



# Early Intervention in the Real World

## Managing risks of violence in a youth mental health service: a service model description

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### Abstract

**Aim:** There is a significant relationship between experiencing a severe mental illness, particularly psychosis, and exhibiting violent or offending behaviour. Reducing, if not preventing, the risks of violence among patients of mental health services is clinically warranted, but models to address this are limited.

**Methods:** We provide a rationale for, and service description of, a pilot forensic satellite clinic embedded within an early intervention service for patients with emerging psychosis, mood disorder and/or personality disorders. The core elements of the programme and its implementation are described, and demographic, clinical and risk data are presented for the patients assessed during the clinic's pilot phase.

**Results:** A total of 54 patients were referred, 45 of whom were subsequently assessed via primary or secondary consultation. The majority of

patients were male, with psychosis (40%) or major depressive disorder (31%) as the most common diagnoses. Illicit substance use in the sample was common, as was previous aggression (81%) and prior criminal offences (51%). Most referrals related to assessing and managing violent behaviour (64%) and violent/homicidal ideation (38%). On the basis of the risk assessments, 71% of patients were rated as medium to high risk of offending.

**Conclusion:** Assessing and managing risks of violent offending among young patients are both clinically indicated for a proportion of patients and feasible via a forensic outreach model. Given the proliferation of early psychosis services worldwide, the issue of managing, and ideally preventing, patient risk of violence will almost certainly have wide application. However, a comprehensive evaluation of this model is required to ultimately determine the effectiveness of this approach for improving patient outcomes.

Key words: first-episode psychosis, forensic, risk, violence.

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### INTRODUCTION

There is a well-established association between experiencing a major mental illness, particularly a psychotic or severe mood disorder, and increased rates of violence and criminal offending.<sup>1–3</sup> Using data from 20 discrete studies ( $n = 18\,423$ ), Fazel *et al.* conducted a meta-analysis demonstrating that the level of association for general violence was four to five times greater in patients with psychosis compared with the general population and between 14 and 25 times higher for homicide.<sup>4</sup>

Consistent with earlier studies,<sup>2</sup> the relationship between violence and psychosis was mediated in part by co-morbid substance abuse. There were no differences in the rates of violence between patients with schizophrenia and other forms of psychotic illness (e.g. schizoaffective disorder, schizophreniform disorder, delusional disorder, psychotic disorder not otherwise specified), or between study period and study location.<sup>4</sup> This finding attests to both the consistency over time and the universality of the association between psychosis and offending.

A more thorough analysis of the literature on violence among the mentally ill indicates that a significant proportion of offending occurs during the first episode of psychosis. Several studies of homicide among the mentally ill have found that between 38%<sup>5</sup> and 61%<sup>6</sup> of individuals were experiencing their first episode of psychosis at the time they committed the offence. These findings were confirmed by a systematic review and meta-analysis, which estimated the rate of homicide during the first episode of psychosis to be approximately 15 times higher compared with the rate of homicide *after* the initiation of treatment.<sup>7</sup> Furthermore, a systematic review demonstrated a significant association between the duration of untreated psychosis and homicide: patients who experienced a longer period of untreated illness were more likely to have killed another person.<sup>8</sup>

A growing body of literature also suggests that patients experiencing their first episode of psychosis are at an increased risk of general aggressive or violent behaviour (as opposed to the rarer outcome of homicide). Dean and colleagues found that of the 495 first-episode psychosis patients, approximately 40% displayed aggressive behaviour at presentation to services, and half of these acted violently,<sup>9</sup> whereas Humphreys *et al.* noted that 20% of 253 first-episode psychosis patients acted violently preceding their first psychiatric admission.<sup>10</sup>

The personal and economic costs associated with violence and offending among the mentally ill are immense. These include the physical and emotional impact on the victims, health service costs for physical injuries, mental health service costs for emotional harm suffered, and lost productivity if the victim is unable to work due to injury or death.<sup>11</sup> It has been estimated that the lifetime cost in the UK per homicide committed by an individual with mental illness in 2009 was £1.72 million,<sup>11,12</sup> which includes custodial costs in the criminal justice or forensic mental health systems. Reducing risks of violence and offending among patients via earlier intervention is not only highly desirable for the patients concerned, their families and the broader community, but is also likely to be highly cost-effective.

Traditionally, assessing and managing risks of violence and offending have been viewed as the domain of specialist forensic mental health services, rather than general services. Unfortunately, specialist forensic services are not consistently available in mental health catchments, and typically become involved with an individual only *after* the offending has already occurred. In many regions, forensic mental health services will also be reluctant to deal

with adolescents, who, according to epidemiological studies, have among the highest rates of offending.<sup>13</sup> In order to better manage, if not *prevent*, the risks of violence and offending among the mentally disordered, an early intervention approach is likely to assist *mainstream* mental health services. The purpose of this paper is to describe the rationale for and service model of a pilot forensic satellite clinic established within a youth mental health service that was designed to (i) assist clinicians to detect and manage risks of violence or offending among their patients, and (ii) improve the knowledge and/or confidence of the clinical workforce in violence risk management. We also present demographic and clinical characteristics of the patients referred to the pilot clinic. A more comprehensive evaluation of this service is planned to investigate its impact on clinical and offending outcomes among referred patients, relative to matched comparison groups.

### RATIONALE FOR THE ORYGEN-FORENSICARE SATELLITE CLINIC (O-FSC)

It has been suggested that early intervention in the course of mental disorder, particularly first-episode psychosis, may be critical to preventing or reducing violence and offending among the mentally ill, thereby ultimately saving lives.<sup>14,15</sup> Indeed, there has been growing recognition that mental health services may have a critical role to play in managing the risks of violence among their patients and to reduce the chances that a patient will engage in criminal behaviour or commit further offences.<sup>16,17</sup> However, recent evidence suggests that community mental health teams do not adjust their interventions for patients with histories of violence or offending.<sup>18</sup> Furthermore, detecting and intervening with violence risk or offending in mental health services can be limited by issues such as clinician discomfort and relative inexperience in working with at-risk patients or using relevant violence risk assessment tools, difficulty in engaging such patients,<sup>19</sup> or competing demands on clinicians' time as they attempt to engage, diagnose and stabilize the patient in the early phase of mental illness.

There are several potential approaches to managing the risks of violence among patients in non-forensic mental health services. An obvious and appealing strategy is to employ a dedicated forensic mental health specialist to provide risk assessment and management interventions for all patients within the service. However, even if such specialists were available for community mental health services, the significant downside to this approach is

that responsibility for managing patient risk largely rests on a single individual, rather than being shared across the clinical service.

A preferable strategy is to build the capacity of the existing workforce of mental health clinicians to manage their patients' potential risks, using consultation-liaison with forensic specialists. The advantages of this approach is that it allows mental health clinicians to develop skills in assessing and managing the risks of violence in the context of a mentoring relationship,<sup>20</sup> and is likely to be more cost-effective as the consultation service may be reduced as staff develop competency and confidence in managing the risks of violence among their patients. Given these perceived benefits, this approach was utilized in the development of the O-FSC.

### Service setting for the forensic satellite clinic

A pilot forensic satellite clinic was established at Orygen Youth Health (OYH) to better manage and reduce the risks of violence and established offending behaviour among young patients. OYH is a specialist public mental health service for young people aged 15–25 years, living in the major metropolitan region of western Melbourne, Australia. The catchment area covers a population of over 1 million people, of whom approximately 250 000 are in the age range for the service. Given the well-established existence of an age-crime curve, where offending behaviours sharply increase during early adolescence and peak during the mid to late teens before subsequently declining in early adulthood,<sup>13</sup> the rationale for, and benefits of, establishing a forensic satellite clinic in a youth mental health service were manifest.

OYH is an early intervention service that comprises four discrete outpatient clinical programmes for young people: (i) with first episode of psychosis;<sup>21</sup> (ii) at ultra-high risk of developing psychosis,<sup>22</sup> (iii) who are experiencing major depressive disorder, bipolar II or severe anxiety disorders; and (iv) with emerging borderline personality disorder.<sup>23</sup> In addition, OYH has an Inpatient Unit and a Youth Access Team, the latter providing assessment and home treatment services. Patients accepted into an OYH clinical programme are allocated a case manager who provides interventions and manages their care. Case managers may either be a psychiatric nurse, occupational therapist, medical officer, social worker or clinical psychologist. Patients also work with a psychiatrist to determine whether medication may be a useful intervention, and can access group programmes and specialist employ-

ment and educational services as part of their treatment plans. The tenure of care at OYH is generally 18 months.

### Service description of the O-FSC

The pilot O-FSC embedded specialist forensic mental health consultation and supervision within the OYH clinical service. The forensic services were provided by clinicians from the Victorian Institute of Forensic Mental Health (also known as Forensicare). Forensicare clinicians have extensive specialist skills and experience in managing patients who pose a risk of violence to others as a result of mental health problems, behavioural problems or psychological difficulties.<sup>16,24,25</sup>

The 12-month pilot O-FSC was funded by a state government grant and commenced in October 2009. Forensicare clinicians attended OYH 1 day per month to provide up to six primary or secondary consultations. In primary consultations, the Forensicare clinician met with the OYH patient and their case manager to complete a standardized risk assessment and provide recommendations for the ongoing management of the patient's risk behaviours. In secondary consultations, the Forensicare and OYH clinicians met in the absence of the 'referred' patient to clarify pertinent risk issues and provide advice about the patient's ongoing management. These consultations were utilized if the patient was ambivalent about attending or otherwise difficult to engage, and lead in some instances, to a subsequent primary consultation. Where sufficient information was available, a clinical risk assessment was provided in secondary consultations, but no formal risk assessment measures could be used in the patient's absence. Referrals could be made for any OYH patient diagnosed with a significant mental illness or personality disorder and who appeared to pose a risk to others.

The service scope of the O-FSC not only comprised of two key programmes – a mental health programme and a problem behaviour programme – but also provided risk management workshops and professional development sessions to OYH clinical staff, as well as ongoing clinical supervision, when requested, to staff who had referred patients to the clinic. The mental health programme was designed for OYH patients who had a severe mental illness and presented with established violent offending behaviours or were considered at high risk of offending. A risk assessment was completed by a Forensicare consultant psychiatrist and formal documentation was forwarded to the OYH clinician containing recommendations for the patient's

ongoing management. Assessments could also cover diagnostic issues, treatment issues, psychosocial issues, and specific factors relating to future risk of violence to others and offending behaviours. The problem behaviour programme provided psychiatric and psychological consultation and treatment for patients with a range of problem behaviours that may be associated with offending.<sup>26</sup> This programme has been designed for patients who have recently engaged in, or are at risk of engaging in, problem behaviours such as, stalking, threats to kill, serious physical violence, sexual offending, paedophilia, problem gambling and other behaviour that is characterized by ongoing offending. The major emphasis of this programme was an assessment of the problem behaviours by the Forensic care clinician and recommendations regarding the patient's ongoing care and treatment. All of the patients who attended the O-FSC were registered with Forensic care, and patients with problem behaviours or significant risk issues could also be considered for specialist forensic intervention at Forensic care, in addition to their care at OYH.

In summary, a total of approximately 24 h of consultant psychiatrist time was utilized at each monthly clinic, comprising of preparation (e.g. pre-reading and information gathering), assessment interviews, report writing, and follow-up with other O-FSC and OYH staff. In addition, approximately 12 h of senior clinical psychologist time was utilized at each clinic, comprising preparation, assessment and psychometric test administration, and report writing, test scoring and follow-up. Critical to the clinic was support from dedicated senior staff from each service to coordinate and liaise about clinical priorities. Dedicated and diligent support from both services was critical to the operation of the pilot service.

### Additional O-FSC functions

To build greater capacity for risk assessment and management among OYH staff, the pilot O-FSC provided workshops to clinicians who required assistance in developing risk management plans for complex clients. Forensic care staff led the workshops with the key OYH clinicians involved in the care and treatment of the patient, during which critical risk factors were identified and a risk management plan was drafted with specific interventions to address the risk of violence posed. Ongoing clinical supervision was offered to OYH clinicians to regularly meet with Forensic care clinicians to discuss the care and treatment of patients who posed ongoing and

complex risks of violence. Forensic care staff were also available for consultation outside of the clinic times via telephone discussion.

### CHARACTERISTICS OF THE PATIENTS REFERRED TO THE O-FSC

A standardized data extraction form was developed by the authors to characterize the patient population referred to the pilot O-FSC. Data provided below were collected from the patient's OYH medical record, Forensic care medical record (if relevant), the O-FSC intake form, and from clinical and formal risk assessments conducted at the clinic.

#### Sample characteristics

Over the 12-month pilot period, 54 patients were referred by OYH clinicians to the O-FSC. In nine cases, patients were not offered a service by the clinic as the referral was subsequently withdrawn following consultation between OYH and Forensic care staff, leaving 45 patients referred to the clinic for primary or secondary consultation. The demographic characteristics of these 45 patients are presented in Table 1. The majority were male, Australian born and single/never married (98%). Their clinical characteristics are presented in Table 2. Consistent with the (largely outpatient) nature of an early intervention service, the majority of patients were voluntary. Reported rates of substance use were high, including illicit drugs, and over a third of

TABLE 1. Demographic characteristics of patients referred to O-FSC

Variable	<i>n</i>	%
Male	33	73.3
Mean (SD) age at referral to O-FSC (years)	19.91 (2.74)	
Country of birth		
Australia	32	71.1
Other	7	15.6
Employment status		
Unemployed	21	46.7
Employed	9	20.0
Student	13	28.9
Pension	2	4.4
Educational status		
Secondary (years 7–10)	23	59.0
Secondary (years 11–12)	10	25.6
Tertiary degree (commenced/completed)	5	12.9
Family currently involved with client	31	70.5

O-FSC, Orygen-Forensic care Satellite Clinic; SD, standard deviation.



referred patients reported a history of mental illness in their parents or siblings. A significant minority reported experiencing emotional, physical or sexual abuse. According to the intake assessment reports at OYH, 40 patients (89%) met diagnostic criteria for an Axis I psychiatric disorder, mainly psychosis (40%) and major depressive disorder (31%), but also anxiety disorders (22%), disruptive behavioural disorders (13%) and pervasive developmental disorders (11%). Nine participants were diagnosed with an Axis II disorder, most commonly borderline personality disorder. The majority of patients reported a history of self-harm and/or suicidal ideation (Table 2), with harm towards others in the form of physical aggression prevalent (81%). Half of the referred patients (51%) reported prior criminal offences, and criminal charges were pending against 25% at the time of O-FSC intake. Some 16% reported having been imprisoned at some time.

Referrals to the O-FSC were made on average 8 months after the patient commenced treatment at

TABLE 2. Clinical characteristics of sample referred to O-FSC

Variable	<i>n</i>	%
Mental health act legal status		
Informal	32	80.0
Recommended ITO	3	7.5
Confirmed ITO	2	5.0
Other	3	7.5
History of deliberate self-harm	22	52.4
History of suicide attempts	20	50.0
History of suicidal ideation	29	69.0
Current suicidal ideation	20	45.5
Family history of mental illness		
Mother	15	37.5
Father	12	30.0
Siblings	12	30.0
History of emotional abuse		
Inside family	8	17.8
Outside family	4	8.9
History of physical abuse		
Inside family	11	24.4
Outside family	1	2.2
History of sexual abuse		
Inside family	6	13.3
Outside family	4	8.9
Past psychotropic medication prescriptions	10	22.7
Current psychotropic medication prescriptions	18	41.9
Substance use history		
Tobacco	22	53.7
Alcohol	33	82.5
Cannabis	29	69.0
Amphetamines	22	52.4
Other (e.g. cocaine, inhalants, sedatives)	16	35.6

ITO, involuntary treatment order; O-FSC, Orygen-Forensicare Satellite Clinic.

OYH ( $M = 8.3$ ;  $SD = 8.1$ ). Table 3 presents data regarding the referral questions and services requested by OYH clinicians on the O-FSC intake forms. The majority of patient referrals were for assessment and management of violent behaviour (64%) and/or violent/homicidal ideation (38%). The majority of consultations were primary in nature (57%; secondary consultations: 43%). A variety of methods were utilized to assess patients' levels of violence risk, including psychiatrist (51%) and psychologist clinical assessments (4%), as well as standardized violence risk assessment instruments (29%), including the Historical Clinical Risk Management-20 scale (HCR-20; 18%), the Structured Assessment of Violence Risk in Youth (7%), the Psychopathy Checklist: Youth version (2%) and the Stalking Risk Profile (2%). Risk assessments were unable to be completed for seven patients (16%) referred for secondary consultations, due to insufficient information. Patients were predominantly assessed for their risk of violent offending (76%), with only 5% considered for general offending and 5% for stalking (see Table 3). Of the 38 patients who received a risk assessment, 42% were rated as a high risk of violence, 29% as medium risk and 13% as low risk (using the HCR-20 framework).

TABLE 3. Referral questions and services requested by OYH clinicians

Services requested	<i>n</i>	%
MHP – primary consultation	16	35.6
MHP – secondary consultation	10	22.2
MHP risk management workshop	1	2.2
PBP – primary consultation	19	42.2
PBP – secondary consultation	–	–
Professional development	–	–
Clinical support/supervision	–	–
Referral question		
General risk assessment	35	77.8
Behaviour/risk management interventions	31	68.9
Assessment of risk of future offending	3	6.7
Second opinion diagnostic clarification	1	2.2
Review of current management plan	2	4.4
Offence or problem behaviour		
Violent behaviour	29	64.4
Violent/homicidal ideation	17	37.8
Stalking	5	11.1
Threats	5	11.1
Problematic sexual behaviour	2	4.4
Problematic sexual thoughts	4	8.9
Fire setting	3	6.7
Internet child pornography	2	4.4

Percentages add to more than 100 as clinicians may have requested more than one service.

MHP, mental health programme; OYH, Orygen Youth Health; PBP, problem behaviour programme.

Finally, it was considered that there may be differences between patients who attended primary consultations with their OYH clinician and the forensic consultant to discuss their risks of violence or problem behaviours ( $n = 26$ ), and those who did not attend (i.e. secondary consultations;  $n = 19$ ). A series of chi-square tests (with Yates Continuity Correction) were conducted to test for differences between these two groups, albeit in the context of the limited sample size. Analyses demonstrated no statistically significant differences between these two patient groups on a number of key variables, including Axis I diagnosis ( $\chi^2(1) = 0.08$ ,  $P = 0.78$ ), substance use at time of referral ( $\chi^2(1) = 1.15$ ,  $P = 0.28$ ), offending history ( $\chi^2(1) = 0.02$ ,  $P = 0.89$ ), level of offending risk ( $\chi^2(2) = 5.00$ ,  $P = 0.13$ ) or type of offending risk (i.e. violent vs. general offending;  $\chi^2(1) = 0.00$ ,  $P = 1.00$ ).

## DISCUSSION

The overwhelming majority of people with mental illness, including serious mental disorders, are never violent.<sup>3</sup> Nonetheless, there is a strong relationship between having a mental illness and a significantly elevated risk for engaging in acts of violence. Just as early detection and treatment for psychosis has been shown to be a cost-effective<sup>27</sup> approach to improving clinical outcomes,<sup>28,29</sup> it may also be critical to preventing, or at least reducing, violence and offending. It may also help to reduce the significant social and economic costs of violence by the mentally ill.

The data presented from this pilot service must be interpreted with caution given the small sample size, which consisted of patients with either well-established histories of violence and offending, or who were identified by their case managers as being at high risk of violence due to homicidal ideation. Without appropriate comparison groups, we are currently unable to determine the representativeness of this sample within the broader OYH population. Nonetheless, the preliminary results indicate that the majority (71%) of patients referred by their clinicians due to concerns regarding their potential risks were objectively judged as being at medium to high risk of violent offending. Consistent with the extant literature on violence risk among the mentally ill, rates of substance abuse, including illicit drug use, were high in this sample. However, also notable were the high rates of suicidal ideation and attempts, as well as reported histories of emotional, physical and sexual abuse. Taken together, this level of need must be responded to via comprehensive management of

the patient's psychopathology and psychosocial needs, as well as their criminogenic needs, where relevant. This suggests that treatment for such patients is required from both general *and* forensic mental health services to optimize their psychosocial recovery. Although forensic psychiatry is increasingly responding to the need for provision of services in community settings, such as supporting general psychiatric services in the management of high-risk individuals,<sup>30,31</sup> forensic outreach models within the community are yet to be adequately evaluated to determine their effectiveness on patients' clinical and violence risk outcomes.

Good clinical care in general mental health services emphasizes assessing and managing the risk of patients harming themselves (e.g. via suicidal ideation or behaviour), but rarely emphasizes assessing and managing a patient's risk of harm *to others* through violence. Even in forensic psychiatry, efforts to *prevent* first incidents of violence or offending are rare (if not absent), with most interventions being delivered to patients *only after* a serious event has occurred. We believe that prevention and early intervention for risks of violence and offending should be a greater clinical priority within the hundreds of early psychosis services worldwide, given the elevated risks of violence among those with first-episode psychosis.<sup>5-8</sup> The opportunities for *prevention* of violence and offending may also be amplified in the increasing number of youth mental health services being established internationally, including the 60 *headspace* centres currently operating in Australia,<sup>32</sup> as these services are primarily designed for 12 to 25-year-olds with sub-threshold or emerging mental health problems, who, while frequently presenting with anger or aggression management difficulties, rarely present with established histories of violence or offending. The service description of the O-FSC provides some preliminary guidance as to how such prevention and early intervention for violence may be achieved, although the utility of this approach cannot be fully gauged until it is properly evaluated.

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