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Mental Health Services and the American Inmate: A Systematic Review of Literature

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Mental Health Services and the American Inmate: A Systematic Review of
Literature

by

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MSW Clinical Research Paper

Presented to the Faculty of the
School of Social Work
St. Catherine University and the University of St. Thomas
St. Paul, Minnesota
in Partial fulfillment of the Requirement for the Degree of
Master of Social Work

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

In this systematic review, I synthesized literature regarding the effectiveness of current correctional mental health and substance use programming in the United States. Using Social Work Abstracts, Criminal Justice Abstracts, SocINDEX, and PsychINFO, 17 quantitative studies meeting criteria for the review were then analyzed. Themes identified included recidivism as an indicator of program success, therapeutic community treatment, and aftercare following correctional treatment. The studies included in this review found moderate levels of effectiveness of corrections based programming for adult inmates with mental health and substance use disorders and overall lower re-incarceration rates for offenders engaged in correctional treatment, but suggests a need for additional studies on both in-custody and post-custody programming for inmates with mental health and substance use disorders.

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Table of Contents

Abstract	2
Acknowledgements	3
Introduction	5
Conceptual Framework	7
Methods	9
Findings	13
Discussion	20
References	23

As the number of patients treated for mental illness by state hospitals has decreased over the last few decades, county, state, and federal prisons have become inundated with mentally ill offenders who often lack the proper treatment and support to manage their illnesses (Torrey, Zdanowicz, Kennard, Lamb, Eslinger, Biasotti, & Fuller, 2014). It has been estimated that over 50% of criminal offenders in jails and prisons in the United States have issues with mental health, compared to 11% of the general population (James & Glaze, 2006), with higher rates for females (73%) (NAMI, 2009, "Mental Illness," 2013). A report by Watson, Hanrahan, Luchins, and Lurigio (2001) found that 16% of offenders on probation report previous mental health hospitalizations or a serious mental illness. In addition, 65% of inmates meet the diagnostic criteria for substance abuse disorders (CASA, 2010).

Since deinstitutionalization of the chronically mentally ill began, the number of patients in state hospitals in the United States decreased from over 550,000 in 1959 to 70,000 by the 1990s ("Mental Illness," n.d.). As this significant decrease in hospitalizations has occurred, the number of incarcerated adults with mental illness has multiplied and individuals with a diagnosis of severe mental illness are three times more likely to be involved in the correctional system than the general population (Aufderheide, 2014). In addition to deinstitutionalization, a lack of resources and funding within prison mental health systems (Warrilow, 2011), a shortage of adequate community treatment, the relations between the mentally ill and law enforcement, and rigid requirements for civil commitments are shown to be contributing factors for the rise in mental illness in prisons and jails (Lamb & Weinberger, 2005).

Even with the high percentage of mentally ill offenders, county, state, and federal prisons often lack the services to manage mental health and substance use symptoms in these offenders during their incarceration. Sarteschi's (2013) article reports that around one third of state

correctional facilities in the US provide mental health interventions, and an even lower percentage of federal prisons (24%) and jails (17.5%) and that most of those receiving mental health care in the jail group received medication only interventions as opposed to other mental health interventions.

When not provided with access to proper interventions and support to manage symptoms, mentally ill offenders often struggle while incarcerated as well as after their release. On average, mentally ill offenders spend five more months incarcerated than offenders without a mental illness diagnosis (James & Glaze, 2006). Individuals with a mental illness who were previously incarcerated struggle with readjustment to the world following incarceration. A 2005 study by Kushel, Hahn, Evans, Bangsberg, and Moss found that almost 25% of the nearly 1,500 participants involved had been incarcerated at least one time prior to becoming homeless. Studies have also shown that federal offenders with a history of mental illness have a 44% recidivism rate for violent offences compared to 22% of those without a mental health diagnosis (Ditton, 1999). A study conducted by Baillargeon, Penn, Knight, Harzke, Baillargeon, and Becker (2010) found that prisoners with co-occurring mental illness substance use disorder had a higher rate of multiple re-incarcerations over a six year period than prisoners with a mental illness or substance use disorder diagnosis alone.

Social workers within the prison system who are working with clients during incarceration and those who work in the community with offenders dealing with mental illness or substance use disorder can work to provide needed interventions for these clients during their time in jail or prison in order to reduce recidivism and mental health symptoms. When substance use and/or mental health interventions are provided during the prison or jail stay, clients' mental health symptoms may be reduced, which can help the clients become stabilized and manage their

symptoms after their incarceration has ended (“Mental Illness,” 2009), but aftercare is often not provided to inmates following their release (Felthous, 2014) and assertive case management may be necessary for continued care (Lamb & Weinberger, 1998).

As the number of individuals in need of substance use and mental health interventions in prisons and jails continues to rise, it may be important to study the effects of current treatment within the corrections system in order to determine effectiveness and gaps in services. Because little is known of the overall state of research on current mental health substance use program effectiveness within jails and prisons, this systematic review pulled together all relevant research regarding the effectiveness of current mental health and substance use programming in jails and prisons in order to gauge the effectiveness of current county, state, and federal prison programs and assess areas of need.

Conceptual Framework

For this systematic review, I used the ecological framework to guide my research of the effectiveness of current mental health and substance programming in jails and prisons. The ecological framework has been used in past studies to guide research on the correctional population. Developed in 1970s, the Ecological Model began as a way to make sense of the human development in the environment in which people live. According to Bronfenbrenner (1994) this framework states that development involves a process of interactions between humans and the environments that they live in over an extended period of time. In this theory, there are five system levels influencing human behavior and development: microsystems, mesosystems, exosystems, macrosystems and chronosystems. Microsystems involve the day-to-day interactions between individuals and their families and peers while the mesosystem is what links those interactions to different environmental settings. The exosystem links together

multiple settings in which one or more does not physically contain the individual, but has an indirect impact on development. The macrosystem is a combination of the micro, meso, and exosystems and is described to be a sort of “societal blueprint for a particular culture or subculture” (p. 40). Finally, the chronosystem is used to describe the environment over the period of one’s life and across a historical time period.

While this type of conceptual framework was originally used to explain child development, it has become a useful tool for many different areas of study. Numerous areas of research in the social sciences borrow this framework to make sense of human development and interactions, and a number of researchers studying correctional populations have used this theory to guide their research. A 2012 study by Wright, Pratt, Lowenkamp, and Latessa used the ecological model to discuss the implications of correctional rehabilitation programs during incarceration and their effects on recidivism rates once released. The study looked at individuals within the micro and macrosystems and found that their theory that ecological factors including affluence are a strong predictor of low recidivism rates was correct, and a positive, supportive environment is a strong indicator of low recidivism rates. Another study by Malott and Fromader (2010) used the ecological model to guide their theory that providing offenders with a stable environment which includes proper resources and social supports post incarceration will help to curb recidivism rates. This theory was supported by the results of the study, which found that inmates felt that if they were given equal access to support services in the areas of employment and therapeutic and family supports following discharge, they would be less likely to reoffend. Using the ecological framework in regards to this systematic review provided a lens that will identify environmental factors associated with effective mental health interventions within prisons and jails across the United States.

Methods

This systematic review aimed to gather data and synthesize relevant studies regarding the effectiveness of current mental health and substance use programs within U.S. jails and federal prisons. Systematic reviews are designed to look into all available, relevant studies regarding the topic of research in order to assess and synthesize the topic without researcher bias and involve the use of clean inclusion and exclusion criteria, a strategy for searching and extracting data from the research articles, and then the analysis of available collected (Uman, 2011).

Data Analysis

This review looked to find the gaps and critically assessed all relevant research in the area of mental health and substance use treatment programs in correctional settings. Using a systematic review to determine the effectiveness of these programs was beneficial in determining the course of action that new and existing correctional mental health and substance use programs can take in order to provide inmates with the most appropriate treatment in order to reduce mental health symptoms and recidivism rates among mentally ill offenders.

As the number of offenders with mental illness and substance use disorders increase in all areas of corrections, it may be important to analyze these studies to get an idea of the strengths and limitations of correctional mental health programs in the United States in order to best serve this population of offenders. This review looked to find the effectiveness of programs used in US prisons and jails to deal with mental illnesses and substance abuse in inmates. While other systematic reviews of literature involving prison mental health and substance use programs have been completed, there appeared to be a gap in the area of effectiveness of current programming, which was the main focus of this review, with the research question asking “what is the effectiveness of programs used in US correctional facilities to address mental illness and

substance abuse in inmates?”. This systematic review also determined the quality of the articles used by the size of the sample, whether or not a control group was used, and the number of times the measures were repeated (Table 1). These measures were then ranked on a scale of one through three with one being low quality and three being high quality.

Table 1. Article quality rating scale

Method	1(poor)	2(moderate)	3(high)
Sample size	>200	200-500	500+
Comparison	none	Non-equivalent	Random
Repeated Measures	Point-in-time	Pre and Post tests	Measured more than two time points

Data Collection

In order to complete this systematic review, a research protocol was put in place along with an article abstraction form (Table 2) intended to sort through and synthesize all relevant research materials. Data was also collected regarding the number of related articles that were not used for this review (Figure below) and articles were grouped by topics with attention paid to the credibility of the quantitative studies used in this review. In order to be included in this review, research articles topics must have involved mental health and/or substance abuse programs in jails and prisons. All articles were published in 2000 or later. Only quantitative research studies were included. The samples only included persons over 18 years of age diagnosed with a mental health or substance use disorder with a past or current incarceration. The search strategy for this review included the use of electronic data bases including Social Work Abstracts, Criminal Justice Abstracts, SocINDEX, and PsychINFO and used the key words: Prison, jail, inmates, corrections, correctional institutions, mental health treatment, mental health programs, mental health program evaluation, mental health services, mental illness, substance abuse, drug abuse.

Protocol

Listed below is the protocol for the search strategy and inclusion criteria that was followed for articles included in this review.

1. Search Strategy

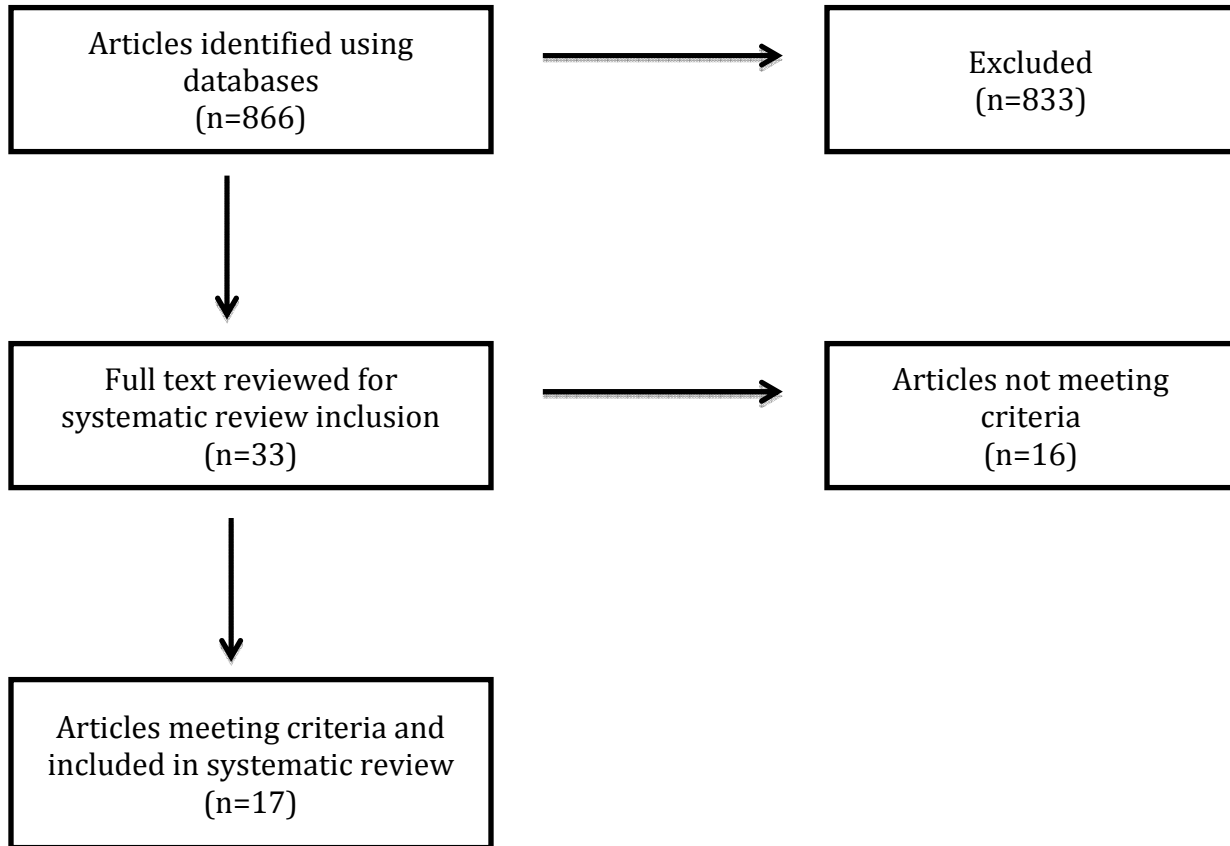
- Electronic data bases included: Social Work Abstracts, Criminal Justice Abstracts, SocINDEX, PsychINFO
- Key words: Prison, jail, inmates, corrections, correctional institutions, mental health treatment, mental health programs, mental health program evaluation, mental health services, mental illness, substance abuse, drug abuse
- Abstracts were reviewed

2. Inclusion criteria

- Topic must have been a study on mental health and/or substance abuse programs in correctional facilities
- Articles were from 2000 to present
- Only quantitative studies were be used
- Sample included adults with a current or past incarceration with mental health symptoms

Below is a flowchart demonstrating the article selection process for this systematic review process.

Figure 1. Flowchart demonstrating the article selection process



Findings

Overview of Themes

Through the data abstraction process of this systematic review, common themes emerged in the articles included. The themes discussed in this review include recidivism rates as an indicator of program success, therapeutic community programs, and aftercare programming for inmates involved in correction mental health, substance abuse or co-occurring programs.

Recidivism as Indicator of Program Success

Of the 17 studies included in this review, 13 used recidivism following release from jail or prison as indicator of a program's success (Table 3). All of the studies using recidivism as a measure of program success were either moderate or high quality studies. Of the remaining five studies without recidivism rates, four did not use a comparison group and four were in the moderate quality range with one low quality rating. Each of these studies using recidivism as a measure of program success found lower rates of reconviction or re-arrest rates in correctional programming for both co-occurring and substance use disorders. In one high quality study using a large sample, comparison group, and repeated measures to assess the cost effectiveness of substance abuse tier programs, Daley et al. (2004) found that of the 831 participants receiving even the minimal level of substance use treatment, a one week educational program, had a decreased recidivism rate over a two-year period compared to the control group. Those receiving the most intensive level of treatment (tier four) had a re-arrest rate of 22.2% versus 45.9% the control group who did not attend any of the tier programs. While there was a significant decrease in re-arrest over the two year post-release period for the tier four programs, the greatest difference in rates was seen at twelve month check with 23.7% fewer arrests in those who completed tier four programs than the control group.

Table 3. Recidivism as Indicator of Program Success

Author/Date	Topic	Design	Measures	Comparison Group Type	Sample	Findings	Quality
Chandler et al. (2006)	In custody and community co-occurring treatment	Randomly assigned control group	Standardized Scale, Administrative data	Randomly assigned	182 male and female inmates	Experiment group lower overall conviction and jail	Moderate
Daley et al. (2004)	Prison based substance abuse treatment program	Matched control group	Administrative data	Matched control group	831 male inmates avg age 31 years	Tier 4 =the lowest percentages of recidivism	High
Duwe (2010)	Prison based Substance use treatment	Retrospective Quasi-experimental design, matched control group	Administrative data, other measures	Matched control group	1852 male and female offenders	Treatment group lower rates for all re-arrest, reconviction, re-incarceration	Moderate
Johnson & Zlotnick (2012)	MDD treatment for inmates receiving tx for SUDs	Wave Randomization, control group used	Standardized scale	Randomly assigned	38 female inmates avg age 35.0	32% of treatment group experience relapse post-release	Moderate
Linhorst et al. (2012)	Jail-based substance abuse	No control group	Administrative data	NA	1,151 male and female inmates, mean age 31.6	Following violation=had a higher rate of re-arrest	Moderate
Mosher and Phillips (2006)	Substance use treatment	Cross-Sectional, Control group	Administrative data	Matched	279 Female inmates, 18-55+	TC=reduced recidivism	Moderate
Pendergast et al (2003)	Substance Abuse Treatment	Random Control group	Administrative data, other measures	Treatment control group randomly assigned	715 male prisoners avg age 30.9 Random sample	Treatment group more days before 1 st re-incarceration	High
Rothbard et al (2009)	Co-occurring Treatment at a county jail	No control group	Other measures	NA	261 inmates male and female inmates avg age 37.3	Higher number of sessions =reduced re incarceration,	Moderate
Sacks et al. (2008)	Substance use treatment	Longitudinal, repeated measures design, Random assignment control group	Standardized scale	Randomly assigned control group	314 female inmates avg age 35.6	TC= greater reductions in arrest	High
Sullivan et al. (2007)	Modified treatment for inmates with co-occurring disorders-	Cross sectional, randomly selected control group	Administrative data, other measures	Treatment and control group randomly assigned	139 male inmates, avg age 34.3 years	Greater reductions in substance use outcomes for MTC group	Moderate
Sullivan et al. (2007)	Co-Occurring Treatment	Randomly assigned control group	Standardized scale, other measures	Mental Health	185 male inmates avg	Substance relapse=2.11 greater rates of re-	Moderate

				Treatment Control group randomly assigned	age 34.3 years	incarceration	
Staton-Tindall et al. (2009)	Substance abuse TC community	Stratified random sample, comparison group	Other measures	Random sample	700 male and female inmates avg age 32.6	34% of TC group rearrested at 12 month follow-up	Moderate
Welsh et al (2013)	Substance abuse	Randomized design	Standardized scale, other measures	Randomly assigned	604 males, avg age 32.5	41% re-incarcerated at follow-up	High

A second high quality study by Pendergast, Hall, and Wexler’s (2003) assessed the effectiveness of the Amity Program, a prison therapeutic community for the treatment of substance abuse disorders, and found at the 12 month post-release follow-up that only 8.2% of the clients who completed an aftercare program in addition to participating in the therapeutic community had been re-incarcerated compared to 49.7% of the control group.

Five studies of the studies also measured return to chemical use following correctional treatment and each found that participation in substance use programming while incarcerated had a significant impact on the recidivism rates or return use of participants following involvement in correctional substance abuse programming. An outcome study by Sullivan, McKendrick, Sacks, and Banks’ (2007), it was found that the participants who had returned to drug or alcohol use within twelve months of release were 4.2 times more likely to re-offend than the participants not reporting a relapse.

When comparing recidivism rates of individuals participating in correctional programming for substance abuse and co-occurring disorder, there appears to be some promise in the effectiveness of programs. The participants involved in the included studies tend to have lower rearrest and reconviction rates than their treatment as usual or non-treatment group counterparts, specifically at around the 12 month follow up period, but with rates then becoming less significant at longer periods of time.

Therapeutic Community Treatment

Many of the articles used in this review discuss the use and effectiveness of therapeutic communities in treating inmates with substance use or co-occurring disorders. Therapeutic communities utilize a variety of treatment strategies including peer interactions and the group process to assist inmates in developing social skills and to adhere to social norms. (Olson, Rozhon & Powers, 2009).

Of the studies included in this review, nine of the 17 focused on the effectiveness of therapeutic communities or specialized treatment units within correctional settings (Table 4). While a majority of the studies found positive outcomes associated with the use of therapeutic communities within correctional facilities, two high quality studies on traditional therapeutic communities found very different outcomes. Sacks et al. (2008) study compared an experimental Challenge to Change, a comprehensive and holistic therapeutic community program that focuses on issues including substance use, mental health, criminal behavior, trauma, and relationships, and a non-therapeutic community cognitive behavioral education-based program at a women's correctional facility. The study found that both programs led to similar significant levels of decrease in mental health symptoms and substance abuse, however, the participants in the therapeutic community program had a greater decrease in arrests for criminal activities other than parole violations than those in the control group. In contrast to other studies in the review, a 2014 study conducted by Welsh, Zajac, and Bucklen (2013) did not find such promising results when focusing on negative affect levels of inmates in therapeutic communities in contrast to those involved in outpatient programming. The study found that therapeutic community participants with high levels of negative affect actually have an increased re-incarceration rate of 12% compared to those in the outpatient program.

Table 4. Therapeutic Community Treatment

Author/Date	Topic	Design	Measures	Comparison Group Type	Sample	Findings	Quality
Gagliardi (2005)	Mental Health residential treatment	Observational, Control Group	Other measures	Treatment control group	42 males in treatment group avg age 41 years	TC decreased discipline reports, hospitalizations, segregation trips	Low
Morgan et al. (2014)	Correctional mental health	Cross sectional, No control group	Standardized Scale	NA	47 incarcerated males, mean age of 31	TC= reduction in depression, anxiety, hostility, paranoid ideation, psychoticism	Moderate
Mosher and Phillips (2006)	Substance use TC treatment	Cross-Sectional, Control group used,	Administrative data	Matched	279 Female inmates, 18-55+	TC=reduced recidivism	Moderate
Olson et al. (2009)	Prison substance abuse TC treatment	Action-orientated evaluation design, no control group	Administrative data	NA	2,826 male inmates, avg age 32.8	56.5% TC successfully completed at least one aftercare program	Moderate
Sacks et al. (2008)	Substance use treatment	Longitudinal, repeated measures design, Random assignment control group	Standardized scale	Randomly assigned control group	314 female inmates avg age 35.6	TC= greater reductions in arrest	High
Sullivan et al. (2007)	Modified TC treatment for inmates with co-occurring disorders-	Cross sectional, randomly selected control group	Administrative data, other measures	Treatment and control group randomly assigned	139 male inmates, avg age 34.3 years	Greater reductions in substance use outcomes for MTC group	Moderate
Sullivan et al. (2007)	Co-Occurring Treatment	Randomly assigned control group	Standardized scale, other measures	Control group randomly assigned	185 male inmates avg age 34.3 years	MTC=greater treatment engagement and med compliance	Moderate
Staton-Tindall et al. (2009)	Substance abuse TC community	Stratified random sample, comparison group	Other measures	Random sample	700 male and female inmates avg age 32.6	34% of TC group rearrested at 12 month follow-up	Moderate
Welsh et al (2013)	Substance abuse	Randomized design	Standardized scale, other measures	Randomly assigned	604 males, avg age 32.5	TC with negative affect=high levels of re-incarceration	High

Of the seven studies, three moderate quality studies focused on modified therapeutic communities, which implement additional modifications to the traditional therapeutic community model. In study by Sullivan, McKendrick, Sacks, and Banks (2007), a prison-based therapeutic community was further modified to involve security employees on the treatment team, focused on thought patterns and behavior of criminals and explored the correlation of substance use, mental illness, and criminality as well included the use of medication, education and cognitive behavioral interventions. The control group in the study utilized a cognitive behavioral

curriculum lasting a total of 72 hours, which emphasized education and relapse prevention techniques. In the 12-month post release follow-up, the researchers found that the participants who had received the modified therapeutic community treatment had better outcomes in regards to return to substance use post treatment with a 56% decrease in any type of substance use in comparison to a 35% decrease in return to use for the control group. The other two studies also support the modified therapeutic model with a decrease in mental health symptoms and return to drug use after release at the time of follow-up.

Aftercare Following Correctional Treatment

While the main focus of the studies in this review revolve solely on mental health and substance abuse programming during incarceration, six of the 17 studies reported rates of participation for offenders engaging in aftercare programming following release and found promising results for those who continued with aftercare services following incarceration (Table 5). In a high quality study, Pendergast, Hall, and Wexler's (2003) review of a prison-based substance use program found that participants who completed aftercare programming averaged 250 days before their first arrest compared to 105 days for those who completed the prison program and just 76.2 days for those who dropped out of the program. The same study also found that participants who completed aftercare programming averaged 184 days of sobriety before first use episode following prison release with program dropouts and prison program completers relapsing on average in much shorter time post release, 32 and 62 days, respectively.

While some promising outcomes have been shown for aftercare treatment, a few studies in this review show low levels of aftercare treatment engagement by offenders. Winterfield and Castro (2005) found that out of a sample of 576 inmates, just 33% of the offenders who

participated in prison-based substance abuse treatment received additional treatment after release.

Location of the offender post-release may also play a part in the utilization of aftercare treatment programming. Olson et al. (2009) found that offenders who were released to a large urban county were 63% more likely to complete aftercare programming than those offenders who were released to other less populated areas of the state, which could be due to the lack of diverse services available in more rural areas. The study also found positive correlations between treatment success and providing offenders with residential aftercare treatment immediately following release from a correctional facility as well as those offenders who are on a longer term supervised release.

Table 5. Aftercare Following Correctional Treatment

Author/Date	Topic	Design	Measures	Comparison Group Type	Sample	Findings	Quality
Chandler et al. (2006)	In custody co-occurring treatment and community treatment	Randomly assigned control group	Standardized scales, Administrative data	Randomly assigned	182 male and female inmates	77% of experimental group engaged with outpatient within 60 days	Moderate
Olson et al. (2009)	Prison substance abuse treatment in a TC	Action-orientated evaluation design, no control group	Administrative data	NA	2,826 male inmates, avg age 32.8	56.5% successfully completed at least one aftercare program	Moderate
Pendergast et al (2003)	Substance Abuse Treatment	Random Control group	Administrative data, other measures	Treatment control group randomly assigned	715 male prisoners avg age 30.9 Random sample	Those completing aftercare significantly better outcomes	High
Rothbard et al (2009)	Co-occurring Treatment at a county jail	No control group	Other measures	NA	261 inmates male and female inmates avg age 37.3	51.7% attended community treatment after discharge	Moderate
Staton-Tindall et al. (2009)	Substance abuse TC community	Stratified random sample, comparison group	Other measures	Random sample	700 male and female inmates avg age 32.6	Aftercare participants=13.5% lower re-incarceration	Moderate
Winterfield and Castro (2005)	Prison and aftercare substance abuse treatment	No comparison group	Other measures	NA	576 male prisoners, avg age 36	33% received aftercare	Moderate

Discussion

This systematic review aimed to synthesize relevant data and assess effectiveness of current programming and to determine areas of need for future studies. The studies included in this systematic review support previous research findings regarding high recidivism rates for offenders with mental illness and substance use disorders and the lack of aftercare programming for offenders. Ditton's (1999) research that found offenders with mental illness have much higher rates of re-incarceration than the general population, which was made apparent in many of the studies in this review. However, a majority of the articles found promising results regarding in-custody program involvement causing a decrease in offenders' re-arrest and re-incarceration rates.

The review found overall lower re-incarceration rates reported for the offenders engaged in correctional treatment and therapeutic communities within jails and prison and support moderate levels of effectiveness of corrections based programming for adult inmates with mental health and substance use disorders, but proves a need for additional studies on both in-custody and post-custody programming for inmates with mental health and substance use disorders. Through this review, it was made evident that continued aftercare programming is not always available or utilized by many of the offenders involved in these studies, with less than half of the studies reporting findings on aftercare treatment involvement or effectiveness, but each of the studies reporting on aftercare treatment showed promise. A study by Rothbard et al. (2009) found that over half of the participants in a jail-based setting continued with aftercare services that utilized a single provider following their discharge, which shows promise that the use of a single provider may be effective in increasing post-incarceration community program involvement. Staton-Tindall et al. (2009) found that offenders taking part in community aftercare

treatment had a re-incarceration rate of 27.3% at follow-up, compared to 40.8% of offenders who did not engage in community treatment following release. In addition, each of the studies reporting on aftercare treatment showed slight to moderate effectiveness in continued community treatment post-release and there appears to be potential that these programs may be effective in reducing recidivism rates.

Through the process of conducting this systematic review, it became evident that United States prisons and jails are given the responsibility to treat individuals with diagnosed mental illness and substance use disorders. Those in the social work field can provide a variety of services on a micro level ranging from corrections based treatment programs to transitional programming and aftercare programming as well as on the mezzo or macro levels, advocating for systems or policy change on a larger scale.

Much of the focus in these studies was placed on substance use disorders or co-occurring disorders, with only three of the studies solely focused on correctional mental health treatment. With 65% of inmates in the United States meeting DSM criteria for substance use disorders (CASA, 2010) and 45% meeting criteria for co-occurring mental health and substance use disorder (Drug Abuse, 2010), it is apparent that these services are necessary in the treatment of inmates in order to reduce recidivism rates. However, as an estimated 50% of inmates are diagnosed with a mental illness, it may be beneficial to place more emphasis on treating symptoms of mental illness.

In recent years, much attention has been brought to the rising number of inmates in the United States dealing with substance use and mental health issues. This review found a limited amount of research on the effectiveness of current substance use and mental health programming within correctional facilities, leaving questions unanswered and further research necessary.

Although the length of programming can vary due to the length of the inmate's stay or the length of the correctional program provided, information from two studies regarding the effectiveness of program based on length leaves room for additional studies in the future. Duwe's (2010) study measuring the effectiveness of prison-based chemical dependency programs in Minnesota, found that medium length programming had more success in decreasing recidivism rates among offenders versus those in long-term programs, which in comparison were not found to have a significant impact on recidivism. Daley et al. (2004) found that inmates involved in the highest level of care had 23.7% lower re-arrest rate than inmates in the control group who did not participate in any form of treatment. These contrasting findings indicate the importance of continued study of program lengths in order to provide the most efficient and effective programming.

Another interesting finding that leaves questions unanswered and area for future research is the lack of specific evidence based therapy models used in correctional settings. The use of Therapeutic Communities, and therapies such as Dialectic Behavior Therapy (DBT), Assertive Community Treatment (ACT) for aftercare have been documented effective in the management of mental health and substance abuse symptoms (Drug Abuse, 2010) and should be further studied to determine effectiveness in order to provide best practice to inmates receiving services within correctional facilities and aftercare programming. These unanswered questions and gaps in current research leave room for future studies to assess effectiveness of both in-custody and post-custody programs.

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