim ethnicity whenever possible.
 740 A study of the factors associated with engagement
 741 in the DV-HVI in New Haven found that
 742 victim–advocate ethnic match significantly predicted
 743 time spent with victim and the number of
 744 DV-HVI services provided (Stover et al. 2008).
 745 Hispanic women who were served by a Hispanic
 746 advocate received the most time on the case and
 747 were provided with a broader range of services
 748 than those who did not have an advocate–victim
 749 ethnic match. Furthermore, the study observed

750 that a Spanish-speaking advocate, conducting
 751 visits in Spanish, may open the door to ongoing
 752 advocacy support and treatment, a victim–advocate
 753 ethnic match may result in more detailed information
 754 about the severity of the incident, and
 755 improved communication may result in greater
 756 clarity on the part of the victim about her rights
 757 (Stover et al. 2008). Moreover, the culturally
 758 and linguistically specific services may contribute
 759 to the victim's enhanced feeling of safety
 760 beyond what might be expected at the time of the
 761 incident from interaction with police officers
 762 alone (who may have limited Spanish language
 763 proficiency or ability to communicate with the
 764 victim). These findings are significant, given
 765 that Hispanic women, especially those with low
 766 acculturation, have been found to have lower
 767 use of health-care and social services following
 768 an incident of interpersonal violence than
 769 African American and Caucasian women (Lipsky
 770 et al. 2006).

771 A comprehensive evaluation of the DV-HVI,
 772 conducted in New Haven in 2006–2007, found
 773 that: (1) families that received DV-HVI visits
 774 were more likely to call the police for new domestic
 775 violence incidents in the 12 months following
 776 the visit than comparison families, these new
 777 calls were significantly less likely to involve violent
 778 incidents than were calls from comparison
 779 families, and these calls were significantly more
 780 likely to involve verbal altercations or violations
 781 of court orders; (2) families that received DV-HVI
 782 visits felt safer and more positive toward the
 783 police following the visit than families that
 784 received standard 911 police service; and (3)
 785 families that received DV-HVI visits were more
 786 likely than comparison families to engage their
 787 children in mental health and other support services
 788 in the 12 months following the visit (Stover
 789 et al. 2008, 2009, 2010).

790 The Child and Family Traumatic Stress 791 Intervention

792 Studies reveal that family support is a primary
 793 protective factor for children exposed to violence
 794 and other PTEs (Hill et al. 1996; Kliewer et al.
 795 2004a, b; Ozer, et al. 2003), but all too often there

796 is a failure of social support and communication
 797 within families regarding posttraumatic symp-
 798 toms and the opportunity for familial assistance
 799 is lost. After years of developing law enforce-
 800 ment/mental health collaborative interventions,
 801 and providing acute and follow-up clinical ser-
 802 vices to children and families exposed to violent
 803 and catastrophic events, NCCEV recognized a
 804 need for family strengthening strategies that sup-
 805 plement the early identification, intervention, and
 806 stabilization provided by law enforcement/mental
 807 health partnerships. The Child and Family
 808 Traumatic Stress Intervention (CFTSI) is a brief
 809 early intervention model that can be implemented
 810 with children 7–18 years old together with their
 811 parent/caregiver either shortly after a PTE or in
 812 the wake of a later disclosure of traumatic events
 813 that occurred earlier in a child’s life. The goals of
 814 the four session CFTSI model are to (1) improve
 815 screening and identification of children impacted
 816 by traumatic stress, (2) reduce traumatic stress
 817 symptoms, (3) increase communication between
 818 caregiver and child about child’s traumatic stress
 819 reactions, (4) provide skills to help master trauma
 820 reactions, (5) assess child’s need for longer-term
 821 treatment, and (6) reduce concrete external stres-
 822 sors (e.g., housing issues, systems negotiation,
 823 safety planning, etc.) which enables caregivers to
 824 reduce distractions and focus on their children in
 825 the aftermath of violent and traumatic events.

826 The intervention is designed to be imple-
 827 mented by a mental health clinician (and, when
 828 appropriate, a case manager) working in collabora-
 829 tion with law enforcement and child protective
 830 service partners. The model recognizes that envi-
 831 ronmental, legal, and service system issues often
 832 impinge upon a family’s ability to attend to a
 833 child’s psychological needs following the expo-
 834 sure to violence and PTE. CFTSI therefore
 835 addresses case management issues while educat-
 836 ing families about a child’s reactions to traumatic
 837 events, enhancing child–parent communication
 838 about the particular child’s experiences and reac-
 839 tions, and offering specific behavioral interven-
 840 tions to address symptoms that are of greatest
 841 concern to the child and family. Clinicians also
 842 collaborate with law enforcement and child pro-
 843 tective service partners to address safety issues

844 and assess the ongoing nature of physical threats,
 845 both of which are essential to maintaining effec-
 846 tive and supportive case management.

847 CFTSI is currently being employed in New
 848 Haven and in a select group of Child Advocacy
 849 Centers, where it has become an integral part of
 850 the multidisciplinary service delivery model and
 851 where it is regarded as consistent with both suc-
 852 cessful criminal prosecutions and effective child
 853 welfare practices. Moreover, the clinical results of
 854 initial CFTSI efforts are extremely promising. A
 855 randomized controlled comparative effectiveness
 856 trial was completed in 2009 and found that chil-
 857 dren receiving CFTSI were 65% less likely than
 858 comparison youth (who received a standardized
 859 psychoeducational intervention) to meet criteria
 860 for full PTSD at the 3-month follow-up, and were
 861 73% less likely than comparison youth to meet
 862 combined criteria for partial and full PTSD at the
 863 3-month follow-up (Berkowitz et al. 2011).

864 **Tracking and Intervening with Youth**
 865 **at Risk for Violent Crimes**

866 Like many communities, New Haven experienced
 867 an upsurge in youth-involved gun violence over
 868 the past several years. In response to a request
 869 from the Mayor’s office, NCCEV developed the
 870 blueprint for a multidisciplinary strategy for iden-
 871 tification and engagement of youth most at risk
 872 for perpetration of violence. With risk reduction
 873 as the primary objective, the plan focused on
 874 enhanced collaborative supervision, predicated
 875 on the assumption that decreasing anonymity,
 876 increasing accountability, and expanding prosoc-
 877 ial opportunities can result in reduced violent
 878 criminal behaviors and improved community
 879 safety. While there are numerous other sophis-
 880 ticated approaches to addressing the problem of
 881 identifying, tracking, and intervening with youth
 882 at risk for perpetrating violent crime, the New
 883 Haven strategy calls upon neighborhood-based
 884 police commanders and officers to identify youth
 885 ages 12–18 at greatest risk for perpetration of
 886 violent crimes based on their history of gun
 887 involvement, violent behavior, and drug use or
 888 dealing; their involvement with (or leadership

889 role in) groups of youths engaged in criminal
 890 activities; and their status with respect to school
 891 and/or court-ordered supervision.

892 Under the New Haven strategy, once a list of
 893 youth at greatest risk is compiled from each of
 894 New Haven’s policing districts, a case manage-
 895 ment team (comprised of representatives from
 896 the police department, probation and parole ser-
 897 vices, schools, prosecutor’s office, youth ser-
 898 vices, behavioral health and community outreach
 899 services) coordinate intervention strategies
 900 addressing identified youth, including the follow-
 901 ing (1) home visits (and other direct outreach) to
 902 youth and their families to determine unmet
 903 needs of youth (e.g., educational, medical, men-
 904 tal health, job-training, supervised prosocial
 905 activities); (2) identification and enforcement of
 906 court orders across policing, probation, parole,
 907 and court services; (3) identification of school
 908 status (e.g., attendance, discipline issues, aca-
 909 demic difficulties) and increased communication
 910 between school personnel, SRO’s and commu-
 911 nity-based law enforcement personnel; (4) devel-
 912 opment of “face-books” with information about
 913 identified youth disseminate to neighborhood
 914 police and community-based partners to aid in
 915 monitoring contact; (5) close coordination with
 916 existing law enforcement units to target criminal
 917 enterprises of identified youth (e.g., gun, narcot-
 918 ics enforcement, robbery units of the New Haven
 919 Department of Police Services); and (6) tracking
 920 and evaluating implementation and success of
 921 individual case plans.

922 Much was learned about the potential benefits
 923 and challenges of this model through an initial
 924 attempt to pilot the strategy in New Haven during
 925 2007–2008. While the lack of adequate funding
 926 prevented a full study and was an obstacle to
 927 bringing the recommended range of agency par-
 928 ticipants to the table, nevertheless NCCFV per-
 929 sonnel teamed with New Haven police officers
 930 and engaged in home visits, needs assessment,
 931 and coordination of education, behavioral health,
 932 and law enforcement services. The profile of the
 933 young people involved included: numerous pre-
 934 vious arrests; inadequate supervision and conse-
 935 quences for infractions of probation orders; failure
 936 of previous comprehensive educational, mental

health and vocational assessments; extensive 937
 trauma histories; absence of consistent parenting; 938
 and high percentage of incarcerated parents or 939
 other family members. 940

Policy Implications 941

Clearly much is known about the prevalence and 942
 consequence of childhood exposure to violence; 943
 yet this knowledge has not translated into national, 944
 wide-spread, and fully scaled implementation of 945
 effective multidisciplinary interventions. If we 946
 understand the etiology of the problem; the roots 947
 in psychological trauma; the profound mental 948
 health, physical health, public health, educa- 949
 tional, economic, and criminal justice conse- 950
 quences—if we can, in essence, predict these 951
 children’s futures—why can’t we do more as a 952
 nation to prevent and intervene effectively? 953

Certainly a lack of necessary government and 954
 philanthropic resources to adequately fund ser- 955
 vice delivery systems, further diminished during 956
 periods of economic uncertainty, is a significant 957
 factor. The gap between available funding and 958
 need is also exacerbated by economic conditions: 959
 connections have been demonstrated between 960
 economic hardship and interpersonal violence 961
 (Benson et al. 2003; Fox and Benson 2006) and 962
 between poverty and child maltreatment risk 963
 (Berger 2004), which indicate an increased need 964
 for these resources at a time when they are most 965
 scarce. However, limited funding streams are 966
 only part of the answer. Failure of early identifi- 967
 cation and lack of coordinated response continue 968
 to impede wide-scale progress. As we know, the 969
 majority of severely and chronically traumatized 970
 children are not found in mental health clinics. 971
 They are typically seen as the “behavior and dis- 972
 cipline problems” in child care settings, or the 973
 “trouble-children” in schools where their histo- 974
 ries of maltreatment are routinely unrecognized. 975
 Or, they emerge in the child protective, law 976
 enforcement, substance abuse treatment, and 977
 criminal justice systems, where the roots of their 978
 problems—their exposure to violence and 979
 abuse—are often ignored, unidentified, and unad- 980
 dressed. Moreover, given how service systems 981

982 are currently organized, each system works
 983 mostly from within its own isolated silo and is
 984 thus unable to construct a comprehensive picture
 985 of the range of problems afflicting a child.
 986 Without such a picture, service providers can, at
 987 best, attempt to meet the child’s needs from
 988 the sole perspective and circumscribed resources
 989 of their own agencies, but they are not equipped
 990 or empowered to coordinate their responses
 991 across the other systems of care that are critical
 992 to addressing the full spectrum of a child’s
 993 needs. As we have seen too often, parallel
 994 engagement with at-risk children yields multiple
 995 missed opportunities. Conversely, multidisci-
 996 plinary responses that identify children early by
 997 connecting the dots between early childhood
 998 trauma and the provision of services, and that work
 999 collaboratively across disciplines to embrace the
 1000 totality of a child’s life experience, yield results.

1001 As a nation we need to create a bridge between
 1002 what we know about the clinical phenomena of
 1003 children’s exposure to violence and trauma and
 1004 existing systems of care so that these systems can
 1005 become better coordinated to meet children’s
 1006 needs. We need prevention programs that identify
 1007 at-risk children early; we need to forge multidisci-
 1008 plinary, coordinated interventions; and we need to
 1009 adequately fund and scale effective trauma-
 1010 informed multidisciplinary prevention and inter-
 1011 vention strategies. Legislators appropriating
 1012 federal dollars must begin to view childhood
 1013 exposure to violence as a mental health issue, a
 1014 criminal justice issue, an education issue, a hous-
 1015 ing issue, and a work force issue. Policy makers
 1016 across agency silos of juvenile justice, mental
 1017 health, education, housing, and the labor force
 1018 must recognize the multifaceted nature of the
 1019 problem and combine and coordinate resources to
 1020 effectively combat both the human and economic
 1021 costs associated with children’s exposure to vio-
 1022 lence and our failure to address children’s needs.

1023 On the federal level, these efforts can be best
 1024 supported by policy makers willing to adopt a
 1025 new model of fiscal support, based on incentiv-
 1026 izing collaborative innovations in the field, lever-
 1027 aging public, private, and philanthropic resources,
 1028 and rewarding effective innovation. Government
 1029 officials should leverage their commitments by

partnering with philanthropies and the private 1030
 sector to match funds and commit resources to 1031
 multidisciplinary programs that deliver results, 1032
 that are sustainable, and that are ripe for national 1033
 scale. A federal innovation fund that is devoted 1034
 specifically to the issue of children exposed to 1035
 violence, that leverages public, philanthropic, 1036
 private, and nonprofit dollars, and that scales 1037
 effective multidisciplinary interventions has the 1038
 potential to yield wide-spread lasting results, dra- 1039
 matically improve children’s lives, and restore 1040
 safety in our communities. 1041

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Author Queries

Chapter No.: 29 0001355125

Queries	Details Required	Author's Response
AU1	First author has been considered as corresponding author. Please check.	
AU2	Please provide publication details for "Lipsky et al. 2006" (or) delete this citation from the text.	
AU3	"a, b" have been introduced in the reference Kliewer et al. (2004) since two such references exist in the list. Please retain the appropriate one.	
AU4	Please provide complete details for ref. Bremner (2003).	

Uncorrected Proof

3 Carla Kmett Danielson, Angela Moreland Begle,
4 Lynsay Ayer, and Rochelle F. Hanson

5 *I have heard there are troubles of more than one kind. Some come*
6 *from ahead and some come from behind. But I've bought a big bat. I'm all ready you see.*
7 *Now my troubles are going to have troubles with me!*

Dr. Seuss 8

9 In the motion picture, *Good Will Hunting*, Matt
10 Damon portrays a character whose history of
11 severe physical abuse appears to be linked to his
12 extensive juvenile record and mental health problems
13 in young adulthood. This is an unfortunate
14 example of art imitating life, where as many as
15 90% of juveniles involved with the U.S. justice
16 system will report having experienced a traumatic
17 event at some point in their lifetime (Abram et al.
18 2004). This high prevalence of exposure to traumatic
19 events among juvenile offenders underscores the need for
20 mental health providers and administrators alike to
21 understand the trauma-related clinical implications for
22 psychosocial treatment of this population. Thus, the goal
23 of this chapter is to aid clinicians in better serving the
24 mental health needs of juveniles who have experienced
25 traumatic events. The chapter is divided into two sections.
26 The first section provides necessary background information
27 regarding the link between trauma and delinquent
28 behavior, which serves as a framework for psychosocial
29 treatment of this population. The second section describes
30 existing empirically supported treatment options for
31 traumatized juveniles
32
33

and provides a list of clinical implications and
34 recommendations extending from the literature
35 reviewed throughout the chapter. Ultimately, we
36 hope the information in this chapter will help
37 alter the trajectory of traumatized juvenile offenders
38 in a more positive direction.
39

40 Background

41 Definition and Prevalence of Traumatic 42 Events in the General Population

43 Traumatic events (TEs) are those that involve
44 actual or threatened death or serious injury, or a
45 threat to the physical integrity of self or others
46 (American Psychiatric Association 1994). TE
47 exposure can include a range of experiences, such
48 as motor vehicle accidents, natural disasters, acts
49 of mass violence, and interpersonal violence
50 (sexual assault, physical assault, witnessed violence).
51 TEs are common among youth (Finkelhor
52 et al. 2009; Hanson et al. 2008; Zinzow et al. 2009)
53), and experiences of interpersonal violence are
54 among the most frequently studied and reported
55 in this population. Finkelhor et al. (2009) reported
56 lifetime rates of sexual assault, physical assault,
57 and witnessing violence to be 4.7%, 61.1%, and
58 43.3%, respectively, in a large community sample
59 ($n=1,467$) of youth between the ages of 2–17
60 years. Based on findings from the National Survey
61 of Adolescents (NSA; Kilpatrick et al. 2003), a
62 nationally representative sample of 4,023 adolescents
63 age 12–17 years, Hanson et al. (2008)

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64 reported lifetime rates of sexual assault at 8.2%,
 65 physical assault at 22.5%, and witnessing
 66 violence at 39.7%, with 48% of adolescents
 67 reporting some type of violence exposure in their
 68 lifetimes.

69 The prevalence of TEs has been shown to
 70 vary depending on income, ethnicity, and gender.
 71 For example, minority groups (e.g., African
 72 Americans, Hispanics) appear to experience
 73 higher rates of TEs compared to Caucasians
 74 (Crouch et al. 2000; Hatch and Dohrenwend
 75 2007). Studies have further shown that preva-
 76 lence of TEs decreases as income increases, but
 77 that this relationship may be associated with eth-
 78 nicity (Crouch et al. 2000; Korbin et al. 1998).
 79 For Caucasian adolescents, the negative relation
 80 between income and victimization is relatively
 81 robust. However, family income appears to be less
 82 likely to protect African-American and Hispanic
 83 adolescents from TEs, particularly from witness-
 84 ing violence (Crouch et al. 2000). With regard to
 85 gender, boys have been shown to be at increased
 86 risk for exposure to TEs overall and to witnessing
 87 violence specifically, while girls are at higher risk
 88 for sexual abuse (Hanson et al. 2008).

89 **Prevalence of Traumatic Events**
 90 **in Juvenile Offenders**

91 Juvenile offenders have consistently reported sig-
 92 nificantly higher rates of TEs in comparison to
 93 community populations (Dixon et al. 2004). For
 94 example, among a sample of incarcerated youth,
 95 Wood et al. (2002b) reported that 57% had wit-
 96 nessed a homicide, 17% had witnessed a suicide,
 97 and 72% reported having been shot (or shot at).
 98 High rates of other types of interpersonal vio-
 99 lence also are reported among incarcerated youth
 100 (Smith et al. 2006; Wood et al. 2002a), with doc-
 101 umented rates of physical and sexual abuse 200–
 102 300 times that of the national population (U.S.
 103 Department of Health and Human Services
 104 2004). In one study of 898 juvenile offenders,
 105 over 90% of the sample had reported a TE in their
 106 lifetime (Abram et al. 2004). Specifically, 53%
 107 (54% of boys, 49% of girls) of this sample had “been
 108 in a situation where you thought you/someone

close to you was going to be hurt very badly or
 die,” 35% (35% of boys, 31% of girls) had been
 physically assaulted, 58% (59% of boys, 47% of
 girls) had been threatened with a weapon, 4.4%
 (2.4% of boys, 30% of girls) reported sexual
 assault, and 74% (75% of boys, 64% of girls)
 said they had witnessed violence. Clearly, both
 incarcerated boys and girls are at increased risk
 for victimization. However, gender differences in
 types of exposure have been yielded in other
 investigations of delinquent youth. Specifically,
 girls have been found to be more likely to report
 histories of physical and sexual abuse than boys
 (Smith et al. 2006), whereas boys have been
 found to report significantly higher levels of wit-
 nessed community violence than girls (Wood
 et al. 2002b). For example, in the aforementioned
 Abram et al. (2004) study, female offenders were
 12.5 times more likely to experience sexual
 assault than male offenders, and Smith et al.
 (2006) found that 93% of incarcerated girls had
 experienced at least one incident of physical or
 sexual abuse.

109 **Trauma-Related Mental Health**
 110 **Sequelae**

111 Exposure to TEs has been linked with a wide
 112 range of mental health difficulties and problem-
 113 atic functioning, such as anxiety and mood disor-
 114 ders, risky behaviors, physical health problems,
 115 and revictimization (Boney-McCoy and Finkelhor
 116 1996; Kendall-Tackett et al. 1993; Neumann
 117 et al. 1996; Roodman and Clum 2001).
 118 Posttraumatic stress disorder (PTSD) is one of
 119 the most well-documented outcomes of exposure
 120 to TEs among youth and adults (Breslau et al.
 121 2004), particularly following experiences of
 122 interpersonal violence (O’Hare and Sherrer
 123 2009). PTSD is a DSM-IV (APA 1994) Axis I
 124 anxiety disorder that includes symptoms of reex-
 125 perience the event (e.g., acting or feeling as if
 126 the traumatic event were recurring), avoidance
 127 (e.g., efforts to avoid activities, places, or people
 128 that cue memories of the traumatic event), and
 129 hyperarousal (e.g., exaggerated startle response).
 130 With regard to prevalence in the general population,
 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153

154 3.7% of boys and 6.3% of girls in the NSA
 155 reported experiencing enough symptoms within
 156 the 6-month period prior to assessment to meet
 157 PTSD diagnostic criteria (Kilpatrick et al. 2003).
 158 Risk for PTSD was higher for Hispanic and
 159 African-American adolescents relative to their
 160 Caucasian counterparts.

161 Incarcerated youth (from nonviolent to seri-
 162 ous, violent offenders) tend to experience ele-
 163 vated rates of mental health problems and
 164 diagnoses that are typically related to exposure
 165 to TEs (Huizinga and Jakob-Chien 1998).
 166 Specifically, studies have revealed a high preva-
 167 lence of PTSD among juveniles in detention cen-
 168 ters, with 10–32% of detained juveniles meeting
 169 full criteria for PTSD (Abram et al. 2004; Burton
 170 et al. 1994; Cauffman et al. 1998; Steiner et al.
 171 1997) and 46% meeting partial criteria for PTSD
 172 (Smith et al. 2006). In addition to PTSD, studies
 173 have identified a high prevalence of comorbid
 174 psychiatric disorders among incarcerated juve-
 175 niles (Cocozza 1992; Dixon et al. 2005; Ulzen
 176 and Hamilton 1998; Vermeiren 2003). For example,
 177 Abram et al. (2006) examined over 1,800 detained
 178 youth and found that 93% of juveniles diagnosed
 179 with PTSD also met criteria for at least one
 180 comorbid psychiatric disorder.

181 Depression—and suicidal ideation in particu-
 182 lar—is frequently comorbid with PTSD among
 183 samples of nonincarcerated youth who report TE
 184 exposure (Waldrop et al. 2007). For example, in
 185 the NSA (Kilpatrick et al. 2003), adolescents
 186 who experienced sexual assault, physical assault,
 187 or witnessed violence were approximately 2.5
 188 times more likely to report comorbid PTSD and
 189 depression than adolescents who had not experi-
 190 enced such interpersonal violence. Based on
 191 these findings, it is likely that high comorbidity
 192 between PTSD, depression, and suicidality pres-
 193 ents a significant concern for traumatized juve-
 194 niles involved with the justice system. This is
 195 further supported by data indicating that the prev-
 196 alence of suicide in juvenile detention and cor-
 197 rectional facilities is more than four times greater
 198 than youth suicide overall (Hayes 2000).

199 Traumatized adolescents also are at higher
 200 risk for experiencing problems with substance
 201 abuse and dependence than their nonvictimized

202 peers (e.g., Clark et al. 1997; Giaconia et al.
 203 2000). In the NSA, Kilpatrick et al. (2000) found
 204 that exposure to TEs, such as child physical
 205 abuse, child sexual abuse, or witnessed violence,
 206 significantly increased risk of alcohol, marijuana,
 207 and hard drug abuse and dependence. Further,
 208 adolescents who experienced sexual assault were
 209 six times more likely, and those who witnessed
 210 violence were nine times more likely, to report
 211 comorbid substance abuse and PTSD than ado-
 212 lescents who had not experienced such victimiza-
 213 tion. Some research suggests that substance use
 214 is reported as or more frequently than PTSD
 215 among victimized samples. For example, within
 216 a sample of 269 adolescents with a childhood
 217 sexual abuse history, Danielson et al. (2010a)
 218 found drinking alcohol to intoxication (39.4%
 219 lifetime, 31.2% past year) was the most fre-
 220 quently reported problem among the youth, com-
 221 pared to lifetime or past 6-month PTSD (reported
 222 by 26% and 14.4% of the sample, respectively).
 223 In addition, approximately one quarter of the
 224 sample reported engaging in nonexperimental
 225 drug use in the past year. This is particularly con-
 226 cerning, given the link between substance use
 227 and other health risk behaviors, such as risky
 228 sexual behaviors and reckless driving (Brookoff
 229 et al. 1994), often observed in juvenile popula-
 230 tions (Centers for Disease Control and Prevention
 231 2008). In other words, the high prevalence of
 232 substance use among traumatized adolescents
 233 may also suggest high prevalence of other nega-
 234 tive health sequelae.

235 This relation between victimization and sub-
 236 stance use has been repeatedly demonstrated
 237 within studies of juvenile offender populations
 238 (Crimmins et al. 2000; Dembo et al. 1988; Dembo
 239 et al. 2007; Erwin et al. 2000b; Perron and
 240 Howard 2009; Staton et al. 2001). For example,
 241 in a study of 414 juvenile offenders, Crimmins
 242 et al. (2000) found that youth who had been raped
 243 by a family member were 4.45 times more likely
 244 to use cocaine than those who did not report rape.
 245 In the same study, juveniles who had witnessed a
 246 shooting or stabbing outside their home were
 247 3.15 times more likely to drink alcohol and 4.19
 248 times more likely to smoke marijuana compared
 249 to their peers who had not witnessed this type of

250 violence. In a recent study of 723 juvenile offenders,
 251 Perron and Howard (2009) found that inhalant
 252 users reported significantly higher rates of trauma
 253 compared to nonusers. Given the relatively lim-
 254 ited amount of prospective literature on the asso-
 255 ciation between victimization and substance use
 256 in the juvenile offender population, it is unclear
 257 whether victimization is predictive of substance
 258 use, and/or whether this relation is accounted for
 259 by other factors (e.g., personality, peer use, paren-
 260 tal monitoring, neighborhood safety). However,
 261 it is clear that substance use and victimization
 262 co-occur at high rates among juvenile offenders.

263 **Reciprocal Link Between Trauma**
 264 **and Delinquent Behavior**

265 Based on available data, it is clear that exposure to
 266 TEs is highly prevalent among juvenile offenders
 267 and that this exposure is associated with a myriad
 268 of mental health and behavioral outcomes. Of par-
 269 ticular relevance for this chapter, research has
 270 repeatedly demonstrated a link between TEs and
 271 delinquent behavior in adolescence (Brener et al.
 272 1999; Brown et al. 1999; Siegel and Williams
 273 2003; Widom and White 1997). The nature of this
 274 link appears to be bidirectional. That is, some stud-
 275 ies suggest that experiencing a TE renders a juve-
 276 nile at risk for involvement in the juvenile system,
 277 whereas other research indicates that involvement
 278 in the juvenile justice system leads to later trauma
 279 and victimization. Below we briefly review the lit-
 280 erature from both perspectives.

281 **Trauma as a Risk Factor for Delinquent**
 282 **Behavior**

283 As presented earlier, delinquent behavior has
 284 been posited in the media and indicated in the lit-
 285 erature as a mental health outcome resulting from
 286 TE exposure among adolescents. For example, in
 287 the study noted above, Danielson et al. (2010a)
 288 found that delinquent behaviors (i.e., attacking
 289 someone, selling drugs, robbery, breaking into
 290 someone’s vehicle or home, arrest history, being
 291 sent to jail or juvenile detention) were reported
 292 equally or more frequently than PTSD among the
 293 sample of sexual assault victims. About 24% of
 294 the adolescents indicated that they had engaged

in delinquent behavior in the past year, and 37% 295
 reported they had engaged in delinquent behavior 296
 in their lifetime, compared to those reporting past 297
 6 months (14.4%) or lifetime (26%) PTSD diag- 298
 nostic symptoms. Studies examining youth who 299
 have engaged in delinquent behavior (i.e., those 300
 involved in the juvenile justice system) demon- 301
 strated rates of self-reported victimization as high 302
 as 70–92% (McMackin et al. 1998; Rivera and 303
 Widom 1990; Steiner et al. 1997). Another recent 304
 study indicated that nearly 50% of the youth 305
 entering into a juvenile assessment center follow- 306
 ing arrest (due to engagement in delinquent 307
 behavior) had endorsed a history of physical 308
 abuse, while 25% reported sexual victimization 309
 (Dembo et al. 2007). Nonetheless, it is important 310
 to note that the majority of these studies involved 311
 a cross-sectional design, limiting the ability to 312
 determine causality. In other words, although 313
 these investigations clearly suggest a link between 314
 trauma and delinquent behavior, we cannot defini- 315
 tively conclude that the TE exposure caused the 316
 subsequent delinquent behavior. Thus, building on 317
 this line of research, a recent longitudinal study 318
 from a nationally representative sample of 3,614 319
 adolescents (National Survey of Adolescents- 320
 Replication) demonstrated that interpersonal vio- 321
 lence (i.e., physical abuse and/or assault, sexual 322
 abuse, witnessed violence) reported at the initial 323
 (Time 1) assessment predicted delinquent behavior 324
 reported 1 year later (Time 2) (Begle et al. 2010). 325
 When investigated separately by gender, Time 1 326
 physical abuse and/or assault and witnessed vio- 327
 lence predicted Time 2 delinquent behavior for 328
 boys, while Time 1 sexual abuse predicted Time 2 329
 delinquent behavior for girls in the study. These 330
 findings suggest that victimization may be the 331
 precipitant or at the very least, an important fac- 332
 tor, in subsequent delinquent behaviors. 333

334 Aside from associations between victimiza-
 335 tion and delinquency across a relatively short
 336 time frame (up to 1 or 2 years), studies have indi-
 337 cated that there may be a “cycle of violence,”
 338 such that victimization in childhood increases the
 339 likelihood of criminality in adulthood (Kjelsberg
 and Dahl 1998, 1999; Widom 1992). In support
 340 of this “cycle of violence” theory, results from a
 341 longitudinal study of 1,575 adolescents indicated
 342 that those who reported a victimization history
 343

344 were more likely to be arrested for a criminal act
 345 as adults (42% vs. 33%), and to engage in more
 346 frequent and violent offenses when compared to
 347 their nonvictimized counterparts (Widom and
 348 Maxfield 2001). These findings were consistent
 349 across gender and race, highlighting the general-
 350 izzability of this link.

351 **Delinquent Behavior as a Risk Factor**
 352 **for Victimization**

353 In contrast to the findings that victimization
 354 drives subsequent delinquency, other studies
 355 have supported the opposite temporal link: that
 356 adolescents who engaged in high-risk behavior
 357 are more likely to experience subsequent vic-
 358 timization (Burnam et al. 1988; Pedersen and
 359 Skrondal 1996; Windle 1994; Wood et al.
 360 2002a). As one explanation for these findings,
 361 researchers have posited that lifestyle differ-
 362 ences between teenagers may place some at
 363 increased risk for victimization. That is, adoles-
 364 cents who engage in high-risk behavior (e.g.,
 365 gang activity) may be more vulnerable to experi-
 366 encing victimization involving interpersonal
 367 violence (e.g., witnessing community violence)
 368 due to criminal and deviant lifestyles and greater
 369 exposure to potentially dangerous situations
 [A]370 (see Danielson et al. 2006). In the NSA-R study
 371 described above (Begle et al. 2010), adolescents
 372 who engaged in high-risk behavior (i.e., delin-
 373 quent behavior and/or substance use) at Time 1
 374 were more likely to report physical abuse and/or
 375 assault or witnessed violence 1 year later. This
 376 finding was consistent across boys and girls in
 377 the nationally representative sample. However, a
 378 different pattern of findings were found for sex-
 379 ual abuse. More specifically, girls who engaged
 380 in high-risk behavior (i.e., delinquent behavior
 381 and/or substance use) were *not* more likely to
 382 report sexual abuse at 1-year follow-up as com-
 383 pared to girls who did not engage in these
 384 behaviors.

385 **Summary**

386 Overall, TE exposure, and interpersonal violence
 387 in particular, are prevalent among juveniles
 388 involved in the justice system and have both

389 short- and long-term effects on adolescent and
 390 adult outcomes. When untreated, TE exposure
 391 and related mental health problems (e.g., PTSD,
 392 depression, substance use) in this population can
 393 increase the vulnerability for comorbid psychi-
 394 atric disorders, behavioral and health problems,
 395 impaired interpersonal relationships, and other
 396 negative outcomes, such as high risk for suicide
 397 and self-harm behaviors (Giaconia et al. 2000).
 398 In addition, research indicates that incarcerated
 399 youth who have been exposed to interpersonal
 400 violence and experience related mental health
 401 problems demonstrate a higher likelihood for
 402 recidivism than their peers who do not report TEs
 403 (Dembo et al. 1995; Lewis et al. 1989). Taken
 404 together, these findings highlight the need to
 405 ensure that evidence-based trauma informed ser-
 406 vices are available to youth involved in the juve-
 407 nile justice system. This means that mental health
 408 providers working with this population need to
 409 be informed on the most efficacious treatments
 410 for this population.

Treatment

411 Previous studies strongly suggest that trauma
 412 treatment is important for juvenile offenders who
 413 have experienced high rates of TEs, even if they
 414 are not currently reporting PTSD symptoms
 415 (Smith et al. 2006). The first section of this chap-
 416 ter provides the background and framework that
 417 underscores the need for trauma-related mental
 418 health treatment for this population. It is critical
 419 for professionals involved with the juvenile jus-
 420 tice system to understand the link between trauma
 421 and delinquent behavior, as well as the “best
 422 practices” for intervention. In this section, we
 423 begin with an overview of mental health treat-
 424 ments used within the juvenile justice system.
 425 After briefly describing the key components to a
 426 standard trauma assessment with youth, we
 427 review existing empirically supported interven-
 428 tions (ESTs) (i.e., treatments that have been sup-
 429 ported in research through published randomized
 430 controlled trials) for trauma-related symptoms,
 431 as well as promising practices (i.e., interventions
 432 that have been developed but are only in the early
 433 stages of empirical evaluation). Finally, we present
 434

435 clinical recommendations and future directions
 436 for psychosocial treatment of traumatized juve-
 437 niles based on our review of research and clinical
 438 work in this area.

439 **Mental Health Treatment Within**
 440 **an Incarcerated Juvenile Population**

441 Given the high prevalence of mental health disor-
 442 ders among incarcerated juveniles (Cocozza and
 443 Skowrya 2000), especially those who have experi-
 444 enced exposure to TEs (Abram et al. 2004), one
 445 would assume that mental health services are
 446 readily accessible among this population.
 447 However, available information suggests other-
 448 wise. For example, findings from a study on
 449 incarcerated youth in the Virginia Juvenile Justice
 450 System demonstrated that, although 8–10% of
 451 detainees reported mental health problems requir-
 452 ing immediate attention, only 14% of those
 453 youth were receiving ongoing mental health
 454 services (Justice Services Virginia Policy Design
 455 Team 1994).

456 Of the published studies that have investigated
 457 treatment outcomes for incarcerated juvenile
 458 offenders, behavioral and cognitive-behavioral
 459 treatment interventions appear to be the most
 460 effective in reducing recidivism and risk for
 461 future delinquency when compared to nondirec-
 462 tive and psychodynamic treatment approaches
 463 (Andrews and Bonta 1994; Gendreau and Ross
 464 1981; Goldstein 1988; Henggeler et al. 2002).
 465 Thus, several treatments aimed at decreasing
 466 maladaptive behaviors and helping adolescents
 467 take responsibility for their delinquent acts are
 468 available (Bazemore and Terry 1997; Carey
 469 1997); several of these include a strong family
 470 component. Although there is variability across
 471 interventions, common elements of these treat-
 472 ments include the targeting of decision making,
 473 social skills, anger management, substance use,
 474 juvenile offending, and family and community
 475 involvement (McMackin et al. 2002) via ESTs
 476 (e.g., contingency management). A more extensive
 477 discussion about intervention approaches with
 478 this population can be found in other chapters in
 479 this book (see Boxer and Goldstein 2010; Guerra

and Kirk 2010). However, some of these interven- 480
 tions are described briefly below. 481

Multisystem therapy (MST) has been one 482
 of the most extensively evaluated treatment 483
 approaches for juvenile delinquency and is one of 484
 the most cost-effective. MST is an ecological 485
 approach that has been found to be efficacious in 486
 decreasing both delinquent behaviors and drug 487
 use in high-risk youth (Henggeler et al. 2002). 488
 The fundamental goal of MST is to empower 489
 families to effectively resolve and manage seri- 490
 ous, current clinical problems, as well as the 491
 potential problems likely to occur during adoles- 492
 cence. Thus, MST aims to help youth and their 493
 families develop the capacity to cope with prob- 494
 lems by utilizing resources within the families’ 495
 ecologies (e.g., school, community at large). The 496
 MST treatment manual (Henggeler et al. 1998) 497
 describes the empirical, conceptual, and philo- 498
 sophical bases for MST and delineates the pro- 499
 cess by which the youth’s and family’s problems 500
 are prioritized and targeted for change. 501

Another example of an EST for delinquent 502
 behavior is Multidimensional Treatment Foster 503
 Care—Adolescents (MTFC-A), a model devel- 504
 oped for adolescents 12–18 years old with severe 505
 emotional and behavioral disorders and/or severe 506
 delinquency. The goals of *MTFC-A* are to create 507
 opportunities for the adolescents to live with fos- 508
 ter families rather than in institutional settings 509
 and to prepare their caregivers (to whom they 510
 will return posttreatment) by teaching strategies 511
 to increase effective parenting. Key elements of 512
 treatment include providing a consistent reinforc- 513
 ing environment that involves mentoring and 514
 careful monitoring; developing a daily structure 515
 with set expectations and limits, as well as clearly 516
 specified consequences delivered in a teaching- 517
 oriented manner; and helping youth to avoid 518
 deviant peer associations. Multiple randomized 519
 clinical trials have demonstrated that *MTFC-A* is 520
 efficacious in reducing delinquent behaviors 521
 (Leve et al. 2005; Chamberlain and Reid 1998). 522

In addition to MST and *MTFC-A*, other 523
 family-focused treatments have been shown to 524
 reduce problematic behavior in adolescents 525
 through randomized controlled trials, including 526
 brief structural family therapy (BSFT; Szapocznik 527

t1.1 **Table 30.1** Steps to standard clinical assessment of traumatic event history among youth (adapted from de Arellano
t1.2 and Danielson 2008)

-
- t1.3 1. *Take a semistructured approach* to the assessment of traumatized juveniles, where all family members
t1.4 (when possible) are assessed with the same core questions about the types of traumatic events experienced, as well
t1.5 as the range of past and current problems exhibited or reported by the youth. Depending on the responses to these
t1.6 core questions, more individually tailored follow-up questions can be asked of each child and family member.
t1.7 Traumatic events assessed typically include child sexual abuse, child physical abuse, exposure to domestic
t1.8 violence, exposure to community violence, natural disasters, and serious accidents, where significant injury is
t1.9 experienced or witnessed
-
- t1.10 2. Trauma interview *questions should be framed in a behaviorally specific and nonstigmatizing way* (e.g., “Have you
t1.11 ever been hit so hard that it left bruises?”) should be asked instead of “Have you ever been physically abused?”).
t1.12 Similarly, questions regarding symptoms also should be framed in descriptive, nonjargon terms
-
- t1.13 3. *Consider timeline and developmental issues.* Questions should be asked regarding the chronology of the traumatic
t1.14 event in relation to the mental health problems reported during the interview, so as to estimate direct effects of the
t1.15 traumatic event versus premorbid conditions and/or determine whether exposure to trauma has worsened a
t1.16 preexisting condition (e.g., delinquent behavior worsens after a sexual assault)
-
- t1.17 4. When multiple family members present for a trauma assessment, *trauma history and the trauma-related problems*
t1.18 *experienced by each family member should be assessed separately.* This includes gathering trauma-related
t1.19 information on both parents/caregivers. Assessing how parents have coped with their own trauma history provides
t1.20 important information about how they have modeled response to traumatic events to their children and how well
t1.21 are they able to provide support and nurturance for the children following their own traumatic incident
-
- t1.22 5. In cases involving child maltreatment, it will be important to *assess the current safety of the living environment*
t1.23 *for the child victim (if youth is not being detained)*, as well as any siblings or other minors or vulnerable others.
t1.24 The assessor may need to make a report to the local Department of Social Services, develop a safety plan with
t1.25 nonoffending caregivers, and/or refer the family to treatment. For juveniles who are remaining in the home, it may
t1.26 be necessary to continue to assess risk of harm throughout the course of treatment
-
- t1.27 6. *Use standardized paper-and-pencil self-report and parent-report measures* as a complement to a trauma assess-
t1.28 ment. Most standardized measures provide normative data (often by age, gender, and race/ethnicity), which can
t1.29 help clinicians determine the clinically significant problems to be targeted in treatment beyond behaviors that have
t1.30 resulted in juvenile justice involvement. See Strand et al. (2005) for a comprehensive review of measures
-

528 and Williams 2000) and multidimensional family
529 therapy (MDFT; Liddle et al. 2001). Each of
530 these aforementioned treatments are considered
531 to be efficacious for reducing the targeted delin-
532 quent or problematic behavior, but none specifi-
533 cally address comorbid mental health concerns
534 related to TE exposure (e.g., PTSD). Because
535 neither TE history nor trauma-related distress are
536 directly targeted in these treatments or reported
537 in the published studies, it is unknown the extent
538 to which these interventions would successfully
539 decrease PTSD in symptomatic youth. Given the
540 significant percentage of incarcerated juveniles
541 who report trauma histories and comorbid
542 trauma-related problems (as reviewed above), the
543 need for implementation of interventions within
544 this population is clear. However, before treat-
545 ments can be implemented, it is important to
546 identify which juveniles may require trauma-
547 focused intervention, highlighting the need for
548 assessment. In the next section, we provide a

brief review of clinical assessment protocols to 549
assist in identifying youth offenders in need of 550
further intervention. 551

552 **Assessment of Trauma**

As suggested by this review, TE exposure and 553
associated effects tend to be overlooked in juvenile 554
offender populations. In general, the focus of 555
assessments and rehabilitation efforts tend to be on 556
the “externalizing symptoms/behaviors” that led to 557
involvement with the juvenile justice system. In 558
order to identify which juveniles have experienced 559
TEs—and which ones report related symptoms 560
(e.g., depression, anxiety, PTSD)—a thorough 561
trauma-focused clinical evaluation is necessary. de 562
Arellano and Danielson (2008) reviewed the key 563
components that should be incorporated in a stan- 564
dard trauma assessment (see Table 30.1). Additional 565
recommendations for trauma assessment within a 566

567 juvenile offender population are provided under
568 section “Summary, Recommendations, and Future
569 Directions for Treatment.”

570 **Treatment of Trauma-Related Sequelae**
571 **in Youth**

572 A more thorough discussion of trauma assess-
573 ment in this population can be found in Ford
574 (2010).

575 Clinical research over the past two decades
576 has been conducted to examine the efficacy of
577 various approaches to treatment of trauma-related
578 mental health symptoms. Multiple treatments
579 have been identified as theoretically sound, clini-
580 cally useful, and rigorously tested through ran-
581 domized controlled trials. The treatments found
582 to be effective have emerged as “best practices”
583 for use with abused and traumatized youth and
584 their families. Others are considered “promising
585 practices” as they have undergone some empiri-
586 cal investigation (e.g., through open clinical trials
587 and case studies)—but have not yet undergone
588 evaluations using more rigorous randomized con-
589 trolled designs.

590 Trauma-focused cognitive–behavioral therapy
591 (TF-CBT; Cohen et al. 2006) is considered the
592 “gold” standard treatment approach because it
593 has the most empirical support. TF-CBT is a cog-
594 nitive–behavioral exposure-based intervention
595 that addresses PTSD and depressive symptoms,
596 as well as other significant emotional and behav-
597 ioral difficulties, related to youth trauma expo-
598 sure. TF-CBT involves both youth and caregivers
599 in individual and conjoint sessions, with specific
600 focus on building a therapeutic alliance between
601 family members. The treatment consists of
602 approximately 12 sessions, although it may be
603 extended based upon needs of the youth and fam-
604 ily. TF-CBT components are summarized based
605 upon the acronym, PRACTICE, which includes
606 (P)sychoeducation about the impact and common
607 reactions to traumatic events; (P)arenting skills
608 focusing on the youth’s emotions and behaviors;
609 (R)elaxation and stress management techniques;
610 (A)ffective expression and modulation skills;
611 (C)ognitive coping and processing; (T)rauma
612 narration, in which the youth provides a specific
613 account of the traumatic experience; (I)n-vivo

614 mastery of trauma reminders; (C)onjoint parent–
615 youth sessions to assist the youth and parent in
616 discussing the trauma aloud; and (E)nhancing
617 future safety and development. While all compo-
618 nents of treatment are important, the trauma nar-
619 rative component is a unique aspect of TF-CBT,
620 as it directly addresses the TEs and the youth’s
621 response to the event. TF-CBT can be easily
622 administered in a clinic or outreach setting,
623 including detention centers (de Arellano et al.
624 2005), which further suggests its potential utility
625 with a juvenile offender population.

626 To date, eight empirical investigations have
627 evaluated the utility of TF-CBT with over 500
628 youth participants, including adolescent popula-
629 tions (for a review, see de Arellano et al. 2008).
630 Results clearly demonstrated that TF-CBT was
631 efficacious in the treatment of PTSD, depression,
632 and behavioral difficulties among trauma-exposed
633 youth—and that TF-CBT was superior to compar-
634 ison conditions, such as supportive therapy.
635 Therefore, there is a strong, broad consensus that
636 TF-CBT has been well-tested and found to be
637 efficacious in reducing problems associated with
638 TE exposure. As a result, TF-CBT has been given
639 the highest available ranking for empirical sup-
640 port across multiple sources; it was deemed as a
641 “well-supported, efficacious treatment” by the
642 Office for Victims of Crime (OVC) Guidelines
643 project (Saunders et al. 2004), and by the NCTSN
644 (<http://nctsn.org/nctcs/>); was designated as a
645 Model Program by the Substance Abuse and
646 Mental Health Services Administration (<http://nrepp.samhsa.gov/>); and was ranked in the high-
647 est category of Well-Supported-Effective Practices
648 by the California Evidence-Based Clearinghouse
649 (<http://www.cachildwelfareclearinghouse.org/>).

650 Cognitive Behavioral Intervention for Trauma
651 in Schools (CBITS; Jaycox 2004) is another
652 trauma-focused intervention that has received
653 empirical support for reduction of trauma-related
654 symptoms. It is a cognitive–behavioral intervention
655 aimed at reducing symptoms of trauma exposure,
656 such as PTSD, depression, and general anxiety, in
657 youth from underserved ethnic minority popula-
658 tions who typically have difficulty accessing men-
659 tal health services due to a host of barriers. CBITS
660 is delivered within a school setting and utilizes a
661

662 community-based partnership model to increase
663 parent and family involvement in treatment. The
664 model consists of ten group sessions, 1–3 individ-
665 ual child sessions, 2 parent sessions, and 1 teacher
666 session; which focus on education about reactions
667 to trauma, relaxation training, cognitive therapy,
668 real life exposure, stress or trauma exposure, and
669 social problem solving. Because, by definition, this
670 model is delivered in a school setting, it would only
671 be applicable to those juveniles who are currently
672 attending school.

673 Results from a randomized clinical trial
674 demonstrated that, following engagement in the
675 CBITS intervention, youth displayed improve-
676 ments in functioning, including decreased
677 PTSD and depressive symptoms, when com-
678 pared to a comparison group at the end of treat-
679 ment (Kataoka et al. 2003) and to wait-list
680 control participants at a 3-month follow-up
681 (Stein et al. 2003). CBITS also has undergone
682 clinical trials to examine efficacy in reducing
683 symptoms of trauma among culturally diverse
684 populations (Kataoka et al. 2003; Stein et al.
685 2003). This model has been rated as a promis-
686 ing practice by the NCTSN ([http://nctsn.org/](http://nctsn.org/nctsn/)
687 [nctsn/](http://nctsn.org/nctsn/)).

688 Seeking Safety (Najavits et al. 1998) is a cop-
689 ing skills treatment intervention targeting comor-
690 bid PTSD and substance use problems following
691 TE exposure. The 24-session treatment consists
692 of cognitive, behavioral, and interpersonal com-
693 ponents. Seeking Safety covers 25 topics that fall
694 under five key principles: (1) Safety as the priori-
695 ty of the first stage of treatment; (2) Integrated
696 treatment of PTSD and substance use; (3) Focus
697 on ideals with the title of topics framed positively
698 to combat pathology (e.g., honesty to combat
699 denial, lying, and false self); (4) Four content
700 areas: cognitive, behavioral, interpersonal, and
701 case management; and (5) Attention to therapist
702 processes. Seeking Safety differs from other cog-
703 nitive-behavioral approaches to trauma treat-
704 ment, in that it does not typically include exposure
705 or “processing” of the TE. Seeking Safety can be
706 delivered in an individual or group format and
707 has been used with incarcerated adult popula-
708 tions, suggesting that use with juvenile offender
709 populations is feasible.

710 Seeking Safety has been evaluated in various
711 adult populations (e.g., Desai et al. 2008; Hien
712 et al. 2004; Holdcraft and Comtois 2002), includ-
713 ing incarcerated women (Zlotnick et al. 2003).
714 Some results from controlled (Gatz et al. 2007;
715 Morrissey et al. 2005) and randomized controlled
716 trials (Hien et al. 2004) suggest that the treatment
717 is efficacious in reducing PTSD and substance use
718 in various populations. In contrast, a recent multi-
719 site randomized controlled trial reported that
720 Seeking Safety was no more effective than a
721 health education intervention in reducing wom-
722 en’s PTSD symptoms and substance use (Hien
723 et al. 2009). To date, one study has examined
724 Seeking Safety among an adolescent population
725 (Najavits et al. 2006). Results demonstrated that
726 participants in Seeking Safety reported significant
727 reductions in substance use, cognitions related to
728 trauma and substance use, and psychiatric func-
729 tioning following treatment when compared to a
730 treatment-as-usual group of adolescents. However,
731 significant improvements in PTSD symptoms
732 were not observed. Thus, the developers have
733 noted that Seeking Safety may require some addi-
734 tional clinical modifications to increase its utility
735 with adolescent populations. Seeking Safety has
736 been rated as “Supported by Research Evidence”
737 by The California Evidence-Based Clearinghouse
738 (<http://www.cachildwelfareclearinghouse.org/>).

739 Based upon the significant associations
740 between TE exposure and high-risk behaviors
741 (i.e., delinquency and substance use), the field is
742 moving toward the development and evaluation
743 of integrated interventions that target both the
744 victimization as well as prevention and/or treat-
745 ment for high-risk behaviors in adolescents.
746 Examples of these promising practices include
747 risk reduction through family therapy (RRFT;
748 Danielson 2006), trauma systems therapy (TST;
749 Saxe et al. 2007), and structured psychotherapy
750 for adolescents responding to stress (SPARCS;
751 DeRosa and Pelcovitz 2005).

752 RRFT (Danielson 2006) is an intervention
753 designed for adolescents who have been exposed
754 to sexual assault, which aims to reduce risk of
755 high-risk behaviors, PTSD, depression, and revic-
756 timization and to improve “ecological functioning”
757 (e.g., school attendance, engagement in positive

758 family activities, time with non-substance-using
 759 peers, etc). As an integration of TF-CBT and
 760 MST (described above), the RRFT therapist
 761 works with each adolescent to improve coping
 762 with trauma-related memories, emotions, and
 763 thoughts—while also working with the family to
 764 address risk factors (e.g., parental monitoring)
 765 and to bolster protective factors (e.g., increase
 766 number of non-substance-using peers and struc-
 767 tured, positive activities) at each level of a youth’s
 768 ecology (i.e., individual, family, peer, school and
 769 community). The manual targets seven primary,
 770 overlapping components: Psychoeducation,
 771 Coping, Family Communication, Substance
 772 Abuse, PTSD, Healthy Dating and Sexual
 773 Decision Making, and Sexual Revictimization
 774 Risk Reduction. RRFT can be administered in
 775 clinic or community settings and case studies
 776 suggest it can be successfully implemented in a
 777 juvenile detention center (Danielson and Begle
 778 2009). Results from an open pilot trial of ten par-
 779 ticipants through 6-month posttreatment follow-
 780 up are promising (Danielson et al. 2010b), and a
 781 NIDA-funded randomized controlled trial compar-
 782 ing RRFT to usual care is currently underway
 783 (1K23DA018686).

784 TST (Saxe et al. 2007) involves interventions
 785 that work in two dimensions: strategies that oper-
 786 ate through and in the social environment to pro-
 787 mote change and strategies that enhance the
 788 individual’s capacity to self-regulate. The TST
 789 model involves choosing a series of interventions
 790 that correspond to the fit between the traumatized
 791 child’s own emotional regulation capacities and
 792 the ability of the child’s social environment and
 793 system-of-care to help manage emotions or offer
 794 protection from threat. The results from one
 795 open pilot trial (*n*=110) have been published to
 796 date, demonstrating significant reduction of
 797 trauma symptoms, improvements in emotional
 798 and behavioral regulation among children, as
 799 well as a more stable social environment after
 800 3 months of treatment (Saxe et al. 2005). TST is
 801 currently being adapted to address the complex
 802 treatment needs of adolescents experiencing trau-
 803 matic stress and abusing substances (TST-SA).

804 SPARCS (DeRosa and Pelcovitz 2005) is a
 805 group intervention that was designed to address

the needs of adolescents who have experienced
 chronic trauma, may still be living with ongoing
 stress, and are experiencing problems in several
 areas of functioning. Areas targeted in SPARCS
 include difficulties with affect regulation and
 impulsivity, self-perception, relationships, soma-
 tization, dissociation, numbing and avoidance,
 and struggles with the purpose and meaning in
 life. Results from case studies and an open pilot
 trial suggest that SPARCS can be useful in reduc-
 ing trauma-related symptoms in this population.
 SPARCS may be useful to juvenile offenders who
 continue to be exposed to trauma while pursuing
 treatment (e.g., living in a neighborhood where
 there is frequent gang violence within viewing
 distance).

Despite the existence of ESTs for trauma-
 exposed adolescents (e.g., TF-CBT) and multiple
 promising practices (see Coutois et al. 2009 for
 additional examples), the issue remains that: (1)
 most of these treatments have not been evaluated
 specifically in a juvenile offender population; and
 (2) these treatments are not readily available to
 juvenile offenders, particularly those who are
 incarcerated. Further, some of these treatments
 call for a group format, which is common in juve-
 nile detention sites but may not be ideal for this
 population. Specifically, some controlled studies
 suggest that offering treatment to juvenile offend-
 ers in group settings can be iatrogenic—that is,
 problem behaviors get reinforced by the peer
 group and consequently increase rather than
 decrease (e.g., Dishion et al. 1999). This is not to
 say all groups are contraindicated; but rather that
 group treatments should be monitored carefully
 when involving juvenile offenders. Clearly, more
 research is needed to identify and evaluate effec-
 tive trauma-focused treatment interventions for
 this population.

**Summary, Recommendations,
 and Future Directions for Treatment**

Based on the aforementioned literature and a long
 collective history of clinical work and research, in
 this section, we: (1) review the themes that have
 emerged regarding psychosocial treatment for

851 traumatized juveniles; (2) highlight areas of primary
852 importance; and (3) offer specific recommenda-
853 tions for trauma-focused assessments and treatment
854 with juvenile offender populations:

- 855 1. Assessment of traumatic event history should
856 be an essential part of the intake process for
857 juvenile offenders when entering the juvenile
858 justice system and/or beginning rehabilitation
859 via psychosocial treatment (Erwin et al.
860 2006b). When assessing TE history, and inter-
861 personal violence in particular, the use of
862 behaviorally specific terminology is needed. It
863 is not sufficient to ask whether or not a youth
864 has ever been traumatized or abused, because
865 many juveniles may not recognize that certain
866 experiences (e.g., physically abusive punish-
867 ment by a caregiver, date rape) are considered
868 victimization. Further, because substance use
869 and victimization co-occur at high rates among
870 juvenile offenders, evaluation of substance
871 using behavior and risk also should be consid-
872 ered a critical component in the assessment of
873 incarcerated youth.
- 874 2. Since data consistently indicate that approxi-
875 mately one-third of female juvenile offenders
876 report a history of sexual assault, protocols for
877 sexual assault-related follow-up services
878 should be implemented. For example, referrals
879 for medical/gynecological examinations
880 should be made to help ensure the physical
881 well-being of the youth (e.g., no sexually trans-
882 mitted diseases or lingering infections) and to
883 provide corrective information about consen-
884 sual sexual decision making. Given the empiri-
885 cal link between sexual assault and risky sexual
886 behaviors among adolescents (Parillo et al.
887 2001), referrals for empirically supported HIV
888 prevention services (e.g., Diclemente et al.
889 2004) would likely be beneficial for those who
890 report being (consensually) sexually active at
891 the present time or in the past.
- 892 3. Similarly, whereas juvenile prostitution has
893 been viewed as a delinquent behavior in the
894 past, recent clinical, research, and social pol-
895 icy advances have resulted in its redefinition
896 as a form of victimization (i.e., “commercial
897 sexual exploitation”) (Mitchell et al. 2010).
898 Nonetheless, such sexual exploitation may lead

899 to arrests for juvenile prostitution, rendering it
900 difficult for juveniles to endorse and/or con-
901 ceptualize such experiences as victimization
902 and making it unlikely that they will receive
903 trauma-focused treatment. Efforts to educate
904 law enforcement agents and other parties
905 involved in the rehabilitation of juvenile offend-
906 ers about sexual exploitation should continue.
907 Specific to implications for trauma-focused
908 treatment with youth having experienced sexual
909 exploitation, thoughts and feelings regarding
910 these experiences, particularly with regard to
911 “blame/responsibility” for this victimization
912 (e.g., self vs. adults involved in the exploita-
913 tion), will be important to target.

- 914 4. Psychoeducational information regarding the
915 strong link between TEs and juvenile offend-
916 ing should be disseminated to all profession-
917 als involved in rehabilitation efforts, including
918 administrators of detention facilities, judges,
919 police, probation officers, doctors and nurses,
920 psychologists, and social workers. Providing
921 psychoeducation to involved professionals, as
922 well as the juveniles themselves and their fam-
923 ily members, can help reduce stigmatization
924 of this population by increasing recognition
925 that neither TE experiences nor engagement in
926 risky behaviors, such as delinquency, follow-
927 ing TE exposure is uncommon. Such efforts
928 would also increase the likelihood that trauma-
929 focused psychosocial treatment options are
930 made available to the youth and family. As
931 part of the psychoeducation, however, careful
932 emphasis should be placed on the fact that
933 prior TE exposure does not force a juvenile to
934 offend—nor does it excuse juvenile-offending
935 behaviors. Indeed, the majority of youth
936 who experience trauma do not go on to engage
937 in delinquent behaviors. Nonetheless, under-
938 standing that a relation exists between a juve-
939 nile’s trauma history and his/her delinquent
940 behaviors can have significant implications
941 for treatment. For example, consider a youth
942 who is arrested for selling drugs to support a
943 personal drug habit, which had developed
944 after witnessing a sibling getting shot and
945 killed. Part of the rehabilitation of this youth
946 should involve learning healthier coping

947 strategies when facing thoughts, feelings, and
 948 reminders of his sibling’s death.

949 5. Just as we would expect that an asthmatic or
 950 diabetic juvenile offender in need of medical
 951 intervention would receive empirically sup-
 952 ported treatment, we should insist on the same
 953 standard for traumatized juvenile offenders in
 954 need of mental health treatment. Thus, it is
 955 imperative that frontline clinicians working
 956 with this population are familiar with and
 957 trained in ESTs for treatment of trauma-related
 958 symptoms. Published manuals, in-person
 959 workshops, and web-based trainings can help
 960 improve dissemination of such ESTs and reach
 961 larger numbers of clinicians at a faster pace.
 962 As one example, for clinicians wishing to
 963 learn TF-CBT to implement with this popula-
 964 tion, *TF-CBTWeb* is a free web-based training
 965 program for clinicians holding a master’s
 966 degree or higher (tfcbt.musc.edu). In-person
 967 training sessions on the implementation of
 968 TF-CBT are also held regularly and are listed
 969 on *TF-CBTWeb*. The most recent version of
 970 the TF-CBT manual (Cohen et al. 2006) pro-
 971 vides detailed information on implementation
 972 and is available for purchase. These trauma-
 973 focused ESTs can be offered in conjunction
 974 with—or following—offender treatment (i.e.,
 975 treatment that targets the offending behavior).
 976 However, in most cases, trauma-focused inter-
 977 ventions should not be offered in place of
 978 offender treatment. For example, a juvenile
 979 sex offender who experienced his own victim-
 980 ization as a child should receive both sex
 981 offender treatment (i.e., to address his perpe-
 982 tration) and TF-CBT (i.e., to address his
 983 victimization).

984 6. Further, as the field moves toward integrated
 985 approaches to treatment, additional research is
 986 needed to evaluate current promising practices
 987 that combine ESTs for both delinquent behav-
 988 ior and other trauma-related mental health
 989 symptoms (e.g., PTSD). Integrated approaches
 990 may be more cost-effective than separate treat-
 991 ments, and it is likely that these would be pre-
 992 ferred by clients and their families, particularly
 993 those who are feeling burdened by system
 994 demands and referrals for a multitude of services

(Cocozza et al. 2005). As noted above, several 995
 ESTs exist for delinquent behavior and for 996
 trauma-related symptoms, such as PTSD. 997
 Based on these existing, but separate inter- 998
 ventions, the following components are rec- 999
 ommended for consideration for integrated 1000
 treatment approaches: 1001

- (a) Psychoeducation regarding delinquent 1002
 behavior, trauma, and their relationships 1003
 (as noted above). 1004
- (b) Incorporation of the youth’s ecology into 1005
 treatment, including interventions (when 1006
 possible and applicable) at the family, 1007
 peer, school, and community levels (in 1008
 addition to individual clinical work). 1009
- (c) Replacement of unhealthy coping skills 1010
 with a plethora of healthy coping skills. 1011
- (d) Development of a “trauma narrative” 1012
 where a youth talks freely about the details, 1013
 distress, and other feelings surrounding a 1014
 TE experience, and receives corrective 1015
 information regarding inaccurate or 1016
 unhelpful cognitions he/she has formed 1017
 about the TE experience. It is important to 1018
 recognize that agency regulations (e.g., 1019
 rules regarding private sessions when cli- 1020
 nician is from outside the agency), time, 1021
 and space constraints may serve as barriers 1022
 to implementing trauma-focused treat- 1023
 ment with incarcerated youth. For example, 1024
 space limitations may make it difficult to 1025
 ensure the adolescent’s privacy, or time 1026
 constraints may impede completion of a 1027
 trauma narrative. Psychoeducation for 1028
 administrators may help to address some 1029
 of these barriers by increasing their under- 1030
 standing of the importance of trauma- 1031
 focused interventions. 1032
- (e) Enhancement of skills to reduce risk of 1033
 revictimization (given the reciprocal rela- 1034
 tion between delinquent behavior and 1035
 victimization), which may indirectly 1036
 decrease recidivism as well. For example, 1037
 when engaging a juvenile in revictimiza- 1038
 tion risk reduction work, a clinician can 1039
 help the juvenile to recognize and avoid 1040
 high-risk people (e.g., peers that are 1041
 involved in gangs) and situations (e.g., 1042

1043 party where drugs are being sold) and to
1044 develop the realistic refusal skills to do so
1045 successfully.

1046 7. Juvenile offenders are at risk for suicide, and
1047 those with a TE history are likely at even
1048 greater risk (Hayes 2000). The assessment and
1049 monitoring of suicidal ideation and behavior
1050 should occur at each session.

1051 8. When trauma-focused treatment with juvenile
1052 offenders must occur in a group format (e.g.,
1053 due to time, budget or personnel constraints),
1054 it should be done cautiously and with close
1055 monitoring. It is strongly recommended that
1056 the development of a trauma narrative should
1057 not occur in a group setting because of the
1058 possibility that hearing multiple accounts of
1059 TEs could exacerbate symptoms or contami-
1060 nate an individual's account of their own
1061 experiences.

1062 In sum, the primary aims of this chapter were
1063 to (1) provide an overview of the extant research
1064 and clinical literature regarding the link between
1065 trauma and delinquent behaviors among adoles-
1066 cents; (2) describe available ESTs for trauma and
1067 delinquency; and (3) provide recommendations
1068 for integrated approaches to address the multiple
1069 needs of this population. We are encouraged by
1070 the progress being made in the field. However,
1071 the tasks ahead are to continue our development
1072 of *integrated* treatment approaches; ensure that
1073 they undergo rigorous evaluation to determine
1074 their efficacy; and disseminate these approaches
1075 to clinicians, administrators, and youth advocates.
1076 In striving toward these goals, we will have the
1077 opportunity to change the trajectory of trauma-
1078 tized juvenile offenders so that they will put down
1079 their "bats" (as suggested in Dr. Seuss' quote at
1080 the beginning of the chapter)—and, instead, be
1081 armed with the tools to cope with their experi-
1082 ences and make better choices for the future.

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Posttraumatic Stress Disorder Among Youth Involved in Juvenile Justice

31

Julian D. Ford

More than three quarters of youth involved in the juvenile justice system have been exposed (usually repeatedly) to traumatic stressors, including abuse or family or community violence, life-threatening accidents or disasters, and interpersonal losses. The prevalence of posttraumatic stress disorder (PTSD) among justice-involved youth is three to ten times greater than in community samples. In addition, justice-involved youth with PTSD are at high risk for problems, including depression and suicidality, oppositional-defiant and conduct disorders, risk taking, and substance abuse. This chapter provides an overview of clinical epidemiology research on PTSD, comorbid emotional and behavioral disorders, and complex traumatic stress disorders associated with the poly-victimization experienced by many youth in the juvenile justice system. Evidence is described of complex forms of PTSD among justice-involved youth that include: (1) persistently reduced adaptive arousal reactions and episodic maladaptive hyperarousal, (2) impaired information processing and impulse control, (3) self-critical and aggression-prone cognitive schemas, and (4) deviant peer relationships that model and reinforce disinhibited reactions, maladaptive ways of thinking, and aggressive, antisocial, and delinquent

behaviors. Findings are highlighted concerning PTSD and vulnerable subpopulations, including girls, ethnoracial minority youth, and juveniles charged with sexual offenses. Finally, the chapter concludes with a discussion of trauma-informed approaches for court proceedings, juvenile justice facilities and rehabilitation services, and mental health treatment.

Clinical Epidemiology of Trauma Exposure and PTSD in Justice- Involved Youth

By definition (American Psychiatric Association 2000), traumatic stressors are events that involve a threat, or the actual occurrence, of an untimely death or severe physical injury that could be life threatening, or a violation of bodily integrity (i.e., sexual assault or molestation). Childhood and adolescent exposure to traumatic stressors appears common across societies. Between 25% (Costello et al. 2002) and 43% (Silverman et al. 1996) of children in the USA are estimated to experience at least one (Seedat et al. 2004) traumatic stressor. More than 75% of adolescents in the USA and South African and Kenyan 10th graders (Seedat et al. 2004) reported having experienced at least one traumatic stressor in their lifetimes. Other studies indicate that as many as one in five (20%) 3-year-olds in community samples had experienced potentially traumatic family violence (Mongillo et al. 2009), and

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62 almost one in three adolescents (30%) (Kilpatrick
63 et al. 2000) had experienced potentially traumatic
64 physical or sexual assault. Between 50%
65 (Kilpatrick et al. 2000) and 80% (Finkelhor et al.
66 2009) of children and adolescents in the USA
67 report being victimized, including sexual assault
68 (5–8%), physical assault (22–61%), abuse (16%),
69 witnessing family violence or abuse (10%), or
70 murder of a family member or friend (8%).

71 Youth in the juvenile justice system often have
72 experienced multiple forms of traumatic stressors,
73 including victimization (e.g., abuse, family,
74 and community violence), life-threatening acci-
75 dents or disasters, and interpersonal losses
76 (Abram et al. 2004; Ford et al. 2008b). Between
77 75 and 90% of youth in juvenile detention facili-
78 ties report a history of exposure to at least one
79 potentially traumatic event in large surveys of
80 relatively representative samples (Abram et al.
81 2004; Ford et al. 2008b). Prevalence estimates of
82 being threatened with a weapon (58%) (Abram
83 et al. 2004), traumatic loss (48%) (Ford et al.
84 2008b), and physical assault (35%) (Abram et al.
85 2004; Ford et al. 2010d) are very high in juvenile
86 detention samples compared to community sam-
87 ples. In studies with smaller samples of consecu-
88 tively detained girls, sexual abuse was the most
89 frequently reported traumatic event (55–70%),
90 but physical assault (46%), physical abuse (33%),
91 traumatic loss, and kidnapping (30%) also were
92 frequently reported by the justice-involved girls
93 (Ariga et al. 2008).

94 In the USA (Copeland et al. 2007; Mongillo
95 et al. 2009), PTSD is rare among young (ages
96 0–4) children (0.6% prevalence) and school-age
97 children (1% prevalence), but less so among ado-
98 lescents (5% prevalence) (Kilpatrick et al. 2003).
99 Similar estimates include just under 1% of Puerto
100 Rican children (Canino et al. 2004) and just over
101 1% of Bangladeshi children (although children
102 living in slums were more likely to have PTSD;
103 3.2%) (Mullick and Goodman 2005). Other
104 large-scale studies have reported PTSD to be less
105 common, affecting only approximately 1 in
106 1,000 children in Great Britain (Ford et al. 2003)
107 and Brazil (Anselmi et al. 2010). However, as
108 many as one in eight children in a community
109 sample in the USA (13.4%) reported some PTSD
110 symptoms, and children who had been exposed

111 to psychological trauma also were at risk for
112 depression and anxiety disorders (Copeland et al.
113 2007). Among 10th graders, more than 25% in a
114 South African sample and 5% in a Kenyan sample
115 met criteria for PTSD (Seedat et al. 2004), and
116 8% of adolescents exposed to terrorism in Israel
117 had probable PTSD (Pat-Horenczyk et al. 2007).

118 PTSD occurs only following exposure to trau-
119 matic stressors, but results from a confluence of
120 several risk (e.g., family or personal history of
121 psychopathology, anxiety-proneness, parental
122 PTSD) and protective (e.g., social support, edu-
123 cation) factors, of which trauma is but one
124 (Brewin et al. 2000; Ozer et al. 2003). Higher
125 prevalence estimates of PTSD have been reported
126 for youth in psychiatric and justice settings than
127 in community populations. One in four (Ford
128 et al. 2000; Mueser and Taub 2008) adolescents
129 in psychiatric treatment meet criteria for PTSD.
130 Similarly, 27% of Swiss male juvenile offenders
131 (Urbaniok et al. 2007), 25% of Russian male
132 juvenile offenders (Ruchkin et al. 2002), and
133 10–19% of detained youth in the USA (Abram
134 et al. 2004; Cauffman et al. 1998; Ford et al.
135 2008b; Steiner et al. 1997) meet criteria for
136 PTSD. A study that directly compared PTSD
137 prevalence in two high risk samples found simi-
138 lar prevalence levels among boys remanded to
139 secure facilities compared to those in mental
140 health treatment programs (Urbaniok et al. 2007).
141 Although a study of American juvenile detainees
142 found that girls and boys were comparable in the
143 prevalence of PTSD (Abram et al. 2004), studies
144 with female juvenile offender samples from
145 Australia (Dixon et al. 2005) and Japan (Ariga
146 et al. 2008) reported substantially higher preva-
147 lence estimates for PTSD (37% and 33%, respec-
148 tively) than those reported for male juvenile
149 offenders (see Gender Issues, below).

150 Regarding comorbidity, youth with PTSD con-
151 sistently are found to be at risk for other anxiety
152 disorders, as well as affective, psychotic, eating,
153 substance use, and disruptive behavior disorders,
154 in community (Copeland et al. 2007; Ford et al.
155 2009b; Giaconia et al. 1995), clinical (Ford et al.
156 2000; Mueser and Taub 2008) and juvenile justice
157 samples (Abram et al. 2007; Ariga et al. 2008;
158 Dixon et al. 2005; Ruchkin et al. 2002). PTSD
159 also is associated with increased risk of cognitive

impairment (Moore 2009; Schoeman et al. 2009), possibly exacerbated by learning disabilities or dissociation (Morgan et al. 2006; Sequeira and Hollins 2003).

Specifically among youth in juvenile detention, 93% of those who met criteria for PTSD based on a structured research interview had at least one other psychiatric disorder—almost 50% more than detained youth who did not meet criteria for PTSD (64%) (Abram et al. 2007). A majority (54%) of the detained youths with PTSD had at least two *types* (i.e., affective, anxiety, behavioral, or substance use) of comorbid psychiatric disorders. One in nine detained youths with PTSD (11%) had all four types of comorbid psychiatric disorders. For boys, PTSD was associated with all types of comorbid psychiatric disorders, while among girls the primary comorbidities of PTSD were alcohol or drug use disorders. Boys also were more than three times more likely than girls to have a comorbid psychiatric disorder if they had PTSD. Despite the exceptionally high level of PTSD prevalence and comorbidity that was identified with the structured research interview protocol, PTSD is very rarely identified by juvenile justice or community mental health services (Garland et al. 2001). PTSD also has been shown to fully (for girls) or at least partially (for boys) mediate the relationship between childhood exposure to violence and problems with depression and anxiety (Ruchkin et al. 2007). PTSD symptoms also are associated with heightened problems with impulsivity and oppositionality among psychiatrically impaired children and youth (Ford et al. 1999). Abram et al. (2007) therefore conclude that “Detection of comorbid PTSD among detained youths must be improved. PTSD is often missed because traumatic experiences are rarely included in standard screens or volunteered by patients. When planning treatment, clinicians must consider ramifications of comorbid PTSD” (p. 1311).

Complex Trauma, Complex PTSD

Before considering implications of a PTSD perspective for juvenile courts, correctional and rehabilitation services, and mental health programs, the

complex nature of traumatic experiences and post-traumatic sequelae experienced by many justice-involved youth warrants consideration. Complex traumatic stressors (hereafter “complex trauma”) are a subset of these dangerous or harmful events in which the person suffers not only a traumatic shock but also severe disruption in their development of core self-regulatory competences (Ford 2005) or attachment bonds (Cook et al. 2005). Exposure to complex trauma places children at risk for a range of serious internalizing (e.g., fear, depression, somatic complaints) and externalizing (anger, aggression, oppositional-defiant, conduct disorder, substance abuse) problems that have substantial social, educational, and economic costs (Foster and Jones 2005; Zakireh et al. 2008).

Complex trauma may include not only physical or sexual abuse or neglect but also other forms of victimization such as family and community violence, physical and sexual assault, and bullying (Finkelhor et al. 2009), as well as exposure to broader types of violence, such as war, captivity, genocide, terrorism, torture, and forced displacement from home and community (Joshi and O’Donnell 2003; Porter and Haslam 2005). Complex trauma often is cumulative, involving repeated episodes over prolonged periods or multiple types/stressors that have been described as “poly-victimization” (Finkelhor et al. 2009). Increasing complexity of trauma exposure is associated with increasingly severe and chronic symptomatic problems and impairment (Anda et al. 2006; Briere et al. 2008; Cloitre et al. 2009). These problems are manifestations of deficits in core self-regulatory competences (Ford 2005), including: (a) attention and learning, (b) sensorimotor functions, (c) working (short-term processing), declarative (verbal), and narrative (autobiographical) memory, and (d) emotion regulation and social relatedness (attachment). Complex trauma exposure is associated with altered cognitive information processing, schemas, and expectations which may lead the youth to be prone to endorse aggression (Bradshaw and Garbarino 2004; Dodge et al. 1995), submit to victimization (Ponce et al. 2004), or experience high levels of self-criticism and shame (Alessandri and Lewis 1996; Glassman et al. 2007; Sachs-Ericsson et al. 2006). Moreover,

253 complex trauma may lead to involvement with
 254 peers who engage in, model, and encourage delin-
 255 quent behavior (Ford et al. 2010a). Association
 256 with delinquent peers increases the risk of delin-
 257 quency due to the clustering of behavior problems
 258 (Donovan et al. 1988), peer modeling (Dishion
 259 and Dodge 2005), and engagement in violence
 260 secondary to alcohol (Swahn and Donovan 2004,
 261 2006) or drug use (van den Bree and Pickworth
 262 2005), or combinations of these factors (Finkelhor
 263 et al. 2007a).

264 Several lines of evidence suggest that complex
 265 trauma puts youth at risk for increasingly severe
 266 juvenile justice involvement. Exposure to child-
 267 hood abuse (Ayoub et al. 2006; Dodge et al.
 268 1995), family violence (Buka et al. 2001; Haj-
 269 Yahia 2001), and community violence (Fehon
 270 et al. 2001; Ruchkin et al. 2007; Stein et al.
 271 2003a) are predictive of the development of
 272 beliefs, attitudes, and peer group affiliations
 273 (Ford et al. 2010a) endorsing delinquent behav-
 274 ior. Moreover, exposure to domestic violence has
 275 been shown to be associated with lower levels of
 276 intellectual functioning independent of genetic
 277 effects (Koenen et al. 2003), and with impaired
 278 arousal regulation (Saltzman et al. 2005).

279 Dysregulated stress reactivity (Lopez-Duran
 280 et al. 2009; van Bokhoven et al. 2005; Yang et al.
 281 2007) may include diminished (Ford et al. 2010b)
 282 as well as excessive reactivity to stressors.
 283 Specifically, complex trauma histories and com-
 284 plex forms of PTSD and its comorbidities may
 285 increase youths' risk of entry into and recidivism
 286 in the juvenile and adult criminal justice systems
 287 by contributing to or exacerbating several risk
 288 factors: preoccupation with one's own and other
 289 persons' anger (Pollak and Tolley-Schell 2003);
 290 generalized expectancies of being physically or
 291 sexually harmed (Gully 2003); a hostile/aggres-
 292 sive information processing style (Dodge et al.
 293 1995); a bias toward attending to and perceiving
 294 stimuli as signs of threat (Pine 2007); deficits in
 295 cognitive operations necessary for selective sus-
 296 tained attention, hypothesis testing and problem
 297 solving, and organizing verbal information (Beers
 298 and De Bellis 2002) and short- and long-term
 299 verbal memory (Cordón et al. 2004), and detailed
 300 overinclusive memories of past traumatic events

(Cordón et al. 2004). A biological link between
 301 complex trauma and delinquency risk is sug-
 302 gested by evidence that childhood exposure to
 303 domestic violence or abuse (Choi et al. 2009; De
 304 Bellis and Kuchibhatla 2006) and childhood sexual
 305 abuse (Kitayama et al. 2007; Lanius et al.
 306 2005; Schmahl et al. 2003) are associated with
 307 dysregulation specifically in brain areas and path-
 308 ways associated with stress reactivity (Saltzman
 309 et al. 2005) and cognitive appraisals and intellec-
 310 tual functioning (Koenen et al. 2003).
 311

312 As a result of impaired self-regulation, youth
 313 with complex trauma histories often develop
 314 externalizing problems (e.g., hostility, opposi-
 315 tionality, impulsivity) in childhood (Ford et al.
 316 1999, 2010c; Mongillo et al. 2009), adolescence
 317 (Farrington and Loeber 2000; Ford et al. 2008b,
 318 2009a; Ruchkin et al. 2007; Turner et al. 2006),
 319 and adulthood (Brodsky et al. 2001; Corstorphine
 320 et al. 2007; Cuomo et al. 2008; Kausch et al.
 321 2006; Roy 2005; Zanarini et al. 2002). These
 322 youth tend to be diagnosed with externalizing
 323 disorders, such as attention deficit hyperactivity
 324 disorder (ADHD), oppositional defiant disorder
 325 (ODD), and conduct disorder (CD), or personal-
 326 ity disorders, or behavioral dyscontrol syndromes
 327 that manifest in the form of suicidality (Ford
 328 et al. 2008b; Swahn and Bossarte 2007; Waldrop
 329 et al. 2007), substance use disorders (Ford et al.
 330 2008b; Kilpatrick et al. 2000; Kilpatrick et al.
 331 2003) and preteen substance use (Hamburger
 332 et al. 2008), and incarceration (Holmes and
 333 Sammel 2005). While those diagnoses may be
 334 warranted, youth with complex trauma histories
 335 who receive these diagnoses have been shown to
 336 have particularly severe emotional and behavior
 337 problems (Ford et al. 2009a, 2010a). Thus, com-
 338 plex trauma warrants attention as a potential
 339 exacerbating factor among justice-involved youth
 340 with a variety of psychiatric diagnoses, in order
 341 to develop services that address their severe
 342 symptomatology.

343 Estimates of complex trauma stressor preva-
 344 lence are high among children or youth in juve-
 345 nile justice programs, comparable to those for
 346 children in psychiatric treatment. A hierarchical
 347 cluster analysis of trauma exposure in a large rep-
 348 resentative sample of youth in juvenile detention

349 yielded a prevalence estimate of 35% for complex
 350 trauma (Ford et al. 2010d). This is about three
 351 times higher than the 10–13% estimates of poly-
 352 victimization from epidemiological study of chil-
 353 dren and adolescents (Finkelhor et al. 2009) and
 354 adolescents (Ford et al. 2010a), but comparable
 355 to those with child or adolescent psychiatry sam-
 356 ples. In an inpatient child psychiatry sample, 33%
 357 had a documented history of sexual abuse, 47%
 358 had a documented history of physical abuse, and
 359 more than two thirds had experienced removal
 360 from their home before the age of five
 361 (69%)—almost half (45%) having had multiple
 362 out-of-home placements—or potentially trauma-
 363 tic violence (70%) (Ford et al. 2009a). In an
 364 outpatient child psychiatry sample, most (>67%)
 365 diagnosed with ODD had been victimized per
 366 their own or their parent’s report, compared to
 367 one third of the patients diagnosed only with
 368 ADHD and 13% of the patients diagnosed with
 369 an adjustment disorder (Ford et al. 1999). Poly-
 370 victimized children also are more likely than oth-
 371 ers not only to be revictimized (Finkelhor et al.
 372 2007b), but also to suffer accidental or bereave-
 373 ment traumas (Finkelhor et al. 2007b; Ford et al.
 374 2009a, 2010a).

375 Complex trauma was found to be associated
 376 with risk for juvenile delinquency in a national
 377 survey of the US adolescents (Ford et al. 2010a).
 378 Victimization has been shown to place youths at
 379 risk for delinquency (Dembo et al. 1989; Nofziger
 380 and Kurtz 2005) and to be associated with more
 381 severe delinquency (Dembo et al. 2000). Youth
 382 who have been victimized by abuse or violence
 383 also have been found to be more likely to recidi-
 384 vate than other youth (Dembo et al. 1995;
 385 Heilbrun et al. 2005; Ryan and Testa 2005). The
 386 impact of complex trauma may be particularly
 387 adverse for youth who become involved in delin-
 388 quency: poly-victimized youth who were involved
 389 in delinquency reported more severe psychologi-
 390 cal distress than poly-victimized youth who had
 391 no involvement in delinquency (Cuevas et al.
 392 2007). Violence may be especially detrimental
 393 for delinquent youth: violence exposure was
 394 found to be more strongly associated than a his-
 395 tory of abuse with risk of juvenile offending
 396 (Eitle and Turner 2002) and with the severity of

traumatic stress symptoms and risk of suicide 397
 and substance abuse (Ford et al. 2008b), among 398
 detained juvenile offenders. 399

**Programmatic and Clinical Challenges 400
 of PTSD with Justice-Involved Youth 401**

PTSD resulting from the types of complex trauma 402
 that are commonly reported by youth in juvenile 403
 justice populations thus may lead to extremely 404
 problematic forms of dysregulation, including 405
 diminished adaptive arousal reactions, episodic 406
 maladaptive hyperarousal, impaired information 407
 processing and impulse control, self-critical and 408
 aggression-endorsing cognitive schemas, and 409
 peer relationships that model and reinforce disin- 410
 hibited and aggressive ways of thinking and 411
 behaving. This constellation of problems poses 412
 significant challenges for court proceedings, cor- 413
 rectional and rehabilitation services, mental 414
 health screening and assessment, and the mental 415
 health treatment of youths involved in the juve- 416
 nile justice system. 417

While *not* suggesting that every delinquent 418
 youth is emotionally dysregulated due to trauma- 419
 tic victimization, these findings suggest that 420
 by focusing on sanctions and services that 421
 address *emotional dysregulation* and *distorted* 422
information processing the juvenile justice sys- 423
 tem can play a vital role in both helping children 424
 who have been traumatically victimized and 425
 reducing the likelihood of recidivism and esca- 426
 lating danger to society by youthful offenders 427
 whether they have or have not been traumatically 428
 victimized. This perspective is consistent with 429
 legal concepts, such as zero tolerance (Secker 430
 et al. 2004) and restorative justice (Bazemore 431
 et al. 2005). Zero tolerance is an approach to 432
 criminal justice policy which emphasizes per- 433
 sonal responsibility and societal safety, while 434
 restorative justice emphasizes the need to inte- 435
 grate community and offender and allow the 436
 offender to recognize and repair damage to the 437
 community. To the extent that delinquent youths 438
 are behaving dangerously as a result of dysregu- 439
 lated emotions and distorted information pro- 440
 cessing, they will best be able to take responsibility 441

442 and to show respect for other people and the law
 443 if they are assisted in *gaining the capacity to*
 444 *manage their emotions and think clearly enough*
 445 *to act responsibly* (Ford 2005).

446 Juvenile justice systems have not routinely
 447 addressed PTSD. However, in the past decade, as
 448 traumatic stress researchers have demonstrated
 449 that psychological trauma exposure and PTSD are
 450 prevalent among juvenile justice-involved youth,
 451 there has been a push to improve the juvenile jus-
 452 tice system’s response to traumatized youths (Ford
 453 et al. 2007). At the same time, new approaches to
 454 identifying and treating traumatic stress disorders
 455 among youth have emerged. The resources include
 456 two related but distinct approaches to services for
 457 justice-involved youths: (1) *trauma-informed ser-*
 458 *vices* (e.g., screening for trauma history and trau-
 459 matic stress symptoms; providing education for
 460 youths, families, and legal and healthcare profes-
 461 sionals and staff about how to recognize and man-
 462 age traumatic stress) and (2) *trauma-specific*
 463 *services* (e.g., in-depth assessment and evaluation
 464 of trauma history and traumatic stress disorders;
 465 psychological or psychiatric treatment for PTSD)
 466 (Ford et al. 2007).

467 **Court Proceedings**

468 Trauma-informed expertise may be needed when
 469 mental health professionals serve as expert wit-
 470 nesses for the plaintiff or the defendant in a civil
 471 case or for the prosecution or the defense in a
 472 criminal case. Expert testimony may involve either
 473 a presentation to the court of background factual
 474 information relevant to the case (e.g., defining
 475 PTSD and how it may affect a youth’s behavior
 476 and mental state) or conducting an individualized
 477 evaluation of a youth charged with violating the
 478 law and testifying about the results (e.g., assessing
 479 trauma history and PTSD symptoms to determine
 480 whether PTSD should be taken into account in
 481 judicial decisions). As an expert witness, the
 482 trauma-informed professional may be called upon
 483 to estimate the likelihood that PTSD contributed
 484 to a youth’s alleged delinquent behavior or com-
 485 promised his or her ability to competently make
 486 decisions and act responsibly either at the time of

an infraction or during a hearing. The expert 487
 witness also may be asked, by an attorney repre- 488
 senting parties involved in a lawsuit or a defendant 489
 in a juvenile hearing, or by the judge, to make 490
 judgments of the extent to which harm sustained 491
 by a child victim includes posttraumatic psycho- 492
 logical injury, and recommendations for services 493
 (such as mental health treatment) or resources 494
 (such as foster or adoptive placement for a mal- 495
 treated child) needed to enable the victim to 496
 recover from the harm, or to be able to compe- 497
 tently stand trial, or to successfully and safely 498
 return to the community. Expert testimony may be 499
 requested concerning the scientific status of con- 500
 troversial matters such as whether traumatized 501
 persons can recall traumatic events accurately 502
 many years or decades after the fact, particularly if 503
 they did not recall the events for a period of time. 504
 Expert testimony also may be requested about the 505
 scientific status of specific trauma assessment 506
 instruments, such as the accuracy of question- 507
 naires or structured interviews for determining a 508
 youth’s trauma history or PTSD. The reliability, 509
 validity, and predictive utility of tests and mea- 510
 sures with persons involved in legal cases—such 511
 as how to determine if a youth is falsely claiming 512
 or exaggerating the severity of exposure to trau- 513
 matic stressors or PTSD symptoms—e.g., “malin- 514
 gering” (Hall and Hall 2007), is another question 515
 requiring trauma-informed expertise. 516

The clinical role for trauma-informed profes- 517
 sionals in forensic settings also may include con- 518
 ducting pre-adjudication or follow-up mental 519
 health assessments that are used by the judge to 520
 assist in decisions without having the professional 521
 actually testify in court. The forensic mental health 522
 role also may involve directly providing or over- 523
 seeing the provision of trauma-specific therapeu- 524
 tic services, such as a psychologist, social worker, 525
 or counselor doing group or one-to-one psycho- 526
 therapy for a legally detained, incarcerated, or 527
 probated youth. Conducting clinical quality assur- 528
 ance studies also may require trauma-informed 529
 expertise, such as reviewing court-ordered mental 530
 health assessment reports in order to determine if 531
 trauma history and PTSD were appropriately 532
 assessed and considered in the assessor’s conclu- 533
 sions and recommendations. 534

535 **Correctional and Rehabilitation**
536 **Services**

537 Trauma-informed education can enable adminis-
538 trators, supervisors, and line staff in juvenile jus-
539 tice facilities and community-based programs
540 (e.g., probation, risk reduction, diversion) to help
541 traumatized youth to anticipate and respond
542 effectively to trauma-related triggers without
543 reacting maladaptively due to PTSD symptoms
544 (Ford et al. 2007). The initial reaction by admin-
545 istrators and staff to a trauma-informed approach
546 to preventing recidivism and enhancing program
547 and community order and safety often is that
548 PTSD will be used as an “excuse” to justify mis-
549 behavior by the youths themselves or to reduce
550 youths’ accountability and responsibility by soft-
551 hearted therapists or advocates. However, when
552 trauma-informed milieu or probation programs
553 actually are instituted, youth learn that they can
554 *and must* take responsibility for understanding
555 and managing PTSD symptoms in order to not
556 inadvertently be victimized by their own stress
557 reactions that are no longer adaptive. In trauma-
558 informed programs, youth and adults (e.g., deten-
559 tion line staff, probation officers) alike learn that
560 they share a common and universal human chal-
561 lenge of anticipating, recognizing, and gaining
562 control over stress reactions. For youths, the
563 problematic stress reactions take the form of
564 PTSD symptoms. For the adults working with
565 youths, their own stress reactions become more
566 manageable when understood as vicarious or sec-
567 ondary trauma (Caringi and Pearlman 2009)—the
568 frustration, irritation, impatience, grief, guilt, and
569 disappointment that inevitably occurs when
570 attempting to help traumatized youths who fluc-
571 tuate unpredictably between being emotionally
572 shut-down and explosive, and passively defiant or
573 oppositional and defiant, as a result of PTSD.

574 For example, a trauma-informed approach to
575 empowering both adult justice professionals and
576 the youth with whom they work has been insti-
577 tuted system-wide by the Connecticut State
578 Judicial Branch’s Court Support Services Division
579 in juvenile justice programs (Ford et al. 2007).
580 The intervention, Trauma Affect Regulation:

Guide for Education and Therapy (TARGET ©) 581
(Ford and Russo 2006; Ford and Saltzman 2009), 582
provides education about traumatic stress and 583
training on self-regulation skills not only for youth 584
but also for administrators, supervisors, line staff, 585
officers, public defenders, teachers, and health- 586
care and social work professionals in residential 587
(e.g., detention, respite) and community-based 588
(e.g., risk reduction, family support, probation) 589
juvenile justice programs. All participants are 590
encouraged to use the knowledge and skills in all 591
of their interactions, not just in designated indi- 592
vidual or group learning sessions. Consultation is 593
provided on an ongoing formal and informal basis 594
to assist each program’s staff in tailoring the model 595
to their milieu and goals, as well as to ensure fidel- 596
ity of implementation of the model over time. The 597
current biopsychosocial research base on PTSD is 598
translated into nontechnical concepts and practi- 599
cal skills in order to make the concepts and skills 600
readily accessible. The goal is to create a social 601
environment that, consistently across all programs, 602
supports recovery from trauma by providing men- 603
toring and role modeling (by peers as well as 604
adults) of well-regulated responses to both minor 605
and major stressor experiences. 606

607 Three studies have been completed evaluating
608 the effectiveness of TARGET with youth involved
609 in or at risk for involvement in the juvenile justice
610 system. A randomized clinical trial of TARGET
611 delivered for 12 sessions on a one-to-one basis
612 with girls who reported delinquent behavior and
613 met diagnostic criteria for PTSD showed that
614 TARGET was superior to a relationally-focused
615 treatment as usual psychotherapy in reducing
616 PTSD symptom severity (Ford et al. 2012). A
617 field study of TARGET implemented as a group
618 and milieu educational intervention in mixed
619 gender juvenile detention centers demonstrated
620 that, after controlling for potential confound vari-
621 ables (e.g., site, severity of offense, gender, age),
622 for every four sessions of TARGET received
623 there was one fewer disciplinary incidents and a
624 2.5 hour reduction in the use of seclusion by cen-
625 ter staff in the first 14 days of detention (Ford and
626 Hawke *in press*). Youth with clinically significant
627 scores on the MAYSI-2 Traumatic Experiences
628 subscale showed particularly strong benefits

629 associated with receiving TARGET, including
 630 two fewer disciplinary incidents and a 4 h reduc-
 631 tion in the use of seclusion by center staff in the
 632 first 14 days detention. An independent quasi-
 633 experimental study of TARGET as a group and
 634 milieu educational intervention in specialized
 635 high security mental health incarceration units for
 636 juvenile offenders found that units implementing
 637 TARGET had 50% fewer incidents involving
 638 threats by youths or use of seclusion over a
 639 16-month period, compared to a 300% *increase*
 640 in each type of incident during that time period on
 641 matched units delivering services as usual
 642 (Marrow et al. [in press](#)). In addition, youths
 643 receiving TARGET reported statistically signifi-
 644 cant increases in self-efficacy and satisfaction
 645 with juvenile justice services, as well as reduc-
 646 tions in depression symptoms, while youths on
 647 the comparison units reported reductions in self-
 648 efficacy and satisfaction and increased depression
 649 symptoms.

650 Other empowerment-based educational and
 651 therapeutic interventions that have been adapted
 652 for traumatized youth warrant evaluation in juve-
 653 nile justice. These include systemic/organizational
 654 change models, Sanctuary© (Bloom et al. [2003](#))
 655 and Trauma Systems Therapy (Saxe et al. [2007](#)).
 656 Seeking Safety is a therapy for co-occurring PTSD
 657 and addiction (Najavits et al. [2006](#)). Attachment,
 658 Regulation, and Competence (Kinniburgh et al.
 659 [2005](#)), Life Skills Life Story (Cloitre et al. [2006](#)),
 660 Structured Psychotherapy for Adolescents
 661 Responding to Chronic Stress (DeRosa and
 662 Pelcovitz [2008](#)), and Trauma Recovery and
 663 Empowerment Model (Fallot and Harris [2002](#)) are
 664 additional therapeutic models that were developed
 665 specifically for complex PTSD.

666 Screening and Assessment

667 The primary focus of PTSD screening and assess-
 668 ment is determining each youth's trauma history
 669 and the sequelae that most seriously impair func-
 670 tioning and compromise her or his and others'
 671 safety and functioning (Ford [2009](#)). Adolescents,
 672 including those in juvenile detention settings
 673 (Abram et al. [2004](#); Ford et al. [2008b](#)), are able to

674 credibly self-report past traumatic experiences 674
 675 when provided with brief and behaviorally spe- 675
 676 cific questions that do not include vague and 676
 677 affectively charged terms, such as "abuse" (Ford 677
 678 [2010](#)). Screening for PTSD has been done in 678
 679 juvenile justice populations with brief but com- 679
 680 prehensive self-report measures, such as the 680
 681 Traumatic Events Screening Instrument (TESI) 681
 682 (Ford et al. [2008b](#)) and the UCLA PTSD Index 682
 683 (Steinberg et al. [2004](#)), or with the Massachusetts 683
 684 Youth Screening Instrument-2 "traumatic experi- 684
 685 ences" (MAYSI-2 TE) subscale (Grisso et al. 685
 686 [2001](#)). Detained youth reporting a history of 686
 687 potentially traumatic events on the MAYSI-2 TE 687
 688 were found to have a symptom consistent with 688
 689 PTSD (Ford et al. [2008a](#)). However, an MAYSI-2 689
 690 critical item set was found to better identify 690
 691 youth (especially boys) who did *not* report PTSD 691
 692 symptoms than those who disclosed PTSD symp- 692
 693 toms (Cruise et al. [2009](#)). Moreover, Ford et al. 693
 694 ([2008a](#)) found that another subgroup of detained 694
 695 youth who did not endorse traumatic events on 695
 696 the TE reported severe symptoms (i.e., somatic 696
 697 complaints, hopelessness, substance abuse) that 697
 698 were consistent with a history of complex trauma. 698
 699 Although symptoms alone should not be used to 699
 700 infer a complex trauma history, these findings 700
 701 suggest that more than the MAYSI-2 may be 701
 702 needed to identify detained youth with PTSD, 702
 703 especially with complex trauma histories. Even 703
 704 on detailed screeners, such as the TESI and 704
 705 UCLA RI, youth may not recognize the signifi- 705
 706 cance of, or defensively under-report, potentially 706
 707 traumatic events, such as abuse, violence, or loss,
 708 and PTSD symptoms such as hypervigilance,
 709 hyperarousal, or avoidance of trauma reminders.

710 A major challenge for assessment and classifi-
 711 cation of youth in secure justice settings is distin-
 712 guishing between reactive and proactive
 713 aggression (Connor [2002](#)). Proactive aggression
 714 is associated with positive outcome expectations
 715 (Pardini et al. [2004](#)) for aggression and the pres-
 716 ence of "callous and unemotional" traits (White
 717 et al. [2009](#)) that are considered to be a negative
 718 prognostic factor for treatment or rehabilitation
 719 (Frick et al. [2003](#)). PTSD's symptoms of flash-
 720 backs, emotional numbing, and hyperarousal
 721 (including extreme anger) may lead a youth to 721

722 appear to be premeditated, callous, and unemo- 770
 723 tional in acting violently or delinquent- 771
 724 ly. Yet, maltreated youth are more likely to engage in 772
 725 *reactive* than proactive aggression and PTSD’s 773
 726 defensive hypervigilance can be very difficult to 774
 727 distinguish from proactive attempts to aggress in 775
 728 order to purposively harm others. Complex 776
 729 trauma, such as maltreatment and disrupted pri- 777
 730 mary attachments, has been shown to be associ- 778
 731 ated with conduct, impulsivity, attention, and 779
 732 delinquency problems independent of the effects 780
 733 of externalizing or internalizing psychiatric dis- 781
 734 orders (Ford et al. 2009a, 2010a). 782

735 PTSD secondary to complex trauma may offer 783
 736 an approach to understanding reactive aggression 784
 737 among youth in secure justice settings as mal- 785
 738 adaptive attempts to cope with trauma-related per- 786
 739 ceived threats as well as an instrumental and 787
 740 defiant counter-reaction to perceived powerless- 788
 741 ness, betrayal, and abandonment that is consistent 789
 742 with PTSD (Ford et al. 2006). Indirect support 790
 743 comes from findings that psychiatrically impaired 791
 744 youth with physical abuse histories were *hypo-* 792
 745 aroused in response to a physical stressor (Ford 793
 746 et al. 2010b). What appears superficially to be 794
 747 emotional callousness due to autonomic hypo- 795
 748 arousal or apparent indifference to harm to self or 796
 749 others may be a biologically based reactive (defen- 797
 750 sive) response secondary to complex trauma. 798

751 For example, a girl with an extensive history of 799
 752 delinquency had a family history with correspond- 800
 753 ingly extensive modeling of antisocial and aggres- 801
 754 sive behavior, putting her at risk for antisocial 802
 755 behavior due both genetically and to social learn- 803
 756 ing (Lahey et al. 1999). When interviewed she 804
 757 stated that she would “hurt anyone who tries to 805
 758 hurt me—make them pay so they never disrespect 806
 759 me or try to [challenge] me. I don’t care if they get 807
 760 hurt, or if I get hurt, I’m not gonna be anyone’s 808
 761 bitch. I’ll do them first if I have to, you can’t let 809
 762 anyone make you their bitch.” This girl also had 810
 763 been sexually abused as a young child by male 811
 764 relatives and sexually assaulted by older boys in 812
 765 group home placements. She clearly endorses the 813
 766 use of aggression on an instrumental basis, but 814
 767 that appears to be primarily self-protective due to 815
 768 a sense of being violated based upon a history of 816
 769 complex trauma (Dodge et al. 1995, 1997) rather

than actually enjoying harming or controlling 770
 others. From a complex trauma perspective, she 771
 requires help in preventing further victimization 772
 and evaluation for treatment for complex PTSD 773
 as well as comorbid depression or dysthymia. 774
 While she technically met criteria for ODD and 775
 conduct disorder, as well as for cocaine abuse and 776
 alcohol and marijuana dependence, without inter- 777
 ventions and placements designed to restore her 778
 sense of safety, trust, and personal control, and 779
 treatment to enable her to respond to trauma 780
 reminders without angry and fearful hyperarousal, 781
 emotional numbing, and hypervigilance, she is 782
 likely to continue to rely upon the symptoms of 783
 those disorders to simply cope and survive. 784

785 Mental Health Treatment

786 Psychotherapy is the first line of evidence-based 786
 787 treatment for youth with PTSD (Cohen et al. 787
 2009). Pharmacotherapy may be used for specific 788
 789 symptoms, but does not have an established evi- 789
 790 dence base for treating childhood PTSD (Connor 790
 791 and Fraleigh 2008). The most extensively 791
 792 researched therapy is trauma-focused cognitive 792
 793 behavior therapy (TF-CBT), which teaches cop- 793
 794 ing and cognitive reappraisal skills and then helps 794
 795 youths to construct and share with a caregiver a 795
 796 narrative account of specific traumatic event(s) 796
 (Cohen et al. 2006). TF-CBT was developed for 797
 798 and has been tested primarily with child victims 798
 of sexual abuse (and more recently others who 799
 experienced traumatic losses or were exposed to 800
 the September 11th, 2001 attacks in New York) 801
 (Lang and Ford 2008)—but infrequently with 802
 adolescents and not in the juvenile justice system. 803
 Externalizing behavior problems (e.g., ODD, CD) 804
 that are common among justice-involved youth 805
 are associated with poorer outcomes in TF-CBT 806
 (Cohen et al. 2009). TF-CBT also recommends 807
 (with some empirical support; Lang et al. 2010) 808
 809 participation by a supportive caregiver, but this 809
 810 often is not possible with youth in justice settings. 810
 811 Therefore, TF-CBT must be used cautiously to 811
 812 treat justice-involved youth, and other variants of 812
 813 CBT, such as the school-based group model, cog- 813
 814 nitive behavioral intervention for traumatized stu- 814

815 dents (CBITS) (Stein et al. 2003b), and the family
 816 education model, parent–child interaction therapy
 817 (PCIT) (Timmer et al. 2005), should be consid-
 818 ered with justice-involved youth.

819 **Gender Issues**

820 In the past two decades, the incidence of juvenile
 821 justice involvement among girls has risen sub-
 822 stantially, compared to relatively stable levels for
 823 boys (Chamberlain and Leve 2004). As noted
 824 above, justice-involved girls report sexual abuse
 825 and kidnapping far more often than boys, as well
 826 as comparably frequent and severe exposure to
 827 physical violence and loss (Abram et al. 2004;
 828 Ariga et al. 2008; Cauffman et al. 1998; Dixon
 829 et al. 2005; Steiner et al. 1997). As a result, these
 830 girls often are involved with child protective ser-
 831 vices and are at risk for substance abuse, risky
 832 sexual behavior, teen pregnancy, intergenerational
 833 family/domestic violence, community violence,
 834 physical illness, unemployment, school failure,
 835 and adult incarceration (Kerr et al. 2009; Smith
 836 et al. 2006). Incarcerated girls also are 11 times
 837 more likely than boys to die (Teplin et al. 2005).

838 Almost 20 years ago, the 1992 Reauthorization
 839 of the Juvenile Justice Delinquency Prevention
 840 Act required states receiving federal funding to
 841 “identify gaps in their services to female offend-
 842 ers and develop gender-specific programs”
 843 (Physicians for Human Rights 2009). Trauma-
 844 informed services therefore must include “com-
 845 prehensive gender-specific programs ... [with]
 846 education, job training, family support services,
 847 counseling and health services ... ideally focus-
 848 ing on individual empowerment and competency-
 849 building” (Physicians for Human Rights 2009).
 850 A unique program designed originally for justice-
 851 involved girls (although also successful with
 852 boys), multidimensional treatment foster care
 853 (MTFC) provides foster placements with a rich
 854 array of support for the youth, biological family,
 855 and foster parents. MTFC has been shown to be
 856 efficacious in reducing girls’ future arrests or
 857 incarceration, pregnancy, school failure, and
 858 delinquent peer affiliations (Chamberlain et al.
 859 2007; Kerr et al. 2009).

Ethnoracial Minority Youth

860 Youth from ethnoracial minority backgrounds are
 861 overrepresented in the juvenile justice system
 862 (Iguchi et al. 2005). Incarceration of minority
 863 youth potentially perpetuates societal stigma and
 864 cultural trauma, and places them at risk for ill-
 865 ness (Iguchi et al. 2005) and violent death (Teplin
 866 et al. 2005). However, African American and
 867 Latino/Hispanic youth were not more likely than
 868 White youth to report trauma exposure or PTSD
 869 (Abram et al. 2004), nor multiple (comorbid)
 870 psychiatric disorders (Abram et al. 2003, 2007).
 871 Culturally relevant role models and practices for
 872 preventing and recovering from complex trauma
 873 are needed—but not yet developed (Pole et al.
 874 2008)—for justice-involved youth. For example,
 875 the CBITS program was adapted for Latino youth
 876 and shown to be well accepted and associated
 877 with reduced PTSD (Kataoka et al. 2003).
 878

Juveniles Charged with Sex Offenses

879 Juveniles charged with sex offenses (JSOs) are at
 880 risk for nonsexual as well as sexual reoffending
 881 (Caldwell 2007; Waite et al. 2005). JSOs with sex-
 882 ual abuse histories tend to be more aggressive than
 883 other JSOs (Smith et al. 2005). Interviews with the
 884 clinicians treating 40 juvenile sex offenders indi-
 885 cated that 95% had experienced at least one past
 886 traumatic event and that their risk of PTSD (65%)
 887 was substantially higher than for other justice-
 888 involved youth (McMackin et al. 2002). The clini-
 889 cians viewed the trigger(s) for sex offending as
 890 related to a prior trauma in 85% of the youth, includ-
 891 ing feeling helpless, fearful, or trauma-related hor-
 892 ror (McMackin et al. 2002). Another study found
 893 that one in seven JSOs met criteria for a dissociative
 894 disorder, particularly those with past physical abuse
 895 (Friedrich et al. 2001). However, although sexual
 896 abuse has been hypothesized to place youth at risk
 897 for sex offending (Friedrich 2000), it has not been
 898 found to correlate with any specific features or types
 899 of sexual offending (Hunter et al. 2003) nor with
 900 risk of sexual reoffending (Worling 2006). Thus,
 901 PTSD warrants careful assessment with JSOs.
 902

Conclusion

Justice-involved youth are at high risk for histories of complex trauma, including poly-victimization, abuse and family violence, and losses, and for PTSD with complex comorbidities and self-regulatory deficits (e.g., dysphoria, oppositional-defiance, risk taking, substance abuse, diminished adaptive arousal reactions, episodic maladaptive hyperarousal, impaired information processing and impulse control, self-critical and aggression-endorsing cognitive schemas, and delinquent peer relationships). Trauma-informed interventions and trauma-specific treatments that address the sequelae of complex trauma therefore are urgently needed but still in the early stages of development and evaluation with juvenile justice populations. As PTSD is more widely recognized and better understood as a complex but manageable problem for justice-involved youth and the adults and systems working with them, enhanced outcomes (including youth and community safety, reduced delinquency and lifespan recidivism, and a healthier and more socioeconomically successful young adult citizenry) can be anticipated in the next decades.

Author Note

Declaration of interest. Dr. Julian Ford is the co-owner of Advanced Trauma Solutions, Inc., which is a for-profit company licensed by the University of Connecticut to disseminate the TARGET program.

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Trauma and Posttraumatic Stress Disorder Among Youth in the Juvenile Justice System: A Critical Appraisal

32

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Background

Scope of the Problem

Juvenile delinquency remains a significant and complex social work problem. As of 2008, there were an estimated 2.18 million youth aged 17 and younger arrested each year in the USA (Puzzanchera 2009). Some of those youth arrested may receive a restrictive court disposition for secure care placement. In 2006, approximately 92,000 youth were in secure care confinement for delinquent offenses (Sickmund et al. 2008). About 65% of these youth were serving sentences for serious crimes, such as crimes against persons, (e.g., criminal homicide, sexual assault, robbery, and aggravated and simple assault) and property offenses ($n=23,177$), (e.g., burglary, theft, and arson). The other 35% of youth were serving time for less serious offenses, such as technical violations ($n=15,316$), drug offenses ($n=7,996$), public order offenses ($n=9,994$), and status offenses ($n=4,717$), (e.g., running away and truancy) (Sickmund et al. 2008).

In addition to juvenile offense histories, youth in juvenile detention often experience a complex array of psychosocial problems. Perhaps the

most serious and often overlooked psychosocial problems are youth's exposure to trauma and related posttraumatic stress disorder (PTSD) or PTSD symptoms. Evidence suggests that upwards of 93% of juvenile offenders report at least one or more traumatic experiences, such as being a victim or witness to violence (e.g., Abram et al. 2004).

The mental health consequences of trauma, such as PTSD or posttraumatic stress symptoms also are documented in upward of 65% of juvenile offenders (Abram et al. 2007; Arroyo 2001; Burton et al. 1994; Cauffman et al. 1998). Understanding the history of trauma and PTSD among youth in the juvenile justice system is critical. The information garnered from research in this area can be used to identify those youth most at risk along with the correlates and consequences of trauma and PTSD among juvenile and youth. It also can provide information on what are the most feasible methods that can be used to inform assessment and appropriate treatment.

The Diagnostic and Statistical Manual (DSM-IV-TR) presents PTSD diagnosis as a two-step process that involves identifying the traumatic stressor/s and individuals' adverse response. A psychiatric diagnosis of PTSD is characterized by the development of "characteristic symptoms following exposure to an extreme traumatic stressor" (APA 2000, p. 463). The diagnostic criteria for PTSD includes exposure to a potentially traumatic event (Criterion A), re-experiencing some aspect of the trauma (Criterion B), avoidance of

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66 stimuli associated with the event or numbing of
67 emotional responsiveness (Criterion C), and
68 increased arousal subsequent to the traumatic
69 event (Criterion D). In addition, all of these
70 symptoms must be present for more than one
71 month and cause significant distress or impair-
72 ment (APA 2000).

73 The research on trauma and PTSD among the
74 general population of youth has been sparse and
75 methodologically limited. For example, trauma
76 research using samples of youth often has not
77 adequately differentiated mere event exposure
78 from exposure that meets the diagnostic classi-
79 fication as a Criterion A trauma exposure. As such,
80 empirical articles on assessment of PTSD among
81 community sample of youth can sometimes pres-
82 ent conflicted and confusing findings regarding
83 the nature of trauma exposure and the conse-
84 quences, such as PTSD (see Margolin and Gordis
85 2000, 2004). To what extent research on trauma
86 and PTSD among juvenile justice-involved youth
87 has similar methodological issues has yet to be
88 determined.

89 With the increasing documentation of trauma
90 among youth in the juvenile justice system, accu-
91 rately assessing trauma and related PTSD symp-
92 toms has become paramount. The interest in
93 trauma assessment has been consistently growing
94 over the last 15–20 years, particularly related to
95 community or child welfare youth populations
96 (Strand et al. 2005).

97 Research on trauma exposure among commu-
98 nity samples of youth provides some insight into
99 trauma among youth in the juvenile justice sys-
100 tem. These studies suggest that exposure to a trau-
101 matic event is far more prevalent than PTSD
102 diagnoses, that this is particularly so among inner-
103 city and low-income youth, and that the majority
104 of exposure in these communities stems from wit-
105 nessing or experiencing violence (Bell and Jenkins
106 1993; Berman et al. 1996; Costello et al. 2002;
107 Silva et al. 2000). However, to date there has been
108 no known formal review of the research studies
109 that examines trauma among juvenile offenders.
110 This includes evaluating the overall study meth-
111 ods employed, particularly research design, mea-
112 surement, and data collection procedures. This
113 book chapter helps to fill that gap.

114 The following critical appraisal of the methods
115 and major findings is of the empirical research on
116 trauma exposure and PTSD prevalence among
117 youth in the juvenile justice system. More spe-
118 cifically, it provides a review and critical analysis
119 of the methods used in prior studies including the
120 current measures and standards used to assess
121 trauma and PTSD in juvenile justice settings.
122 This study builds on the works of Strand et al.
123 (2005), as well as others, by offering a compre-
124 hensive review of how trauma exposure and
125 PTSD is operationalized and studied in juvenile
126 justice settings.

127 The current research in this area offers far-
128 ranging yet limited results concerning preva-
129 lence, symptom presentations (i.e., frequency
130 and severity), and PTSD as outcome. Identifying
131 the strengths and limitations of the current
132 methods used to assess trauma and PTSD
133 among youth in the juvenile justice system can
134 be used to develop or improve research and
135 assessment and intervention strategies of youth
136 in the juvenile justice system. The information
137 in this book chapter provides a summary and
138 critique of the prior literature and offers recom-
139 mendation for planning rigorous research stud-
140 ies in this area.

141 This chapter is organized as follows: It begins
142 with a comparative review of the major findings
143 and methods used in the empirical research on
144 trauma and PTSD among youth involved in the
145 juvenile justice system. The section that follows
146 offers a critical appraisal of these studies for their
147 methodological rigor. This chapter ends with rec-
148 ommendations for future research in this area
149 designed to improve assessment and intervention
150 strategies with youth with histories of trauma in
151 the juvenile justice system.

152 **Methods**

153 **Selection Criteria**

154 This section reviews the major findings and
155 methods of research on trauma exposure and
156 PTSD among juvenile justice involved youth. The
157 research studies included in this review were

158 the result of a comprehensive literature search
 159 conducted in December 2009. The criteria for
 160 inclusion included: (1) a quantitative empirical
 161 study that examined *both* trauma and PTSD using
 162 samples of incarcerated youth, (2) the empirical
 163 studies needed to be published in a peer-reviewed
 164 empirical journal and be published recently
 165 within the past two decades (1990–2010).

166 Using these selection criteria, a total of 12
 167 articles that met these criteria were included in
 168 this review. Of these 12 articles, most were con-
 169 ducted in the USA (75%, $n=75$) and published
 170 between the years 2000 and 2008 (67%, $n=8$).

177 scant but growing body of evidence that documents
 178 the prevalence of trauma and PTSD among youth
 179 in the juvenile justice system. Overall, youth in the
 180 juvenile justice system were found to have higher
 181 prevalence rates of trauma exposure and PTSD
 182 than community samples of youth (e.g., Dixon
 183 et al. 2004; Steiner et al. 1997). Studies have found
 184 gender differences in trauma but show mixed
 185 results as to whether exposure to trauma and PTSD
 186 symptoms are higher for female juvenile offenders
 187 as compared to their male counterparts (e.g., Ariga
 188 et al. 2008; Brosky and Lally 2004; Cauffman
 189 et al. 1998). Older youth compared to younger
 190 youth were found to be at a higher risk of violence
 191 exposure (Abram et al. 2004).

192 Youth with PTSD had exposure to violence as
 193 either a victim or witness to violence that occurred
 194 in the home or community. The major types of
 195 trauma linked to PTSD were psychological
 196 trauma, physical abuse, sexual abuse, and neglect.
 197 Higher levels of PTSD symptoms were more
 198 common among youth who also reported other
 199 less severe types of stressors, particularly related

171 **Methods Review: Summary**
 172 **of Major Findings**

173 **Review of Results Across Studies**

174 An overview of the major findings of the studies
 175 included in the review can be found in Tables 32.1
 176 and 32.2. As a collective, these studies comprise a

t1.1 **Table 32.1** Themes of major findings across studies: trauma and PTSD correlates

	Trauma and stress	Well-being	Other individual level and social environmental characteristics
t1.5	Life events stressors	PTSD	Youth characteristics
t1.6	Trauma	Psychological and behavioral well-being	
t1.7	<i>Location</i>	<i>Diagnosis</i>	<i>Psychological well-being</i>
t1.8	Family violence	PTSD symptoms	Psychological distress
t1.9	Community violence	PTSD diagnosis	Perceptions of safety
t1.10	<i>Direct or indirect</i>		Mental health problems
t1.11	Victim		Comorbidity w/PTSD
t1.12	Witness		Conduct disorder
t1.13	<i>Major subtypes</i>		Suicide risk
t1.14	Psychological trauma		<i>Behavioral well-being</i>
t1.15	Physical abuse		Abnormal eating
t1.16	Sexual abuse		Runaway episodes
t1.17	Neglect		Self-restraint
t1.18	Physical assault		Delinquency
t1.19			Drug and alcohol use
t1.20			

Table 32.2 Major findings of empirical studies that examined trauma and PTSD among youth in the juvenile justice system (1994–2009)

Author/s (Year)	Major findings
Abram et al. (2004)	The majority of juvenile detainees (92.5%) reported experiencing one or more traumas. About half of juvenile detainees with PTSD reported witnessing violence as the precipitating trauma. Significantly, more males (93.2%) than females (84.0%) reported at least one traumatic experience. Older youth (14 or older) compared to younger youth (aged 10–13 years) were significantly more likely to report traumatic experiences. There were no significant differences in overall prevalence among different racial ethnic group of juvenile detainees
Ariga et al. (2008)	One third (33%) of Japanese female juvenile detainees were diagnosed with PTSD and the majority (77%) had been exposed to trauma. The juveniles with PTSD showed a significantly high psychiatric comorbidity. PTSD symptoms were also significantly associated with depression, adverse parenting, and abnormal eating
Brosky and Lally (2004)	The most common traumatic events among the sample of court-referred adolescents were sexual and physical abuse. Female adolescents (75%) compared to male adolescents (51.3%) had significantly higher rates of trauma. Females also were more likely to be victims of physical abuse (38.2%) and sexual abuse (27.6%) compared to male adolescents (15.8, 1.3%)
Burton et al. (1994)	One quarter (25%) of a sample of serious juvenile offenders met DSM-III-R criteria for PTSD diagnosis. PTSD symptoms also were found to significantly correlate with exposure to violence and family dysfunction
Cauffman et al. (1998)	Female compared to male juveniles had a higher rate of PTSD. A Higher level of distress and lower level of self-restraint were found in female juveniles who were diagnosed with PTSD compared to male juveniles
Dixon et al. (2004)	Rates of PTSD were higher for female juvenile offenders compared to female juvenile nonoffenders
Erwin et al. (2000)	All of the incarcerated adolescent males witnessing violence. The majority (92%) also reported exposure to unsafe situations and feeling unsafe in all environments. Self-report measures compared to clinician-administered interviews yielded higher PTSD rates
Ford et al. (2008)	One in five youth (19%) juvenile offenders in pretrial detention had a complete or partial PTSD diagnosis. Approximately 61% reported psychological trauma. Types of trauma, such as physical abuse, domestic violence, and neglect were significantly correlated with risk of suicide and drug and alcohol use. The risk of PTSD was not associated with gender, age, and ethnicity
Kerig et al. (2008)	Females compared to male juvenile detainees reported higher scores on interpersonal trauma exposure and symptoms of simple and complex PTSD. PTSD mediated the relationship between trauma and mental health problems among the youth, especially among females
Ruchkin et al. (2007)	Of the sample of Russian juvenile detainees, approximately 42% met partial criteria and 25% met full <i>DSM-IV</i> criteria for PTSD. The most common type of trauma reported was exposure to violence (being a victim or witness). Higher rates of PTSD were associated with higher rates of psychiatric comorbidity among juvenile detainees
Steiner et al. (1997)	Incarcerated male offenders had higher PTSD rates than other adolescent community samples and county probation camps. PTSD showed elevated levels of distress and other psychiatric symptoms
Thompson et al. (2007)	Youth in emergency shelters and in juvenile detention centers had high levels of trauma-related symptoms. Higher levels of PTSD symptoms among incarcerated youth included worries about family, greater number of runaway episodes, and living with a father who abused alcohol/drugs. In comparison, higher levels of PTSD symptoms among youth in emergency shelters were predicted by having worries about the family relationships

to family dysfunction, such as parental substance use and family problems (e.g., Ford et al. 2008; Ruchkin et al. 2007; Thompson et al. 2007). The literature suggests that Trauma and PTSD are correlated to adverse well-being, particularly psychological and behavioral well-being. For

example, psychological distress, including perceptions of safety were found to be associated with trauma and PTSD among these youth (Erwin et al. 2000; Ford et al. 2008; Thompson et al. 2007). In particular, Erwin et al. (2000) found that male juvenile offenders who reported traumatic

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212 experiences and PTSD symptoms were more
213 likely to report feeling unsafe in all environments.

214 Moreover, PTSD symptoms also were often
215 significantly associated with other adverse effects
216 on psychological and behavioral well-being. For
217 example, Ariga et al. (2008) found that female
218 offenders with PTSD showed significantly higher
219 levels of psychiatric and adverse behavioral symp-
220 toms, including conduct disorder, substance use
221 disorder, and depression. Similarly, Ford et al.
222 (2008) also found a correlation between PTSD
223 and suicidal ideation and drug and alcohol use.

224 Preliminary evidence also suggests that PTSD
225 may have a mediating function between trauma
226 exposure and mental health problems. For exam-
227 ple, in a sample of 289 male and female juvenile
228 detainees, Kerig et al. (2008) found that PTSD
229 mediated the relationship between trauma and
230 mental health problems, particularly for female
231 offenders. As a collective, these findings suggest
232 that trauma exposure and PTSD are common-
233 place and associated with a host of other psycho-
234 social problems.

235 In summary, these findings support a relation-
236 ship between trauma and PTSD among juvenile
237 justice-involved youth and important psychologi-
238 cal and behavioral correlates. However, these
239 conclusions should be viewed cautiously based
240 on the methods used across studies. A review of
241 the methods of these collective studies related to
242 research designs, sampling strategies, data col-
243 lection procedures, variables and measures, and
244 data analysis are reviewed next and in that order,
245 respectively. However, a limitation of this current
246 review is that it was a qualitative descriptive
247 review, as opposed to a meta-analysis.

248 Review of Methods Across Studies

249 Research Designs

250 As illustrated in Table 32.3, all 12 quantitative
251 studies used cross-sectional research designs. As
252 for sampling strategies, only three (25%) of the
253 studies used some type of probability (simple or
254 stratified random) sampling to select participants
255 (Abram et al. 2004; Ariga et al. 2008; Steiner
256 et al. 1997). Only four of the 12 studies (33%)

257 used comparison or control groups in which
258 juvenile offenders were compared with nonof-
259 fenders (Cauffman et al. 1998; Dixon et al. 2004;
260 Steiner et al. 1997; Thompson et al. 2007).

261 The geographic locations of the studies were
262 international in scope. Most of the studies (75%,
263 $n=9$) were conducted in the USA and included
264 different geographic regions that included the
265 East Coast (New York, Connecticut, Massachusetts,
266 Washington, DC), West Coast (California) and
267 the Midwest (Cook County, Illinois). Three of the
268 studies (25%) were conducted in other countries,
269 which included Japan (Ariga et al. 2008), Russia
270 (Ruchkin et al. 2007), and Australia (Dixon et al.
271 2004).

272 The specific study settings also varied. Half of
273 the studies ($n=6$) were conducted in juvenile
274 detention or other juvenile justice settings. The
275 locations of the juvenile detention centers
276 included Cook County, Illinois (Abram et al.
277 2004), Connecticut (Ford et al. 2008), Western
278 New York (Thompson et al. 2007), the
279 Arkhangelsk region of Northern Russia (Ruchkin
280 et al. 2007), Sydney, Australia (Dixon et al.
281 2004), and Japan (Ariga et al. 2008).

282 In addition, juvenile offenders also were
283 recruited from study settings, particularly from
284 secure juvenile treatment facilities, which were
285 mostly detention centers. These detention centers
286 were located in diverse regions, such as the
287 Boston, Massachusetts area (Erwin et al. 2000),
288 the Los Angeles County Department of Probation
289 in California (Burton et al. 1994), the California
290 Youth Authority-Ventura School (Steiner et al.
291 1997), O.H. Close School (Cauffman et al. 1998),
292 and the Child Guidance Clinic of the Superior
293 Court of the District of Columbia (Brosky and
294 Lally 2004).

295 Sample Description

296 The size and the characteristics of the participants
297 varied widely across studies. As shown in
298 Table 32.3, the samples of the studies ranged
299 between 51 and 898 participants. The ages of the
300 samples ranged from 10 to 18 years old across
301 studies. In regards to gender, most of the studies
302 (58%; $n=7$) recruited samples of either male
303 or female juvenile offenders only. Four studies

Table 32.3 Major findings of empirical studies that examined trauma and PTSD among youth in the juvenile justice system (1994–2009)

Author/s (Year)*	Research design	Study setting	Trauma (%)	PTSD (%)	Sample size	Sample description	Measures	Data collection	Data analysis
Abram et al. (2004)	Cross-sectional single group design, probability (stratified random) sampling	Detention center, Cook County Illinois; data from epidemiological longitudinal study (1995–1998)	92.5	11.2	898	Juvenile detainees aged 10–18, 59% males, 41% females, African American ($n=247$), Hispanic ($n=177$), Caucasian ($n=107$)	Diagnostic interview schedule for children-IV (DISC-IV)	Structured clinical interviews	Poisson regression models
Ariga et al. (2008)	Cross-sectional single group design, probability random sampling of 181 juvenile offenders	Juvenile detention center in Japan (2004–2006)	77	33	64	Japanese female juvenile detainees aged 16–19 ($M=17.2\%$, $SD=1.0$)	Mini-international neuropsychiatric interview (MINI-KID) (Japanese version) Traumatic event checklist-clinician-administered PTSD scale for DSM-IV (CAPS)	Structured clinical interviews (raters were trained to administer measures)	ANOVA, logistic and multiple regression
Brosky and Lally (2004)	Cross-sectional comparison group design, non-probability sampling	Child guidance clinic of superior court, District of Columbia (1998)	75 (females) 51.3 (males)	21.1 (females) 7.9 (males)	152	Juvenile victims and offenders aged 12–18; referred by court for a psychiatric evaluation (76=females, 76=males), 91% ($n=69$) African American; 2.6% ($n=2$) Hispanic, 6.6% ($n=5$) unknown	Compiled checklist for the incidence of trauma, PTSD (using DSM-IV criteria), and dissociative symptoms	Case record review (archival records)	Chi-square
Burton et al. (1994)	Cross-sectional single group design, non-probability sampling	Secure camp setting in Los Angeles County Probation Department (year not reported)	75	24	91	Adjudicated juvenile offenders with serious offenses; 100% males, aged 13–18 ($M=16$, $SD=1.0$); 40% African American, 40% Hispanic, 10% Caucasian, 7% Asian, and 3% other	Trauma questionnaire and PTSD symptom checklist (self-report measure)	Self-report questionnaire, case record review (arrest records and probation reports)	ANOVA, stepwise multiple regression analysis

t3.1
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t3.37

Table 32.3 (continued)

Author/s (Year)*	Research design	Study setting	Trauma (%)	PTSD (%)	Sample size	Sample description	Measures	Data collection	Data analysis
13.72	Ford et al. (2008) Cross-sectional single group design; all juveniles sampled admitted during a 24–72 h period	Connecticut pretrial juvenile detention centers (January–September 2005)	61	5	264	Juvenile detainees 10–17 years old (192 males, 72 females); 27% Caucasian, 43% black, 30% Latino	Traumatic experiences screening instrument (TESI) (self-report), UCLA PTSD reaction index (PTSD-RI) (self-report)	Self-report screen at the time of intake (24–72 h of admission)	Logistic regression, ANOVA
13.73									
13.74									
13.75									
13.76									
13.77									
13.78									
13.79									
13.80									
13.81	Kerig et al. (2008) Cross-sectional single group design, non-probability sampling	Juvenile detention centers in Midwestern USA (January–July 2007)	24.1 (females)	45-26- (females) (males)	289	Juvenile detainees (199 male and 90 female juveniles); aged 10–17 years old; European American (69%) or African American (22%), Latino (4%), and other (6%)	The UCLA posttraumatic stress disorder index for DSM-IV adolescent version, clinician-administered PTSD scale for children and adolescents (CAPS-CA)	Interview conducted by trained clinician, self-report measures that used cross-sectional data collection	<i>t</i> -Tests, SEM
13.82									
13.83									
13.84									
13.85									
13.86									
13.87									
13.88									
13.89									
13.90									
13.91	Ruchkin et al. (2007) Cross-sectional single group design, non-probability sampling	Juvenile detention center in northern Russia (spring and winter, 1999)	96	25	370	Russian male juvenile delinquents aged 14–19 ($M = 16.4, SD = 0.9$) (only subsample of 289 youthful offenders completed the self-report portion of the study)	PTSD module of Semistructured clinical interview for PTSD (K-SADS-PL) Child posttraumatic stress reaction index (CPTS-RI) (self-report); survey of exposure to community violence (self-report)	Semistructured psychiatric interview (conducted by psychiatrists), translation of measures into Russian, self-report measures (interviewers were blind to the results of the self-report measures)	Chi-square, ANOVA
13.92									
13.93									
13.94									
13.95									
13.96									
13.97									
13.98									
13.99									
13.100									
13.101									
13.102									
13.103									
13.104									
13.105									

304 (33%) sampled male juvenile offenders only
 305 (Burton et al. 1994; Erwin et al. 2000; Ruchkin
 306 et al. 2007; Steiner et al. 1997), whereas three
 307 studies (25%) sampled female juvenile offenders
 308 only (Ariga et al. 2008; Cauffman et al. 1998;
 309 Dixon et al. 2004). Only five of the studies (42%)
 310 used samples that included both male and female
 311 juvenile offenders (Abram et al. 2004; Brosky
 312 and Lally 2004; Cauffman et al. 1998; Ford et al.
 313 2008; Kerig et al. 2008).

Data Collection Procedures

314 Data collection procedures varied across studies
 315 (see Table 32.2). These included clinician-
 316 administered interviews, self-report surveys and
 317 questionnaires, and case records reviews. The
 318 most common methods to assess trauma and
 319 PTSD were using structured or semistructured
 320 interviews by trained researchers or clinicians
 321 (e.g., Abram et al. 2004; Ariga et al. 2008;
 322 Brosky and Lally 2004; Cauffman et al. 1998;
 323 Kerig et al. 2008; Ruchkin et al. 2007). Several

of the studies used self-report measures (Burton 325
 et al. 1994; Erwin et al. 2000; Kerig et al. 2008; 326
 Steiner et al. 1997). 327

Variables and Measures

328 Table 32.4 provides a detailed description of 329
 measures of trauma exposure and PTSD used 330
 across studies. As illustrated, all 12 studies 331
 included measures for determining trauma expo- 332
 sure and PTSD. Most of the studies (58%; $n=7$) 333
 included measures that were consistent with the 334
 DSM criteria for trauma and PTSD (e.g., Ariga 335
 et al. 2008; Brosky and Lally 2004; Burton et al. 336
 1994; Cauffman et al. 1998; Erwin et al. 2000; 337
 Kerig et al. 2008; Steiner et al. 1997). 338

339 Five studies used the DSM-IV module (MINI- 340
 kid) that was developed to screen 23 Axis-I 341
 DSM-IV disorders in order to measure trauma 342
 exposure (Ariga et al. 2008), and posttraumatic 343
 disorder that may have occurred as a result of 344
 exposure to traumatic events among the youth 345
 (Ariga et al. 2008; Brosky and Lally 2004; Burton

t4.1 **Table 32.4** Description of measures for trauma and PTSD among youth in the juvenile justice system

t4.2	Author/s (Year)	Measure/s description and psychometric properties
t4.3	Abram et al.	Trauma and PTSD measure
t4.4	(2004)	<i>Diagnostic Interview Schedule for Children (DISC-IV)</i> : Based on <i>DSM-IV</i> criteria, the PTSD module assesses for eight traumatic experiences. Participants then identify the event that was most difficult in their lifetime and past year PTSD diagnosis for the “most difficult” trauma.
t4.5		Reliability and validity statistics are yet to be adequately established on this newly developed
t4.6		version of the DISC-IV
t4.7		
t4.8		
t4.9	Ariga et al.	Trauma measure
t4.10	(2008)	<i>The traumatic event checklist of the Clinician-Administered PTSD Scale for DSM-IV (CAPS</i> ;
t4.11		Blake et al. 1995) was used to obtain the subjects’ trauma history. The subjects were asked
t4.12		whether they had experienced any of the 12 possible traumatic events on the list and whether
t4.13		they had experienced any trauma in addition to those on the list. Onset, frequency, and duration
t4.14		of traumatic stressors are also measured
t4.15		PTSD measure
t4.16		<i>Clinician-Administered PTSD Scale for DSM-IV (CAPS)</i> : CAPS score only for the subjects
t4.17		who fulfilled the criteria of PTSD, as determined using the MINI-kid (See below).
t4.18		The CAPS structured interview was used to measure the 17 symptoms of PTSD listed in
t4.19		DSM-IV and five other associated symptoms/features. CAPS assesses Criterion A events,
t4.20		current and/or lifetime PTSD diagnosis, frequency/intensity of each symptom, social/occupa-
t4.21		tional functional impairment resulting from these symptoms, and overall PTSD severity
t4.22		<i>Mini-International Neuropsychiatric Interview (MINI-kid)</i> : psychiatric diagnosis was determined
t4.23		using the Japanese version of the mini international neuropsychiatric interview for children and
t4.24		adolescents (MINI-kid) which was developed from MINI for children and adolescents.
t4.25		Generally used to screen 23 Axis-I DSM-IV disorders. For most modules of MINI, two to four
t4.26		screening questions are used to rule out the diagnosis when answered negatively. Positive
t4.27		responses to screening questions warrant further investigation for other diagnostic criteria

(continued)

Table 32.4 (continued)

Author/s (Year)	Measure/s description and psychometric properties	
Brosky and Lally (2004)	Trauma measure	t4.28
	The incidence of trauma was assessed from a compiled checklist of trauma types	t4.29
	<i>PTSD measure</i>	t4.30
	PTSD was measured using DSM-IV criteria. A list of primary dissociative symptoms (based on Putnam 1997) was also assessed. A “yes,” “no,” or “not reported” category was checked for each variable on each checklist	t4.31 t4.32 t4.33
Burton et al. (1994)	Trauma measure	t4.34
	Trauma was determined using the Symptom Checklist (Foy et al. 1984) in order to measure the number and severity of a wide range of psychological symptoms in which the authors used to determine the diagnosis for partial and full PTSD according to DSM-III-R criteria	t4.35 t4.36 t4.37
	<i>PTSD measure</i>	t4.38
	Used 21 of 43 items that are characteristic of PTSD based on the DSM-III-R. The scale provides a continuous measure of symptom severity on the separate PTSD diagnostic categories found in DSM-III-R (category B “persistent re-experiencing,” category C “avoidance of stimuli associated with the trauma or numbing of general responsiveness,” and category D “persistent increased arousal”) as well as on the overall PTSD symptoms	t4.39 t4.40 t4.41 t4.42 t4.43
Cauffman et al. (1998)	Trauma questionnaire/measure	t4.44
	Traumatic experiences were recorded based on the response to three questions: “Have you ever been badly hurt or in danger of being hurt?”; “Have you ever been raped or in danger of being raped?”; “Have you ever seen someone severely injured or killed (in person—not in the movies or on TV)?” No information was provided regarding the selection or creation of these questions. Additional experiences were coded into one of ten categories based on the PTSD measure	t4.45 t4.46 t4.47 t4.48 t4.49
	<i>PTSD measure</i>	t4.50
	<i>Revised Diagnostic Psychiatric Interview</i> : (DSM-III-R criteria). The PTSD module of the revised <i>Psychiatric Diagnostic Interview</i> includes 27 questions. There were three groups of questions: Group A is assessment of intrusive thoughts and nightmares, Group B consists of questions that assess subjective experience of the trauma, and Group C includes questions about cognitive and behavioral responses about the trauma	t4.51 t4.52 t4.53 t4.54 t4.55
Dixon et al. (2004)	Trauma measure	t4.56
	<i>The PTSD Traumatic Events component of the K-SADS-PL</i> was used to elicit the participants’ trauma histories. Participants were asked if they had ever experienced any of ten possible traumatic events, as well as whether they had experienced any additional traumas to those on the list	t4.57 t4.58 t4.59
	<i>PTSD measure</i>	t4.60
	<i>The PTSD Traumatic Events component of the K-SADS-PL</i> : Semistructured interview that utilizes a flexible yet systematic inquiry and incorporates probes that can be adjusted for developmental level. According to the authors, test–retest reliabilities are in the good to excellent range (0.67–1.00) for all reported mood disorders, and concurrent validity and interrater agreement was reported also high in the range of 93–100%. Test–retest reliability coefficient that was reported about PTSD (Kaufman et al. 1997) showed that test–retest reliability was in the range of 0.63–0.67	t4.61 t4.62 t4.63 t4.64 t4.65 t4.66
Erwin et al. (2000)	Trauma measure	t4.67
	<i>Exposure to Community Violence Scale (Adapted Version)</i> : The authors adapted the measure for this study. Self-report measure (33 items). Assesses number of exposures to potentially traumatic events on a five-point Likert scale. Participants could also indicate that they do not know whether or not they were exposed to the stressor. The investigators reported an α coefficient of 0.91 for the adapted version in the present study	t4.68 t4.69 t4.70 t4.71 t4.72
	<i>PTSD measure</i>	t4.73
	<i>Clinician-Administered PTSD Scale for Children and Adolescents (CAPS-CA)</i> : Semistructured interview that evaluates self-report of exposure to potential Criterion A events in PTSD diagnosis. CAPS-CA consists of standardized prompt questions, supplementary follow-up questions and behaviorally anchored five-point rating scales. Alpha for CAPS-CA subscales was reported as follows: 0.81, for re-experiencing, 0.75 for numbing and avoidance; and 0.79 for arousal	t4.74 t4.75 t4.76 t4.77 t4.78

(continued)

Table 32.4 (continued)

Author/s (Year)	Measure/s description and psychometric properties
t4.82 t4.83 t4.84 t4.85 t4.86 t4.87	Ford et al. (2008) Trauma measure <i>Traumatic Experiences Screening Instrument (TESI)</i> : A computer-assisted version of a self-report questionnaire that asks about several behaviorally anchored specific events within seven categories: (a) accident/illness/disaster, (b) physical abuse/interpersonal violence, (c) witnessed family violence, (d) witnessed community violence, (e) sexual abuse, (f) emotional abuse, and (g) traumatic loss
t4.88 t4.89 t4.90 t4.91	PTSD measure <i>UCLA PTSD Reaction Index (PTSD-RI)</i> : Self-report questionnaire assessing PTSD symptom severity in the past 30 days. Test–retest reliability over a 7-day period is 0.87 (intraclass correlation), internal consistency is >0.85 (Cronbach’s α), and convergent validity coefficients of 0.70 and 0.82 were found in relationship to standardized structured interviews for PTSD
t4.92 t4.93 t4.94 t4.95 t4.96 t4.97 t4.98 t4.99	Kerig et al. (2008) Trauma measure <i>UCLA Posttraumatic Stress Disorder Index for DSM-IV Adolescent Version</i> : Is a well-validated measure used to screen for exposure to traumatic events and symptoms of PTSD in youth. The first set of questions asks youth whether or not they have been exposed to 13 specific traumatic events. The number of events endorsed is summed to create a total trauma exposure score, and a total interpersonal trauma index is calculated separately for those traumas involving direct victimization by other persons
t4.100 t4.101 t4.102 t4.103 t4.104 t4.105 t4.106 t4.107 t4.108 t4.109 t4.110 t4.111 t4.112	PTSD measure The next set of questions on the PTSD-I inquire as to which of the events endorsed the youth considers to be most distressing, and whether in relation to that event the youth experienced subjective reactions consistent with DSM-IV Criterion A. This criterion requires that the event be appraised by the individual as involving “actual or threatened death or serious injury, or a threat to the physical integrity of self or others” and be associated with reactions of “intense fear, helplessness, or horror” or, in children, “disorganized or agitated behavior” (American Psychiatric Association 2000, p. 467). Only events that satisfy both of these conditions meet the DSM-IV definition of trauma. A Total PTSD score is calculated as a sum of all Criterion B, C, and D symptoms endorsed. Responses to the questions are presented in a Likert scale format ranging from 0=none of the time to 4=most of the time. In addition, seven questions (two supplementary questions from the UCLA-I, and five questions from the CAPS-CA) were used to assess complex trauma. Specifically these questions assessed the frequency of associated features of PTSD including guilt, dissociation, and impaired relationships with others
t4.113 t4.114 t4.115 t4.116 t4.117 t4.118 t4.119	Ruchkin et al. (2007) Trauma measure <i>Survey of Exposure to Community Violence</i> : In addition to the PTSD module of the K-SADS-PL and the semistructured Clinical Interview for PTSD module Survey that is reported below, the following instrument was used to assess exposure to community violence: this is a checklist of experiencing or witnessing eight types of violence. Chronbach’s α reported as 0.65 for experiencing, and 0.76 for witnessing
t4.120 t4.121 t4.122 t4.123	PTSD measure <i>PTSD module of the K-SADS-PL</i> : This module consists of a list of potentially traumatic events; if there is evidence of past trauma, 5 PTSD screen items are asked. When any are answered “yes,” 14 additional items inquire about re-experiencing, persistent avoidance, and increased arousal, as well as functional impairment
t4.124 t4.125	<i>Child Posttraumatic Stress Reaction Index (CPTS-RI)</i> : Twenty-item scale assessing PTSD in children and adolescents. Chronbach’s α reported as 0.81 in this study
t4.126 t4.127 t4.128 t4.129	Steiner et al. (1997) Trauma measure Trauma was measured using the diagnostic criteria for PTSD only. No report about trauma history/events or exposure
t4.130 t4.131 t4.132 t4.133 t4.134 t4.135	PTSD measure <i>Semistructured Clinical Interview for PTSD</i> : Contains 27 questions grouped into cardinal, social, and auxiliary questions. Diagnosis is based on DSM-III criteria, and subjects grouped into three categories PTSD positive (full criteria met), PTSD partial (some criteria met), and PTSD negative (no criteria were met). Interview has shown acceptable reliability and validity in extensive testing. Subset of this sample was rated by two psychiatrists. Interrater correlation=0.63 ($p<0.05$) for this study. Reliability for three categories was <i>Cohen’s Kappa</i> =0.50 ($p<0.05$)

(continued)

Table 32.4 (continued)

Author/s (Year)	Measure/s description and psychometric properties
t4.136 Thompson et al. t4.137 (2007)	Trauma measure
t4.138	No report of a trauma history or events. Researchers reported instead family characteristics of the subject as their independent variable. The variable was evaluated using the Family Functioning Scale (FFS; Tavitian et al. 1987). The FFS consists of 40 items that measure five dimensions of family functioning: positive family affect (e.g., “People in my family listen when I speak”), rituals (e.g., “We pay attention to traditions in my family”), worries (e.g., “I worry when I disagree with the opinions of other family members”), conflicts (e.g., “People in my family yell at each other”), and communication (e.g., “When I have questions about personal relationships, I talk with my family member”). Respondents rate items on a 7-point scale (1= <i>never</i> to 7= <i>always</i>) and items are summed for the five subscales and a total score. Internal consistency reliability ranges from $\alpha=0.90$ for positive family affect to $\alpha=0.74$ for family conflict (Tavitian et al. 1987)
t4.139	
t4.140	
t4.141	
t4.142	
t4.143	
t4.144	
t4.145	
t4.146	PTSD measure
t4.147	<i>Trauma Symptom Checklist for Children</i> (TSCC): The TSCC defines posttraumatic stress (PTS) as “intrusive thoughts, sensations, and memories of painful past events; nightmares; fears; and cognitive avoidance of painful feelings” (Briere 1996, p. 2). The TSCC scale includes ten items that are rated on a 4-point scale (0= <i>never</i> to 3= <i>almost all of the time</i>). Internal consistency reliability for this subscale is high ($\alpha=0.86$). Transformed scores of 60–65 are suggestive of difficulty with trauma symptoms; scores greater than 65 are considered clinically significant symptomatology
t4.148	
t4.149	
t4.150	
t4.151	
t4.152	
t4.153	
t4.154	

et al. 1994; Cauffman et al. 1998; Erwin et al. 2000; Kerig et al. 2008). Only one of the published studies used the most current version of the Diagnostic Interview Schedule for Children, version IV (DISC-IV; Abram et al. 2004).

The majority of the studies used clinician administered or self-report measures with moderate to good psychometric properties (see Table 32.3). Two of the research studies (17%) used the PTSD Traumatic Events component of the Semistructured Clinical Interview for PTSD (K-SADS-PL) to measure trauma exposure and PTSD among juvenile justice-involved youth (Ford et al. 2008; Ruchkin et al. 2007). One study also combined the use of K-SADS-PL with the self-report Traumatic Experiences Screening Instrument (TESI), and the UCLA PTSD Reaction Index (PTSD-RI) (Ford et al. 2008). Only one of the studies used the self-report Trauma Symptom Checklist for Children Posttraumatic Stress Symptoms (TSC-CPTS) with a juvenile justice population (Thompson et al. 2007).

Data Analysis

To test study hypotheses, the studies ($n=11$) used a combination differential or cumulative indexes for trauma. The use of inferential statistics across

studies ranged from a combination of bivariate analysis to multivariate analyses. Studies that used bivariate analysis included chi-square analysis, independent *t*-tests, and correlation analysis (Ariga et al. 2008; Brosky and Lally 2004; Cauffman et al. 1998; Dixon et al. 2004; Ford et al. 2008; Kerig et al. 2008; Ruchkin et al. 2007; Steiner et al. 1997; Thompson et al. 2007). Studies that used multivariate analysis included analysis of variance (ANOVA and MANCOVA), logistic and linear regression (e.g., Abram et al. 2004; Ariga et al. 2008; Burton et al. 1994; Steiner et al. 1997). Kerig et al. (2008) used structural equation modeling to test an analytic model in which PTSD was hypothesized to mediate the relationship between interpersonal trauma and mental health problems.

Discussion: Critical Appraisal and Recommendations for Future Research

Critical Appraisal

The purpose of this chapter was to review the methods and major findings of the research studies on trauma exposure and PTSD among juvenile

justice-involved youth. This information can be used to assist with planning future studies that examine PTSD among juvenile justice-involved youth that incorporate rigorous research designs. For this review, 12 empirical research studies met the selection criteria for studies that examined trauma and PTSD among juvenile justice-involved youth.

As reviewed earlier, the literature on trauma exposure and PTSD among youth in the juvenile justice system indicates a far greater prevalence of witnessing and experiencing trauma events as compared to samples of community youth (Abram et al. 2004; Arroyo 2001; Brosky and Lally 2004; Burton et al. 1994). Although these studies differed in their sample sizes and geographic scope, as a collective body of work they represent diverse samples of juvenile justice-involved youth from across the USA as well as other countries, such as Australia, Japan, and Russia. These preliminary findings suggest that the prevalence of trauma exposure and PTSD are markedly higher than community rates (Abram et al. 2004). Consistent with studies of community samples of youth, the prevalence of trauma exposure (upward of 93%) was higher than the prevalence of PTSD (between 11.2 and 65%) among juvenile offenders (Abram et al. 2004; Cauffman et al. 1998).

Overall, these findings suggest that not all youth exposed to trauma will develop PTSD. However, many youth exposed to trauma do develop PTSD and/or have other comorbid psychosocial problems, including suicidality, substance abuse, and co-occurring psychiatric conditions, such as conduct disorder, anxiety, and depression. Despite these, preliminary research in this area is still in its infancy and results are inconclusive as they relate to trauma and PTSD estimates, risk factors, consequences and correlates of trauma and PTSD among juvenile justice-involved youth. However, these findings are at best preliminary based on methodological limitations found within studies and inconsistent methods used across studies. A critique of these methods within and across studies follows.

Of the 12 research studies, the estimates of trauma and PTSD varied widely. These differences

can be attributed to differences in the research design, including the study settings, sampling strategies, variables, measurement, and data collection procedures used.

Research Design and Sampling Strategies 447

The studies were limited by their use of cross-sectional designs and small to moderate sample sizes (e.g., Abram et al. 2004; Ariga et al. 2008; Burton et al. 1994; Cauffman et al. 1998; Steiner et al. 1997). Another limitation of the studies was the common use of non-probability sampling strategies. Therefore, bias in sampling strategies may limit confidence in the results and making cross case comparisons across studies.

Another limitation of the combined studies was the use of single group research designs with no control or comparison group. Only one study (Steiner et al. 1997) compared a comparison group of incarcerated youth with a convenience sample of high school students (Steiner et al. 1997). Therefore, the lack of research that used control groups makes it difficult to draw conclusive results or make causal inferences about the relationship of trauma and/or PTSD with other potential risk factors or consequences. For example, the major finding of one study that PTSD mediates the relationship between trauma and mental health problems is compromised not only by the use of cross-sectional data but also by the lack of a control or comparison group (Kerig et al. 2008).

Representativeness 474

Another major limitation was the use of nonrepresentative samples. Most studies were of juvenile offenders residing in detention centers located in the USA metropolitan locations, such as New York, Boston, or Chicago. Therefore, at best these findings are not generalizable to youth in the juvenile justice system from other geographic locations, such as the southern or western rural areas of the USA or other countries.

Measures and Data Collection Procedures 484

Perhaps the most salient difference across studies is the use of different measures and data collection procedures. For example, differences in

488 trauma exposure and PTSD estimates for clinician
 489 administered interview schedules and self-report
 490 surveys were found (e.g., Erwin et al. 2000). In
 491 fact, the frequency of trauma among the juvenile
 492 justice samples varied widely with percentages
 493 between 24 and 93% among juvenile offenders.
 494 An interesting finding was that despite the high
 495 rates of trauma, PTSD rates were not as common.
 496 PTSD diagnosis varied widely between 11 and
 497 65% among the sample of juvenile justice youth in
 498 which different measures and methods of admin-
 499 istration were used (e.g., self-report vs. clinician
 500 administered interviews) (Abram et al. 2004;
 501 Brosky and Lally 2004; Cauffman et al. 1998).

502 The difference in trauma and PTSD estimates
 503 found between studies that used trained observ-
 504 ers versus self-report methods are consistent with
 505 Strand et al. (2005) review of trauma assessment
 506 among community samples of youth. Similarly,
 507 we found that in many cases self-report measures
 508 are just as or more psychometrically sound than
 509 clinician administered interview measures
 510 (Strand et al. 2005).

511 Additionally, while most studies used one-on-
 512 one interview and self-report questionnaires,
 513 some studies reported using retrospective case
 514 record reviews (e.g., Brosky and Lally 2004;
 515 Dixon et al. 2004). In this respect, the informa-
 516 tion from the archival records may be subject to
 517 variations in reporting and adversely affect the
 518 study results. Brosky and Lally (2004) high-
 519 lighted some of the limitations of retrospective
 520 data from court records. These records often may
 521 not include important demographic data and may
 522 have minimal information on how an assessment
 523 of trauma was determined. In addition, some
 524 researchers used a combination of self-report
 525 questionnaires and case record reviews collected
 526 at different points in time (e.g., Steiner et al.
 527 1997). Discrepancies may arise in the description
 528 and assessment of traumatic events and subse-
 529 quent PTSD responses.

530 Similarly, there are some limitations to the use
 531 of self-report measures that must be noted. Since
 532 incarcerated juveniles commonly have school
 533 difficulties, including dropping out of school,
 534 their level of reading and writing abilities may
 535 have impacted their responses. Therefore, using

536 currently enrolled high school students as a
 537 comparison group compromises their parity as a
 538 comparison group. Another factor that also may
 539 have affected the results is the physical environ-
 540 ment in which the data collection took place.
 541 Physical variables such as the research setting
 542 conditions, the time of the day, the testing room,
 543 and distractions that may have occurred in secured
 544 facilities or outside of the secured facilities, also
 545 may have affected the results.

Data Analysis 546

547 The studies also were limited by mostly examin-
 548 ing objective measurement of trauma, grouping
 549 traumas together for data analysis purposes (e.g.,
 550 combining community and family violence), and
 551 not examining the differential effects of specific
 552 types of trauma or the age, gender, and racial/eth-
 553 nic differences. One study published after 2004
 554 by Ariga et al. (2008) does investigate specific
 555 PTSD symptom presentations based on specific
 556 trauma exposures. They found that violence
 557 exposure was related to worse Criterion D symp-
 558 tom outcomes and cumulative outcomes on
 559 Criteria B+C+D. However, Ariga and colleagues
 560 collapsed violence exposure into one undistin-
 561 guishable group and do not look at the effects of
 562 specific violence exposures on PTSD symptom
 563 outcomes.

Recommendations for Future Research 564

565 A review of the literature suggests that there is a
 566 high prevalence of trauma and PTSD among
 567 juvenile justice youth and related situational,
 568 psychological, and behavioral factors (see
 569 Tables 32.1 and 32.2). It is important to build on
 570 this body of research to gain a better understand-
 571 ing of the correlates and consequences of trauma
 572 and PTSD among this vulnerable population of
 573 juvenile justice youth.

574 Future research can build upon the prelimi-
 575 nary evidence found in this body of research.
 576 For example, future research can identify the
 577 types of trauma related to PTSD, potential men-
 578 tal health and behavior correlates, and the influ-
 579 ence of youth and environmental characteristics

(see Tables 32.1 and 32.2). More specifically, future studies should identify the types of trauma, such as being a victim and/or witness to family and/or community violence, which include physical abuse, sexual abuse, psychological abuse, and neglect. Additionally, future studies should examine how other significant life events' stressors, such as family problems are related to trauma and psychological and behavioral correlates, such as suicide risk or delinquency.

Identifying how individual level and social/environmental factors impact risk or consequences also are important to pursue in order to develop culturally competent services that address gender, age, and race/ethnicity. For example, understanding how boys or girls are more at risk for certain types of trauma or how their psychological or behavioral consequences may vary is important for assessment, prevention, and intervention efforts. Future studies can examine the direct and/or moderating effects of gender, age, and juvenile justice placement on PTSD and other mental health and behavioral symptoms.

We also need additional clinical research that examines the treatment of trauma exposure and PTSD in juvenile justice settings. There is some research on effective trauma treatment modalities for adolescents in the community (e.g., Steiner et al. 1997; Saxe et al. 2007); however, there have been a limited number of treatment studies conducted with justice-involved youth.

For example, one promising treatment modality used in juvenile justice settings is Trauma Affect Regulation: Guide for Education and Therapy (TARGET). TARGET teaches skills targeting distress management, impulsivity, and interpersonal difficulties. This treatment focuses on therapy and psychoeducation geared toward managing externalizing behaviors that are the sequelae of trauma exposure (Ford et al. 2007). It is clear, however, that much more attention needs to be paid to establishing empirically supported assessment and treatment for trauma exposure in justice-involved youth.

In terms of research methods, future studies that examine trauma and PTSD among juvenile justice-involved youth should include longitudinal designs and comparison groups of nonjuvenile justice-involved youth. The studies should also

include representative samples of youth that adequately represent the age, race/ethnicity, and gender of youth from diverse regional locations. Study designs should include matched comparison samples from the community. The use of multiple sources of data to triangulate results, which includes youth self-report, case records, and clinician-administered surveys is warranted.

The use of self-report measures is also recommended. Prior studies have found benefits to the use of self-report measures for trauma assessment in the juvenile justice system. Evidence also suggests that there is little difference in rates of PTSD based on whether juvenile offenders are given a self-report measure versus an interview by a trained clinician at the time of assessment (Spaccarelli et al. 1995). Ford et al. (2008) also found that juvenile offenders have been shown to understand and respond validly to such measures, without bias in reporting trauma exposure. Given the restrictive nature of the setting, self-report can be administered quickly, efficiently, and rather inexpensively. Many of the measures used, such as the Trauma Symptoms Checklist for Children and the PTSD Reaction Index, also are reliable and valid.

The use of self-report measures also meets the recommendation by Strand et al. (2005) that an effective assessment measure must be: (1) psychometrically sound and able to be further tested, (2) user friendly and accessible, and (3) inexpensive (compared to clinician-administered interviews). The question remains to be answered, however, as to why there are such variations in the prevalence rates based on the type of measures used (i.e., self-report vs. clinician administered).

Methodological limitations about the measurement of trauma found in this review were consistent with prior trauma research community samples of youth (Margolin and Gordis 2000). Future studies can avoid these pitfalls by: (1) gathering data on the subjective views of participants about their experience of trauma, (2) examining number, frequency, intensity and duration of trauma exposure, and the age at which it occurred, and (3) examining age, gender, race/ethnicity on the risk and consequences of trauma and PTSD among juvenile justice-involved youth.

678 Another area where there is a research gap is
679 meta-analysis studies of the existing literature.
680 Meta-analysis studies are situated at the top of
681 the evidence-based hierarchy because of the use
682 of statistical analyses of the effect sizes of multi-
683 ple studies' results to draw conclusions (Littell
684 et al. 2008). Meta-analysis studies would provide
685 much needed information to make practice or
686 policy decisions that target the risk factors and
687 consequences of trauma and treatment effects
688 among youth involved in the juvenile justice sys-
689 tem at a time of system reform efforts.

690 Meta-analysis studies would provide a system-
691 atic review of the literature that statistically com-
692 bines several study results that share a common
693 research hypothesis related to trauma and/or treat-
694 ment among juvenile justice-involved youth.
695 "Meta-analysis studies are known for applying a
696 set of statistical methods from combining quantita-
697 tive results from multiple studies to produce an
698 overall statistical summary (or effect size) of
699 empirical knowledge on a topic" (Littell et al. 2008,
700 p. 1). Generally, meta-analysis studies are consid-
701 ered the most rigorous of research designs and are
702 classified at the top of the evidence-based hierar-
703 chy as "best evidence." This type of reliable infor-
704 mation can then be used by practitioners and
705 policymakers to consult to help inform practice
706 and policy decisions in a time of intense efforts at
707 juvenile justice reform (Rubin 2008). Therefore, as
708 research evidence continues to accumulate in this
709 area, the use of meta-analyses to examine causal
710 effects related to the impact of trauma on mental
711 and behavioral well-being or treatment interven-
712 tion effectiveness with juvenile justice population
713 are warranted and strongly encouraged.

714 Conclusions

715 In conclusion, the body of research reviewed
716 makes an important contribution to our understand-
717 ing of trauma among juvenile justice populations.
718 Based on this review, we have offered a critical
719 appraisal and recommendations for future empir-
720 ical studies on trauma and PTSD among youth in
721 the juvenile justice system. Continued research in
722 this area is imperative for improving practices

723 with this vulnerable population of youth who
724 often are not only misunderstood, but misdiag-
725 nosed. The information garnered from research
726 in this area can be used to inform the develop-
727 ment or improvement of assessment and inter-
728 vention efforts for this population. Future research
729 in this area also can be used to develop reform
730 policy and programming that strikes a balance
731 in the justice system that addresses juveniles'
732 accountability for their offenses, but also treat-
733 ment when they have been victims.

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- 878

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and Dalun Zhang

Juvenile delinquency in the USA presents a challenging and often controversial issue. In 2007, an estimated 2.18 million juveniles were arrested accounting for 16% of all violent crime arrests and 26% of all property crime arrests. Of these arrests, 19% were processed by law enforcement agencies and were released, 70% were referred to juvenile courts and 9% to criminal courts. A persistent concern has been the disproportionate number of minority youths involved in violent crimes (51% African American) and property crimes (32% African American). Indeed, African American juveniles were more than ten times as likely to be involved in robberies as white youth (Puzzanchera 2009).

Another group that merits attention is the disproportionate number of juveniles with disabilities in the juvenile system. Specifically, in the fall of 2007, 5,912,586 students ages 6–21 received services under Individuals with Disabilities Education Act (IDEA) representing 8.96% of the school age population. Almost half of the students with disabilities (2,563,665; 43.35%)

received services under the label of specific learning disabilities; students with emotional/behavioral disorder (E/BD) represented less than 10% of the special education population (438,867; 7.4%; Data Accountability Center 2009). In contrast, though prevalence estimates of incarcerated youth with disabilities vary considerably, reports place rates as high as 90% (Morris and Morris 2006; Quinn et al. 2005).

In addition, concerns have been voiced on recidivism rates for this population as well as the adequacy of educational services provided while incarcerated (Katsiyannis and Murry 2000; Morrison and Epps 2002). The issue of educational interventions is particularly important because of the prescriptive nature of federal legislative mandates (Individuals with Disabilities Education Act and Section 504 of the Rehabilitation Act of 1973) regarding the right of these individuals to a free appropriate public education (FAPE) (Maccini et al. 2006; Nelson et al. 2004; Twomey 2008).

Consequently, given the disproportionate representation of youth with disabilities in the juvenile system and the inadequacy of services provide during incarceration, further examination of issues associated with this population is warranted. First, we provide an overview of legal considerations regarding the right to an appropriate education for incarcerated youth with disabilities. Second, we examine the psychological characteristics of children with learning disabilities and/or emotional disorders which are associated with atypical social development and which

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62 place these children at higher-than-normal risk
 63 for delinquency. Third, we discuss influences on
 64 delinquency with a particular emphasis on recidi-
 65 vism among juveniles with disabilities. Fourth,
 66 we review evidence-based interventions involv-
 67 ing transition (e.g., self-determination), academic
 68 interventions (e.g., Project LEAD), mental health
 69 interventions (e.g., multisystemic therapy), and
 70 post-release interventions (e.g., wraparound ser-
 71 vices). Fifth, we conclude our chapter with recent
 72 research studies on disabilities and delinquency.
 73 The information provided portrays a group of
 74 juveniles who are particularly at risk not only for
 75 delinquency but also for recidivism; a group dis-
 76 proportionately represented in the juvenile sys-
 77 tem and yet underserved despite federal legislative
 78 mandates; and a group of juveniles that educa-
 79 tional, correctional, and community systems must
 80 provide for the implementation of prevention
 81 (schools, intervention (juvenile facility), and
 82 post-release (schools, community) strategies.

83 **Legal Perspective: IDEA**
 84 **and Incarcerated Youth**

85 The Individuals with Disabilities Education Act of
 86 2004 has been instrumental in affording students
 87 with disabilities access to educational opportuni-
 88 ties by ensuring a FAPE and related services.
 89 Qualified students with disabilities receive ser-
 90 vices which are (a) provided at public expense,
 91 under public supervision and direction; (b) meet
 92 the state educational standards; and (c) are pro-
 93 vided in conformity with an individualized educa-
 94 tion program (IEP) (§ 300.17). While IDEA has
 95 been credited with allowing students with disabili-
 96 ties to achieve an unprecedented access to educa-
 97 tional services, outcomes for students with
 98 disabilities have been subject to criticism and
 99 intense scrutiny. For example, in 2002–2003, only
 100 51.9% of the students ages 14 and older with dis-
 101 abilities graduated with a regular high school
 102 diploma (43.5% in 1993–1994), and 33.6% exited
 103 school by dropping out (45.1% in 1993–1994)
 104 (U.S. Department of Education 2008). Further,
 105 students with E/BD fared the worst among stu-
 106 dents with disabilities; only 35.4% graduated with

107 a standard high school diploma and 55.9% dropped
 108 out of school (U.S. Department of Education
 109 2008). Students with E/BD typically require more
 110 intensive special education services than students
 111 with other disabilities. For example, of the 438,867
 112 identified students with E/BD in 2007, only 61%
 113 were served in inclusive settings as compared to
 114 79% of students with other disabilities. In sum-
 115 mary, students with E/BD have a history of out-
 116 comes including lower grades, more disciplinary
 117 exclusions than students with other disabilities and
 118 drop out at a rate twice of that of their nondisabled
 119 peers (Bradley et al. 2008).

120 Students with disabilities, particularly those
 121 with LD and/or E/BD as stated earlier, are also
 122 prone to juvenile delinquency. Estimated preva-
 123 lence rates of those with disabilities vary across
 124 agencies ranging from single-digit percentages to
 125 over 90% of the incarcerated juvenile population
 126 (Morris and Morris 2006). Quinn et al. (2005)
 127 reported an average of 33.4% of incarcerated
 128 youth receiving special education services with
 129 prevalence rates in some states as high as 77.5%.
 130 Further, according to the Data Accountability
 131 Center (2009), among students with disabilities
 132 ages 6–21, the percentage of students with E/BD
 133 (1.99%) in correctional facilities is about four
 134 times the rate for all students with disabilities
 135 (0.39%). The highest percentage (6.17%) of stu-
 136 dents with E/BD in correctional facilities has
 137 been reported by Florida and the lowest, 0.58%,
 138 was reported by Massachusetts and North
 139 Carolina. Finally, children with E/BD are three
 140 times more likely than those without E/BD to be
 141 arrested before leaving school and 73% of those
 142 who drop out of school are arrested within 5 years
 143 (Bradley et al. 2008). Incarcerated students with
 144 disabilities are entitled to specific protections
 145 under IDEA and Section 504 to ensure that they
 146 are afforded an appropriate education based on
 147 an individualized education plan (*Alexander s. v.*
 148 *Boyd* 1995; Katsiyannis and Murry 2000). This
 149 requirement does not apply to students ages 18
 150 through 21 who in the last educational placement
 151 prior to their incarceration in an adult correc-
 152 tional facility were not identified as being a child
 153 with a disability and did not have an IEP [20
 154 U.S.C. §1412(a)(1)(B)(ii)].

155 Despite the prevalence rates of incarcerated
 156 youth with disabilities and federal statutes man-
 157 dating the provision of a FAPE, special educa-
 158 tion services received by incarcerated juveniles
 159 with disabilities generally do not meet IDEA
 160 requirements. Persistent concerns include (a)
 161 availability of services, special education teach-
 162 ers, and related services; (b) adequate levels of
 163 instructional time; and (c) performing evalua-
 164 tions for eligibility (Twomey 2008). A study of
 165 southern correctional facilities, for example,
 166 revealed that only 30% of eligible juveniles with
 167 disabilities received though almost 70% of chil-
 168 dren in correctional facilities qualified for ser-
 169 vices under the IDEA (Morrison and Epps 2002).
 170 These concerns have resulted in numerous class
 171 actions (over 30 since 1975) questioning the ade-
 172 quacy of services provided. These court cases
 173 often linger for years, end in settlements, and
 174 often result in wide range of reforms (Twomey
 175 2008). Specifically, in *Johnson v. Upchurch*,
 176 juveniles with disabilities challenged the lack of
 177 special education services at the Catalina
 178 Mountain Juvenile Institution in Arizona. A set-
 179 tlement was reached 7 years later with extensive
 180 reforms across. Similarly, in *Andre H. v. Sobol*,
 181 juveniles with disabilities eligible for services
 182 under IDEA claimed that New York City's
 183 Spofford Juvenile Detention Center failed to
 184 conduct screening activities, convene multidisci-
 185 plinary team meetings, or obtain records from
 186 schools. Seven years later a settlement was
 187 reached requiring that the detention home fully
 188 implement IDEA provisions regarding evalua-
 189 tion, placement, and service delivery.

190 In 1987 in *Smith v. Wheaton*, plaintiffs filed a
 191 brief concerning the educational needs of incar-
 192 cated youth with disabilities in long-term facil-
 193 ity rather than in temporary detention (see *Andre
 194 H. v. Sobol*). Specifically, the plaintiffs argued
 195 that the Connecticut Department of Children and
 196 Youth Services, failed to meet evaluation time-
 197 lines, involve parents in decision making, or ade-
 198 quately provide special education services to
 199 those deemed eligible. Plaintiffs also alleged that
 200 parents were not involved in educational decision
 201 making or provide related services such as coun-
 202 seling or occupational therapy. Finally, *Alexander*

v. Boyd (1995) involved juveniles who were 203
 temporarily placed at the Reception and 204
 Evaluation Center as well as those in long-term 205
 facilities. They claimed that conditions of con- 206
 finement were deplorable (e.g., food, shelter, 207
 sanitation, living space, health care, recreation, 208
 programs, classification, discipline, and personal 209
 safety); also, the facility often failed to evaluate 210
 juveniles suspected of a disability or develop 211
 and implement an IEPs according to IDEA. The prob- 212
 lem was exacerbated by the reluctance of school 213
 district officials to forward a juvenile's school 214
 records to the juvenile facility and the require- 215
 ment by the Department of Juvenile Justice (DJJ) 216
 for two IEPs (one for the short-term facility and 217
 one for the long term). The court ruled that school 218
 records did not necessitate prior parental consent 219
 (as erroneously thought by SC school district 220
 officials) and the requirement for the develop- 221
 ment of an interim IEP was deemed unnecessary. 222
 In the absence of those two barriers, DJJ was 223
 obligated to comply fully with federal legislation 224
 regarding educational services to qualified indi- 225
 viduals with disabilities. 226

227 Psychological Vulnerabilities 228 of Children with Disabilities

229 Before considering more closely the psychologi-
 230 cal and social influences on juvenile delinquency
 231 and recidivism, we examine the psychological
 232 characteristics of children with disabilities which
 233 are known to affect social development. We
 234 examine first the major emotional challenges that
 235 children face as they move into late childhood
 236 and adolescence; we then consider the ways in
 237 which children with learning and/or emotional
 238 disabilities are at risk for atypical social develop-
 239 ment, including antisocial behavior.

240 Interpersonal theorists (Sullivan 1953;
 241 Buhrmeiser 1996) view the central social task of
 242 late childhood as the development of close and sat-
 243 isfying relationships with same-sex peers. Such
 244 relationships, according to Sullivan, depend on the
 245 child's ability to "develop a real sensitivity to what
 246 matters to another person" (p. 245). A Sullivanian
 247 theoretical framework suggests that difficulties in

248 friendship formation have adverse developmental
 249 consequences. For Sullivan, difficulties in being
 250 able to form satisfying peer relationships in pre-
 251 adolescence presage problems in adolescence both
 252 with respect to loneliness, failure to develop
 253 healthy relationships with the opposite sex, and
 254 problems in maintaining self-respect (p. 309) as
 255 well as antisocial behavior. According to more
 256 recent attachment theorists (Maysless and Scharf
 257 2007; Cooper et al. 1998), the ability to form
 258 meaningful attachments to peers is critical to later
 259 development, with implications for both social and
 260 academic functioning.

261 Identity theorists (Erikson 1963; Côté 2009)
 262 view the central task of adolescence as the devel-
 263 opment of a coherent identity or self-concept, an
 264 organized answer to the question “Who am I?”
 265 Social psychologists view the self-concept as a
 266 theory that we have about our self (Epstein 1973).
 267 As a theory, an accurate and integrated self-con-
 268 cept enables the individual to organize his or her
 269 experiences: to make good predictions about his
 270 or her behavior, minimize anxiety, and find satis-
 271 faction in activities. From this perspective,
 272 healthy identity development in adolescence
 273 depends on early childhood successes (in work
 274 and play), a supportive family environment, and
 275 successful peer relationships.

276 From each of these theoretical perspectives,
 277 children with learning disorders and/or emotional
 278 and behavioral disorders are at heightened risk
 279 for social developmental complications. At least
 280 one half of children who qualify for special edu-
 281 cation services under the IDEA meet the criteria
 282 for specific learning disabilities (LD) or E/BD
 283 (Cortiella 2009; Data Accountability Center
 284 2009). Children identified as LD and/or E/BD
 285 share two important psychological/behavioral
 286 characteristics, each of which is known to interfere
 287 with normal social development in late childhood
 288 and adolescence.

289 First, there are problems in social cognition,
 290 the ability to make inferences about other’ feel-
 291 ings, thoughts and expectations. For example,
 292 Tur-Kaspa and Bryan (1993) found that children
 293 with LD were less able than typical peers to
 294 identify possible solutions to social problems.
 295 Henry and Reed (1995) identified deficits in

296 conversational skills such as turn-taking, requesting
 297 clarification and recognizing different points of
 298 view. Such weaknesses in social cognition have
 299 clear implications for the development of later
 300 behavioral problems. For example, it is well
 301 established that children with externalizing or
 302 acting out disorders are more likely than typical
 303 children to have difficulty in interpreting social
 304 situations, particularly situations in which nega-
 305 tive outcomes are tied to ambiguous intentions
 306 (Dodge and Crick 1990; Lansford et al. 2006;
 307 Steinberg 2011). In fact, as early as elementary
 308 school age there is a significant relationship
 309 between the ability to make inferences about oth-
 310 ers’ thoughts, motives, and intentions and one’s
 311 prosocial or antisocial behavior (see Barrett and
 312 Yarrow 1977; Dodge 1980).

313 The second major characteristic is a history of
 314 academic failures. While the reasons for having
 315 academic problems may differ for children with
 316 LD versus E/BD (see Patterson et al. 1989, for a
 317 discussion of academic problems among children
 318 with behavioral problems), a pattern of frequent
 319 school failure and loss of confidence in one’s ac-
 320 ademic abilities is typical of children with special
 321 needs. Recent studies implicate attention deficit/
 322 hyperactivity in both academic and externalizing
 323 disorders (Patterson et al. 2000). A mediating fac-
 324 tor in this relationship may be poor self-regulation;
 325 specifically, difficulty in controlling levels of
 326 arousal and delaying gratification (see Dodge and
 327 Pettit 2003). Regardless of the specific causes of
 328 the learning difficulties, repeated academic failures
 329 interfere with the development of a healthy view of
 330 one’s self (Steinberg 2011) and when combined
 331 with relational failures, increase the likelihood
 332 of antisocial behavior (Patterson et al. 1989).

333 In summary, from a developmental perspective,
 334 children with special needs and in particular those
 335 with learning or emotional/behavioral disorders
 336 are vulnerable to antisocial behavior. Difficulties
 337 in forming successful relationships and problems
 338 in constructing a coherent and positive self-concept
 339 are a source of anxiety and frustration. Under these
 340 conditions, young people may develop atypical
 341 means to reduce anxiety and organize their expe-
 342 riences, including antisocial and even pathologi-
 343 cal behavior (Sullivan, pp. 304–306).

344 **Delinquency, Recidivism,**
345 **and Youth with Disabilities**

346 **Factors Associated with Repeat**
347 **Offending**

348 Age at first arrest has been generally found to be
349 one of the strongest predictors of recidivism
350 (Barrett et al. 2006, 2010). A number of family
351 characteristics are associated with timing of first
352 offense. For example, youth with foster care expe-
353 rience are four times more likely to be early start-
354 ing delinquents than youth with no foster care
355 experience. Also, youth with a family member
356 convicted of a felony are two times more likely to
357 be early starting delinquents than youth with no
358 family felony (Alltucker et al. 2006). In fact,
359 Farrington et al. (2001), examining three genera-
360 tions of families, found that 8% of the families
361 accounted for 43% of all juvenile arrests. Family
362 criminal history and family dynamics have also
363 been associated with recidivism (Gendreau et al.
364 1996). Cottle et al. (2001) conducted a meta-anal-
365 ysis of 23 published recidivism studies conducted
366 between 1983 and 2000. In their analysis, offense
367 history was the strongest predictor of reoffend-
368 ing. Other relatively strong predictors included
369 family problems, ineffective use of leisure time,
370 and a delinquent peer group. Hoeve et al. (2009)
371 investigated the relationship between parenting
372 practices and trajectories of antisocial behavior
373 through a meta-analysis of 161 manuscripts.
374 They found that neglectful parenting was associ-
375 ated with more serious delinquency. Father's
376 absence has also been found to predict repeat
377 offending (Barrett et al. 2010).

378 Psychosocial variables appear also to be
379 related to recidivism. In a study of youth in a
380 Midwestern correctional facility, Katsiyannis
381 et al. (2004) paired psychosocial variables with
382 background variables to investigate the contribu-
383 tions of these factors to the prediction of recidi-
384 vism. Psychosocial variables included alcohol
385 abuse, depression, levels of parent and peer attach-
386 ment, and personality traits. The subjects for this
387 study included 299 adolescent males incarcerated
388 from July 1998 to July 1999. Follow-up data

on recidivists were collected in 1999–2000, 389
2000–2001, and 2001–2002. Findings differenti- 390
ating recidivists from non-recidivists were con- 391
sistent with earlier studies regarding age at first 392
commitment and parole violation. In addition, 393
two personality variables, cognitive structuring 394
and “succorance” (seeks support and protection) 395
improved the prediction of recidivism, even with 396
age of commitment, educational achievement 397
and measures of psychopathology accounted for. 398
Loeber et al. (2007) in their longitudinal study of 399
high-risk children from ages 7 to 20 compared 400
the psychological profiles of behavioral “desist- 401
ers” versus behavioral “persisters.” Youth who 402
had engaged in moderate/severe delinquency 403
in early adolescence only were classified as 404
desisters while those whose behavior remained 405
seriously antisocial into later adolescence were 406
classified as persisters. Desisters showed lower 407
levels of interpersonal withdrawal, engaged less 408
frequently in heavy drinking, and scored lower 409
on a measure of antisocial personality than 410
persisters. 411

412 There are also well-established gender dif- 413
ferences in recidivism with males more likely 414
than females to engage in repeat offending 415
(Barrett et al. 2010). There is evidence also for 416
race differences in repeat offending with higher 417
recidivism among African Americans (Barrett 418
et al. 2010; Gavazzi et al. 2008). African 419
American youth face life challenges and aca- 420
demic problems that are to some extent culture 421
specific, including limited economic opportu- 422
nity, family conflict, and stress accentuated by 423
racism (Myner et al. 1998).

424 Finally, students with disabilities, typically 425
exhibit academic deficits, factors which have 426
been found to be associated not only with delin- 427
quency but also with recidivism (Archwamety 428
and Katsiyannis 1998, 2000). Related literature 429
indicates that students with disabilities also are 430
more likely to drop out of school and be incarcer- 431
ated than their same-age peers (Doren et al. 432
1996). Studies also show that delinquents tend to 433
score lower than non-delinquents across aca- 434
demic measures (Davis et al. 1991); individuals 435
with violent felonies (e.g., assault and battery, 436
manslaughter, rape, and arson) have more severe

437 deficits in basic skills (e.g., reading and math)
 438 than individuals with property felonies, misde-
 439 meanors, and status offenses (Beebe and Mueller
 440 1993); and dropouts are 3.5 times more likely to
 441 be arrested than graduates (U.S. Department of
 442 Education 1994).

443 An emerging body of research has been focus-
 444 ing on the link between achievement and recidi-
 445 vism. Specifically, Katsiyannis and Archwamety
 446 (1997) examined the records of 147 recidivists
 447 and 147 non-recidivists males from a Midwestern
 448 juvenile correctional facility. Their findings were
 449 consistent with previous research showing age of
 450 first offense and first commitment differentiated
 451 recidivists and non-recidivists. Additional dis-
 452 criminating factors included deficits in basic
 453 skills, special education background, along with
 454 gang affiliation, and length of stay at the facility.
 455 Similarly, the examination of records of 238
 456 female delinquents (including 96 recidivist
 457 females) indicated that age at first offense and
 458 first commitment differentiated recidivists from
 459 non-recidivists. Additional discriminating factors
 460 included deficits in basic math skills along with
 461 gang affiliation, abuse, location of residence, and
 462 length of stay at the facility (Archwamety and
 463 Katsiyannis 1998).

464 **Intervention Strategies**

465 The most significant crime reduction effort may
 466 be the one that prevents a juvenile’s first arrest
 467 from leading to a series of costly interactions
 468 with the criminal justice system. Given the higher
 469 rate of recidivism by juveniles who were referred
 470 to the juvenile justice system at an earlier age,
 471 juvenile justice system and schools may need to
 472 develop partnerships to find alternative ways of
 473 corrections than simply putting them into the
 474 juvenile system so that first-time offenders have a
 475 chance to correct them in schools or another
 476 arranged setting (Vacca 2008). It is necessary to
 477 provide additional services to repeat offenders
 478 (e.g., academic interventions, family, and mental
 479 health services) as generally services provided
 480 are inadequate (see Morrison and Epps 2002;
 481 Nelson et al. 2004).

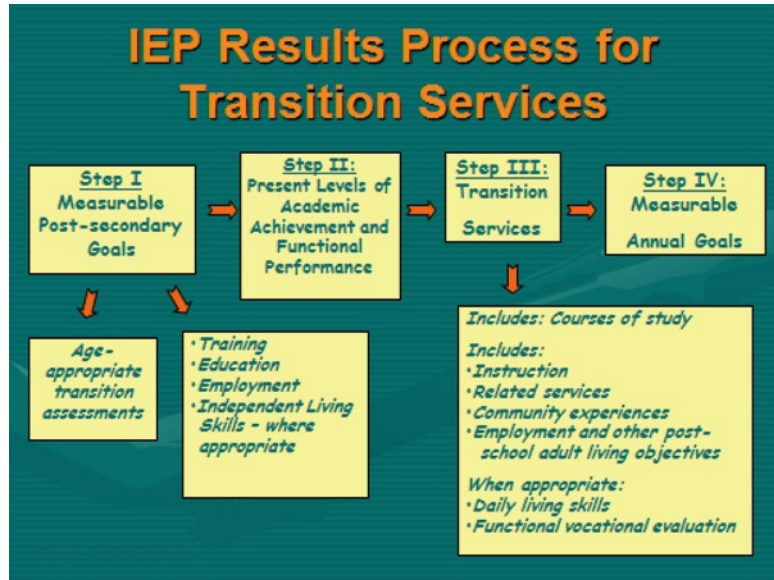
Several intervention strategies have some
 evidence of effectiveness in reducing delinquent
 behaviors with the general juvenile population
 and may be used with youth with disabilities.
 Unfortunately, youth with disabilities in the juve-
 nile justice system often do not receive adequate
 education that adheres to special education tran-
 sition policies and regulations (Nelson et al.
 2004). Reentry outcomes for formerly incarcer-
 ated youth with disabilities are very poor compared
 to those for peers without disabilities (Bullis et al.
 2004). Additional strategies that are more appli-
 cable to delinquents with disabilities have been
 suggested. A brief discussion of each of these
 strategies is provided in the following sections.

Transition Services

The Individuals with Disabilities Education
 Improvement Act (IDEIA) of 2004a, b requires
 that the student individual educational program
 (IEP) include a statement of transition service
 needs at age 14 and a statement of needed transi-
 tion services at age 16, earlier if appropriate.
 A transition service is defined as “a coordinated
 set of activities for a child with a disability that
 (A) is designed to be within a results-oriented
 process, that is focused on improving the
 academic and functional achievement of the child
 with a disability to facilitate the child’s move-
 ment from school to post-school activities,
 including post-secondary education, vocational
 education, integrated employment (including
 supported employment), continuing and adult
 education, adult services, independent living, or
 community participation; (B) is based on the
 individual child’s needs, taking into account the
 child’s strengths, preferences, and interests; and
 (C) includes instruction-related services, com-
 munity experiences, the development of employ-
 ment and other post-school adult living objectives,
 and when appropriate, acquisition of daily living
 skills and functional vocational evaluation.” (20
 U.S.C. 1401(34))

Researchers have found that that most adoles-
 cents who engage in more serious offending
 begin their delinquent activities before the age of

Fig. 33.1 IEP results process for transition services



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15 (Wiesner and Windle 2004). Many of these individuals are placed in the juvenile correction facilities and therefore miss the opportunity to receive the benefits of transition services from school. There is a need to develop preventive strategies that target students with disabilities who fall in these higher-risk groups at an earlier age than 15. Schools may consider to start transition services before age 15 so that students develop a meaningful future for their adult life early enough to reduce the chance of getting into trouble with the law due to a lack of future vision. Research in transition practices has suggested that getting student and family to be involved in the educational process greatly enhances student transition outcomes and therefore reduces adverse behaviors. Based on IDEA’s definition of transition, a logical sequence of transition planning has been suggested that includes the following steps:

- Step 1. Start from student assessment
- Step 2. Obtain student and family future vision
- Step 3. Identify adult life areas (e.g., employment, postsecondary education, etc.) pertaining to future vision

- Step 4. Specify future outcomes appropriate for the student in each of the identified areas
- Step 5. Plan action steps, assign responsibilities, and set timelines for schools, student, family, and agencies
- Step 6. Integrate planned transition activities into the IEP

O’Leary (2008) proposed a process for integrating transition planning in the IEP process so that the student’s educational program is based on the student’s future. Figure 33.1 describes the sequential steps in this process. Schools are encouraged to engage in this process as early as possible with students with disabilities who are at a high risk for juvenile delinquency to plan meaningful education for them. When students find that their education is relevant to their future, they are more likely to engage in learning rather than engaging in criminal behaviors.

For a better connection between transition services and student education to reduce delinquency, it may be a good idea to combine transition service intervention with some other intervention strategies to maximize academic

577 achievement (Gunter and Denny 1998). For
 578 example, positive peer culture (PPC) can be used
 579 as a means of helping delinquents to develop
 580 healthy social interactions by utilizing the posi-
 581 tive power of peer influence (Laufenberg 1987).
 582 Social skill training is another strategy to help
 583 juvenile offenders develop the necessary skills
 584 that facilitate academic engagement (Lewis and
 585 Sugai 1999). Pearson et al. (2002), in reporting
 586 findings from meta-analyses on research studies
 587 on the effectiveness of behavioral and cognitive
 588 behavioral interventions, found cognitive behav-
 589 ioral interventions to be associated with reduced
 590 rates of recidivism. It should be noted, however,
 591 that the effectiveness of social skills interventions
 592 is highly dependent on context, with interven-
 593 tions less successful when high-risk youth are
 594 grouped together (Poulin et al. 1999).

595 **Self-Determination Skills Training**

596 Self-determination is “a combination of skills,
 597 knowledge, and beliefs that enable a person to
 598 engage in goal-directed, self-regulated, auton-
 599 omous behavior.” (Field et al. 1998) (p. 2).
 600 Self-determination characteristics include choice-
 601 making, decision-making, problem-solving, goal-
 602 setting and attainment skills, self-management,
 603 self-advocacy, self-efficacy, self-awareness, and
 604 self-knowledge (Wehmeyer and Schwartz 1997).
 605 Research has indicated that adolescents with self-
 606 determined characteristics are less likely to drop
 607 out of school or become a truant (Zhang and Law
 608 2005) and enjoy better transition outcomes in adult
 609 life areas such as employment and independent
 610 living (Wehmeyer and Palmer 2003). Houchins
 611 (2002) suggested that self-determination instruc-
 612 tion be provided to incarcerated youth with dis-
 613 abilities because these individuals lack specific
 614 self-determination skills, including appropriate
 615 social skills, problem-solving skills, adequate ver-
 616 bal and nonverbal communication skills, self-
 617 awareness, and adequate level of self-control.

618 Given the link between self-determination
 619 and individual success incarcerated youth with

620 disabilities should be offered self-determination
 621 instruction. Numerous curricula are available
 622 to serve this purpose. These curricula focus on the
 623 major skills associated with self-determination and
 624 identify strategies to help students with disabilities
 625 enhance these skills. Field et al. (1998) identified
 626 35 curricula that were designed for this purpose;
 627 whereas Test et al. (2000) found 60 curricula and
 628 675 other resources. Some of the popular self-
 629 determination instructional materials are summa-
 630 rized in Table 33.1. Schools and correctional
 631 facilities can infuse the self-determination skills
 632 covered in these curricula into content instruction
 633 or adopt a stand-alone self-determination curricu-
 634 lum. To choose the right curriculum, strategies
 635 provided by Test et al. (2000) in choosing a self-
 636 determination curriculum can be used as a guide.
 637 Test et al. (2000) suggest considering the following
 638 questions when choosing a curriculum: Are the
 639 materials age appropriate? Are they designed for
 640 mild, moderate, or severe disabilities? What types
 641 of materials are provided? Are lesson plans well
 642 developed? Were the materials field tested? Is there
 643 an assessment tool? What are the costs?

644 Self-determination must not only be facilitated
 645 by the educational and juvenile correctional sys-
 646 tems, but also within the family structure. Recent
 647 research studies have found that the majority of
 648 families with a child with a disability do not
 649 engage in activities that foster self-determination
 650 skills (Zhang et al. 2002, 2005). Part of the rea-
 651 sons for families’ lack of engagement in self-
 652 determination fostering activities has to do with
 653 their lack of information and directions. Efforts
 654 have to be made to provide directions for families
 655 to engage in recommended practices. Zhang et al.
 656 (2002) recommend that families use practices
 657 described in the instrument of their study to
 658 foster children’s self-determination skills. To
 659 help their child to be more self-determined, fami-
 660 lies should include their child in making deci-
 661 sions that affect the whole family. Parents can
 662 allow and encourage their children to make basic
 663 decisions that directly affect the students them-
 664 selves, and encourage their child to perform
 665 household chores that are within their capabilities
 666 (Harrison et al. 1997).

Table 33.1 A summary of popular self-determination instructional materials

Citations	Major focuses	Targeted population	Major features	Availability
t1.1				
t1.2				
t1.3	Self-awareness	<i>Ages</i>	Assessment tool, instructional tool	Sopris West, Inc.
t1.4	Personal self-advocacy	Middle/junior/high school, adapted to upper elementary	Replicable worksheets or masters, consumable written materials, awareness-building video,	1-800-547-6747 Price: \$120.00
t1.5	Goal setting	<i>Students</i>		
t1.6	Self-efficacy			
t1.7	Self-evaluation	Noncategorical, mild or moderate learning disabilities, or developmental disabilities, adaptations may be made for students who cannot read or write	instructional video, guide with background and overview, guide with directions for facilitating, illustrations representing the crucial steps	
t1.8	Person-centered planning			
t1.9	Making choices and decisions			
t1.10	Employment			
t1.11	Education			
t1.12	Housing and daily living			
t1.13	Personal			
t1.14	Community			
t1.15				
t1.16	Self-awareness	<i>Ages</i>	Instructional tool	James Stanfield Publishing Co.
t1.17	Personal self-advocacy	Senior high school	Replicable worksheets or masters, Instructional Video, Guide with background and overview, guide with directions for facilitating, three-ring binder	1-800-421-6534 Price: \$149.00
t1.18	Goal setting	<i>Students</i>		
t1.19	System self-advocacy	Without disabilities, with mild or moderate behavioral or emotional disabilities		
t1.20	Self-evaluation	<i>Other</i>		
t1.21	Person-centered planning	Families		
t1.22	Employment			
t1.23	Education			
t1.24	Housing and daily living			
t1.25	Personal			
t1.26	Community			
t1.27	Making choices and decisions			
t1.27	Self-awareness	<i>Ages</i>	Instructional tool, Assessment tool	Pro-ed Publishing
t1.28	Self-efficacy	Senior high school, 18-21 years old	Replicable worksheets or masters, consumable written materials, awareness-building video,	1-800-897-3202 Price: \$169.00
t1.29	Goal setting	<i>Students</i>		
t1.30	Self-evaluation	Without disabilities, noncategorical, at risk	instructional video, activity cards, games, guide with background and overview, guide with directions for facilitating	
t1.31	Adjustment	<i>Other</i>		
t1.32	Person-centered planning	Families		
t1.33	Making choices and decisions			
t1.34	Employment			
t1.35	Education			
t1.36	Housing and daily living			
t1.37	Community			

(continued)

Table 33.1 (continued)

Citations	Major focuses	Targeted population	Major features	Availability
t1.38	Self-awareness	<i>Ages</i>	Instructional tool, Assessment tool	Pro-Ed Publishing Company
t1.39	Personal self-advocacy	Middle/junior/senior high school, 18–21 years old	Replicable worksheets or masters, consumable written materials, overheads, guide with background and overview, guide with directions for facilitating, a pre-post assessment tool	1-800-897-3202 Price: \$98.00
t1.40	Goal setting	<i>Students</i>		
t1.41	Self-evaluation	Without disabilities,		
t1.42	Adjustment	Noncategorical		
t1.43	Employment	<i>Other</i>		
t1.44	Housing and daily living	Families, friends		
t1.45	Personal			
t1.46	Community			
t1.47	Conflict resolution and negotiations			
t1.48				
t1.49	Person-centered planning	<i>Ages</i>	Instructional tool	ARC National Headquarters
t1.50	Personal self-advocacy	Senior high school, ages 13–21, middle/junior high school	Guide with background and overview, guide with directions for facilitating, consumable written materials, soft-sided book	U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center 888-368-8009 Price: \$37.75
t1.51	System self-advocacy	<i>Students</i>		
t1.52	Self-efficacy	With mild or moderate cognitive developmental disabilities, with mild or moderate learning disabilities or developmental disabilities		
t1.53	Employment			
t1.54	Self-evaluation			
t1.55	Education			
t1.56	Housing and daily living			
t1.57	Self-awareness			
t1.58	Making choices and decisions			
t1.59	Goal setting			
t1.60	Personal			
t1.61	Community			
t1.62	Self-efficacy	<i>Ages</i>	Assessment tool, instructional tool	Sopris West, Inc.
t1.63	Goal setting	Middle/junior/senior high school	Replicable worksheets or masters, instructional video, guide with background and overview, guide with directions for facilitating	1-800-547-6747 Price: \$95.00
t1.64	Self-evaluation	<i>Students</i>		
t1.65	Adjustment	Noncategorical, without disabilities		
t1.66	Making choices			
t1.67	Employment			
t1.68	Education			
t1.69	Housing and daily living			
t1.70	Personal			
t1.71	Community			

t1.72	Brolin (1992)	Self-awareness	<i>Ages</i>	Assessment tool, instructional tool	Council for Exceptional Children
t1.73		Personal self-advocacy	Middle/junior/senior high school, 18–21 years old	Replicable worksheets or masters, games, guide with background and overview, guide with directions for facilitating, ten three-ring binders	888-232-7733 Price: \$30.00
t1.74		Goal setting	<i>Students</i>		
t1.75		Making choices	Noncategorical, at risk		
t1.76		Employment	<i>Other</i>		
t1.77		Education	Adults		
t1.78		Housing and daily living			
t1.79		Personal			
t1.80		Community			
t1.81	Harris (1993)	Self-awareness	<i>Ages</i>	Instructional tool, assessment tool	VSA Educational Services, US Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center, Washington, DC
t1.82		Adjustment	Senior high school	Guide with background and review, guide with directions for facilitating, many art lesson ideas, awareness-building video that shows various artists taking about self-determination, three-ring binder	202-401-2000 Price: n/a
t1.83		Goal setting	<i>Students</i>		
t1.84		Self-evaluation	Not specified		
t1.85		Making choices and decisions			
t1.86		Employment			
t1.87		Personal			
t1.88					

667 Academic Interventions

668 Unfortunately, students with disabilities are likely
 669 to receive inadequate academic interventions
 670 while incarcerated (Nelson et al. 2004). In addition,
 671 there are few research studies regarding the
 672 effectiveness of instructional strategies for students
 673 in juvenile facilities (Maccini et al. 2006).
 674 Nonetheless, the limited number of empirical
 675 studies examining the effect of academic inter-
 676 ventions with incarcerated youth (e.g., direct
 677 instruction) have resulted in improved academic
 678 gains (Malmgren and Leone 2000). Successful
 679 academic remediation and school success have
 680 resulted in reduced rates of recidivism with juvenile
 681 delinquents (Archwamety and Katsiyannis
 682 2000). Katsiyannis and Archwamety (1999)
 683 investigated the effects of academic “progress”
 684 on incarcerated youth. Subjects of the study
 685 included 549 delinquent males committed to a
 686 state correctional facility. The researchers examined
 687 these delinquents’ academic achievement by
 688 implementing a pre- and posttest using the
 689 Woodcock Johnson Tests of Achievement
 690 Revised (WJ-ACH). Findings indicate that
 691 improvement in academic achievement in the
 692 areas of writing, science, and math, as well as
 693 completion of a general equivalency diploma
 694 program was strongly associated with longer survival
 695 times outside of prison, particularly for women.
 696 In another study with 505 delinquent males
 697 committed to a state correctional facility,
 698 Archwamety and Katsiyannis (2000) found that
 699 those with poor academic achievement were
 700 twice as likely to be recidivists or parole violators.
 701 Hence, improving academic achievement of
 702 juvenile offenders is a strategy to reduce juvenile
 703 delinquency.

704 Some effective school-based strategies include
 705 programs that (a) result in building the capacity
 706 of the school to initiate and to sustain innovation,
 707 (b) clarify and communicate expectations about
 708 behaviors (e.g., rules and consistent enforcement),
 709 and (c) focus on comprehensive and ongoing
 710 instructional programs that emphasize social
 711 competency skills. Williams (1996) reported
 712 reduced rates of recidivism as the result of implementing
 713 “Project LEAD.” This project targets

714 individuals with deficient functional literacy
 715 levels and provides a minimum of 15 h of instruction
 716 weekly, which includes a minimum of 5 h of
 717 computer-assisted instruction (CAI) and 10 h of
 718 classroom instruction, life-skills sessions and
 719 individual academic tutoring (Drakeford 2002).
 720 Brunner (1993) also noted that recidivism rates
 721 could be reduced by as much as 20% by implementing
 722 evidence-based reading programs. “Team
 723 Child,” a program in Florida, designed to provide
 724 civil legal representation for high-risk delinquents
 725 to improve their access to needed education programs,
 726 mental health services, and family services has
 727 been effective in reducing the arrest rate (reduction
 728 rates ranged from 11 to 23%) for repeat offenders
 729 (Norrbin et al. 2004).

730 Check & Connect

731 *Check & Connect* is a model designed to promote
 732 student engagement, support regular attendance,
 733 and improve the likelihood of school completion
 734 Lehr and Sinclair (2004). Research findings from
 735 this model show significant evidence of treatment
 736 effects. In one study, 9% of the students who had
 737 received the intervention through ninth grade
 738 dropped out of school compared to 30% of the
 739 students who only received the services in seventh
 740 and eighth grade. Forty-six percent of the
 741 students who received the services through ninth
 742 grade were on track to graduate in 4 years, while
 743 only 20% of other students were on track
 744 (Thurlow et al. 2002). Studies also show that
 745 *Check & Connect* is successful in preventing truancy
 746 among students with disabilities.

747 The *Check & Connect* model was initially
 748 developed with input from individuals directly
 749 involved with youth placed at high risk for school
 750 failure. These included general education teachers,
 751 special education teachers and support staff,
 752 the parents and students themselves, and a team of
 753 researchers. An important person in this model is
 754 the monitor/mentor, who is responsible for facilitating
 755 a student’s connection with school and learning.
 756 The monitor’s primary goal is to promote
 757 regular school participation and to keep education
 758 a salient issue for students, parents, and teachers.
 759 Key features of this model include relationship
 760 building, routine monitoring, individualized and

761 timely intervention, long-term commitment,
762 problem-solving, and affiliation with school and
763 learning (Check & Connect 2010).

care experienced 60% less time in jail and had 806
significantly lower arrest rates than youth not 807
receiving this support (Chamberlain et al. 2007). 808

764 **Mental Health and Juvenile Delinquents**

Post-release Interventions 809

765 Prevalence rates of mental disorders for youth in
766 the juvenile justice system is as high as 60%.
767 Programs that are structured and intensive and
768 those that emphasize social skill development
769 and focus on behavior changes are effective in
770 reducing juvenile delinquency and recidivism
771 rates (Altschuler 1998). Further, interventions
772 that address risk factors across multiple settings
773 such as family, school, and community have
774 higher levels of success (National Mental
775 Health Association 2004; also see Chaps. 19, 21,
776 and 23). Examples of evidence-based practices
777 include Multisystemic Therapy, Functional
778 Behavior Therapy, Cognitive Behavior Therapy,
779 and Multidimensional Treatment Foster Care
780 (National Mental Health Association 2004).

It is also necessary to complement investigations 810
implemented during incarceration with post- 811
release interventions. A 5-year longitudinal study 812
(Bullis et al. 2002) that examined the facility-to- 813
community transition of 531 youths released 814
from the Oregon juvenile correctional system 815
indicated that youths who were in school or work 816
6 months after release were still involved in these 817
activities at 12 months and did not return to the 818
correctional facility. Post-incarceration interven- 819
tions that have promising results are those that 820
employ intensive aftercare services that include 821
wraparound service coordination along with an 822
emphasis on school and work. 823

781 Multisystemic therapy, an intensive, multi-
782 modal, family-based treatment approach which
783 generally results in a 70% reduction in rearrest
784 rates (Henggeler et al. 1998); Functional family
785 therapy is a brief, family-centered approach for
786 youth ages 11–18 at risk for conduct disorder,
787 oppositional defiant disorder, disruptive behavior
788 disorder, delinquency, violence and substance
789 abuse. In one study youth receiving this therapy
790 had a 25% 1-year rearrest rate compared to
791 45–70% for youth without the therapy (Alexander
792 et al. 2000). Cognitive-behavior therapy, an
793 approach that involves teaching youth about the
794 thought-emotion-behavior link and working
795 with them to modify their thinking patterns in
796 order to improve behavior has also been shown to
797 greatly reduce recidivism rates (Lipsey et al.
798 2001). Finally, multidimensional treatment foster
799 care, an alternative to group or residential treat-
800 ment, incarceration or hospitalization with foster
801 families trained and closely supervised to provide
802 a structured and therapeutic living environment,
803 has also been shown to be an effective interven-
804 tion. In a recent study, multidimensional treatment
805 foster care, youth involved in this type of foster

Family Interventions 824

As indicated by prior research, juveniles from 825
families with drug use and other criminal histo- 826
ries are at a higher risk of committing offenses 827
and recidivism. It seems that there is a need to 828
provide counseling and intervention services to 829
these families so that parents/guardians do not 830
impact their children negatively. This process 831
may be accomplished through collaboration 832
among schools, community not-for-profit agen- 833
cies, local government agencies, and faith-based 834
organizations. A specific approach that has proven 835
effective is family empowerment intervention, a 836
family systems intervention delivered in the home 837
by well-trained, nontherapists (Cervenka et al. 838
1996). This intervention consists of three weekly 839
family visits for 10 weeks, monthly phone con- 840
tacts, a standard protocol for further interventions, 841
and an extensive service linkage component 842
(Cervenka et al. 1996). Another example is “Team 843
Child” in Florida that facilitates access to educa- 844
tion programs, mental health services, and family 845
services, thus reducing recidivism rates among 846
high-risk juvenile offenders (Norrbin et al. 2004). 847

848 Finally, programs that consider background risk
 849 factors (e.g., pre-incarceration), therapeutic and
 850 academic interventions (during incarceration),
 851 and transition supports can help these adolescents
 852 in making good decisions (Bullis et al. 2002;
 853 Malmgren and Leone 2000).

854 **Wraparound Services**

855 Wraparound services are individualized and needs
 856 driven planning and services that are designed to
 857 divert youth from more serious court involvement
 858 and to reduce recidivism among those with prior
 859 adjudications. Proponents of this model believe
 860 that juvenile delinquency is caused by multiple
 861 factors and effective treatment should be compre-
 862 hensive. The wraparound services approach is
 863 comprehensive with joint efforts from individuals
 864 in the community who have a significant impact
 865 on the youth's life. According to The Community
 866 Resources Cooperative (1993), the approach
 867 relies on 13 core tasks. Some essential tasks
 868 include forming a wraparound team of significant
 869 individuals, identifying existing and creative ser-
 870 vices that meet the youth's needs, providing ser-
 871 vices and evaluating progress, and developing
 872 transition plans and long-term follow-up.

873 There is evidence that wraparound services
 874 reduce out-of-home placements. Carney and
 875 Buttell (2003) conducted an evaluation study to
 876 examine the effectiveness of the wraparound ser-
 877 vices model by comparing this model to conven-
 878 tional services. Participants in the study included
 879 141 youth who were ordered by courts to partici-
 880 pate in community-based treatment programs for
 881 delinquent youth. These youth were divided into
 882 the treatment and control groups, each of which
 883 took a pretest and a posttest. Both groups were
 884 assessed three times at 6-, 12-, and 18-month
 885 after treatment. Results indicated that juveniles
 886 who received wraparound services were less
 887 likely to engage in subsequent at-risk and delin-
 888 quent behavior (e.g., did not miss school unex-
 889 cused, get expelled or suspended from school,
 890 run away from home, or get picked up by the
 891 police) than the youth who received the juvenile
 892 court conventional services.

**Recent Research on Disabilities
 and Delinquency**

893
 894

In our own research on delinquency (Barrett et al. 895
 2006, 2010; Zhang et al. 2011, in press) we have 896
 had the opportunity to examine the delinquency 897
 histories of youth with and without disabilities. 898
 Data for our studies come from the South Carolina 899
 Department of Juvenile Justice (SCDJJ) 900
 Management Information System. The entire 901
 sample includes 100,955 juvenile offenders all 902
 born between 1981 and 1988. Our sample of chil- 903
 dren with disabilities was drawn from the larger 904
 sample. All who had disabilities and who were 905
 African Americans or European Americans have 906
 been included in the study; there are a total of 907
 5,016 juveniles meeting these criteria. 908

For our studies, information about the juve- 909
 nile's disability status was obtained by SCDJJ 910
 case workers at intake. The practice at SCDJJ is 911
 for information to be obtained by SCDJJ from 912
 parents and/or guardians; however, when possi- 913
 ble, confirmation from school records is obtained. 914
 In addition, for the purpose of matching individu- 915
 als with disabilities to individuals without dis- 916
 abilities, 5,016 juveniles without disabilities were 917
 randomly selected from the larger sample. SCDJJ 918
 assigns all offenses severity ratings: offenses are 919
 categorized as status offenses (e.g., truancy, run- 920
 ning away), misdemeanor offenses (e.g., simple 921
 assault and battery, criminal domestic violence), 922
 nonviolent felonies (e.g., grand larceny, carrying 923
 a weapon on school grounds), and violent felo- 924
 nies (e.g., assault and battery of a high and 925
 aggravated nature, sexual assault, armed rob- 926
 bery). For analysis purposes, we further classi- 927
 fied offenses into two levels: Level 1 included 928
 status and misdemeanor offenses and Level 2 929
 included felonies. 930

The data analysis addressed two major issues. 931
 First, we were interested in how offenders with 932
 disabilities differed from those without disabili- 933
 ties at their first referral. We considered differ- 934
 ences on demographic variables (gender, 935
 ethnicity, family income, family history, and drug 936
 use). We also compared the two comparison 937
 groups on variables measuring severity of offense. 938
 Finally, we compared the two groups on total 939

940 number of referrals, total number of adjudications,
941 total number of commitments, total number of
942 probations, length of first commitment, and age
943 at first referral.

944 The second question was whether the two
945 comparison groups differed in their risk for recidi-
946 vism. The method used was proportional hazards
947 regression analysis, also termed Cox regression
948 (Singer and Willett 2003). This analysis tech-
949 nique has been used previously to examine the
950 likelihood of and timing of recidivism (e.g.,
951 Zhang et al. 2007, 2010; Barrett et al. 2010). In
952 proportional hazards regression analysis, recidi-
953 vism (repeated offense) is predicted by time,
954 adjusting when necessary for other entry charac-
955 teristics of the students. This analysis allowed us
956 to examine not only the relative risks for recidi-
957 vism but the timing of second offenses for those
958 with and without disabilities.

959 Results of our analyses indicate very interest-
960 ing differences between delinquents with and
961 without disabilities. The two groups differed sig-
962 nificantly on all five demographic variables.
963 First, the percentage of African Americans was
964 higher in the group of offenders with disabilities
965 than those without disabilities (59% vs. 52%).
966 Second, the percentage of male offenders was
967 higher in the group of offenders with disabilities
968 (82% vs. 64%). Third, the percentage of individ-
969 uals that had family criminal history was higher
970 for the group of offenders with disabilities than
971 for youth in the reference group (59% vs. 52%).
972 Fourth, the percentage of offenders with disabili-
973 ties from low-income families (<\$15,000) was
974 greater for youth with disabilities (55% vs. 43%).
975 Finally, the percentage of self-reported drug use
976 was lower for the offenders with disabilities
977 (45% vs. 57%).

978 In addition offenders with disabilities were
979 referred to DJJ approximately twice as often as
980 offenders in the reference group (4.27 vs. 2.16
981 referrals on average) and had more adjudications
982 and probations. However, offenders with disabili-
983 ties had on average a smaller number of commit-
984 ments per individual (1.27 vs. 1.37). Offenders
985 with disabilities were committed to SCDJJ cus-
986 tody for significantly longer times than offenders
987 without disabilities (7.98 months vs. 5.42 months)
988 and were significantly younger at the time of their

989 first referral (13.44 years vs. 14.49 years). 989
990 In addition, among those who were referred a 990
991 third time to SCDJJ, there were almost three 991
992 times more individuals with disabilities than 992
993 without disabilities (3,245 vs. 1,248). Also, 993
994 offenders with disabilities were referred for more 994
995 severe offenses than offenders in the reference 995
996 group at all three referrals. The percentages of 996
997 felonies among offenders with disabilities were 997
998 28.89, 29.85, and 31.65 at the first, second, and 998
999 third referrals, respectively. In contrast, in the 999
1000 comparison group the corresponding percentages 1000
1001 of felonies were 19.58, 20.31, and 24.68. 1001

1002 Finally, there were significant differences in the 1002
1003 risk for and timing of recidivism. The average 1003
1004 length of time between first and second referral 1004
1005 was approximately 2.75 years for offenders with 1005
1006 disabilities; for other offenders the average was 7 1006
1007 years. There were also differences in likelihood of 1007
1008 a second referral. For those offenders with dis- 1008
1009 abilities, about 82% had a second referral while 1009
1010 for offenders without disabilities the percentage 1010
1011 was about 44%. Among the offenders with a sec- 1011
1012 ond referral, those with disabilities were more 1012
1013 likely to be referred for a third time; the percent- 1013
1014 ages were 79% for those with disabilities and 56% 1014
1015 for those without). In addition to special education 1015
1016 status, other variables were predictive of juvenile 1016
1017 recidivism. The findings were as follows: (a) 1017
1018 African Americans were more likely to have a sec- 1018
1019 ond offense than European Americans, (b) those 1019
1020 who were younger at the first referral were more 1020
1021 likely to recidivate with the rate of recidivism 1021
1022 expected to decrease by 5.5% for each additional 1022
1023 year in age at first referral with other variables 1023
1024 held constant, (c) those with a family criminal his- 1024
1025 tory background were more likely to recidivate, 1025
1026 and (d) offenders from families with low incomes 1026
1027 were at greater risk for second offense. 1027

1028 These findings indicate important differences 1028
1029 in delinquency histories for youth with and with- 1029
1030 out disabilities. Youth with disabilities experience 1030
1031 more serious delinquency problems than those 1031
1032 without disabilities. They commit more offenses, 1032
1033 commit more felonies, are more likely to recidi- 1033
1034 vate, recidivate more quickly, and experience lon- 1034
1035 ger incarcerations than those without disabilities. 1035
1036 There is no question that this group of young 1036
1037 people deserves particular attention, both before 1037

1038 delinquency occurs and if and when there is an
 1039 arrest. We suggest that a promising line of research
 1040 is the investigation of different profiles and pat-
 1041 terns of behavior for juvenile offenders with dis-
 1042 abilities. That is, it seems reasonable to assume
 1043 that among youth with disabilities, there are those
 1044 who are at greater or lesser risk for serious
 1045 involvement with the criminal justice system. We
 1046 have begun to examine this issue. In a recent study
 1047 (Zhang et al. *in press*), we have used a technique
 1048 called latent class analysis model and identified
 1049 three different subgroups of youth with disabili-
 1050 ties, each showing a different pattern of recidi-
 1051 vism. Subgroups differed in gender, ethnicity,
 1052 family income, drug use, and criminal history in
 1053 the family. Such an approach seems to be particu-
 1054 larly appropriate in light of the fact that children
 1055 with special needs are not a monolithic group and
 1056 like all children show great variation in their indi-
 1057 vidual strengths and vulnerabilities.

1058 Conclusion

1059 This brief overview of issues related to juvenile
 1060 delinquents with disabilities indicates that there
 1061 are serious challenges for both educational and
 1062 correctional institutions. Juveniles with disabili-
 1063 ties not only are disproportionately represented in
 1064 correctional facilities, they are also prone to be
 1065 incarcerated at an earlier age, are more likely to
 1066 be repeat offenders, and experience shorter length
 1067 of time between first and second referral. Further
 1068 such children are less likely to receive special
 1069 education and related services as mandated by
 1070 the IDEA. It is our collective responsibility as
 1071 researchers to better understand this population
 1072 so that we may develop effective prevention/
 1073 intervention strategies for families, schools, and
 1074 the state agencies that serve them.

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Introduction

With few exceptions, youth in juvenile corrections in the USA do not receive education services commensurate with those received by youth who are not incarcerated. Education services in many juvenile correctional facilities fail to meet minimal standards associated with quality education programs and they fail to use evidence-based practices. In spite of a history of school failure and educational disabilities, youth in juvenile corrections are capable of learning new skills and leaving juvenile corrections more competent and capable than when they entered (Leone et al. 2005). This chapter examines the association between education attainment and successful life experiences of adults, reviews the current status of education services for youth in juvenile corrections, and describes administrative structures and instructional practices associated with quality education services for youth.

Providing quality education for incarcerated youth is a challenge for facility administrators, teachers, and state policymakers. Providing quality

education for all children and youth, including those who are court-involved, is a public responsibility. In fact, youth in juvenile corrections are protected in the same manner as their public school peers under federal laws, including the Individuals with Disabilities Education Act (IDEA 2005), as well as the No Child Left Behind Act (NCLB 2002) and corresponding state statutes and regulations. Furthermore, every state has education regulations that mandate public education for a specified age range, generally children between the ages of 6 and 16. Students in juvenile corrections are not exempted from compulsory education laws. However, across the nation, priorities in juvenile delinquency facilities tend to be focused on security and punitive measures, rather than on education as a key component of rehabilitation. Students in juvenile corrections tend to be the neediest and least academically proficient of all of our nation's students. Unfortunately, these youth often experience a long history of mediocre and interrupted education services prior to incarceration, and subsequently receive substandard academic and transition-related instruction while incarcerated.

In recent years, our nation's education system has failed to maintain its leadership on international measures of student proficiency in math, science, and literacy. Particularly, in high poverty neighborhoods in urban and rural settings, schools are not adequately preparing children and youth for civic engagement and postsecondary education. If the USA is to remain a world leader in medicine, technology, and business, it is critical that all of our nation's children and youth receive

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60 high-quality education services (National
 61 Academies of Science 2007). Currently, the USA
 62 falls short regarding children’s well-being in and
 63 out of school. In a recent international survey, the
 64 USA fared among the worst of 21 industrialized
 65 nations on indicators of child well-being
 66 (UNICEF 2007). Furthermore, 19% of children
 67 in the USA live in poverty while 41% live in low-
 68 income families (Wright et al. 2010).
 69 Academically, US 15-year-olds ranked 21st
 70 among developed nations on the 2006 Program
 71 for International Student Assessment (PISA) sci-
 72 ence assessment and 25th on the PISA math
 73 assessment (Baldi et al. 2007). On the 2006
 74 Progress in International Reading Literacy Study
 75 (PIRLS), US fourth graders were outperformed
 76 by children in ten participating jurisdictions (i.e.,
 77 nations and subnation entities) (Baer et al. 2007).
 78 Perhaps the most critical factor in the US perfor-
 79 mance on academic and child welfare indicators
 80 is that approximately one in six US public school
 81 students attend a high-poverty school. Poverty,
 82 weak family social controls, disorganized neigh-
 83 borhoods, and poor academic performance are
 84 risk factors for juvenile delinquency (Sampson
 85 and Laub 1994; Wasserman et al. 2003). Failing
 86 to meet the needs of our most vulnerable children
 87 is a critical societal issue; these children eventu-
 88 ally become adults without the appropriate tools
 89 to become productive members of society.

90 Proficiency in reading and math are critical to
 91 personal independence and professional compe-
 92 tency in successful adults. In order to find and
 93 maintain a job in the twenty-first century, adults
 94 require at least some postsecondary education.
 95 Further, on measures of health, income, civic
 96 engagement, and employment, adults who have
 97 higher levels of literacy or have completed more
 98 years of formal schooling perform better than
 99 those with less schooling (Bureau of Labor
 100 Statistics 2009; Crissey 2009; Kutner et al. 2007;
 101 National Poverty Center 2007). The least literate
 102 adults in the USA experience a host of negative
 103 outcomes, including poverty, unemployment, and
 104 limited educational opportunities (Kutner et al.
 105 2007). In addition, these individuals are dispro-
 106 portionately members of minority groups and have
 107 disabilities. Illiteracy rates among incarcerated

adults are higher than the least literate population 108
 of nonincarcerated adults (Greenberg et al. 2007). 109
 In addition, 43% of incarcerated adults have a high 110
 school diploma or GED when they enter prison; 111
 only 19% earn a high school diploma or GED 112
 while incarcerated (Greenberg et al. 2007). 113

Poor educational achievement, school drop- 114
 out, poverty, and involvement in the criminal jus- 115
 tice system also have intergenerational 116
 consequences. Researchers have found that par- 117
 ents’ (particularly mothers’) education level was 118
 a strong predictor in the short-term of inappropriate 119
 behaviors, school failure, and occupational 120
 aspirations of their children (Davis-Kean 2005; 121
 Petit et al. 2009) and in the long-term, of their 122
 adult children’s occupational success (Dubow 123
 et al. 2009). Other factors also contribute to 124
 school exclusion and subsequent delinquency 125
 among certain youth. Felson and Staff (2006) 126
 found that adolescents’ strong attachment to par- 127
 ents and teachers contributed to a decreased risk 128
 of delinquency. Conversely, adolescents in com- 129
 plicated and distressing family and home situa- 130
 tions are more apt to engage in risk behavior. 131
 Additionally, children and youth whose family 132
 members are court-involved are more likely to be 133
 involved with law enforcement and delinquency 134
 themselves (Aaron and Dallaire 2010; Wildeman 135
 and Western 2010). 136

School policies and practices also contribute 137
 to the exclusion of youth and subsequent contact 138
 with the juvenile delinquency system (Christle 139
 et al. 2005; Farmer 2010). Several studies have 140
 documented high rates of disciplinary action, 141
 including suspension and expulsion among stu- 142
 dents with disabilities and minority students, in 143
 public schools (Gregory et al. 2010; Losen and 144
 Skiba 2010; Krezmien et al. 2006). Ineffective 145
 discipline policies and practices in public schools 146
 contribute to high rates of truancy, suspensions, 147
 and expulsions among minority students and stu- 148
 dents with disabilities (Zhang et al. 2004). High 149
 rates of dropout are also reported among youth 150
 with disabilities, particularly students with emo- 151
 tional and behavioral disorders, and minority stu- 152
 dents. Once a student leaves school prior to 153
 graduation, there is an increased risk of involve- 154
 ment in the juvenile delinquency system. 155

156 Harsh penalties for minor disciplinary infrac-
 157 tions and referring students to the police and the
 158 juvenile courts for disciplinary infractions are
 159 examples of practices that are typically ineffective
 160 for addressing behavior problems, and often lead
 161 to a phenomenon of “pushing out” a troubled or
 162 troubling student from the school environment.
 163 This process involving exclusion from school and
 164 subsequent referral to the juvenile courts is fre-
 165 quently referred to as the “school to prison pipe-
 166 line.” Incarcerated youth have disproportionately
 167 experienced a history of school exclusion (Sedlak
 168 and McPherson 2010a). For example, in a study of
 169 all students incarcerated in a single juvenile facil-
 170 ity over the course of a year ($N=555$), researchers
 171 found that 64% of the students were held back at
 172 least one grade over the course of their academic
 173 careers (Krezmien et al. 2012). In addition, 85% of
 174 the students had been suspended and more than
 175 51% had been expelled from their schools prior to
 176 their incarceration. Once in the juvenile delin-
 177 quency system, if high-quality education services
 178 are not a key component of a comprehensive ser-
 179 vice delivery model, the youth faces multiplied
 180 risks upon return to the community. Education is
 181 widely seen as the vehicle through which youth
 182 previously involved in delinquent activities can
 183 reconnect to jobs and their communities. In fact,
 184 research shows reduced rates of recidivism among
 185 previously incarcerated youth who found jobs or
 186 returned to school after release (Bullis et al. 2004).
 187 Unfortunately, juvenile delinquency programs
 188 often provide inferior educational opportunities.

189 **Status of Education Services** 190 **in Juvenile Corrections**

191 Quality education services for incarcerated youth
 192 are critical for stopping the cycle of criminality,
 193 improving outcomes for these youth, and improv-
 194 ing the social, educational, and economic status of
 195 our nation. To better understand the unique needs
 196 of students in the juvenile delinquency system, it
 197 is important to understand the multiple influences
 198 that have contributed to the problem, including
 199 inadequate systems of education for incarcerated
 200 youth that exist in many jurisdictions today.

Youth in juvenile corrections have significant
 academic deficits compared to their public school
 peers. National estimates indicate that students with
 disabilities represent between 30 and 50% of stu-
 dents in juvenile delinquency facilities, three to five
 times the average in public schools (Quinn et al.
 2005). Among incarcerated youth, the mean stan-
 dardized reading achievement score is approxi-
 mately one standard deviation below the mean of
 the general school-aged population (Harris et al.
 2009; Krezmien et al. 2008). Math performance is
 also subpar among incarcerated youth (Krezmien
 et al. 2008). Results of a national survey indicated
 that 21% of incarcerated youth were not enrolled in
 school at the time of incarceration. Additionally,
 nearly half functioned below grade level (Sedlak
 and McPherson 2010b). Given the serious academic
 needs of incarcerated youth, education in juvenile
 corrections should be a priority. Unfortunately, edu-
 cation programs in many juvenile corrections facil-
 ities across the nation fail to meet the most basic
 academic needs of incarcerated students.

Over the last 35 years, youth advocates and the
 US Department of Justice have investigated, filed
 complaints, and brought class-action cases against
 facilities and states with regard to the adequacy of
 education services and supports for incarcerated
 youth (Leone and Meisel 1997; National Center
 on Education, Disability, and Juvenile Justice
 2005). Examples can be found around the coun-
 try, as well as in rural (e.g., Plankinton, SD),
 suburban (e.g., Baltimore County, MD), and urban
 (e.g., Detroit, MI) settings. Some of the most
 egregious cases included schools in juvenile
 corrections that frequently canceled classes, used
 packets of worksheets as a primary means of
 “instruction,” failed to provide grade-appropriate
 instructional materials and texts, employed
 unqualified teachers, provided credits for work
 not commensurate with the public school curricu-
 lum, and failed to provide instruction and support
 for students eligible for special education (EDJJ
 2009). Among other things, these complaints and
 subsequent settlements shed light on inadequate
 services and supports. For example, legal advo-
 cates challenging education practices in juvenile
 corrections have cited missing records, lengthy
 delays in transferring records, and missing

249 academic credits. Litigation challenging inadequate practices has resulted in court orders and settlement agreements with specific timelines for prompt transfer of records from public schools to juvenile corrections and timely transmittal of records to new placements (*Alexander S. v. Boyd* 1995; Leone and Meisel 1997). Many cases have reached settlement and substantial compliance with terms of the settlement; however, in some cases, once legal oversight is removed, critical issues return. Among other things, these complaints and subsequent settlements provide insight into inadequate services and supports.

262 The most recent census of youth in residential custody for delinquency showed that 94,875 children under age 21 were held in 3,257 publically and privately operated facilities throughout the USA (Livsey et al. 2009). Youth are held in detention centers, staff-secure residential facilities, camps, and state training schools. Among the 52 separate juvenile systems in the USA (including Washington, DC, and Puerto Rico) vast differences exist in the conditions of confinement, the administrative structures, and the organization of education programs within states.

274 In an analysis of education policies among state-level juvenile corrections systems in the 50 states and Washington, DC, the authors found considerable variability and inconsistencies in state regulations (Leone and Mulcahy 2006). While some states had extensive regulatory language concerning the education of incarcerated youth, others had little to no language. For instance, in Virginia, detailed language is provided on the transfer of educational records from the most recent school of record to the juvenile facility upon intake. On the other hand, in New York, the only reference to transfer of records for students who are incarcerated refers to forwarding records to a receiving school upon release from the facility. Some states have very little regulatory language concerning education in juvenile corrections (e.g., Vermont), while others list a continuum of required educational services (e.g., Wisconsin). With little consistency and parity in the juvenile code when compared to public school law, there is little doubt that students who are incarcerated will receive an education that is inferior to their public school peers.

298 Furthermore, the administrative arrangements for education and special education services vary greatly from state to state (Leone and Mulcahy 2006). In 26% of states, including Maryland, Arkansas, and Florida, the state department of education is responsible for educating incarcerated youth. In Connecticut and Georgia, like 12% of the states, an independent school district exists within the juvenile corrections system. In other states (46%), the education is the responsibility of the state department of juvenile services. These states include Idaho, Michigan, and Nebraska. Other administrative arrangements include contracting with local school districts or administration by state departments of corrections (16%). Whatever the administrative arrangement, it is imperative that the state leaders have a clear understanding of the unique needs of youth in juvenile corrections, as well as evidence-based instructional strategies and tools to teach them.

318 In addition to the lack of consistency in policy and administrative arrangements related to education in juvenile corrections, a lack of consistent, rigorous accreditation exists (Gagnon et al. 2007). Some facilities and programs earn accreditation through organizations such as Middle States Association of Colleges and Schools or the American Corrections Association, but in some instances those accrediting bodies often fail to actually visit facilities, review policies and practices, and observe classrooms and instructional activities (Price 2010). In other facilities, education programs do not meet existing standards of state education agencies. For example, a federal investigation of the Alexander Youth Services Center, a 140 bed intake and commitment facility, found that youths received no education for weeks after their arrival and that the education program failed to meet the State Standards for Accreditation of Arkansas Public Schools (United States v. Arkansas).

339 Funding mechanisms often hinder the ability to provide high-quality education services for incarcerated youth (Leone and Mulcahy 2006). Funding for education programs in juvenile corrections is often far less than per pupil spending in public schools. In many jurisdictions, there is no cost center in agency budgets for juvenile corrections education. In many cases, there is no

347 way to discern exactly how much money is spent
 348 on education programs. While positive examples
 349 exist (e.g., Ferris School in Delaware), education
 350 programs in juvenile corrections typically have
 351 fewer financial and other resources than their
 352 public school counterparts (Leone and Mulcahy
 353 2006).

354 Educators and administrators in juvenile cor-
 355 rections schools face a multitude of challenges.
 356 First, very few studies that might document evi-
 357 dence-based instructional practices have been
 358 conducted over the past 50 years in juvenile cor-
 359 rections (Krezmien and Mulcahy 2008; Leone
 360 et al. 2005). While teaching strategies found to be
 361 successful in public schools might also be effec-
 362 tive in juvenile corrections, there are important
 363 considerations unique to this environment that
 364 need to be examined. For example, the nature of
 365 short-term detention facilities and long-term
 366 commitment facilities are such that the students
 367 represent a highly transient population. Court
 368 dates and available space dictate a student's start
 369 and end dates in correctional education; those
 370 dates often change due to administrative influ-
 371 ences as well as student behavior. In addition,
 372 accessing educational records from previous
 373 institutions, including public schools, can be a
 374 tedious process. Access to the school records of
 375 youth in juvenile corrections presents many of
 376 the same problems as those experienced by youth
 377 in foster care (Leone et al. 1986; Leone and
 378 Weinberg 2010). Delays in acquiring educational
 379 records can impede the provision of appropriate
 380 education programs for individual youths. In
 381 some facilities, students are taught in classes
 382 based on their housing assignment rather than
 383 grade or ability level. There may be a vast range
 384 of ages and school experience represented in one
 385 housing unit (Sedlak and McPherson 2010a).
 386 Consequently, students of a variety of ages and
 387 educational backgrounds may be in the same
 388 classes. Therefore, teachers have the difficult task
 389 of developing and implementing instructional
 390 lessons and units that address the needs of learners
 391 with a wide range of abilities and a classroom
 392 roster that is constantly changing.

393 Other facility-level challenges exist that
 394 impede the delivery of high-quality education
 395 services. These include poor physical facilities,

396 overload of cases in the courts, inadequately
 397 trained teachers and support staff, and lack of
 398 coordinated transition services. In many states,
 399 bed space is limited in long-term facilities.
 400 Therefore, youth are often held in detention facil-
 401 ities pending placement in a commitment, or
 402 long-term facility. Despite the fact that these
 403 youth have been adjudicated, they continue to
 404 receive education services alongside detained
 405 youth who typically have shorter stays.
 406 Instructional space is inadequate in some facili-
 407 ties where cafeterias or gymnasiums are also used
 408 as classrooms. In other cases, the designated
 409 classroom space is overcrowded or barely acces-
 410 sible. When available classroom space is not easy
 411 to navigate without moving furniture and other
 412 equipment or has inadequate lighting the mes-
 413 sage to teachers and students is that education is
 414 a low priority in juvenile corrections. In other
 415 cases, a backlog in the courts leads to extended
 416 detention stays. These administrative issues con-
 417 tribute to the transiency where some youth enter
 418 and leave in a few days or weeks while others
 419 stay for months. These factors further compound
 420 the challenge of delivering high-quality educa-
 421 tion services.

422 Teachers in juvenile corrections tend to lack
 423 credentials for highly qualified status, as defined
 424 by the federal government (NCLB 2002). Even if
 425 a juvenile corrections teacher holds a profes-
 426 sional certification, staffing needs often require
 427 that teachers provide instruction out of their cer-
 428 tification areas. In many facilities, teacher sala-
 429 ries are not commensurate with compensation in
 430 local public schools; further, teachers and sup-
 431 port staff in juvenile corrections often lack train-
 432 ing and experience with dealing with incarcerated
 433 youth.

434 While education services within many facili-
 435 ties are inadequate, the process of transition of
 436 youth back to their communities is no better.
 437 Many youth leave facilities without the skills and
 438 supports necessary to be successful in school and
 439 the community. Although Title I, Part D of NCLB
 440 (2002) is aimed at protecting youth attempting to
 441 return to their neighborhood school, a host of
 442 roadblocks hinder their reentry (Brock and
 443 Keegan 2007). Public school policies often pro-
 444 hibit students from returning after incarceration

445 (Mayer 2005 or make it extremely difficult to do
 446 so (DeFur et al. 2000). In some cases, students
 447 must attend a transition program prior to, or
 448 instead of, returning to their previous school.
 449 Students who were previously incarcerated often
 450 lack credits to be placed in classes with their age-
 451 appropriate peers. In other instances, credits are
 452 not transferrable from the facility education pro-
 453 gram to the public school, which hinders a youth’s
 454 ability to stay on track for graduation. In many
 455 facilities, youth are encouraged to get a GED
 456 rather than a high school diploma. Although this
 457 may be a viable option for some students, it
 458 should not be treated as a blanket policy for all
 459 incarcerated youth. Students who are on track to
 460 graduate with a high school diploma prior to
 461 incarceration should be provided with the neces-
 462 sary supports to progress toward the degree during
 463 and after incarceration.

464 A recent project involving youth exiting the
 465 Cook County Juvenile Detention Center high-
 466 lights the significant barriers experienced by
 467 youth and their parents to reenroll in school after
 468 juvenile court involvement (Wojcik et al. 2008).
 469 In spite of court orders requiring that they attend
 470 school, youths were regularly denied reentry into
 471 their home school. Frequently, they were not
 472 removed from the rolls of the Cook County
 473 Detention Center School, and parents were not
 474 informed about the paperwork needed to reenroll
 475 their children in their home schools. Advocates
 476 were told that students received no academic
 477 credits for their academic work at the detention
 478 school unless they were enrolled for a full
 479 semester.

480 In addition to barriers to returning to school,
 481 often lack other critical supports to be successful
 482 in the community. Services and supports are often
 483 fragmented, and provided through a variety of
 484 agencies and organizations (Leone and Weinberg
 485 2010). A lack of streamlined transition services
 486 contributes to the failure of previously incarcer-
 487 ated youth to be successful in the community
 488 (Brock and Keegan 2007). The transition of youth
 489 back into the community following incarceration
 490 is a critical phase in ensuring that youth do not
 491 continue to engage in delinquent or criminal
 492 activity. Professionals involved with the youth

493 during every stage of the juvenile justice system 493
 494 maintain or increase the supervision and support 494
 495 after release. Aftercare is one of the only ways to 495
 496 ensure that a youth is taking advantage of oppor- 496
 497 tunities for education, workforce development, 497
 498 and employment. It is also critical to reinforce the 498
 499 skills acquired in corrections programs and to 499
 500 ensure continuity of care and services for youth 500
 501 with disabilities.¹ 501

502 To this point, we have shown that education 502
 503 represents one of the best opportunities for youth 503
 504 involved in the juvenile court system to become 504
 505 reconnected to their schools and communities 505
 506 following release from juvenile facilities. We 506
 507 have also shown that services for incarcerated 507
 508 youth frequently are inadequate. In the section 508
 509 that follows, we describe a framework for educa- 509
 510 tion services in juvenile corrections that increases 510
 511 the likelihood that youth will receive services and 511
 512 support essential to their development as inde- 512
 513 pendent and employed adults, thus “ensuring that 513
 514 they learn.” 514

Promoting Achievement in Juvenile 515
Corrections: Ensuring that They Learn 516

517 Developing a system that adequately addresses 517
 518 the education needs of children and youth in the 518
 519 delinquency system involves fundamentally 519
 520 examining the ways in which systems and agen- 520
 521 cies operate and changing them as appropriate. 521
 522 Addressing the concerns noted earlier will require 522
 523 an examination of (a) the legislative and policy 523
 524 framework supporting current practices, (b) the 524
 525 organization and delivery of education services 525
 526 in juvenile corrections, and (c) the transition of 526
 527 youth from incarceration to the community. 527

528 All children and adolescents incarcerated in 528
 529 juvenile corrections are typically entitled to the 529
 530 same education services and supports as youth 530
 531 attending public schools in their respective states. 531

¹See Altschuler, D. M., et al. (1999, July). *Reintegration, supervised release, and intensive aftercare*. OJJDP Juv. Just. Bull. Washington, DC: Office of Juvenile Justice & Delinquency Prevention; Altschuler & Armstrong, *supra* note 242.

532 This includes both basic instruction and for eli- 579
533 gible students, special education services and 580
534 supports. NCLB, designed to boost achievement 581
535 and accountability in public schools in the USA, 582
536 applies to correctional settings with some adjust- 583
537 ments for size of student population and length of 584
538 stay. The 2005 reauthorization of the IDEA main- 585
539 tained some and added new provisions to the law 586
540 to improve educational services to children with 587
541 disabilities, including those who are incarcerated 588
542 in juvenile facilities and, with some exceptions, 589
543 those in adult facilities. Students in corrections 590
544 are also entitled to the protections and supports 591
545 associated with the Americans with Disability 592
546 Act (ADA) and Section 504 of the Vocational 593
547 Rehabilitation Act of 1973. 594

548 State and local jurisdictions operating correc- 595
549 tional facilities need to ensure that they create 596
550 and maintain school stability for these children 597
551 and youth. This includes ensuring that they are 598
552 immediately enrolled in school when placed in a 599
553 correctional facility, that their records transfer 600
554 promptly, and that their education program 601
555 reflects their current standing and credits earned 602
556 in prior placements. While these practices are 603
557 common professional practices for youth in the 604
558 free world, too often they are the exception in 605
559 corrections. Collaborative agreements between 606
560 agencies with explicit timelines for transfer of 607
561 records, enrollment, and collaborative activities 608
562 are necessary, but not sufficient for students to 609
563 receive services to which they are entitled. We 610
564 believe that states need to develop explicit state- 611
565 ments of policy and corresponding regulations 612
566 related to students' education rights while incar- 613
567 cated. Similarly, sustainable funding mecha- 614
568 nisms based on the number of youth needing 615
569 services are essential if past practices, which 616
570 failed to deliver services, are to be eliminated. 617
571 Legislation and corresponding regulations and 618
572 policies can set the stage for programs, but the 619
573 design of the program, appropriate curriculum 620
574 materials, the availability of highly qualified 621
575 teachers, and well-trained support staff are essen- 622
576 tial components of programs. 623

577 Programs need to be designed around stu- 624
578 dents' academic needs while acknowledging that 625

at times attendance might be interrupted by court 579
appearances, medical services, and behavioral 580
health needs. Those appearances and services 581
should be coordinated with the school schedule 582
to minimize interruption with the school day. The 583
length of the school day and school year should 584
correspond to state requirements for amount of 585
instructional time in public schools. Similarly, 586
courses available to students should enable them 587
to maintain pace with instruction their peers in 588
the public schools are receiving. For students 589
with substantial academic needs and who may 590
have missed a considerable amount of schooling 591
and for students with short stays (e.g., detention), 592
an instructional program with an emphasis on lit- 593
eracy and numeracy might be most appropriate 594
(Salinger 2010; Leone et al. 2010). 595

596 Students eligible for special education ser- 596
597 vices should have their individualized education 597
598 programs (IEPs) implemented. Typically, this 598
599 requires that a school-based team meet with the 599
600 student and his/her parent or guardian to review 600
601 or update an existing document within 30 days of 601
602 placement. Updates should be made based on 602
603 individual need and not on availability of services 603
604 in the facility. For students with extended stays, a 604
605 balanced program of remedial academic support 605
606 and grade-appropriate curriculum should be pro- 606
607 vided. Students whom teachers, support staff, or 607
608 others suspect of having an educational disability 608
609 should be referred for assessment and possible 609
610 eligibility for services. 610

611 In small facilities and detention centers, provid- 611
612 ing a full range of academic options for students 612
613 presents a challenge. While all facilities should 613
614 have fully certified teachers in core subjects, such 614
615 as mathematics, social studies, English, and sci- 615
616 ence, on occasion facilities will have to utilize dis- 616
617 tance education, a part-time instructor, or software 617
618 to ensure that students are able to continue their 618
619 coursework in subjects, such as trigonometry or a 619
620 foreign language. An essential element, which is 620
621 difficult to quantify, is attracting and retaining 621
622 teachers who are passionate about teaching youth 622
623 in correctional facilities (Domenici and Forman 623
624 2011). Highly motivated teachers who expect 624
625 much from their students can transform the

626 climate and quality of instruction in juvenile
 627 corrections. Grouping students for instruction is
 628 another important consideration. Typically, this
 629 will also be a function of the size of the facility and
 630 the average length of stay. Preferred practice is to
 631 group students by age or grade within subject
 632 areas. For very small facilities with just a few
 633 teachers on staff, this may be impractical. In these
 634 settings, individualized instruction for each student
 635 can provide necessary instructional services.

636 Regular assessment of student performance is
 637 another essential element of instructional programs
 638 designed to ensure that incarcerated children and
 639 youth learn. Beyond assessment of academic skills
 640 at intake or shortly thereafter using appropriate
 641 screening and diagnostic measures, on-going
 642 assessment is essential to document student
 643 progress and to determine if students are making
 644 adequate gains and instructional practices are
 645 effective. This assessment and subsequent
 646 instructional supports could occur as part of a
 647 tiered instructional model, similar to what is being
 648 implemented in many schools (Duffy 2007).

649 In addition to a scheduled instructional day,
 650 incarcerated students benefit from activities such
 651 as homework and study sessions, tutoring, and
 652 after-school programs. For students incarcerated
 653 for an extended period of time, stability and
 654 opportunity in a well-designed supplemental
 655 education program provide great motivation to
 656 catch up academically. For example, institution-
 657 wide literacy programs with dedicated leisure
 658 reading time on living units can help transform
 659 juvenile institutions into settings where education
 660 matters. Finally, while a discussion of behavioral
 661 health is beyond the scope of this chapter,
 662 children with serious and chronic mental health
 663 needs, including alcohol and other drug
 664 dependency, require services and supports that
 665 complement their education.

666 If the educational outcomes for students
 667 in juvenile corrections matter, they must be
 668 assessed. Regular performance data must be
 669 available and reviewed. The most efficient way
 670 for this to happen is for school, probation, and
 671 juvenile and family court databases to be linked
 672 and school data automatically uploaded to the
 673 other agencies. Although assessments and

674 reviews of individual student performance is a
 675 critical part of system reform, analysis of the
 676 performance of groups of vulnerable students in the
 677 aggregate provides information about interventions
 678 and supports needed and whether those in
 679 place are achieving their intended goals. If they
 680 are not, other interventions must be implemented.

681 Collaboration and effective communication
 682 among education, juvenile corrections, and
 683 behavioral health staff within the institution is
 684 critical, as are formal links between agencies in
 685 the community and those serving youth behind
 686 the fence. When agencies develop individually
 687 tailored interventions and supports, significant
 688 collaboration and communication is essential.
 689 When youth leave facilities, local education
 690 agencies should anticipate and prepare for their
 691 return. Plans should be in place and juvenile
 692 probation and school-based staff should make the
 693 youth's successful transition a high priority.

694 Does any state or regional agency provide
 695 high-quality education services to incarcerated
 696 children, the most academically deficient youth
 697 in the USA? While the data are not all in and
 698 the careful evaluation research is not available,
 699 several jurisdictions—following settlements of
 700 class actions against them—have developed
 701 programs that appear to be providing quality
 702 education services. The Ferris School in
 703 Wilmington serves youth committed by the
 704 juvenile courts and is operated by the
 705 Delaware Department of Services for Children,
 706 Youth, and their Families. Since 1997 it has
 707 operated an education program for 80 youth
 708 that is considered by many as a model for
 709 education services for incarcerated youth
 710 (Ferris School for Boys 2010). The Ferris
 711 School education program includes instruction
 712 in core academic areas as well as a fine arts
 713 program. Ferris also has a mentoring program
 714 that provides consistent tutoring and support
 715 from a caring, non-family adult each week.
 716 The program also includes therapeutic
 717 interventions and a 6-week transition
 718 program as youth prepare to reenter their
 719 communities.

718 Another education program making great
 719 strides to provide high-quality services is the
 720 Maya Angelou Academy at New Beginnings,
 721 the long-term secure facility for youth from the

722 District of Columbia. Maya Angelou, operated
723 by a public charter school, has received high
724 marks from an external evaluator brought into
725 assess the status of compliance with a 20-year-
726 old settlement agreement (*Jerry M. v. D.C.*). The
727 external reviewer (Kramer-Brooks) described the
728 Maya Angelou Academy as a national model and
729 one of the best juvenile corrections education
730 programs in the country (Domenici and Forman
731 2011). Like the Ferris School, the Maya Angelou
732 Academy provides instruction in core subjects as
733 well as the arts. Maya Angelou also provides
734 instruction in several vocational areas. Both the
735 Ferris School and Maya Angelou are staffed by
736 skilled and dedicated professionals who believe
737 strongly that they can make a change in the lives
738 of their students.

739 This chapter reviewed education services for
740 incarcerated youth. Quality education is critically
741 important to the well-being of our country, culti-
742 vating successful adults who make positive con-
743 tributions to society. Given the academic needs of
744 juveniles in corrections, with few exceptions, the
745 quality and availability of education services for
746 youth who are detained or committed by
747 the courts is abysmal. The evidence indicates
748 that children in the delinquency system receive
749 inadequate education services and consequently
750 inadequate preparation for adulthood and post-
751 secondary education. The situation in most juris-
752 dictions is such that most individuals reading this
753 chapter would not permit their own children to
754 experience similar services in a public or private
755 school. The responsibility for rectifying the dis-
756 mal academic experiences of incarcerated youth
757 rests with professionals and policymakers in
758 child welfare, education, mental health, juvenile
759 justice, and the juvenile courts.

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Queries	Details Required	Author's Response
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Over the last decade, there has been increasing recognition by researchers and policymakers of the serious problem of antisocial and criminal behavior committed by adolescent females (Pepler et al. 2005; Prescott 1998; Putallaz and Bierman 2004). This is largely due to a recent increase in the prevalence of arrest rates among this population. According to the most recent data, females make up 30% of all juvenile arrests (Puzzanchera 2009), which is nearly a 50% increase from the 1 in 5 rate of the early 1990s (Snyder 2008). The poor outcomes associated with girls' offending behavior are significant, and include behaviors such as ongoing engagement in criminal offending, drug use, adolescent childbearing, and mental health problems (Chamberlain et al. 2007; Kerr et al. 2009; Miller-Johnson et al. 1998; Underwood et al. 1996; Teplin et al. 2002). It is therefore of high public health significance to better understand the characteristics and outcomes of female juvenile offenders, and to develop and rigorously test intervention approaches for these young women.

This chapter is divided into three sections that focus on the characteristics and intervention needs of female juvenile offenders. We begin by describing the characteristics of females in the juvenile justice system, including a description of offending rates, childhood traumatic experiences, and co-occurring problems with mental health and substance use. Next, we describe female juvenile offenders' trajectories and outcomes. We conclude by describing their intervention needs and summarizing the findings from efficacious intervention programs targeting female juvenile offenders.

Characteristics of Female Juvenile Offenders

Demographic Characteristics

Approximately 2.1 million arrests of juveniles (individuals under age 18) occurred in the USA during 2008, with females representing 30% of these cases (Puzzanchera 2009). Just over one quarter of arrested juveniles were under age 15 years at the time of arrest, with the majority of arrests involving 15–17 year olds (Puzzanchera 2009). The racial composition of juvenile offenders is primarily white (78%), with blacks (16%), Asian/Pacific Islanders (5%), and American Indians (1%) being the next largest racial groups represented in the juvenile justice system (Puzzanchera 2009). Overall, demographic characteristics in the juvenile offender population are similar for males and females.

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56 However, significant racial disparities exist
 57 when arrests are examined by offense type and
 58 in relation to general population rates. For exam-
 59 ple, of all juvenile arrests for violent crimes in
 60 2008, 52% involved black youth; and for all
 61 property crime arrests, 33% involved black
 62 youth (Puzzanchera 2009). Further, the Violent
 63 Crime Index arrest rate (i.e., arrests per 100,000
 64 juveniles in the racial group) in 2008 for black
 65 juveniles (926) was five times the rate for white
 66 juveniles. The racial disparity has increased
 67 since 2004, to its current rate of 5 to 1. This
 68 increase was largely the result of an increase in
 69 the black rate while the white rate declined
 70 (+24% vs. -3%, respectively; Puzzanchera 2009).

71 **Prevalence Rates of Offending**

72 In 2008, law enforcement agencies in the USA
 73 made 629,800 arrests of females under the age
 74 of 18 (Puzzanchera 2009). Female juvenile
 75 offenders accounted for 17% of juvenile Violent
 76 Crime Index arrests, 36% of juvenile Property
 77 Crime Index arrests, and 15% of juvenile drug
 78 abuse arrests (Puzzanchera 2009). Although
 79 males still outnumber females in the juvenile jus-
 80 tice system, the proportion of female offenders
 81 entering the juvenile justice system is growing.
 82 For example, between 1999 and 2008, juvenile
 83 arrests for robbery increased by 38% for females
 84 but only 24% for males. Simple assault and disor-
 85 derly conduct rates increased by 12 and 18%,
 86 respectively, for females, but declined by 6 and
 87 5%, respectively, for males (Puzzanchera 2009).
 88 Adolescent females were most commonly arrested
 89 for property crimes, with 20% of the female juve-
 90 nile arrests falling into this category. This was
 91 followed closely by general nontraffic, nonindex
 92 offenses (16%), nonindex assaults (13%), disor-
 93 derly conduct (11%), runaway charges (10%),
 94 liquor law violations, (8%), curfew and loitering
 95 offenses (7%), drug abuse violations (5%), and
 96 violent crimes (3%) (Snyder 2008).

97 When examining trends in the types of offend-
 98 ing behavior, female juvenile offenders' arrest
 99 rates rose between 1999 and 2008 for a number

of offenses, including simple assault charges, 100
 vandalism, property crimes, larceny/theft, DUIs, 101
 and disorderly conduct. In contrast, male juvenile 102
 offender arrest rates in each of these areas 103
 declined across the same period (Puzzanchera 104
 2009). In addition, even in areas where female 105
 juvenile offending declined across this period 106
 (e.g., burglary, aggravated assaults, and liquor 107
 law violations), male juvenile offending decreased 108
 by a greater extent (Puzzanchera 2009). Together, 109
 these statistics indicate that females are entering 110
 the juvenile justice system for a variety of offense 111
 types in increasing numbers, and that communi- 112
 ties and families are faced with new challenges of 113
 providing services for female juvenile offenders 114
 within systems that had previously treated pri- 115
 marily male populations. 116

A variety of explanations has been proposed 117
 to explain these changes in prevalence rates, 118
 including increased opportunity and motivation 119
 for females to offend. However, increasing evi- 120
 dence suggests that females' increasing rates of 121
 involvement in the juvenile justice system are the 122
 result of recent policy and enforcement changes. 123
 Steffensmeier et al. (2005) have identified four 124
 interrelated policy shifts related to these trends, 125
 including the targeting of more minor forms of 126
 lawbreaking, the inclusion of violence occurring 127
 between intimates and in home settings, discour- 128
 agement of the former practice of differing legal 129
 standards between the sexes, and relabeling of 130
 minor offenses for "girl's protection"; each of 131
 these policy changes increases the likelihood that 132
 juvenile females will be more likely to be arrested 133
 than they were prior to these policy changes, but 134
 has little impact on arrest rates for males. 135

Childhood Trauma and Maltreatment 136

Numerous individual-level and family-level risk 137
 factors have been associated with the develop- 138
 ment of delinquency in females, with childhood 139
 trauma and maltreatment commonly identified as 140
 a highly predictive risk factor (Leve and 141
 Chamberlain 2004; Silverthorn and Frick 1999; 142
 Widom 1989). Retrospective and prospective 143

144 studies have shown that girls with delinquency
 145 problems tend to come from families with high
 146 levels of dysfunction and instability (Henggeler
 147 et al. 1987; Lewis et al. 1991; Smith 2004), and
 148 tend to exhibit comorbid mental health symptoms
 149 that are hypothesized to be related to their child-
 150 hood maltreatment and trauma experiences
 151 (Teplin et al. 2002). For example, studies of girls
 152 in the juvenile justice system have shown rates of
 153 childhood maltreatment as high as 80% (Smith
 154 et al. 2006), with female juvenile offenders show-
 155 ing significantly higher rates of interpersonal
 156 trauma and PTSD symptoms than male juvenile
 157 offenders (Kerig et al. 2009). Related, in a pro-
 158 spective longitudinal study, McCord (1983)
 159 found that childhood maltreatment was a strong
 160 predictor of later offending. This finding has been
 161 supported in subsequent studies (Maxfield and
 162 Widom 1996; Smith and Thornberry 1995;
 163 Widom and White 1997), suggesting that effects
 164 of abusive parenting practices can extend into
 165 adolescence. For example, Herrenkohl et al.
 166 (1998) found that childhood maltreatment was
 167 strongly related to early school drop-out, early
 168 pregnancy, substance abuse, and assaultive
 169 behavior. Further, Widom and White (1997)
 170 found that abused and neglected females were at
 171 risk for arrest as adults and for receiving comor-
 172 bid diagnoses. The negative effects of child mal-
 173 treatment in adulthood have been found to
 174 manifest through a wide array of psychological
 175 problems, including adult criminal behavior,
 176 risky sexual behavior, and involvement in violent
 177 and nonviolent crimes (Smith et al. 2006; Widom
 178 and White 1997).

179 In addition to a direct link between childhood
 180 family trauma and the development of conduct
 181 problems and juvenile offending in females,
 182 research suggests a number of potential indirect,
 183 mediated, and moderated links between early
 184 trauma experiences and the development of later
 185 conduct problems. One of the identified mediators
 186 is parenting practices, where it has been sug-
 187 gested that trauma exposure exacerbates the
 188 development of coercive family processes
 189 between the youth and the parent, which then
 190 leads to offending behavior. Traumatized children

191 might be more emotionally over-reactive and
 192 more likely to engage in coercive and noncompli-
 193 ant behaviors (Snyder et al. 1997), which may in
 194 turn lead to higher levels of parental reactivity
 195 and harsh parental responses (Lytton 1990), and
 196 to subsequent engagement in delinquent behav-
 197 ior. An alternative mediating hypothesis posits
 198 that the effects of a traumatic event may lead
 199 directly to characteristics that are shared with a
 200 diagnosis of conduct problems, such as lack of
 201 empathy, impulsivity, anger, acting-out, and resis-
 202 tance to treatment. These behavioral responses
 203 may then lead to a diagnosis of and engagement
 204 in conduct problem behavior (Greenwald 2002).
 205 Another possibility is that childhood trauma
 206 experiences have interactive effects on later
 207 offending by exacerbating the negative outcomes
 208 typically associated with conduct problems. For
 209 example, females in the juvenile justice system
 210 with *greater* childhood trauma have been shown
 211 to have significantly more arrests and greater
 212 involvement in risky sexual behavior compared to
 213 females in the juvenile justice system with *lower*
 214 childhood trauma (Smith et al. 2006).

215 Although the mechanisms underlying associa-
 216 tions between childhood maltreatment and
 217 trauma and subsequent female juvenile offending
 218 have not been fully identified, their coexistence
 219 and debilitating outcomes have been well docu-
 220 mented (Smith et al. 2005; Widom and White
 221 1997); this work suggests that females with child-
 222 hood maltreatment and trauma who are arrested
 223 at a young age are at particularly high risk for
 224 experiencing ongoing problems related to antisocial
 225 behavior, including chronic delinquency,
 226 reoffending, and chronic involvement in the juve-
 227 nile justice system (Chamberlain et al. 2007;
 228 Leve and Chamberlain 2004) in adolescence,
 229 with continuing problems into adulthood (Moffitt
 230 et al. 2001). These findings have been recognized
 231 by researchers, clinicians, and policy makers,
 232 who have highlighted the particular need to
 233 develop gender-informed programming to treat
 234 trauma and delinquency problems among girls
 235 who are at high risk for developing antisocial
 236 behavior and criminal involvement (e.g., Hipwell
 237 and Loeber 2006).

238 **Co-occurring Mental Health**
239 **and Substance Use Problems**

240 As discussed above, once identified in the juve- 285
241 nile justice system, many female offenders pres- 286
242 ent a constellation of problem behaviors with 287
243 overlapping risk factors and high rates of co- 288
244 occurring psychopathology. In particular, females 289
245 in the juvenile justice system have high rates of
246 substance use, mental disorders (such as depres-
247 sion, suicidality, PTSD, and ADHD), and victim-
248 ization (Abrantes et al. 2005; Kerig et al. 2009;
249 Vermeiren et al. 2006). Indicative of the high
250 rates of comorbidity, in one study, approximately
251 15–42% of the incarcerated youths were found to
252 have major affective disorders, such as bipolar
253 and depression (Pliszka et al. 2000). Teplin et al.
254 (2002) found that two-thirds of the juvenile
255 female offenders met diagnostic criteria and had
256 one or more psychiatric disorders. In particular,
257 co-occurrence of substance use and disruptive
258 disorders (e.g., oppositional deviant disorder and
259 conduct disorder) was the most common set of
260 disorders among youths in juvenile justice facili-
261 ties (Teplin et al. 2002), and 60–87% of delin-
262 quent females were at high risk for drug abuse
263 (Prescott 1998).

264 The most commonly referred explanations for 303
265 the high co-occurrence are the shared risk factor 304
266 model or recent biopsychosocial models (Hussey 305
267 et al. 2008). These models posit that individual 306
268 and environmental risk characteristics interact 307
269 with social and family experiences, leading chil- 308
270 dren with at-risk backgrounds to an early deviant 309
271 developmental trajectory, which further triggers 310
272 biosocial–ecological stressors and subsequent 311
273 delinquent behaviors (Lahey et al. 1999). Growing 312
274 evidence suggests that the high co-occurrence of 313
275 delinquent behaviors with mental health prob- 314
276 lems seems to be more salient among delinquent 315
277 females as compared to delinquent males 316
278 (Abrantes et al. 2005; Odgers et al. 2005; 317
279 Timmons-Mitchell, et al. 1997). Further, studies 318
280 have indicated that delinquent females are more 319
281 likely to have emotional and behavioral problems 320
282 and to be more often referred to mental health 321
283 services than their male counterparts (Dembo 322
284 et al. 1993). The clinical implications of this 323
324

research suggest that high rates of co-occurring 285
problems may lead to additional challenges in 286
treating female juvenile offenders relative to the 287
treatment approaches used for males in the juve- 288
nile justice system. 289

290 **Trajectories and Consequences**
291 **of Delinquency in Females**

292 **Trajectories**

293 Despite the significant increase in the number 294
295 and proportion of females in the juvenile justice 296
297 systems in recent years (Snyder 2008), most stud- 298
299 ies on delinquency trajectories, delinquency out- 300
301 comes, and factors associated with persistence 301
302 and desistance in delinquency are based primar- 302
303 ily on males. Thus, considerably less is known 303
304 about developmental patterns of female juvenile 304
305 offenders’ delinquent behaviors and their long- 305
306 term adjustment (Colman et al. 2009). 306
307

308 Previous research on males suggests that a 309
310 considerable proportion of delinquent boys con- 310
311 tinue to engage in criminal activity as adults. 311
312 Eggleston and Laub’s (2002) review of criminal 312
313 offending across the life course found that on 313
314 average, over half of the juvenile delinquent boys 314
315 committed adult crimes. Studies focusing exclu- 315
316 sively on males who were released from juvenile 316
317 justice facilities tend to report even greater degrees 317
318 of continuity of delinquent behavior, with over 318
319 80% of participants classified as adult offenders 319
320 (e.g., Ezell and Cohen 2005). Limited evidence 320
321 suggests that females also show continuity of 321
322 delinquent behavior into adulthood (e.g., Piquero 322
323 et al. 2005; Piquero and Buka 2002), with studies 323
324 indicating that a majority of the girls involved in 324
325 juvenile justice facilities continue to offend in 325
326 adulthood. For instance, Benda et al. (2001) found 326
327 that almost 75% of girls released from the 327
328 Arkansas Serious Offender Program were 328
329 involved in the state’s adult correctional system 329
330 within 2 years. 330

331 Consistent with findings from studies of delin- 331
332 quent males (e.g., Sampson and Laub 2003), 332
333 recent studies have also found significant hetero- 333
334 geneity and intra-individual change in offending 334

trajectories over time among delinquent females. Using data on girls aged 16–28 who were released from juvenile justice facilities, Colman et al. (2009) found multiple trajectories including (a) rare/nonoffenders, who were never or rarely arrested as young adults; (b) low chronics, who offended at a modest and gradually decreasing rate; (c) low risers, whose rates of criminal participation were modest in late adolescence but increased sharply throughout early adulthood, eventually exceeding all other groups; and (d) high chronics, who offended at high rates into their early twenties and then steadily decreased throughout early adulthood. In addition, they found that the vast majority of females who were incarcerated as juveniles became involved in the adult criminal justice system prior to their 28th birthday: in the 12-year period following their release from a juvenile justice facility, 81% were rearrested, 69% were convicted, and 34% were incarcerated as an adult. Females who were in the low-rising and high chronic offending group (14% of the sample) had an average of 13–18 arrests.

Some of the differences between males and females in the developmental patterns of delinquent trajectories merit further discussion. While differences between males and females in the age of onset of delinquency is more pronounced for serious or aggressive types of delinquency, some nonviolent delinquent behaviors, such as drug and alcohol-related offenses, indicate fewer gender differences. Developmentally, typical disruptive behaviors of preschool boys and girls evolve over time in gender-dependent ways. Girls are less likely than boys to be physically aggressive in general, but they are more likely than boys to direct their aggression toward family members, same-sex peers, and romantic partners in adolescence (Pepler et al. 2005; Underwood 2003), suggesting that the trajectories of delinquent behavior begin to diverge during this developmental period. Furthermore, some studies have suggested that while similar risk factors influence the development of delinquent behavior for boys and girls, the onset of delinquent behavior in girls is delayed by the more stringent social controls imposed on them before adolescence (Silverthorn and Frick

1999). Silverthorn et al. (2001) found that adolescent-onset females more closely resembled early-onset males than adolescent-onset males in terms of their early risk exposures. Late-onset females tend to exhibit constellations of risk similar to those of early-onset males (White and Piquero 2004), and continuity of offending behavior for such girls may be stronger than among their male counterparts (Cauffman 2008).

Research also suggests that female juvenile offenders are at risk for poor adult relationships, early pregnancy, and for transmitting a myriad of problems to their offspring. For example, data from a prospective longitudinal study of adolescent girls who were elevated on antisocial behavior or delinquency found that at age 21, compared to their delinquent male counterparts, females who were delinquent as adolescents were 2.6 times more likely to have cohabited with more than one partner, were more likely to abuse or be abused by their partner, and were 2.8 times more likely to have become a parent. In this study, nearly one third of girls with conduct disorders had become mothers by age 21 (Moffitt et al. 2001). Further, these young women had high rates of public service utilization during the young adult transition and were 2.4 times more likely than their delinquent male counterparts to receive social welfare assistance from multiple government sources (Moffitt et al. 2001). In a 10-year follow-up study, Capaldi (1991) found that mothers who had their first child by age 20 were twice as likely to have children with early starting delinquency (prior to age 14; 35% vs. 18%) compared to mothers who had their first child after age 20, suggesting associations between early motherhood and child involvement in the correctional system. In another study, 53% of delinquent mothers had their children removed from their custody or had given up their children, and 27% of delinquent mothers were unable to safely care for their children without assistance from welfare or other state services (Lewis et al. 1991). Together, these findings highlight the possible intergenerational transmission of problem behaviors associated with females' involvement in the juvenile justice system.

423 **Long-Term Consequences of Female** 424 **Juvenile Offending**

425 Compared to nondelinquent girls, delinquent
426 adolescent females are more likely as adults to
427 suffer from a variety of problems, including a
428 wide range of physical health problems, clinical
429 symptoms of mental illness, reliance on social
430 assistance, and violence by, as well as toward,
431 partners (Moffitt et al. 2001). Based on a review
432 of 20 studies on the adult lives of juvenile delin-
433 quent females, Pajer (1998) similarly argued that
434 these females tend to have higher mortality rates,
435 a variety of psychiatric problems, dysfunctional
436 and violence relationships, poor educational
437 achievement, and thus less stable work histories
438 than among nondelinquent girls (Pajer 1998).
439 Supporting this conclusion, Giordano et al.
440 (2004) found that only about 17% of the incarcer-
441 ated adolescent females in the Ohio Serious
442 Offender Study graduated from high school.
443 Subsequently, these young women had lower
444 occupational status, more frequent job changes,
445 and greater reliance on welfare than nonoffender
446 females (Pulkkinen and Pitkanen 1993). They
447 were also more likely to marry people who were
448 involved in crime (Moffitt et al. 2001). Sampson
449 et al. (2006) argued that adult responsibilities
450 such as marriage and child rearing serve as turn-
451 ing points and lead to desistance from crime for
452 males. However, the opposite may be true for
453 females. That is, partnering with an antisocial
454 mate reinforces antisocial behavior throughout
455 adulthood, and women's marital relationships
456 with antisocial males are often characterized as
457 conflictual, violent, and instable. In these rela-
458 tionships, women are often victims as well as
459 perpetrators of partner violence (Moffitt, et al.
460 2001). This problem is often compounded by
461 their early child rearing tendencies (Moffitt et al.
462 2001). Young delinquent mothers often face lim-
463 ited social, emotional, and financial support and
464 suffer from compromised parenting skills (Stack
465 et al. 2005), which places their children at
466 increased risk of repeating their parent's offend-
467 ing footsteps. These findings suggest that the
468 consequences of juvenile delinquency may be
469 more detrimental and have long-term implica-
470 tions for females than for males.

471 **Intervention and Treatment** 472 **Implications**

473 **Efficacious Interventions for Female** 474 **Juvenile Offenders**

475 In the last decade, awareness has increased among 475
476 service providers that interventions are needed 476
477 for female juvenile offenders because, as 477
478 described above, they present unique services 478
479 challenges that male-oriented intervention pro- 479
480 grams may not be particularly well suited to 480
481 address. Despite the differing treatment needs for 481
482 male and female juvenile offenders, a recent 482
483 review of interventions for disruptive and delin- 483
484 quent girls indicated that this body of research is 484
485 "extremely limited" (Hipwell and Loeber 2006, 485
486 p. 221). Conversely, numerous programs have 486
487 demonstrated efficacy for male juvenile offend- 487
488 ers (see Boxer and Goldstein *in press* and Guerra 488
489 and Williams *in press*, for additional details about 489
490 effective programs for male juvenile offenders). 490
491 For females, however, Hipwell and Loeber could 491
492 identify only 11 studies that were published prior 492
493 to October 2005 that had a sample size large 493
494 enough to detect potential medium-to-large inter- 494
495 vention effects on delinquency in girls ages 6–17 495
496 (i.e., a minimum sample size of 26 females per 496
497 group). Of these 11 studies, only 5 used a ran- 497
498 domized controlled trial (RCT) design, and only 498
499 three of these five focused on the adolescent 499
500 period from ages 13–18 (Borduin et al. 1995; 500
501 Guerra and Slaby 1990; Leve et al. 2005). As is 501
502 described in the Hipwell and Loeber review, the 502
503 Leve et al. study was the only RCT in the group 503
504 designed specifically to address female delin- 504
505 quency, although three of the non-RCT studies 505
506 designed specifically for females showed prom- 506
507 ise in reducing delinquency (Ross and McKay 507
508 1976; Walsh et al. 2002; Whitmore et al. 2000). 508
509 Our review of the published literature since 509
510 October 2005 did not reveal any additional RCT 510
511 studies focused on female delinquency during the 511
512 adolescent period. Therefore, we focus the next 512
513 section on the three RCT trials for adolescent 513
514 females that have demonstrated efficacy. 514

515 In the first trial, Borduin et al. (1995) studied 515
516 57 females and 119 males who were referred by 516

517 the juvenile justice system for severe antisocial
518 behavior, including two or more arrests and comple-
519 tion of at least one previous detention sentence
520 lasting a minimum of 4 weeks. The study aimed
521 to examine the long-term effects of multisystemic
522 therapy (MST) versus individual therapy on the
523 prevention of criminal behavior and violent
524 offending using an RCT design. As described by
525 Borduin and colleagues, the MST approach
526 employs a present-focused, action-oriented, indi-
527 vidualized model that directly addresses intraper-
528 sonal (e.g., cognitive) and systematic (e.g.,
529 family, peer, school) factors known to be associ-
530 ated with adolescent antisocial behavior.
531 Additional details about the MST program compo-
532 nents are discussed in Boxer and Goldstein ([in](#)
533 [press](#)) and Guerra and Williams ([in press](#)).

534 In the Borduin et al. (1995) study, MST inter-
535 vention sessions generally took place in the fami-
536 lily's home, with approximately 24 h of services
537 provided. The results indicated that MST was
538 more effective than individual therapy in improv-
539 ing immediate posttreatment youth behavior
540 problems, increasing family cohesion and adapt-
541 ability, and increasing observed supportiveness
542 and decreasing observed conflict-hostility. Further,
543 juvenile justice records collected as part of a
544 4-year follow-up indicated a significant interven-
545 tion effect on rearrest rates. This study suggests
546 that the MST model may be an effective interven-
547 tion for female juvenile offenders, although spec-
548 ific intervention modifications were not made for
549 females, and the data were analyzed jointly across
550 genders, making it difficult to make definitive
551 conclusions about the intervention needs and out-
552 come specific to females.

553 In the second trial identified in the Hipwell
554 and Loeber (2006) review, Guerra and Slaby
555 (1990) describe the results of an RCT with 60
556 female and 60 male adolescent offenders who
557 were incarcerated for aggression offenses and
558 randomized into either a cognitive mediation
559 training program, an attention control group, or a
560 no-treatment control group. The cognitive media-
561 tion training program consisted of small discus-
562 sion groups ranging from 10 to 14 youths (with
563 approximately equal numbers of males and
564 females), who met once per week for 1 h during

565 the regular school day in the correctional facility.
566 The focus of the discussions was on increasing
567 the youths' social problem-solving skills in the
568 following areas: attending to relevant and nonhos-
569 tile cues when defining a social problem and set-
570 ting a goal; seeking additional information;
571 generating a variety of responses and conse-
572 quences; and prioritizing potential responses in
573 terms of the effectiveness in providing goal-
574 directed, legal, and nonviolent outcomes. In addi-
575 tion, the sessions aimed to modify the youths'
576 beliefs around the legitimacy and effective-
577 ness of aggression and to improve the youths'
578 cognitive self-control. This program is similar in
579 philosophy to the social-cognitive-behavioral
580 interventions described in Boxer and Goldstein ([in](#)
581 [press](#)) as effective for male juvenile offenders.

582 Compared to participants in the two control
583 groups, youth in Guerra and Slaby's (1990) cog-
584 nitive mediation training program showed
585 increased skills in solving social problems,
586 decreased endorsement of beliefs supporting
587 aggression, and decreased aggressive, impulsive,
588 and inflexible behaviors, as rated by staff. No sig-
589 nificant differences were identified in the effects
590 of the intervention by gender, and males and
591 females received the same set of intervention ser-
592 vices. This study suggests that social cognitive-
593 focused interventions may provide benefits to
594 female juvenile offenders, although no significant
595 effects of the intervention were found on recidi-
596 vism rates in this study.

597 The third efficacious intervention trial
598 described in the Hipwell and Loeber review con-
599 sisted of an RCT comparing the efficacy of
600 Multidimensional Treatment Foster Care (MTFC;
601 Chamberlain 2003) to services as usual (Group
602 Care) for adolescent females in the juvenile jus-
603 tice system who were referred for out-of-home
604 care. In contrast to the two RCTs described above,
605 the targeted population for MTFC entirely com-
606 prised female juvenile offenders. Results of this
607 study and several follow-up analyses have shown
608 that MTFC improved a host of delinquency-
609 related outcomes at 12- and 24-month follow-up
610 assessments. Specifically, compared to youth in
611 the control condition, the MTFC females had sig-
612 nificantly lower recidivism rates, spent fewer

613 days in locked settings, had fewer delinquent
 614 peers, and spent more time in school and doing
 615 homework in follow-up assessments (Chamberlain
 616 et al. 2007; Leve and Chamberlain 2005a, b,
 617 2007; Leve et al. 2005). In addition, girls assigned
 618 to MTFC had fewer subsequent pregnancies
 619 (Kerr et al. 2009). Although the two other pro-
 620 grams described in the Hipwell and Loeber
 621 review have demonstrated efficacy in reducing
 622 delinquency rates in mixed-gender adolescent
 623 samples (Borduin et al. 1995; Guerra and Slaby
 624 1990), we are not aware of any program other
 625 than MTFC with demonstrated efficacy within an
 626 RCT specific to female juvenile offenders. As
 627 such, it is the focus for the remainder of our
 628 review on interventions for female juvenile
 629 offenders.

630 **The Primary Components of the MTFC** 631 **Intervention**

632 The MTFC model involves placing youths indi-
 633 vidualy in well-trained and supervised foster
 634 homes. Close consultation, training, and support
 635 of the foster parents form the cornerstone of the
 636 MTFC model. Foster parents receive state certifi-
 637 cation after 20 h of preservice orientation. Program
 638 Supervisors with small caseloads (ten families
 639 each) maintain daily contact with MTFC parents
 640 to collect data on youth adjustment and to provide
 641 ongoing consultation, support, and crisis inter-
 642 vention. The basic components of MTFC include
 643 the following: (a) daily (M–F) telephone contact
 644 with MTFC parents using the parent daily report
 645 checklist (PDR; Chamberlain and Reid 1987); (b)
 646 weekly foster parent group meetings led by the
 647 Program Supervisor focused on supervision,
 648 training in parenting practices, and support; (c) an
 649 individualized behavior management program
 650 implemented daily in the home by the foster par-
 651 ent; (d) individual therapy for the youth; (e) indi-
 652 vidual skills training/coaching for the youth; (f)
 653 family therapy (for biological/adoptive/relative
 654 family of the youth) focused on parent manage-
 655 ment strategies; (g) close monitoring of school
 656 attendance, performance, and homework comple-
 657 tion; (h) case management to coordinate the

658 MTFC, family, peer, and school settings; (i) 24-h
 659 on-call staff availability to MTFC and biological
 660 parents; and (j) psychiatric consultation as needed.
 661 The MTFC intervention embodies a strong focus
 662 on strength-building and positive reinforcement,
 663 and specific service treatment services are tailored
 664 to the child’s age and developmental level. The
 665 MTFC team consists of a Program Supervisor
 666 (who is the clinical lead), the treatment foster par-
 667 ents, family and individual therapists, a skills
 668 trainer, and a foster parent recruiter/trainer.
 669 Additional information on the basic MTFC model
 670 is described in detail elsewhere (Boxer and
 671 Goldstein *in press*; Chamberlain 2003).

672 As noted in other chapters in this volume
 673 (Boxer and Goldstein *in press*), the MTFC model
 674 has received national attention as a cost-effective
 675 alternative to residential care. The results of a
 676 series of independent cost-benefit analyses from
 677 the Washington State Public Policy group (Aos
 678 et al. 2001), and findings from RCTs have led
 679 MTFC to be selected as one of ten evidence-
 680 based National Model Programs (The Blueprints
 681 Programs; Elliott 1998) by the Office of Juvenile
 682 Justice and Delinquency Prevention and as one of
 683 nine National Exemplary Safe, Disciplined, and
 684 Drug Free Schools model programs. The MTFC
 685 model was also highlighted in two US Surgeon’s
 686 General reports (US Department of Health and
 687 Human Services [USDHHS], 2000a, b) and was
 688 selected by the Center for Substance Abuse
 689 Prevention and the Office of Juvenile Justice and
 690 Delinquency Prevention as an Exemplary I pro-
 691 gram for Strengthening America’s Families
 692 (Chamberlain 1998). In addition, it was selected
 693 in 2009 by the Coalition for Evidence-Based
 694 Policy as meeting “top tier” evidence of effec-
 695 tiveness (<http://www.toptierevidence.org>).

696 **Additional Foci of Interventions for** 697 **Females with Delinquency Histories**

698 Leve et al. (2011) describe specific adaptations to
 699 the MTFC intervention program for delinquent
 700 adolescent females, each of which focuses on
 701 additional training for parents, therapists, and
 702 youth on new strategies and protocols relevant

703 for the female juvenile offenders. The female-
 704 focused intervention components include five
 705 adaptations, each of which has been implemented
 706 in the MTFC program for girls, described above.
 707 These adaptations included (a) providing offend-
 708 ing adolescent females with reinforcement and
 709 sanctions for coping with and avoiding social/
 710 relational aggression; (b) helping girls develop
 711 peer relationship building skills, such as initiat-
 712 ing conversations and modulating their level of
 713 self-disclosure to fit the situation; (c) working
 714 with girls to develop and practice strategies for
 715 emotional regulation such as early recognition of
 716 their feelings of distress and problem-solving
 717 coping mechanisms; (d) helping girls understand
 718 their personal risks for drug use, including prior-
 719 ity setting using motivational interviewing and
 720 provision of incentives for abstinence from drug
 721 use monitored through random urinalysis; and (e)
 722 teaching girls strategies to avoid and deal with
 723 sexually risky and coercive situations. Each of
 724 these adaptations is described below.

725 **Avoiding Relational Aggression**

726 Although relational aggression has been shown
 727 to negatively impact interpersonal relationships
 728 for both boys and girls, during childhood and
 729 adolescence, females tend to rely more frequently
 730 than males on strategies that include behaviors
 731 such as ignoring exclusion, gossip, and disdainful
 732 facial expressions (Underwood 2003). Relational
 733 aggression leads to peer rejection, depression,
 734 and isolation, and these negative effects appear to
 735 be stronger for females than for males (Crick
 736 et al. 1999). Accordingly, one female-specific
 737 intervention component for girls at risk for prob-
 738 lems with delinquency is to provide training for
 739 parents (or foster parents) of girls to identify and
 740 intervene with relationally aggressive behaviors
 741 that are often subtle and may not appear to be
 742 serious (e.g., rolling of the eyes). Once parents,
 743 foster parents, and other adults in the females’
 744 caregiving circle can identify such behaviors,
 745 behavior management plans can be developed
 746 and implemented to reinforce females for abstain-
 747 ing from such tactics and to teach them strategies
 748 for how to cope with being on the receiving end
 749 of peer relational aggression.

750 **Building Peer Relationship Skills**

751 A second female-specific intervention approach
 752 is to include a focus on building peer relationship
 753 skills. Our prior research and clinical experience
 754 with girls in the juvenile justice system suggested
 755 that they typically lacked relationships with close
 756 female peers, preferring instead to associate with
 757 older, delinquent male peers. To address this
 758 intervention need in adolescent girls at risk for
 759 delinquency, peer relationship skills are taught by
 760 a therapist or skills coach. A treatment plan that
 761 identifies specific skills based on the girl’s indi-
 762 vidual needs is developed. For example, girls can
 763 be provided with reinforcement for practicing the
 764 targeted skills first in the community, then in the
 765 home/foster home, and then at school with her
 766 peers. Effective reinforcement strategies include
 767 earning daily points that translate into increases
 768 in privileges and material rewards.

769 **Improving Emotion Regulation**

770 As described above, research has linked experi-
 771 ences of childhood maltreatment with deficits in
 772 modulating emotions and regulating affective
 773 responses (Camras et al. 1988). Such deficits of
 774 emotional dysregulation include difficulty con-
 775 trolling behaviors in the face of emotional dis-
 776 tress and deficits in the functional use of emotions
 777 as a source of information (Gratz et al. 2008). As
 778 such, a potentially useful adaptation for adoles-
 779 cent females at risk for offending is a two-step
 780 process that includes (a) helping girls increase
 781 their awareness of situations that provoke nega-
 782 tive emotions, and (b) teaching them strategies
 783 for controlling their immediate impulses and
 784 behaviors. Parents, foster parents, and therapists
 785 are taught to work together to positively reinforce
 786 girls for identifying their emotional states and for
 787 developing and practicing coping strategies that
 788 helped them modulate their level of emotional
 789 arousal and responses in difficult situations. The
 790 major principle behind this approach is to teach
 791 and practice the “rule” that major life decisions
 792 or actions that could result in significant long-
 793 lasting changes should never be made when one
 794 is upset or agitated. This principle emphasizes
 795 teaching adolescent females to control their
 796 behaviors when experiencing negative emotions

rather than to focus on controlling the occurrence of the negative emotions themselves (Gratz and Roemer 2008).

Reducing Substance Use

As noted above, adolescent females with delinquency problems often use and abuse drugs and alcohol. In a sample of female juvenile offenders, the majority had serious problems with substance use, with 12-month prevalence rates of 46% for marijuana and 77% for alcohol. The use of hard substances in the prior 12-months was also high: methamphetamine (29%), cocaine or crack (13%), hallucinogens (7%), and ecstasy (5%) (Leve et al. 2011). Given these high prevalence rates, in MTFC intervention described above, modifications for females included motivational interviews designed to assess the offender's desire to change and to calibrate her view of where her substance use patterns stacked up relative to other people of a similar age. The goal of this type of approach is to help females develop concrete personal goals, including an assessment of where the youth was in terms of "readiness to change" and to provide support and encouragement for moving further along the continuum toward abstinence from substance use. An individual therapist helps the girl identify her personal goals, and a skills coach helps to set up opportunities toward achieving those goals. Parents/foster parents and skills coaches reinforce progress with points and verbal affirmations. In addition, random urinalysis tests can be given if there was a suspicion of use (e.g., missed classes at school); the offender can earn a reward for each negative test and can be given consequences such as restricted free time and lower privilege levels for positive tests.

Avoiding Risky Sexual Encounters

As described above, numerous studies have found that juvenile female offenders often present with a cluster of problem behaviors that includes delinquency in co-occurrence with risky sexual behavior and teenage pregnancy (Ary et al. 1999; Huizinga et al. 1993). Prior work confirms that girls in the juvenile justice system are at high risk for engagement in risky sexual

behavior, and typically have false knowledge about pregnancy and sexually transmitted diseases (Leve and Chamberlain 2005b). For example, in a baseline assessment with females in the juvenile justice system, 46% had 3 or more partners in the past year, 40% of the sample reported having had sex with a stranger/someone known less than 24 h in the past year, and yet over one-third never or rarely used safe sex practices. Intervention services for adolescent females at risk for engaging in risky sexual behavior might gain increased efficacy by providing female juvenile offenders with information on dating, sexual behavior norms, and HIV-prevention behaviors. Interventions employed in the MTFC trial described above include teaching girls strategies for being sexually responsible, including specific training on decision making, identification and awareness of sexual coercion, and refusal skills. Role play exercises are conducted using the "Virtual Date" DVD (Northwest Media 2002) as a stimulus for discussion, which depicts key decision moments in a practice date.

Incorporating these five additions to the MTFC model for females in the juvenile justice system is a first step in customizing intervention approaches to address the needs that are explicated in the research on the development and outcomes of female delinquency. Meditational analyses would help to clarify whether specific treatment components resulted in the intended positive short-term effects, and follow-up studies would determine if positive changes persisted over time. Even though these studies would be complex and costly to conduct, the need for such research is obvious given the growing segment of the adolescent female population that is engaged in serious delinquency and the clear documentation of the public health impact of the devastating effects of female delinquency.

Conclusions and Future Directions

As discussed in this chapter, the complexity and seriousness of problems faced by female adolescent offenders is intense and therefore the interventions that are designed to treat this population

888 likely need to be multifaceted and intensive to
 889 have a significant impact. Although significant
 890 progress has been made in increasing the under-
 891 standing of the development of antisocial behav-
 892 ior and delinquency in females and interventions,
 893 such as MTFC, have been shown to produce a
 894 number of positive effects that extend into fol-
 895 low-up, as noted in Boxer and Goldstein (in
 896 press), there is still much work to be done.

897 Specifically, additional research is needed that
 898 links specific treatment components to various
 899 symptoms and constellations of problems so that
 900 intervention services can be tailored to address
 901 individual needs. In addition, because female
 902 delinquency often leads to devastating and
 903 long-term problems for both the female and her
 904 offspring, it is imperative that preventive inter-
 905 ventions are developed and tested that target girls
 906 who are at-risk for developing such serious and
 907 chronic problems, but who have not yet entered
 908 the juvenile justice system. One such prevention
 909 approach is being examined for 11-year-old girls
 910 in foster care (Chamberlain et al. 2006). In that
 911 study, girls in foster care ($n = 100$) were recruited
 912 during their final year of elementary school in an
 913 effort to prevent internalizing and externalizing
 914 problems during the transition to middle school
 915 to help prevent more serious, long-term outcomes
 916 such as delinquency, substance use, and high-risk
 917 sexual behavior that often develop during middle
 918 school in children with maltreatment histories.
 919 Foster girls were randomly assigned to an inter-
 920 vention (enhanced foster care services) or control
 921 (foster care services as usual) condition. For fam-
 922 ilies in the intervention condition, a summer
 923 intervention component was employed that con-
 924 sisted of two parallel components (both led by
 925 paraprofessionals): a six-session, group-based
 926 intervention for the girls and a six-session, group-
 927 based intervention for the foster parents.
 928 Follow-up intervention services (i.e., ongoing
 929 training and support) were provided to the inter-
 930 vention foster parents and girls throughout the
 931 1st year of middle school. A preliminary exami-
 932 nation of the efficacy of the summer intervention
 933 indicated short-term intervention effects on the
 934 reduction of externalizing and internalizing
 935 problems for girls in the intervention condition

(Smith et al. 2011), and long-term follow-up
 analyses are presently underway. In summary,
 although the developmental histories and out-
 comes for female juvenile offenders are quite
 bleak, a handful of interventions have begun to
 show efficacy in improving outcomes for this
 population. Given the increasing number of ado-
 lescent females involved in the juvenile justice
 system, additional development and evaluation
 of intervention programs for this highly trauma-
 tized and comorbid population could serve to
 improve outcomes for females with delinquency
 problems, and to prevent their entry into juvenile
 justice in the first place.

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Introduction

Gangs and gang members have become a common phenomenon within US communities, as regularly illustrated in official national gang population survey estimates, crime attributable to gangs, and the popular culture, for example, the History Channel contemporary crime documentary “Gangland” (National Drug Intelligence Center 2009). Gangs are generally defined as having more than three members, identifying symbols, a name, a certain amount of stability, some type of organization, and higher amounts of criminal involvement (Howell et al. 2009). Gangs constitute an institutionally and culturally embedded social problem and are a serious form of delinquency facilitating transition into adult criminality. The mere presence of gangs is detrimental to local communities and, especially, schools wherein a gang presence is positively correlated with drug crime, bullying, truancy, and violence. This chapter surveys current statistics and research concerning the number, frequency, location, and severity of gang members

and gang-related crime with attention to the age, race, gender, and education of gang members. We also observe the prominent role of gang theories in shaping both understanding and address of gang problems as well as the evolution of criminology. Specific examples of well-known gangs are also provided as illustrations.

Statistics on Gangs and Gang Members

Recent estimates suggest as many as one million gang members are present within the USA (FBI 2009). These gang members belong to over 20,000 different prison, motorcycle, and street gangs throughout the country. Although about 150,000 of these gang members were incarcerated, 900,000 gang members were estimated to be living in the community. Furthermore, on average, 13% of the US jail population was estimated to be a gang member (Ruddell et al. 2006). Comparatively, in 2005, the estimate of gang members in the USA was significantly lower at 800,000 members (National Drug Intelligence Center 2009).

Within the different jurisdictions throughout the USA in 2008, 58% of law enforcement agencies reported some type of gang activity. This percentage increased from 2004 in which only 45% of the agencies reported gangs within their jurisdictions. In addition, 36% of principals when surveyed stated that gangs were a problem within their communities (Gottfredson and Gottfredson 2001).

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55 **Frequency of Gang Involvement**
56 **and Gang-Related Crime**

57 According to the National Threat Assessment in
58 2009, gangs are responsible for 80% of the crime
59 in numerous communities (National Drug
60 Intelligence Center 2009). From 2001 to 2008,
61 there were about 41,000 arrests resulting in over
62 16,500 convictions for gang-related crimes by
63 the FBI Violent Gang Safe Street Task Force.
64 In 2008 alone, the task force arrested about 8,000
65 individuals for gang crimes and convicted about
66 2,000 of them (FBI 2009).

67 **Age**

68 The number of youth gang members (under
69 24 years old) was slightly lower than the general
70 gang population. In 2007, about 790,000 youths
71 were active gang members and belonged to
72 27,000 different gangs. Over 3,500 law enforce-
73 ment jurisdictions reported youth gang problems,
74 which is about 33% of the total jurisdictions in
75 the USA. This estimate is significantly higher
76 than in 2001 when the percentage of areas with
77 gang problems was 25 (Egley and O'Donnell
78 2009). The amount of youth gangs in 2000 was
79 24,500, and the gang member population was
80 approximated at 770,000, which was actually 8%
81 lower than the population in 1999 (Egley 2002).
82 However, American-Indian communities experi-
83 enced significantly fewer youth gang members in
84 2000. Only 16% of the communities reported
85 more than 50 gang members with 750 being the
86 most in any location. In general, 23% of the com-
87 munities had youth gang involvement (Major and
88 Egley 2002).

89 Older youth tend to be more involved in gang
90 activity than younger adolescents. For example,
91 out of 9,000 youth surveyed, 3% were gang mem-
92 bers by age 14, and 8% had become a gang mem-
93 ber by 17 years old (Snyder and Sickmund 2006;
94 Howell et al. 2009). Furthermore, secondary
95 schools reported more gang involvement than
96 middle schools (Gottfredson and Gottfredson
97 2001). About 75% of the gang members in

American-Indian communities were juveniles 98
with 25% being under 15 years old (Major and 99
Egley 2002). The percentage of juvenile gang 100
participants decreased from 50% of the youth 101
gang population in 1996 to 37% in 1999, which 102
demonstrates that young adult gang members are 103
becoming more prevalent. 104

Race 105

Law enforcement agencies estimated that about 106
85–90% of all gang members are either Hispanic 107
or African-American (Esbensen 2000; Covey 108
et al. 1997). Most female gangs are either 109
Hispanic or African-American as well (Moore 110
and Hagedorn 2001). School principals also were 111
more likely to report gang problems in schools 112
with higher Hispanic populations (Gottfredson 113
and Gottfredson 2001). According to the National 114
Youth Gang Center (2009) statistics, 49% of gang 115
members were Hispanic, 35% were African- 116
American, and 9% were Caucasian. These per- 117
centages have not varied much since 1999 when 118
47% of the youth gang members were Hispanic, 119
31% were African-American, 13% were 120
Caucasian, 7% were Asian, and 2% were other 121
(Egley 2002). Hispanic and African-American 122
youth are even more likely to join a gang by age 123
17 with 12% enlisting as opposed to 7% of 124
Caucasian youth (Snyder and Sickmund 2006). 125
However, in American-Indian communities, 126
almost 78% of the gang members were American- 127
Indian, Alaska Native, or Aleut. Only 12% of the 128
other gang members in these areas were Hispanic, 129
7% were Caucasian, 2% were Asian, and 2% 130
were African-American. 131

Gender 132

Recent statistics and literature indicate that 133
female participation in gangs has grown signifi- 134
cantly and law enforcement has begun to recog- 135
nize their increased involvement (Esbensen and 136
Deschenes 1998). As far back as 1993, 10–50% 137
of gang members were estimated to be female 138
(Bjerrergaard and Smith 1993). A self-report 139

140 survey of 5,000 participants reported that 14% of
 141 males and 8% of females were gang members,
 142 which is about a 2:1 ratio (Esbensen and
 143 Deschenes 1998). Similar studies have also found
 144 this 2:1 ratio of self-reported gang membership
 145 as recent as 2008 (Gottfredson and Gottfredson
 146 2001; Snyder and Sickmund 2006; Esbensen
 147 et al. 2008). Surveys of females in various cities
 148 have resulted in self-reports of anywhere from 8
 149 to 38% of the participants stating that they were
 150 a member of a gang (Moore and Hagedorn
 151 2001). In high-risk neighborhoods, as many
 152 as 30% of girls and 33% of boys report that
 153 they are members of gangs (National Drug
 154 Intelligence Center 2009).

155 Even though female gang membership is
 156 higher than previously thought, gangs are still
 157 predominantly male (Esbensen 2000). In 2000,
 158 the National Youth Gang Center indicated that
 159 94% of gang members were male with only 6%
 160 being female. This statistic has remained consis-
 161 tent through 2007 (National Youth Gang Center
 162 2009). Furthermore, 82% of jurisdictions reported
 163 mostly male gang members, and merely 2% of
 164 the jurisdictions reported as having mostly female
 165 members (Egley 2002). In American-Indian com-
 166 munities, 80% of the gang members were male
 167 and 82% of the gangs had members of both
 168 genders. Only 10% of the gangs were predomi-
 169 nantly female (Major and Egley 2002).

170 **Education**

171 Many gang members have little education and are
 172 not as committed to their schooling as non-gang
 173 members (National Drug Intelligence Center 2009;
 174 Howell et al. 2009; Esbensen 2000). In a survey of
 175 students, 10% reported that they were members of
 176 a gang. By using a more narrow definition of gang
 177 membership, only 5% met the criteria for being an
 178 actual gang member in the same study (Esbensen
 179 and Deschenes 1998). In concordance, about 5%
 180 of principals declared that they had gang-related
 181 problems in their schools (Gottfredson and
 182 Gottfredson 2001). The parents of many gang
 183 members also had limited educations, and some
 184 did not finish high school. Approximately 29% of

185 gang members had a father with less than a high
 186 school education, and 24% had a mother that did
 187 not finish high school. In contrast, about 14% of
 188 fathers and 13% of mothers of non-gang members
 189 had less than a high school education (Esbensen
 190 and Deschenes 1998).

Geographical Distribution of Gangs 191

192 Gangs originally began to form in the 1970s in
 193 large cities. Since that time, gang members have
 194 migrated and permeated throughout the USA
 195 and have begun causing problems within rural
 196 areas as well. By the 1990s, law enforcement
 197 agencies reported gang activity within every
 198 region of the USA. The most notable increases
 199 in gang reporting have occurred around large cit-
 200 ies such as Los Angeles, Chicago, and New York
 201 City in the east and southeast regions (National
 202 Drug Intelligence Center 2009). In 2008, the
 203 USA was divided into seven geographical
 204 regions. The three regions with the highest
 205 reported rates of gang activity by law enforce-
 206 ment agencies were the Pacific with 74%, the
 207 Southeast with 68%, and the Southwest with
 208 63%. The two lowest reported regions were New
 209 England with 39% and the Central with 52%.
 210 Illinois is the state with the highest per capita
 211 rate of gang members with 8–11 members per
 212 1,000 people. California, Nevada, Colorado, and
 213 New Mexico had the second highest per capita
 214 rate with 6–7 gang members per 1,000 individu-
 215 als. Twenty-one states had less than one gang
 216 member per 1,000 inhabitants (National Drug
 217 Intelligence Center 2009). From 1993 to 2003,
 218 66% of rural, 56% of suburban, and 50% of
 219 urban victims perceived their attacker to be a
 220 non-gang member (Harrell 2005).

221 The geographical distribution of gang mem-
 222 bers is often confused with gang growth, an
 223 understandable, though often erroneous, conclu-
 224 sion when gang activity appears in new places.
 225 The confusion is really about the differences
 226 between growth, which refers to an increase in
 227 number of members, and migration, which refers
 228 to the spatial extension of gangs. Gang migration,
 229 once thought to be a function of drug sales

230 franchising by more organized, national level
 231 gangs, is thought to largely be the result of famil-
 232 ial good intent to remove gang involved youth to
 233 distant, often rural locations from the typical
 234 urban underclass gang environments.

235 **Age**

236 Typically smaller, rural cities and counties report
 237 younger gang members, while adult gang mem-
 238 bers are active more in larger cities (National
 239 Youth Gang Center 2009). However, big cities
 240 still have the most juvenile and young adult gang
 241 activity. In 2007, 15% of the law enforcement
 242 agencies in small counties, 35% in small cities,
 243 50% in suburban counties, and 86% in large cit-
 244 ies reported youth gang activity. In general, 60%
 245 of youth gangs and 80% of young gang members
 246 reside in large cities and suburban counties.
 247 However, rural counties had the largest increase
 248 in youth gangs and gang members in 2007 (Egley
 249 and O'Donnell 2009).

250 **Race**

251 Racial composition of gang members depends
 252 highly on the location of the gang. For example,
 253 the majority of gang members in small areas such
 254 as Will County and Pocatello were Caucasian.
 255 Gangs closer to the border of Mexico and the
 256 USA such as Las Cruces and Phoenix were pre-
 257 dominantly Hispanic. Big cities such as Milwaukee
 258 and Philadelphia had mostly African-American
 259 gang members (Esbensen and Deschenes 1998).
 260 In general, African-American gangs were mostly
 261 in the Northeast and Midwestern regions, Mexican
 262 gangs were in the Southwest, and Puerto Rican
 263 gang members resided in New York (Moore and
 264 Hagedorn 2001). Law enforcement officers
 265 reported the race of gang members in large cities
 266 from 2004 to 2006 to be 47% Hispanic, 38%
 267 African-American, 8% Caucasian, and 7% other.
 268 However, in rural counties, the racial composi-
 269 tion was 44% African-American, 32% Hispanic,
 270 17% Caucasian, and 8% other. As the area
 271 measured became smaller, the Hispanic gang

member population tended to decrease, while 272
 the other three race categories increased (National 273
 Youth Gang Center 2009). 274

Gender

Female gang members are more frequently 276
 located in smaller, more rural areas (Moore and 277
 Hagedorn 2001). For instance, in Torrance, 278
 California, the female gang population was 45%, 279
 whereas only 25% of the gang members were 280
 female in Philadelphia (Esbensen and Deschenes 281
 1998). According to the National Youth Gang 282
 Center (2009), law enforcement agencies declared 283
 that 16% of larger cities, 13% of suburban cites, 284
 18% of smaller cities, and 13% of rural counties 285
 had more than half of the gangs in their area with 286
 female members. 287

Education

Recently, the percentage of students reporting 289
 gang activity in their schools has been increasing. 290
 From 2003 to 2005, there was a 17% increase in 291
 suburban students and a 33% increase in rural 292
 students stating that gang members were attending 293
 their schools (National Drug Intelligence Center 294
 2009). Furthermore, principals in urban areas were 295
 more likely to believe gang problems were present 296
 in their schools (Gottfredson and Gottfredson 297
 2001). In 2005, 36% of students in urban, 21% 298
 in suburban, and 16% in rural areas reported 299
 that gang members were active in their schools 300
 (National Drug Intelligence Center 2009). 301

Severity of Gang-Related Crime

As gangs expand into new territories outside of 303
 the inner city, conflicts arise between members 304
 of different gangs which increases the number of 305
 homicides and drive-by shootings in suburban 306
 areas (Hagedorn 1988). The FBI has even allo- 307
 cated resources to control some of the most violent 308
 gangs. Gang crimes can be anything ranging from 309
 murder and armed robbery to drug transactions 310

311 and identity theft, but gun-related crimes have
 312 been increasing. In fact, a little over 94% of
 313 homicides committed by gangs utilized a gun.
 314 The most popular drugs exchanged by gang
 315 members are marijuana and forms of cocaine
 316 (National Drug Intelligence Center 2009).

317 Corrections officials have also had problems
 318 with gang-related violence inside their prisons
 319 and jails and commonly designate gang members
 320 as “security threat groups.” For example, gang
 321 member inmates have almost three times the
 322 amount of serious rule infractions within prisons
 323 than do non-gang members. Furthermore, gang
 324 members are also more likely to assault other
 325 inmates in jails (Ruddell et al. 2006). In general,
 326 victims of violent crimes from 1998 to 2003
 327 believed that 6% of the perpetrators were gang
 328 members. This included 12% of aggravated
 329 assault, 10% of robberies, 6% of simple assaults,
 330 and 4% of rapes. In 2003, 7% of all homicides
 331 and 10% of homicides involving a firearm were
 332 perpetrated by gang members (Harrell 2005).
 333 Unfortunately, law enforcement agencies have
 334 reported that gang-related crime has been increas-
 335 ing. From 2005 to 2006, 54% of agencies reported
 336 an increase in aggravated assaults, 53% in drug
 337 sales, 46% in robberies, 38% in thefts, 36% in
 338 burglaries, and 30% in auto thefts (National
 339 Youth Gang Center 2009).

340 In sum, gangs and gang membership have
 341 been increasing and migrating to new areas dur-
 342 ing recent years (National Drug Intelligence
 343 Center 2009). Youth gang members have been
 344 growing along with the amount of females,
 345 Hispanics, and students participating in gangs
 346 (National Youth Gang Center 2009). Although
 347 gangs are still mostly concentrated in large cities,
 348 rural counties presently have had the largest
 349 increases in youth and student gang populations
 350 (Egley and O’Donnell 2009; National Drug
 351 Intelligence Center 2009). Furthermore, smaller
 352 counties and cities also represent higher popula-
 353 tions of females and Caucasians (Esbensen and
 354 Deschenes 1998). Finally, gang-related crimes
 355 have also increased recently with law enforcement
 356 reporting 30–50% more serious gang offenses in
 357 1 year (National Youth Gang Center 2009).
 358 However, law enforcement agencies typically do

not report “gang-related” crimes especially for
 non-violent offenses, which make the collection
 of comprehensive, reliable statistics on gang
 activity difficult for researchers to obtain and
 analyze (National Youth Gang Center 2009).

Gang Theories and Research

Theories about gangs address both gangs per se
 and broader-related social issues. Much of theo-
 retical criminology is derived from depictions of
 delinquent behavior by youth gangs. Subculture,
 strain, opportunity, and conflict theories of crime
 and delinquency are based on gang-derived data.
 Leading criminological axioms, such as *delin-*
quency is learned through interaction with others
 and *most often occurs in a group context*, also
 derive from gang research.

Gang research has been influential in paradig-
 matic shifts in sociological and criminological
 research methodology. Early gang research
 helped to solidify ethnography as normative
 social science as researchers prior to the 1970s
 generally followed the “Chicago School” field-
 work model (e.g., Shaw 1930; Shaw and McKay
 1942). Viewed almost categorically as delin-
 quent, youth gangs were also considered primary
 groups (Cooley 1909) and unique types of collec-
 tives (Asbury 1927) to be explored firsthand via
 observational and interview techniques. Such
 techniques facilitated understanding of the pro-
 cesses of gang development, behavior, and mem-
 ber desistence.

Quantitative research, particularly survey-
 based designs, is also frequently employed to
 examine gang topics (e.g., Morash 1983; Fagan
 1989; Spergel 1989; Gibson et al. 2009). Such
 efforts often focus on the predictors of gangs and
 ganging (Glueck and Glueck 1950; Klein 1971)
 and have produced a wealth of new information
 on the prevalence, composition, and criminality
 of gangs. Objections to quantitative gang research
 center on the value of the data.

Applied gang research has been important for
 criminal justice policy. This is not surprising
 given that some of the major theories were framed
 during the 1950s and 1960s in studies sponsored by

404 federal grants specifying social control objectives
 405 (Miller 1974). Gang theories of this period high-
 406 lighted what most considered a timely problem
 407 of unprecedented proportion: juvenile delin-
 408 quency. Rebellious youth associated with the
 409 emergence of the rock and roll era presented a
 410 new and highly visible threat to formal authority.
 411 Gangs, easily identified through their grouping
 412 and symbolism, were quickly stereotyped and
 413 came to epitomize this threat. Policing gangs,
 414 glorified today on crime fighting television pro-
 415 grams, has actually been a long-running law
 416 enforcement theme. Accordingly, there is a linger-
 417 ing, and largely justified, tendency to define
 418 gangs as socially problematic in public safety
 419 terms (Spergel and Curry 1990). Social control is
 420 thus an important theme throughout the history
 421 of gang research, one that continues in this cur-
 422 rent era of anti-gang initiatives ranging from the
 423 well-known national GREAT (gang resistance)
 424 program to gang suppression efforts through
 425 multi-jurisdictional task forces.

426 Theoretical Perspectives

427 The problems presented by gangs have embed-
 428 ded them as primary research foci in criminol-
 429 ogy and criminal justice science. Gang research
 430 in both of these newer disciplines unquestion-
 431 ably arose out of a sociological tradition (Miller
 432 and Rush 1996). Whereas sociology's impres-
 433 sion was evident as early as the 1930s (Asbury
 434 1927; Thrasher 1927; Bolitho 1930), the applied
 435 criminological literature overlooked gangs. The
 436 1949 edition of *The Encyclopedia of Criminology*,
 437 for instance, contained no entry under the head-
 438 ing "gang."

439 Although sociologists had previously noted
 440 that delinquency habitually occurred in group
 441 contexts, Thrasher's *The Gang: A Study of 1303*
 442 *Gangs in Chicago* (1928) is frequently consid-
 443 ered to be the catalyst for several groundbreaking
 444 theories. He observed that gangs were (1) inter-
 445 stitial, (2) concentrated in lower class neighbor-
 446 hoods, (3) responsive to a lack of conventional
 447 employment opportunities, (4) composed of
 448 young males lacking skills to compete for jobs,

449 and (5) a process by which delinquents were 449
 450 socialized into adult crime. 450

451 Thrasher's innovative conceptualization of 451
 452 *interstitial* merits brief comment. This descrip- 452
 453 tive term was used in reference to the transitory 453
 454 and peripheral character of gangs who emerged 454
 455 in socially disorganized areas to replace order 455
 456 where there is little, although they seldom lasted 456
 457 more than a few years (Thrasher 1927:22). The 457
 458 gang was more than a fleeting gathering of simi- 458
 459 larly circumstanced individuals but less than a 459
 460 permanent organization. Members, then usually 460
 461 immigrants, were only marginally incorporated 461
 462 into broader American culture and were typi- 462
 463 cally between childhood and adulthood. Gang 463
 464 process was interstitial as well, wavering along 464
 465 a continuum from planning to spontaneity. Three 465
 466 decades later, instability was stressed again by 466
 467 the labeling of the youth gang as a "near-group" 467
 468 (Yablonsky 1959), an idea that remains influen- 468
 469 tial in contemporary explications (Taylor 1990). 469

470 Other early statements addressing gang forma- 470
 471 tion and behavior have received less attention. 471
 472 Furfey (1928) hypothesized that gang cohesive- 472
 473 ness was positively correlated with class and con- 473
 474 firmed Thrasher's observation that gangs were 474
 475 concentrated in slum areas. Asbury (1927) focused 475
 476 on ethnicity and culture to describe the diversity 476
 477 of gangs in New York as early as the late 1920s. 477
 478 Quite differently, Bolitho (1930) submitted that 478
 479 ganging was a form of psychosis, an issue recently 479
 480 raised in an integrated model fusing "kind of per- 480
 481 son" and "kind of group" (Thornberry et al. 1993). 481
 482 Ganging was similarly treated as a vehicle by 482
 483 which sociopaths vented hostility and anger 483
 484 (Yablonsky 1962; Short and Stodtbeck 1965). 484
 485 Psychological explanations of ganging are read- 485
 486 ily dismissed as passé in spite of repeated testi- 486
 487 mony by gang members that their acts of violence 487
 488 result from "just losing my head," that is, a tempo- 488
 489 rary inability to reason (Currie 1991). 489

490 *Street Corner Society* (Whyte 1943) addressed 490
 491 lower class Italian and Puerto Rican lifestyles 491
 492 and is frequently cited in discussions of gang 492
 493 theory. Its lasting relevance is due to the care 493
 494 afforded the relationship between social forces 494
 495 effecting minorities in depressed urban areas and 495
 496 conventionality rather than delinquent behavior 496

497 by youth gangs per se. Although the racial and
498 ethnic compositions of gangs continue to changed,
499 they have long been an overwhelmingly minority
500 phenomenon (Moore 1985). As one gang theorist
501 notes: “To be white is to be an outsider to gang
502 members” (Hagedorn 1990:253).

503 *Tally’s Corner*, a notable work by Elliot
504 Liebow, appeared in 1967 and further placed
505 gangs in a black and urban context. Gangs had
506 become such a hot topic in academia that Dale
507 Hardman published an article that same year
508 titled “Historical Perspectives on Gang Research.”
509 Surprisingly, this sharp rise of interest in gangs
510 was less affected by racial concerns as by an
511 emerging theoretical order accenting the relation-
512 ship between culture, class, and delinquency.

513 Subculture and Gangs

514 Subcultural theories dominated the study of
515 gangs during the 1950s and 1960s. They stress
516 that some environments are characterized by
517 atypical, criminogenic value, and normative sys-
518 tems, making deviant behavior more or less nor-
519 mal for those within the subculture. The subculture
520 has been described in relation to the dominant
521 culture with great clarity:

522 A subculture implies that there are value judg-
523 ments or a social value system which is apart from
524 and a part of a larger or central value system. From
525 the viewpoint of this larger dominant culture, the
526 values of the subculture set the latter apart and pre-
527 vent total integration, occasionally causing open or
528 covert conflicts.

529 Wolfgang and Ferracuti 1967:99

530 The subculture enables, via interaction with
531 the subgroup, individual benefit that may be
532 material, such as profits from drug sales, or psy-
533 chological through increased self-esteem and
534 social status (Miller 2008). These latter intangi-
535 ble advantages foster greater group cohesion and
536 make the differences in value systems of the sub-
537 culture and the larger society pronounced. Rejection
538 of some societal standards and norms (particularly
539 ones beneficial to and representative of the domi-
540 nant order) becomes a defining characteristic of a
541 subculture and necessarily results in cultural conflict
542 (Vetter and Silverman 1980).

543 Criminology and criminal justice text authors
544 often begin discussion of the culture–crime rela-
545 tionship with *Delinquent Boys: The Culture of*
546 *the Gang* (Cohen 1955) wherein a general theo-
547 ry of subcultures is presented through extrac-
548 tion and characterization of the properties of
549 gangs. Observation of the existing literature
550 revealed that boys from the bottom end of the
551 socioeconomic scale shared difficulty in con-
552 forming to the dominant society that largely
553 rejected them. This difficulty is partially
554 explained by differing degrees of drive and
555 ambition that affect individual responsibility,
556 and also by social structural constraints largely
557 beyond their control.

558 Working-class youth experience a socializa-
559 tion process that devalues success in the class-
560 room, deferred pleasure and satisfaction,
561 long-range planning, and the cultivation of eti-
562 quette mandatory for survival in business and
563 social arenas. Rather than participate in “whole-
564 some” leisure activity, they opt for activities typi-
565 fied by physical aggression. Overall, the learning
566 experience of lower class males leaves them ill-
567 prepared to compete in a world gauged by a *mid-*
568 *dle-class measuring rod* (Cohen 1955:129).
569 Deficiencies are most noticeable in the class-
570 room, where working-class youth are frequently
571 overshadowed and belittled by their middle class
572 counterparts. Turning to membership in a delin-
573 quent gang is but a normal adaptation to status
574 frustration resulting from clashing cultures.

575 Whereas a strict chronological listing of sub-
576 cultural theories would move from Cohen (1955)
577 to Miller (1958); Cloward and Ohlin’s (1960) the-
578 ory of delinquency is naturally paired with Cohen.
579 Their major work, *Delinquency and Opportunity:*
580 *A Theory of Delinquent Gangs* (1960), also
581 acknowledges the relationship between behavior
582 and status frustration (Merton 1938).

583 Cloward and Ohlin further Cohen’s hypothesis
584 through a detailed accounting of both subculture
585 emergence and the traits of defiant outgroups via
586 a typology of gangs. Often considered an oppor-
587 tunity theory, the basic premises are (1) limited
588 and blocked economic aspirations lead to frustra-
589 tion and negative self-esteem, and (2) these frus-
590 trations move youth to form gangs that vary in
591 type. In short, lower class teenagers realize that

592 they have little chance for future success through
 593 the use of conventional standards and conse-
 594 quently resort to membership in one of three gang
 595 types. The ratio of conventional and criminal val-
 596 ues to which a juvenile is consistently exposed
 597 accounts for the differences in the character of
 598 the gangs.

599 The Cloward–Ohlin gang typology is a hierar-
 600 chy in terms of the amount of prestige associated
 601 with affiliation. At the top is the criminal gang
 602 whose activities revolve around stealing. Theft
 603 and other deviant acts serve to positively rein-
 604 force the mutual codependence between the juve-
 605 nile and the group. Not all have the skills and
 606 composure to integrate into criminal gangs which
 607 screen potential members for certain abilities and
 608 willingness to conform to a code of values neces-
 609 sary to the unit’s success. Mandatory criteria
 610 include self-control, solidarity to the group, and
 611 desire to cultivate one’s criminal ability. Those
 612 strained youth who are precluded from gangs that
 613 primarily steal congregate around violent behav-
 614 ior such as fighting, arson, and serious vandal-
 615 ism. Termed a “conflict subculture” (Cloward
 616 and Ohlin 1960:171), this type of gang results
 617 from an absence of adult role models involved in
 618 gainful criminal behavior.

619 Some youth are neither violent nor successful
 620 in criminal endeavors. Having failed in both con-
 621 ventional and multiple deviant sectors of society,
 622 they retreat into a third type of gang is character-
 623 ized by drug use (Cloward and Ohlin 1960:183).
 624 Members of this relatively unorganized gang
 625 resort to drugs as an escape from failure resulting
 626 from differential access to both legitimate and
 627 illegitimate opportunities, but also deficient
 628 familial and community support. A lack of inter-
 629 est by adults in the future success or failure of
 630 their sons and other young males in the neighbor-
 631 hood symbolizes rejection, the adaptation to
 632 which is “exploration of nonconformist alterna-
 633 tives” (Cloward and Ohlin 1960:86).

634 Unlike Cohen or Cloward and Ohlin, Walter
 635 B. Miller developed a theory that concentrated
 636 directly on culture. In an article titled *Lower*
 637 *Class Culture as a Generating Milieu of Gang*
 638 *Delinquency* (1958), he argued the existence of a
 639 distinct and observable lower class culture.

640 Unlike the middle class emphasis on conven-
 641 tional values, the lower class has defining *focal*
 642 *concerns* that include (1) trouble, (2) toughness,
 643 (3) smartness, (4) excitement, (5) fate, and (6)
 644 autonomy.

645 These concerns foster the formation of street
 646 corner gangs while undermining conventional
 647 values. “Smartness,” for example, is a skill that
 648 warrants respect in the lower class culture. This
 649 refers to the ability to con someone in real-life
 650 situations, rather than formal knowledge that is
 651 relatively inapplicable and even resented in
 652 poorer areas. A belief in “fate” discourages the
 653 work ethic, undermines prudence and minimizes
 654 hope for self-improvement, all of which encour-
 655 age risk-taking. “Excitement” rationalizes other-
 656 wise senseless acts of gang violence. “Trouble,”
 657 however, is perhaps the most defining of the focal
 658 concerns: you do not decide to do something or
 659 not on the basis of rightness or wrongness (i.e.,
 660 morality), but rather on the basis of expediency,
 661 hassles, and practical consequences. Decisions
 662 not to commit certain acts center on whether the
 663 commission is likely to get you into trouble.

664 The theory rests on the supposition that devi-
 665 ance is normal and to be expected in segments
 666 of the lower class where culturally specified focal
 667 concerns make conformity to criminal behavior
 668 as natural as acceptance of conventional mores
 669 for the middle class. Juveniles accepting a pre-
 670 ponderance of these “practices which comprise
 671 essential elements of the total life pattern of lower
 672 class culture automatically violate legal norms,”
 673 typically in a gang setting (Miller 1958:167).

Other Perspectives

674
 675 By the 1960s, a number of closely related social
 676 movements (including the civil rights movement,
 677 anti-Vietnam protest, and the counterculture)
 678 were under way. In varying degrees, they
 679 expressed the same themes: distrust and defiance
 680 of authority which was perceived to be used by
 681 elite factions to create and maintain hierarchy
 682 and exploitation of the weak. Criminology was
 683 profoundly affected by the spirit of the times. Its
 684 attention shifted from the construction of theory

685 and the explanation of crime to opposing the
686 oppressiveness of the criminal justice system.

687 As bandwagon shifts to the political left trans-
688 pired, labeling theory replaced subculture as the
689 leading theory (Bookin-Weiner and Horowitz
690 1983). The main thrust of labeling theory was
691 that crime and delinquency are definitions and
692 labels that are assigned to persons and events by
693 operatives of the justice system. Explaining crime
694 and delinquency, then, is explaining the way in
695 which the labeling process works, and how it
696 singles out certain people for labeling and not
697 others. In its more extreme formulations, labeling
698 theory was not concerned with the explanation of
699 the behavior we call crime and delinquency
700 because criminals and delinquents were not
701 assumed to differ very much in their behavior
702 from other people. Rather, the real difference is
703 said to be the degree of vulnerability to the label-
704 ing activities of the criminal justice system.

705 During this period of interest in labeling, theo-
706 retically oriented research on gangs languished but
707 did not disappear. More moderate versions of label-
708 ing theory propelled some research (e.g., research
709 on gang behavior and emphasis on the role of
710 official processing and labeling in the develop-
711 ment of that behavior), but the leading cause of
712 crime and delinquency was considered the criminal
713 justice system itself (Werthman 1967; Werthman
714 and Piliavin 1967). Specifically, criminal and
715 delinquent behavior was portrayed as responsive
716 to social inequality and class oppression.

717 Much of the fashionable literature of the
718 period, not only on gangs but also on social prob-
719 lems generally, was not only indifferent to subcul-
720 tural theory but also was actively opposed to it.
721 This literature included works such as Chambliss'
722 *The Saints and the Roughnecks* Chambliss (1973)
723 that emphasized a "conflict" perspective which
724 viewed the subcultural theories as conservative.
725 Social control was deemed reactionary because
726 crime and delinquency were direct, reasonable,
727 and even justifiable adaptations to injustice. Gangs
728 in this view, then, were perceived as victims.
729 Some went so far as to portray them as political
730 revolutionaries (Frye 1973).

731 The rise of social control/bonding theory (e.g.,
732 Hirschi 1969) did not accelerate gang research

733 either, though seemingly well-suited to do so
734 (Bookin-Weiner and Horowitz 1983). The central
735 elements of attachment to others, degrees of
736 commitment to conventionality, daily routine,
737 and belief in a moral order speak to why gangs
738 exist and have implications for their actions.
739 Ensuing research interests nonetheless moved
740 towards macro-level determinants of crime and
741 further away from culture and group behavior.
742 Consequently, gangs were largely ignored until
743 the mid-1980s when they were seriously con-
744 nected with drug and violence problems of epi-
745 demic proportions (Curry and Spergel 1988).
746 Specifically, the crack cocaine epidemic was
747 heavily facilitated by gangs and unprecedented
748 moral outcry against gangs, anti-gang legislation
749 and enforcement attention resulted.

750 Gangs in Chicago

751 Although gangs are pervasive throughout the
752 USA, we focus on the city of Chicago's gangs due
753 to the rich and well-documented history of
754 research with this population. Gangs began to
755 emerge in the city of Chicago soon after the end
756 of the Civil War. These early gangs were predomi-
757 nantly immigrant groups of Eastern Europeans,
758 Poles, and Italians (Thrasher 1927). It was not
759 until the 1930s when the constant migration of
760 Mexicans and African-Americans to Chicago fos-
761 tered the growth of the more modern day gangs,
762 specifically the Devil's Disciples, P-Stones, Vice
763 Lords, and the Latin Kings (Dawley 1992).

764 Following the city's construction of over 50
765 high-rise public housing projects, gangs such as
766 the Conservative Vice Lords, the Gangsta
767 Disciples, and the Black P. Stones began to feud
768 over control of the public housing projects and
769 drug trafficking jurisdictional "rights" (Cureton
770 2009). These gang wars paved the way for the
771 emergence of "super gangs" with 1,000 or more
772 members who were fairly structured and orga-
773 nized gangs that controlled large areas within
774 the city of Chicago. This post-WWII era in
775 Chicago also witnessed a substantial immigra-
776 tion of Mexican and Latino workers into the
777 city, and a number of these immigrants began to

778 form gangs that were equal in their level of
779 violence to their African-American gang counter-
780 parts (Spergel 2007).

781 Recent estimates suggest that the Black
782 Gangster Disciple Nation, the Latin Disciples,
783 the Latin Kings, and the Vice Lords each had a
784 total membership near 20,000 members.
785 Furthermore, Block and Block (1993) reported
786 that in a 4-year period (1987–1990) these four
787 gangs were responsible for nearly 70% of
788 Chicago’s gang-related crimes and more than
789 half of the gang-related homicides. Most recently,
790 Chicago’s gang problem has moved outside the
791 inner city and into the suburbs as a result of gen-
792 trification and the destruction of the high-rise
793 public housing projects. Some examples of these
794 new and emerging gangs include the Four Corner
795 Hustlers and the Maniac Latin Disciples (Chicago
796 Crime Commission 2009).

797 **Conclusion**

798 Theoretical explanations of gangs address the
799 reasons they form and why they tend to be delin-
800 quent and criminal which, in turn, yield implica-
801 tions for gang policy. Unfortunately, gangs have
802 become so socially embedded in American soci-
803 ety that policy answers are not clear. While both
804 suppression/law enforcement and social pro-
805 gramming/intervention initiatives have been
806 claimed successful, gangs persist and continue to
807 grow in numbers and spread to new areas. A cul-
808 tural approach lends credence to control initia-
809 tives now necessary in many urban areas, but
810 policing gangs can be counterproductive as pro-
811 active enforcement strategies too often provide
812 the conflict necessary to unify and reify gangs.

813 Subcultural theories are typically character-
814 ized by sociological criminologists as ideological
815 reinforcement for selective law enforcement, in
816 this case, the targeting of minority youth. Because
817 the culture of gangs today clearly encourages
818 crime, there is little doubt that police key on sym-
819 bols, signals, and other visible indicators of gang
820 activity. However, this is a matter of police
821 responding to a problem where it is most appar-
822 ent and not necessarily a reflection of a polarized

ideological position wherein cultural awareness 823
is a means to biased ends. As evidenced almost 824
weekly on Gangland and similar television pro- 825
grams, many gangs, particularly the more violent 826
ones (as illustrated in the city of Chicago) are 827
composed of newly arrived and illegal immi- 828
grants. To the degree that many gangs self-segre- 829
gate, any proactive policing of them might be 830
considered racial profiling—a perspective calling 831
into question the over-reach of the concept. 832
Regardless, it is evident that the immigration- 833
gangs nexus will be a major focus for both aca- 834
deme and the criminal justice system over the 835
next few decades. 836

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Juvenile Forensic Psychology and Psychiatry: The Movement Toward Data-Based Innovations

37

Thomas J. Dishion

5 The face of forensic psychology and psychiatry is
6 changing, notably as it is applied to children and
7 adolescents. As suggested in the material in this
8 handbook, there is heightened potential to
9 improve criminal detection practices and use
10 experimental design to test the effectiveness of
11 correctional and treatment services. Unfortunately,
12 there is less evidence of efforts to improve
13 organizational communication (e.g., schools,
14 correctional facilities, police, probation offices)
15 to facilitate tracking and service provisions for
16 children and adolescents within and across geo-
17 graphical boundaries. Scientific advances in
18 genetics, experimental longitudinal designs,
19 neuroimaging, informatics, and intervention sci-
20 ence are core to continued innovation in forensic
21 psychology and psychiatry.

22 Professional Practices: The Need 23 for Transdisciplinary Training

24 Individuals at the forefront of forensic psychol-
25 ogy and psychiatry commonly work in profes-
26 sional teams that tend to lack overlapping expertise.
27 Criminal detection and apprehension teams
28 are minimally concerned with developmental

psychology and the behavior patterns of children 29
and adolescents. Similarly, expert consultants, 30
such as psychologists and psychiatrists, may not 31
appreciate the here-and-now demands of criminal 32
investigations and corrections strategies and poli- 33
cies. Transdisciplinary training would lead to a 34
new genre of professionals with a broader array of 35
skills related to detection, accumulation of evi- 36
dence, trial procedures, corrections, and treat- 37
ment. To accelerate this general upgrade of 38
transdisciplinary knowledge relevant to forensic 39
psychology and psychiatry, expertise must be 40
enhanced in the areas of research design and ran- 41
domization, assessment-based decision making, 42
and data systems and informatics. 43

44 Research Design and Randomization

45 Every day thousands of children and adolescents 45
are sentenced to correctional protocols, preven- 46
tive interventions, and treatment programs. 47
Rarely are correctional procedures, however, ran- 48
domly assigned to children and adolescents. 49
Recently improved methods of collecting longi- 50
tudinal data on daily, weekly, monthly, and yearly 51
intervention outcomes (e.g., arrests, free time 52
with peers, school attendance, behavior in correc- 53
tional settings) would enhance the identification 54
of more effective and economically viable 55
correction programs. Given our professional, 56
collective ignorance about the relative effective- 57
ness of diversion, probation, and correctional 58

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59 placements, randomized assignment is more ethical
60 than not. Thus, the juvenile justice field would
61 benefit if juvenile jurisdiction were to randomly
62 assign youth with comparable offenses to service
63 and intervention options that are roughly equiva-
64 lent and to collect data about relevant outcomes,
65 such as rearrest, future victimization, and other
66 dimensions of public harm.

67 **Assessment-Based Decision Making**

68 Considerable work has been done during the past
69 50 years in the behavioral sciences that suggests
70 clinicians' fallibility when making decisions,
71 judgments, and predictions regarding client
72 behavior (Cronbach and Meehl 1955; Edwards
73 1954). That said, there is a clear need in forensics
74 work involving children and adolescents to use
75 assessment tools that are well developed, valid,
76 and reliable and that are practicable for intake
77 workers, corrections facilities, probation officers,
78 and criminal investigation teams. One must
79 remember that the propensity to commit crime or
80 repeat criminal acts is a measurable phenomenon
81 at all phases of the forensics process. As such,
82 wisely chosen assessments could be used to guide
83 decision making about the best remedial inter-
84 vention for youth with respect to containment,
85 treatment, and prevention.

86 **Data Systems and Informatics**

87 In many states it is nearly impossible to trace an
88 individual youth and his or her behavior from one
89 county to another—yet we know that the highest
90 risk youth are often the most mobile. Statewide
91 systems and even national data bases that share
92 similar behavior definitions, detailed histories of
93 crimes, and evidence such as DNA would signifi-
94 cantly improve detection of the guilty and mini-
95 mize prosecution of the innocent. Improving the
96 capacity of information systems is clearly the
97 next step to more effectively ensure that the right
98 people are identified and deterred and then
99 assigned to empirically supported interventions
100 that reduce the likelihood of reoffending.

Development and Ecology

101

102 There is a scientific basis for attempting to under-
103 stand why some individuals are more likely to
104 commit crimes and why some communities have
105 higher prevalence rates of serious crime. It is not
106 possible to simply identify personality traits or
107 DNA structures that contribute to the likelihood
108 of committing serious versus trivial crimes. The
109 best science reveals that genetic and temperament
110 characteristics interact with one's environment to
111 increase the likelihood of criminal behavior (Caspi
112 et al. 2002). Exploring and understanding this
113 body of research and systematically applying its
114 findings to juvenile forensic psychology and psy-
115 chiatry likely would contribute to reduced com-
116 munity prevalence of victimization and
117 perpetration of crime (Biglan et al. 2004). Three
118 empirically based principles relevant to forensic
119 juvenile psychology are addressed in the follow-
120 ing sections: early onset and chronicity, peer con-
121 tagion and severity, and the centrality of families.

Early Onset and Chronicity

122

123 Several chapters in this book acknowledge the
124 well-documented link between age of onset and
125 the chronicity and seriousness of juvenile offend-
126 ing. Several groups of behavioral scientists have
127 focused on various aspects of the problem of early
128 onset. Some time ago, Patterson and colleagues
129 noted that boys who initiated antisocial behavior
130 in childhood were the most likely to initiate their
131 criminal careers in early adolescence. Early ado-
132 lescence arrest, in turn, predicted chronicity and
133 frequency of offending (Patterson et al. 1991).
134 This finding was extended to the articulation of an
135 early- versus late-started model by several crimi-
136 nological researchers (Moffitt 1993; Patterson
137 1995; Patterson et al. 1992; Patterson and Yoerger
138 2002). Early onset is also prognostic of violent
139 offending (Chap. 15) and as one would suspect,
140 portends severe sanctions and juvenile justice
141 costs (Chap. 7). Early-onset sexual offending is
142 associated with an extended duration of offend-
143 ing and multiple victims (Chap. 25). The relation-

144 ship between early onset and severity is ubiquitous
 145 and is of special significance when considering
 146 the costs and benefits of early intervention, espe-
 147 cially those that are empirically supported.
 148 Preventing a trajectory of early-onset criminality
 149 could substantially offset costs associated with
 150 treatment and criminal containment, and in turn
 151 result in reduced incidence of victimization. From
 152 this point of view, it is unwise to ignore childhood
 153 involvement in and early-adolescence engage-
 154 ment in antisocial behavior and sexual offending.

155 **Peer Contagion and Severity**

156 One of the strongest predictors of escalating prob-
 157 lem behavior in adolescence is gang involvement
 158 (Dishion et al. 2010; Klein 2006; Robins and Hill
 159 1966). Associating with criminal and antisocial
 160 peers is not simply a correlate of child and adoles-
 161 cent problem behavior; there is considerable evi-
 162 dence that it is a cause. Peer contagion can be
 163 observed by simply watching videotaped devi-
 164 ancy training interactions among youth who com-
 165 petitively discuss and laugh about their deviant
 166 exploits (Dishion et al. 2004; Patterson et al.
 167 2000). More alarming is the possibility that pre-
 168 vention and treatment services that aggregate
 169 antisocial youth actually exacerbate the very
 170 problem behavior targeted (Dishion et al. 1999;
 171 Dodge et al. 2006). Seen from this empirical per-
 172 spective, it is possible that a good proportion of
 173 our community efforts to treat, reduce, and pre-
 174 vent serious offending inadvertently worsens the
 175 problem. For example, group homes that aggre-
 176 gate offenders, group programs for sexual offend-
 177 ers, and even juvenile justice institutions may
 178 provide the very context for motivating and
 179 polishing the skills of more serious offenders.
 180 Alternative strategies do exist for effectively
 181 responding to child and adolescent crime, and
 182 they are summarized later in this chapter.

183 **The Centrality of Families**

184 Longitudinal studies of the emergence of
 185 criminal behavior in children and adolescents
 186 have revealed that approximately 50% of the

187 crime in any community is committed by 5%
 188 of the families (Farrington et al. 1990;
 189 Thornberry and Krohn 2003). Although
 190 genetic effects relevant to antisocial behavior
 191 have been identified, it appears that the stron-
 192 gest formulation is one in which genetic and
 193 temperament variables together moderate the
 194 relationship between pathogenic environments
 195 and later serious antisocial behavior (Caspi
 196 et al. 2002). A family-centered approach has
 197 substantial empirical support in terms of pre-
 198 venting crime and treating antisocial behavior
 199 as it unfolds in community settings. As such, it
 200 is imperative to carefully consider the imple-
 201 mentation of these interventions.

202 **Empirically Supported Intervention** 203 **Principles**

204 An emphasis on identifying empirically based
 205 programs has emerged during the past 10 years of
 206 research on treatment and prevention strategies
 207 for children and adolescents (Weisz and Kazdin
 208 2010). This research has articulated the details of
 209 intervention strategies that have demonstrated
 210 effectiveness in randomized trials that used ade-
 211 quate controls and data analytic procedures.
 212 Identifying successful programs, however, should
 213 eventually give way to identifying empirically
 214 supported intervention principles that can be
 215 implemented in a variety of forensics settings,
 216 such as probation, detention, and diversion pro-
 217 grams. Of critical importance is that ownership
 218 of the strategy becomes a collective enterprise
 219 that involves the practitioner and the researcher.
 220 Unfortunately, there are many hurdles to imple-
 221 menting empirically supported interventions in
 222 real-world settings, especially those that involve
 223 delivering interventions and services with fidelity
 224 (Domitrovich et al. 2008; Forgatch et al. 2005).
 225 The chapters in this book identify several empiri-
 226 cally supported programs that translate to two
 227 basic intervention principles that are especially
 228 important for the future design of effective pre-
 229 vention and treatment of criminal behavior in
 230 juveniles. The first is to support the training to
 231 prepare professionals to implement interventions
 232 competently. The second is to collect ongoing

233 data about fidelity to ensure accountability and to
 234 provide supportive feedback to maintain high
 235 levels of fidelity.

236 **Family-Centered Interventions**

237 Chapters 19 and 20 discuss the effectiveness of
 238 early interventions with families to prevent early-
 239 onset antisocial behavior, and describe the need
 240 to provide treatment for the offending adolescent.
 241 The principles of effective family-centered inter-
 242 ventions are many, but the common denominator
 243 is a concerted focus on improving family man-
 244 agement practices and reducing coercive interac-
 245 tion strategies during family conflict. Coercive
 246 interactions among family members lead to esca-
 247 lations that in the short run can transform an
 248 argument into a fight and in the long run turn
 249 relatively trivial problem behaviors into more
 250 serious forms of antisocial conduct. Although
 251 coercive interactions are a way of life for many
 252 families, they often go unnoticed as being prob-
 253 lematic (Patterson 1982). Coercion and conflict
 254 can ultimately lead to parents disengaging from
 255 the parenting role and reducing efforts to monitor
 256 and manage the increasingly problematic adoles-
 257 cent (Dishion and McMahon 1998). Effective
 258 family-centered intervention strategies work to
 259 promote monitoring and positive behavior sup-
 260 port in families, reduce coercion, and maintain
 261 involvement of the adult caregivers in the life of
 262 their child or adolescent. Given the high co-
 263 occurrence of criminal behavior in families and
 264 the effectiveness of the programs that target par-
 265 enting, family-centered services should be cen-
 266 tral to every probation and juvenile corrections
 267 treatment center.

268 **Self-Regulation and Control**

269 Another branch of intervention research dis-
 270 cussed in this book (Chaps. 19 and 21) involves
 271 cognitive-behavioral strategies for helping chil-
 272 dren and adolescents effectively cope with peer and
 273 family contexts that promote criminal offending.
 274 A focus on self-regulation and self-control is

consistent with major criminological theories 275
 (Hirschi 2004). It is also true that many of the 276
 children and adolescents who come into contact 277
 with forensic and correction facilities have expe- 278
 rienced trauma and correlated mental health 279
 problems (Chap. 12). Empirically supported 280
 interventions that target self-regulation and self- 281
 control are certainly warranted and potentially 282
 helpful for reducing mental health problems and 283
 future criminal behavior. The vast armamentar- 284
 ium of cognitive behavioral interventions forms 285
 the core of empirically based practices (Weisz 286
 and Kazdin 2010) and also addresses child and 287
 adolescent regulation of behavior, cognition, and 288
 emotion. 289

Treatment Foster Care 290

Many of the children and adolescents who 291
 become involved with correctional systems come 292
 from families disrupted by divorce, substance 293
 abuse, trauma, or imprisonment of parents. 294
 Historically, the solution has been to place offend- 295
 ing adolescents who have marginal family sup- 296
 port into juvenile detention facilities. Over time 297
 this practice evolved to the use of group homes 298
 where trained “group home parents” provide 299
 care and socialization for offending adolescents. 300
 A more recent alternative, developed by 301
 Chamberlain and colleagues (Chamberlain 1994; 302
 Chamberlain and Reid 1998), is the treatment 303
 foster care model, which empowers treatment 304
 care-giving adults with strong behavior manage- 305
 ment practices and provides direct support for 306
 youth to develop improved self-regulation. This 307
 model has shown clear results in terms of reduced 308
 criminal activity and chronicity, compared with 309
 the group home model. The principle underlying 310
 the effectiveness of treatment foster care is not 311
 different from the principles that describe the 312
 effectiveness of family-centered interventions 313
 and interventions that focus on self-regulation. It 314
 emphasizes reducing peer aggregation and peer 315
 contagion, increasing adult caregiver monitoring 316
 of youths’ daily activities, providing positive 317
 support for high-risk youths’ positive behavior, 318
 and reducing coercive interactions in youths’ 319

320 daily lives. This multidimensional approach is
 321 actually less costly than residential institutional
 322 care or group home care (Chamberlain and Reid
 323 1998). Other advantages include youths continu-
 324 ing to attend public school and continuing to be a
 325 member of the mainstream community. This
 326 overall strategy reduces the problems associated
 327 with transiting back to the community from a
 328 juvenile justice institution.

329 Intervention Quality Management

330 As professionals in the field of forensic psychol-
 331 ogy and psychiatry become familiar with and
 332 progress toward the accurate identification of
 333 empirically supported intervention principles,
 334 they must be supported and empowered to imple-
 335 ment the services effectively. Educators and men-
 336 tal health treatment professionals are increasingly
 337 aware of the need for monitoring and feedback
 338 among those working with challenging youth to
 339 improve and maintain intervention effectiveness.
 340 Similarly, forensic and correctional psychology
 341 would benefit from brief, periodic performance
 342 measures for professionals working with chil-
 343 dren. These measures would assess their ongoing
 344 ability to implement empirically supported inter-
 345 vention principles and maintain fidelity to the
 346 model. This well-recognized strategy requires
 347 supervisor training in data-based decision mak-
 348 ing, as well as supervisory consultation and
 349 knowledge of effective intervention practices.

350 Summary and Conclusions

351 This book attests to the massive growth of scien-
 352 tific knowledge that forms the foundation of
 353 effective forensic psychology for children and
 354 adolescents. The key point when investigating,
 355 sentencing, and treating the juvenile offender is
 356 to be aware that they are not mature adult human
 357 beings. Increasing evidence suggests continued
 358 developmental growth and self-regulation vis-à-
 359 vis the prefrontal cortex and myelination of the
 360 adolescent brain (Dahl 2004; Spear 2000). An apt
 361 metaphor is that the adolescent is now able to

drive the car but lacks the judgment to use the 362
 brakes and the gas pedal. In this sense, we should 363
 give pause to simply treating youthful offenders 364
 as adult criminals. Given this core developmental 365
 principle, it becomes clear that much of this field 366
 should be tightly linked to advances in the science 367
 of intervention and child development. As well, 368
 the quick adoption of empirically supported inter- 369
 vention principles in conjunction with randomized 370
 evaluation studies will speed up the process of 371
 innovation in forensic psychology. Central to the 372
 mission of solid decision making to benefit chil- 373
 dren, adolescents, and communities is the need 374
 to improve the use of assessments for designing 375
 interventions and accurately detecting criminal 376
 behavior and histories. With a more concerted 377
 professional collaboration among disciplines, 378
 one can imagine a time when we can accurately 379
 detect the pattern of offending, assess the eco- 380
 logical circumstances, and adapt and tailor inter- 381
 ventions to meet the specific needs of the offending 382
 youth and reduce victimization in the community. 383

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