

Research Publication

Process Evaluation of the Custody Based Intensive Treatment (CUBIT) Programs for Sex Offenders

Factors Associated with Program
Completion

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EXECUTIVE SUMMARY

Background

Corrections Research, Evaluation and Statistics (CRES) has been commissioned to conduct a process evaluation of the suite of custody-based sex offender treatment programs currently operated by Corrective Services New South Wales (CSNSW). One factor that is critical to treatment process is attrition, or cases in which members of the target population refuse, are excluded from, drop out of, or are discharged from treatment prior to completion. The aim of this report was to undertake an independent evaluation of the extent to which CSNSW sex offender programs engage the target offender population and factors influencing attrition across the referral and treatment process. In doing so this report addresses NSW State Government Plan goals relating to the prevention and reduction of offending and the optimisation of completion rates for offender programs.

Key Findings

Between the time CSNSW sex offender programs commenced recruitment in 1998 and the data collection census date of April 2015, a total of 2,549 target offenders were approached for referral at least once during their index custodial episode. Less than two-fifths (38.2%) of target offenders progressed to completion of a program during their index custodial episode.

Attrition of the target offender population was most common at the time of initial approach for referral to programs (18.3%). Offenders who consented to referral also frequently failed to enter programs as a result of being found unsuitable (12%), or by refusing treatment offers (11%) or otherwise being released (15.9%) prior to entry. In contrast, few members of the target population entered but ultimately did not complete a program (4.6%).

Multivariable regression modelling found that significant independent predictors of refusal of programs referral included higher actuarial risk of general reoffending; a history of criminal versatility; a history of sex offending solely against adults; unconditional release from custody; and a longer delay between sentence start and approach for referral.

Offenders most commonly associated program engagement with motivations to develop knowledge or understanding (36.4%), make personal change (32.3%) and avoid reoffending (35.3%). However, reports of external incentives to attend programs and perceived coercion were also prevalent.

Offenders who consented to referrals were most frequently found unsuitable for reasons related to core eligibility criteria such as not being a sex offender, having low risk / needs and lack of time remaining to complete programs. The historical prevalence of unsuitability for responsibility related concerns such as denial and low cognitive functioning supports the development of the Deniers Program and Self-Regulation Program: Sex Offenders in recent years.

The average delay between approach for referral and program entry was 405 days. In one third (33.2%) of cases with an identified outcome where the offender refused an offer of treatment placement, the offender later consented to enter programs. Qualitative analysis of offender reports indicated that timing of referral and location of offered programs were important factors in decisions to refuse or accept treatment offers.

The average program non-completion rate relative to all program entries was 13.9%. For CUBIT participants this rate has declined considerably over the past several years (from 35.1% to 4.4%) in conjunction with major operational changes made to the program in 2005. Regression modelling showed that likelihood of CUBIT non-completion was predicted by anti-authority attitudes and cohort of program entry. Results indicated that operational changes made to CUBIT had a significant and sustained impact on program non-completion rates that was independent of other cumulative improvements or changes in the characteristics of offenders entering treatment over time.

Conclusions

CSNSW sex offender programs have been relatively successful in managing both pre-program attrition and treatment non-completion in the target offender population, when compared to existing international research on similar custody-based programs. There is evidence to suggest that operational innovations have contributed to these outcomes, including major changes made in 2005 with the explicit aim of addressing attrition and the implementation of additional programs that are tailored to specific responsivity factors in recent years. Continuing challenges include maximising uptake at the time of initial referral; counterbalancing external incentives to attend programs with enhancement of personal motivation for treatment; managing timely progress through referrals in regards to offenders' stage of sentencing; and utilising various stages of the referral and treatment process to promote treatment engagement.

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INTRODUCTION

A central strategy used by criminal justice systems to manage risk of sexual reoffending is the provision of sex offender treatment programs (SOTP). While outcome evaluations have been prone to methodological limitations (e.g. Harkins & Beech, 2007; Rice & Harris, 2003), a range of studies have indicated that custody-based SOTP can have significant effects in reducing reoffending rates in sex offenders (see Hanson et al., 2002; Losel & Schmucker, 2005; Schmucker & Losel, 2008 for reviews). However, interpretation of program effectiveness in terms of reoffending outcomes is tempered by issues of program uptake and attrition. Some sex offenders may be more likely to refuse, drop out of or be discharged from treatment than others. Attrition can therefore result in biased delivery of treatment to selected samples only and lost opportunities to address reoffending risk in offenders who may stand to derive benefit from intervention (Beyko & Wong, 2005).

Program attrition has been identified as a concern in studies of SOTP operations, which have primarily focused on offenders who enter but do not complete treatment¹. Program non-completion rates of between 15 and 86% have been reported (Larochelle et al., 2011). A meta-analysis of 114 studies indicated that the average non-completion rate after entry to SOTP is 27.6%, which is comparable to the rate of 27.1% for offender treatment programs in general (Olver et al., 2011). While it may be presumed that offenders are particularly resistant to treatment (Mann et al., 2013), research has indicated that offender programs have attrition rates that are lower than other psychotherapies (McMurran et al., 2010) and are generally consistent with poor compliance rates across a range of medical and other health interventions (e.g. Melamed & Szor, 1999). Attrition or other treatment failure carries additional significance in regards to offender programs, where the objective is to address high risk behaviours that have substantial social costs such as sexual reoffending (Olver et al., 2011).

Program attrition has been described as a key index of treatment effectiveness other than reoffending outcomes (e.g. Day et al., 2006; Polaschek, 2010). The importance of attrition may be considered in the context of the risk-needs-responsivity (RNR) model of offender treatment (Beyko & Wong, 2005; Wormith & Olver, 2002). The RNR model posits that the intensity of treatment should be tailored to the risk level of offenders and geared towards those at highest risk of reoffending (risk); that treatment should address dynamic factors that give rise to offending (needs); and that program delivery should be adaptive to the cognitive, learning, cultural and other individual variables that influence treatment engagement and progress (responsivity: Andrews & Bonta, 2010a). Research has shown that as adherence to RNR principles increases, the effectiveness of that program in reducing reoffending also increases (Andrews & Bonta, 2010b; Hanson et al., 2009).

¹ For the purposes of this study, attrition is used to describe all cases where offenders in the target population are unable to be accessed or retained to the completion of treatment. Cases in which target offenders refuse referral to programs will be referred to as refusal. Cases in which target offenders enter programs but drop out or are discharged prior to completion will be referred to as non-completion.

The systematic attrition of offenders with particular characteristics has been interpreted as a failure of that program to address RNR principles (Beyko & Wong, 2005; Wormith & Olver, 2002). For example, and perhaps most critically for considerations of program effectiveness, offenders who drop out of or are discharged from programs are more likely to reoffend than those who complete treatment (e.g. Hanson & Bussiere, 1998). While it has been proposed that the experience of failing to complete treatment could aggravate risk of reoffending (McMurrin & Theodeosi, 2007), a consistent related finding is that program non-completers have higher pretreatment risk scores (Olver et al., 2011; Olver & Wong, 2013). In the context of intensive programs such as SOTP, attrition of higher risk offenders violates the risk principle by selecting out these priority targets for intervention and reducing the overall risk profile of those offenders who do complete treatment.

Similarly, offenders are often expelled from programs as a result of difficulties managing that individual's disruptive or aggressive behaviours (Beyko & Wong, 2005). Violation of rules and antisocial or otherwise oppositional behaviours are psychologically meaningful dynamic risk factors for sexual reoffending (e.g. Hanson & Morton-Bourgon, 2004; Mann et al., 2010), however, and as such are viable targets for treatment in accordance with the RNR model.

Exclusion of some individuals based on how they engage, or are able to engage, in the therapeutic process may further signal program failures to adapt to responsivity issues of those offenders. A prominent historical example of this in SOTP operations is the exclusion of offenders who fail to take responsibility for their offending behaviours, under the assumption that these offenders are not readily engaged in treatment processes of change. This position has been challenged in recent years by findings that disclosure of offending may not be central to therapeutic aims and the subsequent development of dedicated programs for categorical deniers of sex offending (Marshall et al., 2011).

To date a number of studies have examined predictors of treatment non-completion in SOTP. Non-completion has been defined as cases where an offender commences treatment although voluntarily drops out; is discharged by staff for failing to meet treatment goals or standards of behaviour; or is unable to continue with the program due to administrative interruptions such as transfer or release (Larochelle et al., 2011; Wormith & Olver, 2002). Results have been mixed, which is unsurprising given the differing operational definitions of non-completion and strengths and weaknesses of individual programs in addressing RNR principles. In a review of 18 studies of SOTP, Larochelle and colleagues (2011) found that a range of demographic, contextual, criminal history and personality features had inconsistent relationships with attrition risk. They concluded that the most consistent predictors of non-completion were antisocial personality disorder (ASPD) and other correlates of antisocial attitudes. They also found higher non-completion rates in voluntary compared to court mandated programs, and in community-based compared to custodial programs.

In a separate meta-analysis of offender treatment programs including 34 SOTP, Olver et al. (2011) showed that many significant predictors of non-completion share characteristics with identified risk factors for reoffending. These included demographic factors (younger age; no history of marriage; unemployment; limited education history); general criminality (psychopathy; ASPD; prior offences); and dynamic and actuarial indices of sex offending risk (Static-99 score; victim characteristics; sexual

deviance; sex offender attitudes). The results also emphasised the predictive strength of responsivity factors including impression management, denial, attitudes to treatment, and measures of motivation for treatment and therapeutic engagement.

By comparison, few studies have examined factors that are associated with pre-program attrition, or cases in which offenders refuse the initial referral to programs or otherwise refuse to attend treatment prior to entry. While cases of treatment refusal are less likely to involve complex interactions between offenders and treatment processes compared to cases of discharge or drop out, they are similarly important to how a program ultimately adheres to RNR principles. For example, a study by Grady et al. (2012) showed that offenders who did not volunteer to attend SOTP had higher risk scores on the Static-99, in addition to higher rates of violent and general reoffending, compared to offenders who volunteered for treatment. This suggests that members of the target population who are not being reached by SOTP referrals would also be considered higher priorities for intensive intervention. The problem of treatment refusal is particularly relevant considering that refusals may be more common compared to non-completion. Langevin (2006) found that in Canadian samples of sex offenders, around half (50.6%) reported an interest in attending a community-based program and fewer (42.0%) actually commenced the program. Refusal rates of close to 40% have also been reported for custodial SOTP (Clegg et al., 2011).

A study of 404 volunteers and 387 non-volunteers for a child sex offender treatment program by Jones and colleagues (2006) showed that volunteers were more likely to have been directed to treatment by judicial authorities; to have a prior history of treatment; to be motivated to change sexually deviant behaviour; and to have lower recent rates of substance use disorder. Psychological characteristics associated with social desirability and duration between the time of referral and anticipated parole determinations have also been found to predict refusal (Clegg et al., 2011). In a more qualitative analysis of reasons underlying decisions to attend SOTP, Mann and colleagues (2013) reported that treatment refusers disclosed concerns about perceived negative effects of therapy and threats to their social status in the custodial environment. Most of the treatment refusers also denied responsibility for their offending behaviour. In another study of reasons for refusal in a small sample of sex offenders, those who refused to enter programs reported more prevalent beliefs that treatment was irrelevant to them or that they were under external pressures to comply relative to those who accepted referral (Brown & Tully, 2014).

Rationale and aims

Program uptake and attrition have been identified as important operational factors for sex offender programs administered by CSNSW. In fact, major structural and therapeutic changes to the flagship CUBIT program for moderate-high risk sex offenders made from September 2005, which will be described in greater detail in the following section, were partly attributed to efforts to manage attrition rates (Ware & Bright, 2008). To date little research has been conducted to examine factors associated with treatment completion over the lifespan of CSNSW sex offender programs, however.

Ware & Bright (2008) reported on unpublished studies that examined factors associated with program non-completion in the formative years of CUBIT operations. Sleeman (2002) found that offenders who did not complete treatment had higher Static-99 scores, were more likely to exhibit denial or minimisation, were more likely to have adult victims of sex offending, and had briefer histories of criminal activity compared to those who completed treatment. Bright and colleagues (2004) further reported that treatment non-completers scored lower on psychometric measures of impression management and higher on measures of emotional coping and external locus of control focusing on powerful others.

The current report sets out to provide a more comprehensive investigation of program reach and attrition over the operational life of CSNSW sex offender programs. In doing so this report is part of a planned series of process evaluation studies which are designed to provide context to a parallel outcomes evaluation of the CUBIT program conducted by the NSW Bureau of Crime Statistics and Research (BOCSAR; Halstead, 2016). This report also addresses NSW State Plan goals relating to the prevention and reduction of reoffending, including through the optimisation of completion rates for offender programs (NSW Government, 2011).

The aim of this study is to provide an empirical foundation for optimising offender engagement and completion rates by examining factors associated with offender attrition at each stage of the CSNSW sex offender programs referral and treatment process. Relevant questions for evaluation included:

- 1. What are the characteristics of offenders referred to CSNSW sex offender programs?*
- 2. At what stages do offenders drop out of the treatment referral process?*
- 3. What factors are associated with refusal to be referred to treatment?*
- 4. What are offenders' internal and external motivations for attending programs?*
- 5. What are the barriers to accepting treatment offers or attending treatment placements for those offenders who are motivated to engage in programs?*
- 6. What are the characteristics of offenders who attend the differing programs and to what extent are programs reaching their target population?*
- 7. What factors are associated with discharge from programs prior to completion?*

CSNSW SEX OFFENDER PROGRAMS

Program characteristics

As of 2015 CSNSW has four custodial sex offender treatment programs in operation, which are described in detail below. All SOTP delivered by CSNSW adopt a cognitive behavioural therapy (CBT) treatment approach with an emphasis on relapse prevention in addition to the Good Lives Model so as to promote individual strengths and goals towards desistance from offending. All of the existing treatment programs are available to individuals who have offended against adults and / or children.

The **Custody Based Intensive Treatment (CUBIT)** program is a residential program for moderate to high risk / needs sex offenders. It is the most established of CSNSW sex offender programs, having been in operation since 1999 and receiving the majority of treatment entries since this time. The program is 6-10 months duration on average with three group therapy sessions per week. The exact duration of attendance for each offender varies according to the extent of their treatment needs and responsiveness to treatment. During the program, participants are expected to take responsibility for their offending behaviour and future; examine victim issues; identify how and why they offended; develop new skills to use in relationships and in coping; and develop self-management plans to assist in their release planning. The residential setting of the program is designed as a therapeutic community, whereby offenders have regular exposure to trained custodial and specialist staff and have intensive opportunities to work on changing criminogenic patterns of thinking, emotions and attitudes. CUBIT is currently administered in dedicated residential units at Long Bay Metropolitan Special Programs Centre (MSPC) and Cessnock Correctional Centre.

The CUBIT program was conducted in a closed group format from its inception until September 2005. At this time the program was restructured to be administered in rolling groups, whereby individual offenders progress at different stages of treatment and any participant who exits the program is immediately replaced by another. This restructuring was intended to reduce the impact of treatment attrition by allowing for prompt replacement of drop outs and the application of viable disciplinary measures other than expulsion, such as temporary suspension (Ware & Bright, 2008). Clinical practices were also amended from September 2005 to emphasise therapist characteristics that optimise treatment engagement. This focus on positive therapist characteristics has since become part of delivery of all CSNSW sex offender programs.

The **CUBIT Outreach (CORE)** program is an extension of the original treatment approach to sex offenders of low to moderate risk/ need, and has continuous operational data spanning from 1999. It is non-residential and has been historically offered at a number of custodial locations according to available resources. Duration is 6-8 months with two group sessions per week. Program content is similar to CUBIT with a focus on developing understanding and responsibility for offending behaviour; examining victim issues; identifying offence pathways; and developing detailed self-management plans. Historically CORE has been delivered in a closed group format.

The **Deniers Program** is a non-residential treatment program for individuals who have been convicted of sexual offences but have consistently maintained that they were wrongfully accused or falsely identified. In this regard the target offenders are those who categorically deny committing a sex offence. The program is an adaptation of standard treatment where risk factors associated with offending are addressed without participants being required to admit they had actually offended. The goal is to help offenders identify issues that led them to be in the position where they could be accused of sex offending and develop strategies to prevent this from recurring. The program is delivered at Long Bay MSPC over 6 months, with two group sessions per week. Based on current need it is facilitated once a year and offered to those offenders who have an assessed moderate to high actuarial risk of reoffending. The Deniers Program has been in operation since 2009.

The **Self-Regulation Program: Sex Offenders (SRP:SO)** is offered to moderate to high risk / needs sex offenders who have intellectual disability or other cognitive impairments and have limited adaptive functioning in the prison environment. The program is implemented by SOTP psychologists in conjunction with psychologists from CSNSW Statewide Disability Services (SDS). Duration is 12-18 months with three group sessions per week; participants are also offered individual sessions to consolidate treatment gains. Program content is similar to that of CUBIT although is delivered in a manner that is responsive to the learning needs of the target population. The SRP:SO also operates as a therapeutic community in a fixed residential setting which is shared with CUBIT participants at Long Bay MSPC. The SRP:SO has operational data spanning from 2010.

It is noted that CSNSW has other custodial programs that are specific to sex offenders, including PREP and custodial maintenance. However these programs are oriented towards preparation for entry into the above programs or maintenance of therapeutic gains after program completion, respectively. As such these programs would not be considered independent treatment programs and are not included in analyses for the purposes of this report.

The referral process

All male sex offenders detained in CSNSW correctional centres are eligible for referral to sex offender programs. For the purposes of program placement a sex offender is defined as any individual who has current or historical convictions for sex offences; who has disclosed that they have committed acts of sexual aggression; or who has a history of non-sexual offences that are deemed to have substantial underlying sexual elements or motivations. Only sentenced offenders can attend the CUBIT suite of programs. Offenders must have sufficient time remaining on their sentence prior to release to be suitable for program entry.

Stages of the referral process are illustrated in Figure 1. Identified eligible offenders are initially approached by CSNSW custodial or psychologist staff and given the opportunity to consent to referral. In the event that they give consent, a referral package is completed by both the staff member and the offender which provides information to assist referral determinations. Once completed, the referral package is forwarded to SOTP therapeutic managers who oversee the remainder of the treatment pathway process.

Therapeutic staff initially review the referral package to determine suitability for various programs. Suitable offenders are then placed on a waitlist until a position in the relevant program becomes available. Priority for waitlisted offenders is primarily determined by the earliest date of release, although other factors such as attachment of interest by the Serious Offenders Review Council (SORC) are also considered. After a position becomes available offenders are again required to sign consent to enter the program. Upon giving consent offenders begin the process of being transferred to the relevant custodial location and oriented to program commencement.

For many offenders the referral process is not linear and a number of referral stages may be repeated in a single custodial episode. Offenders who initially refuse a referral or withdraw from the referral process are eligible to make a new referral at a later date. As detailed in the Results section, offenders can also refuse treatment offers for reasons of preference (such as interest in attending at a different location or a later date) without prejudicing their prospects of subsequent treatment offers. Further, previous discharge from treatment does not signal ineligibility for future referrals. As such the available data often includes multiple referral events for each individual offender.

RESEARCH METHODS

Data sources

This report has been informed using existing administrative and clinical data collated by CSNSW. This includes the CUBIT referral database; the Offender Integrated Management System (OIMS); and individual case file information relating to offenders' progress through the stages of referral and treatment and responses on psychometric test batteries.

CUBIT referral database

The CUBIT referral database was designed to manage and track referrals for offenders who may be eligible for entry into sex offender programs. All offenders who are approached for referral to programs are entered into the database. The CUBIT database contains a number of fields that record operational data for each stage of the referral process such as dates of referral, consent status, suitability for the various programs and reasons for being deemed unsuitable for treatment, date and location of program entry, reasons for discharge from programs, and date of program exit. The database also provides updated fields on the current state of progress and final outcome (where applicable) of the case of referral. Further, the database records key demographic, offence and risk characteristics of offenders to assist staff in aspects of the referral process.

Each new approach for referral to programs is entered into the CUBIT database as a unique case, with the result being that offenders with previously unsuccessful referral outcomes (i.e. an earlier referral did not end in completion of programs) can accrue multiple cases over the course of a custodial episode. For the purposes of this report we developed a variable that defines each offender's 'peak' outcome for their episode, or the case representing the furthest level of progress the offender made towards completing the referral and treatment process during that custodial

episode². Analyses will typically report on this 'peak' referral outcome for the custodial episode, unless otherwise noted.

Case file information

CSNSW staff obtain a range of operational and clinical data throughout the referral and treatment process that are placed in offender case files but are not otherwise collated in a systematic format. Of particular interest to the current study were responses to open-ended questions that are given to offenders as part of referral documentation, including their reasons for consenting to initial referral and their reasons for refusing a treatment offer. Additional data of interest included the results of psychometric test batteries that are given to participants at the time of commencing treatment. For the purpose of this study these data were collated in independent databases for analysis.

Offender Integrated Management System (OIMS)

Information from the CUBIT referral database and offender case files were supplemented with data extracted from the OIMS database. OIMS is the primary operational database maintained by CSNSW to manage offenders throughout their period of custodial placement or other case management. Relevant data obtained from OIMS included additional demographic variables, Level of Service Inventory – Revised (LSI-R) results, type of sentence and duration of index custodial episode, factors associated with location and behaviour in custody, and conviction history.

Sampling method

Sampling data were based on all referral cases recorded in the CUBIT database between the time of initiation in 1998 and the data collection census date of April 2015. Only those cases that had a finalised referral outcome were included; cases that had an active status (on waitlist; actively in programs; awaiting further information) at the time of the census were omitted. It is noted that as a result of the sampling method, the raw frequency of some program outputs (e.g. number of referrals, number of program completions) may be truncated in the period preceding the data collection census date because many of these cases had an active status at the time.

The CUBIT database recorded 2980 cases that had a finalised referral status at the time of data collection. The cases comprised of 2491 individuals who had completed or were completing a total of 2549 custodial episodes. A total of 294 offenders had more than one case of referral recorded in a single custodial episode, whereas 110 offenders were the subject of multiple referrals spanning more than one custodial episode.

Data analysis

All data were analysed using the IBM Statistical Package for the Social Sciences (SPSS) version 23. Like many large administrative datasets, missing values were observed for a number of variables

² Where refused referral < consented but found unsuitable < consented but untreated released < consented but refused treatment offer < discharged prior to program completion < program completed.

obtained from the CUBIT referral database, OIMS and individual case files. All analyses were calculated with missing data omitted. Sample sizes are recorded where appropriate to assist interpretation of results.

Due to the large number of non-normally distributed variables in this dataset, data were analysed using non-parametric tests and statistics. Descriptive analyses included frequency and percentage statistics for categorical variables, and median statistics for continuous or ordinal variables. Differences between independent groups of interest were analysed using chi-squared tests for categorical dependent variables, and with nonparametric independent samples tests (Mann-Whitney U test for two groups; Kruskal-Wallis H test for three or more groups) for continuous or ordinal dependent variables. In the event of multiple univariate comparisons we employed a conservative alpha of $p < .01$ to control the groupwise error rate, unless otherwise noted. Multivariable analyses involving multiple predictor variables and a dichotomous outcome variable employed binary logistic regression models.

Qualitative data were coded using a grounded theory approach, whereby themes were identified and refined by successive reading and coding of the responses. The reliability of coding categories was then improved using an iterative process (Hrushka et al., 2004). Two trained raters scored the same random sample of responses, after which the codes were analysed for consistency, discussed and altered at the agreement of the raters, and reapplied to another set of responses. This process was repeated until an adequate level of inter-rater reliability was achieved. The final set of codes was then used by the author to score the total sample of responses.

RESULTS

The referral sample

The following section reports on characteristics of all offenders who were approached for referral at least once during a distinct custodial episode. At the time of referral, the age of offenders ranged between 18 and 84 years, with an average age of 41 years. Almost one-fifth of offenders were of Aboriginal / Torres Strait Islander background (17.4%). The majority of offenders (80.1%) were born in Australia. Just under half (48.2%) had never been married. A large proportion of the sample (47.7%) had not completed up to Year 10 of formal education. More than half (53.5%) of offenders reported that they had some history of treatment for mental health matters or were engaged in mental health treatment at the time of referral.

At the time of their index custodial episode, 1,257 offenders (49.3%) did not have any prior history of adult criminal convictions. Offenders had an average of one prior adult conviction (range 0 – 215 convictions). In addition, 28.1% of offenders were recorded as being arrested for juvenile offending before the age of 18 years. The number of index convictions ranged between 0 and 92, with a median of 3 convictions. While offenders had previously served custodial sentences between 0 and 32 times, the majority (51.9%) had not been imprisoned before the index episode and the median number of prior custodial episodes was 0.

Around three-quarters of offenders in the referral sample (n = 1,867; 73.2%) did not have any history of convictions for sex offences prior to the index custodial episode. The median number of index convictions for sex offences was 2, with a range of 0 – 92 convictions. It is noted that 362 (14.2%) of cases were not associated with index convictions for sex offences, which indicates that these offenders were referred in relation to historical sex offences or non-sexual offences with underlying sexual elements. Table 1 describes the distribution of most serious index offences and sex offences across the sample. The majority of most serious offences related to sexual offending, the most common of which was aggravated sexual assault (66.8% of all most serious offences).

Offence	Percent
Homicide and related offences	2.5%
Acts intended to cause injury	3.2%
Sexual assault and related offences	
<i>Aggravated sexual assault</i>	66.8%
<i>Non-aggravated sexual assault</i>	4.2%
<i>Non-assaultive sexual offences against a child</i>	3.3%
<i>Child pornography offences</i>	6.2%
<i>Non-assaultive sexual offences, nec</i>	1.2%
Abduction, harassment and other offences against the person	1.5%
Robbery, extortion and related offences	1.8%
Unlawful entry / break and enter offences	3.0%
Public order offences	1.5%
Offences against justice procedures	2.9%
Other	1.9%
Total	100%

Table 1: Distribution of most serious index offence for the referral sample.

For offenders convicted of sex offences, close to two-thirds (63.3%) were recorded as having a history of sex offences that involved children. The remainder (36.7%) had histories of sex offending involving adults only.

One factor that has been of interest to studies of sex offenders is criminal versatility (e.g. Harris et al., 2009). Criminal versatility is defined here as the extent to which an offender’s history of offending is specialised to sex offending as opposed to other types of offending. For the purposes of this study criminal versatility was calculated as number of non-sexual convictions as a proportion of

total convictions. A higher score indicates a more extensive history of non-sexual offending relative to sex offending and a lower score indicates greater specialisation to sex offending. On average offenders showed criminal versatility scores of .23 or 23%; that is, more than three-quarters of their criminal conviction history comprised of sex offences. Almost half (44.6%) of offenders had no history of convictions other than for sex offending.

The majority of offenders had actuarial risk estimates, including the Static-99 or Static-99R³ (n = 1,988) and / or the LSI-R (n = 2,181), completed for their custodial episode. Adjusted Static-99R scores ranged between -3 to 11, with a median score of 3. LSI-R total scores ranged between 0 and 51, with a median score of 22. Frequencies of each of the risk categories according to the adjusted Static-99R and the LSI-R are provided in Table 2. The risk category data indicates that the referral sample is of relatively low risk of sexual or general reoffending on average, in that the modal recorded categories were 'low' for the adjusted Static-99R and 'low-moderate' for the LSI-R.

Risk Category	Adjusted Static-99R	LSI-R
Low	737 (37.1%)	484 (22.2%)
Low-moderate	442 (22.2%)	692 (31.7%)
Moderate	-	553 (25.4%)
Moderate-High	479 (24.1%)	314 (14.4%)
High	330 (16.6%)	138 (6.3%)
Total	1,988 (100%)	2,182 (100%)

Table 2: Distribution of adjusted Static-99R and LSI-R risk categories for the referral sample. Frequencies for the 'moderate' risk category are listed as missing for the adjusted Static-99R because this measure does not include a moderate risk classification.

On average, offenders had received total aggregate sentences of 1,825 days (range 89 to 22,155 days) or 5 years. For those offenders who had been released from their custodial episode of reference prior to the data collection census date (n = 2,374), the average time spent in custody was 1,094 days (range 20 to 9,632 days). In two-thirds of episodes (66.7%), release prior to the full sentence expiry date was conditional on approval by the NSW State Parole Authority (SPA). An attachment of interest for case monitoring by the Serious Offenders Review Council (SORC) was recorded for 120 (4.7%) custodial episodes.

³ Most offenders had either a Static-99 or a Static-99R score. In order to allow for comparability across the sample, STATIC-99 scores were recoded according to the Static-99R scoring criteria by applying an age modifier. To simplify interpretation, recoded results from the Static-99 and original results from the Static-99R will thenceforth be collectively referred to as adjusted Static-99R scores.

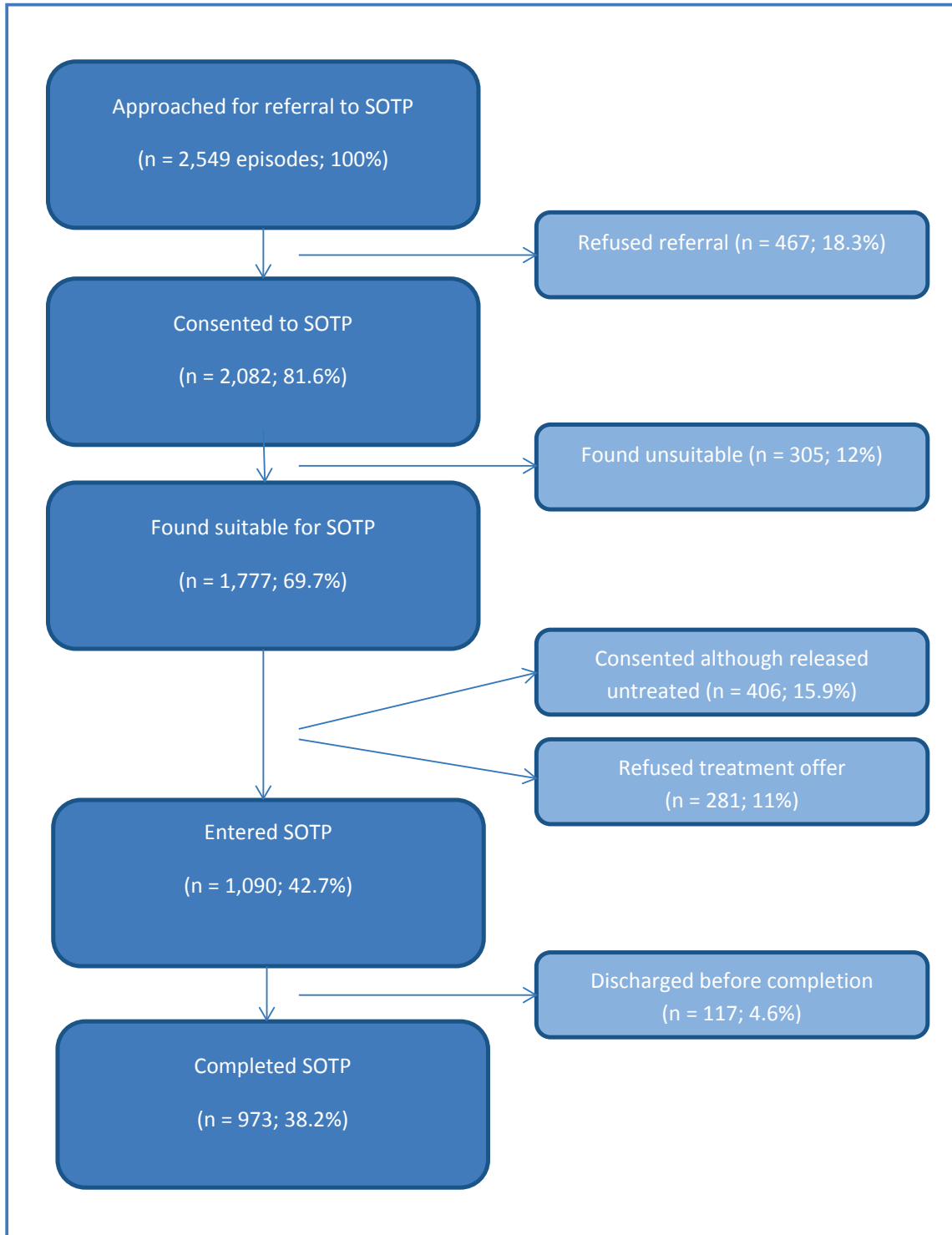


Figure 1: Schematic of offender referral outcomes. Dark blue boxes represent stages of the referral process whereas light blue boxes represent types of offender attrition from the referral process. Percentages given in dark blue boxes show proportion preserved from the total sample at each stage of progress; percentages given in light blue boxes show the proportion of the total sample that is lost to each type of attrition.

Program reach

Figure 1 represents the ‘peak’ stage of progress in the referral process achieved by offenders during their index custodial episode. This shows that offenders who were approached for referral ultimately completed a program in 38.2% of cases.

The most common form of attrition from the referral process was refusal to consent to the initial referral (18.3% of all episodes). Other frequent forms of attrition included offenders who consented to referral although were subsequently found unsuitable for programs (12%); offenders who consented to referral and were deemed suitable for programs but were ultimately released from custody before being offered or accepting a placement (15.9%); and offenders who consented to referral and were deemed suitable for programs but refused offers to commence a treatment program until the time of their release (11%). By comparison, relatively few offenders consented to and entered programs but failed to complete treatment (4.6%). Each of these forms of program attrition will be explored in further detail in the following sections.

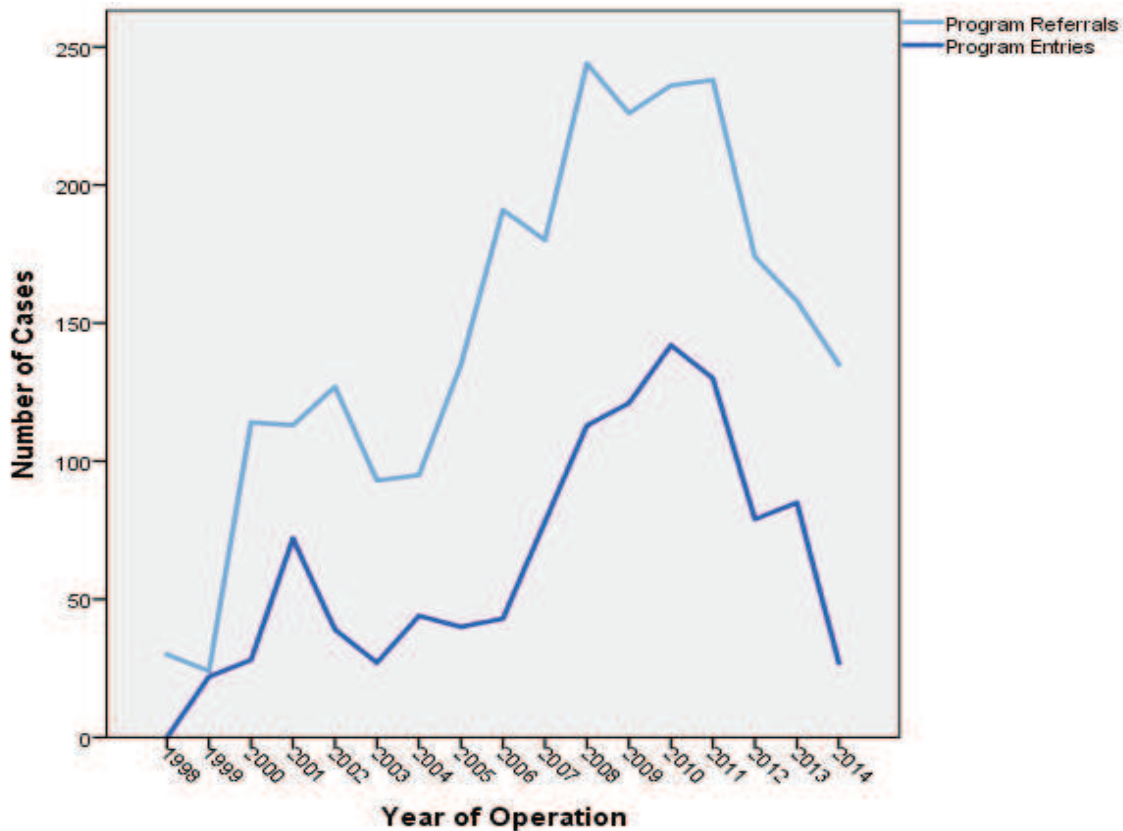


Figure 2: Counts of program referrals and program entries by year of operation.

Program outputs

Figure 2 shows yearly outputs in terms of number of referrals and number of offenders who entered treatment. It can be observed that peak output of both referrals and programs entries occurred around the period of 2008-2011. This is consistent with the proliferation of additional programs (Deniers Program, SRP:SO), in addition to the establishment of a second SOTP residential unit at Parklea Correctional Centre, during this period. The number of program referrals and entries appears to have declined somewhat in recent years since the closing of Parklea in 2012, despite the subsequent opening of another residential unit at Cessnock Correctional Centre in 2013. This may be attributable to the sampling method of excluding cases that were active at the time of the data collection census date, which are likely to involve more recent referrals and program entries.

Factors associated with refusal of program referral

Univariate analyses

Table 3 gives the results of univariate comparisons between those offenders who consented to programs referral, and those who did not progress past refusal of referral during their index custodial episode. Offenders who refused referral were younger; were more likely to be of Aboriginal or Torres Strait Islander background; and were more likely to have ended formal education prior to completion of Year 10, compared to those who consented to referral. Offenders who refused referral were also more likely to have indications of general antisociality such as previous placements in custody; higher criminal versatility, and higher LSI-R scores. Offenders who consented to referral were more likely to have histories of child sex offending, in addition to lower adjusted Static-99R scores, compared to offenders who had refused referral.

The results of univariate comparisons further indicated that being subject to conditional release at the discretion of SPA was a significant predictor of consent to referral. Those offenders whose release was decided by SPA were more likely to consent to referral, compared to those who had unconditional release. Finally, offenders who refused referrals tended to be approached for referral significantly later in their sentence than those who accepted referrals.

Multivariable analysis

A binary logistic regression model was estimated to identify which factors explained unique variance in the likelihood that an offender would refuse referral to programs. Variables that were subjected to univariate analyses were also entered as predictor variables in the multivariable model. Results are provided in Table 3. Data for all relevant variables were available for 1,461 episodes (175 refusal of referral; 1,286 acceptance of referral). The full regression model was found to be significant ($\chi^2(13) = 304.91$; $p < .0005$) and a Hosmer-Lemeshow test statistic was indicative of adequate model fit ($\chi^2(8) = 14.51$; $p = .07$). A conservative estimate is that 19% of variance in outcome was accounted for by differences in the predictor variables (Cox & Snell pseudo $R^2 = .19$).

Variable	Univariate Comparisons			Multivariable Regression
	Accepted Referral	Refused Referral	Test statistic	Odds Ratio
Age at referral	42	39	$z = -3.87^{**}$	1.02
Aboriginal / Torres Strait Islander (%)	15.3	26.4	$\chi^2 = 32.45^{**}$	1.08
Less than Yr.10 education (%)	45.0	60.3	$\chi^2 = 29.25^{**}$	1.31
Ever married (%)	52.8	46.6	$\chi^2 = 5.54$	1.39
Mental health history (%)	54.6	48.3	$\chi^2 = 4.94$.75
Prior offences in custody (%)	30.1	34.9	$\chi^2 = 4.08$.78
Prior custodial episodes	0	4	$z = -9.56^{**}$	1.05
Child offender (%)	66.9	47.5	$\chi^2 = 61.31^{**}$.36 ^{**}
Criminal versatility	.10	.67	$z = -11.03^{**}$.47 [*]
STATIC-99R score	2	4	$z = -7.35^{**}$	1.01
LSI-R score	21	31	$z = -10.73^{**}$	1.06 ^{**}
Conditional release (%)	71.8	39.9	$\chi^2 = 132.89^{**}$.08 ^{**}
Proportion sentence completed prior to referral	.29	.35	$z = -5.33^{**}$	4.59 ^{**}

Table 3: Results for univariate comparisons between offenders who refused consent to referral and those who consented to referral, and for multivariable regression modelling of predictors of refusal. * $p < .01$; ** $p < .005$.

Results showed that actuarial risk of general reoffending explained significant unique variance in the likelihood of refusal of program referral. As LSI-R score increased the odds of refusal also increased. Similarly, increasing criminal versatility in offending was associated with increased odds of refusal. Having any history of child sex offences was predictive of consent to referral, in that offenders with solely adult sex offences were significantly more likely to refuse referrals compared to those with child sex offences. Lastly, conditional release was a robust predictor of outcomes. Those offenders whose release was conditional on the discretion of SPA were only 8% as likely to refuse referral as those who had unconditional release.

Significant independent predictors of refusal of programs referral:

- Higher actuarial risk of general reoffending (LSI-R total score)
- Criminal versatility in offending
- History of sex offending against adults only
- Unconditional release from custody
- Longer delay between sentence start and approach for referral

Motivation to attend programs

At the time of consenting to referral, offenders complete open-ended questions about their motivations and perceived outcomes of engaging in sex offender programs. Responses to the question, “What are your reasons for wanting to participate in Sex Offender Programs?” were subjected to qualitative analysis to identify key themes. A total sample of 882 responses were obtained. Rescoring checks conducted for a subset of 93 cases (10.5% of the sample) showed adequate inter-rater reliability for the final coding approach, with Cohen’s kappa scores ranging between .667 and 1.0 (88% of scores above .80).

Motivational themes identified from responses included:

- **Release from custody:** 17.8% of responses described motivations to receive parole; to be released on their earliest date of release, or to generate a favourable impression with SPA.
- **Progress in the correctional system:** 3.2% of responses described motivations to make progress in aspects of their custodial sentence such as receiving a lower security classification.
- **Coercion:** 8.7% of responses expressed perceptions of being coerced to consent to referral or attend programs. Common perceived sources of coercion included SPA and parole case managers, judicial direction at the time of sentencing, and CSNSW psychologist staff.
- **Address issues:** 17.1% of responses described motivations to address their offending or other behaviour or problems. This category of responses was defined by indications that the offender wished to talk about, focus on, or face up to their behaviour, without further reference to aims to make change in these areas.
- **Develop knowledge:** 36.4% of responses described motivations to develop knowledge or learning. This was commonly associated with offenders’ desires to understand why they had engaged in sex offending. Other responses indicated aims to learn and develop skills as a means of managing offending behaviour.
- **Make change:** 32.3% of responses described aims to achieve personal change or make improvements to functioning. Responses often made general reference to aims for personal

betterment or an improved life after release, whereas others referred to desires to change specific patterns of behaviour related to offending.

- **Avoid reoffending:** 35.3% of responses described motivations to avoid reoffending or minimise risk of offending in the future.
- **Avoid imprisonment:** Only 2.6% of responses made explicit statements about motivations to prevent a return to custody in the future.
- **Redress:** 5.4% of responses described desires to achieve some form of redress with members of the community in relation to their offending behaviour. These responses often made reference to aims to restore respect or trust with family or other members of the community, or to otherwise improve their status within the community.

Assessing suitability for programs

The CUBIT database recorded 305 cases in which the offender consented to referral but was found unsuitable to attend programs by therapeutic managers. Documented reasons for offenders being found unsuitable are listed in Table 4.

Reason for Being Found Unsuitable	Frequency	Percent
Denial	30	9.1%
Lack of time remaining on sentence	114	34.7%
Recent offences in custody	5	1.5%
Active aggression or risk to staff	1	0.3%
Active psychiatric or self-harm issues	5	1.5%
Intellectual or cognitive deficits	31	9.4%
Administrative issues	10	3.0%
Ineligible (low risk / needs; not sex offender)	105	31.5%
Other needs	26	7.9%

Table 4: Reasons for offenders being found unsuitable for programs.

Offenders were most commonly found unsuitable due to not having enough time remaining on their sentence to complete a program; not meeting key eligibility criteria such as having a low risk / needs profile or being deemed to not be a sex offender; having intellectual or cognitive impairments that could not be accommodated by available programs; or denial of sex offending. Offenders were also found unsuitable for having other needs that could not be met by the program site (e.g. active medical concerns); administrative barriers such as concurrent legal hearings; being charged with recent custodial misconduct; or having signs of active psychiatric instability. Only one offender was found unsuitable because of active issues with physical aggression that posed a risk to staff safety.

The historical incidence of offenders being found unsuitable due to denial of sex offending, or to intellectual or cognitive impairments, supports the more recent establishment of programs that are tailored to specific responsivity factors such as the Deniers Program and the SRP:SO. The majority of participants were found unsuitable for denial (73%) or intellectual or cognitive impairment (77%) reasons prior to the advent of these programs in 2009 and 2010 respectively. Since this time a smaller number of participants have continued to be found unsuitable for similar reasons when these responsivity factors are complicated by other eligibility criteria (e.g. when an offender has both denial and intellectual disability, or when an offender has an intellectual disability although has a low risk profile that precludes entry into the SRP:SO).

Reasons for refusing treatment offers

There was a delay of 405 days (range 0 – 4,166 days) between offenders giving consent to initial referral and date of treatment entry on average. Prior to entering programs offenders are offered a position and required to give their consent to the treatment offer. In this sample 461 cases were recorded of offenders refusing to consent to the treatment offer.

If an offender refuses a treatment offer they are required to complete a form that includes the open-ended statement, “I decline to participate in treatment for the following reasons”. A total of 428 valid responses describing reasons for refusal were subjected to qualitative analysis. Inter-rater reliability checks for a subset of the responses (n = 92; 21.5%) returned adequate Cohen’s kappa statistics ranging between .67 and 1.0, with 88% of kappas scoring above .80.

Table 5 reports the incidence of identified themes underlying refusal of treatment offers. The most common theme was reluctance to attend treatment at the location of offer (22.9%); offenders often similarly expressed reluctance to leave their current place of imprisonment (13.1%). Responses also commonly made reference to other administrative matters such as perceived lack of time to complete a program (21.3%); desires to attend sex offender programs other than the one offered, including those delivered in the community (21%); reluctance to decline parole or commence programs before an impending parole date (11.1%); and perceived concerns about their eligibility or ability to attend the program offered (10.7%).

Relatively few offenders gave responses which indicated an active antipathy to attending the offered program. Forty one responses (9.6%) described an aversion to core therapeutic aspects of SOTP such as discussing sex offences, associating with sex offenders or making self-disclosures. A similar number (10.5%) refused because they denied sex offending; in some cases this appeared to imply a related belief that they would not benefit from attending SOTP whereas in others this signified a desire to attend the Deniers Program as an alternative to the program offered. Only a small number of responses (3.5%) explicitly stated that attending programs would be of no benefit.

Reason for Refusal	Total (%)	Refusal With Later Entry	Refusal Until Release	Chi-squared Statistic
Lack of time to release	21.3	5.2	27.9	31.49**
Program location	22.9	50.7	9.5	84.17**
Remain at current location	13.1	28.4	6.5	35.65**
Legal matters	8.2	3.0	9.9	6.05*
Medical issues	6.3	4.5	7.6	1.41
Low psychological readiness	9.1	9.7	8.7	.09
Poor access to services	1.5	1.5	1.9	.08
Opportunities for parole	11.1	12.7	12.5	.002
Characteristics of SOTP	9.6	6.7	11.8	2.51
Program-related administrative issues	10.7	10.4	9.1	.17
Other current / planned programs or activities	9.3	14.9	4.9	11.60**
Already made change	4.7	1.5	6.5	4.81
Denial	10.5	4.5	13.7	7.96**
Program not beneficial	3.5	1.5	4.6	2.46
Attend alternative SOTP	21	12.7	26.2	9.60**

Table 5: Total incidence of reasons for refusal of treatment offer, and comparisons of reasons for those cases in which the offender refused and later engaged in treatment (refusal with later entry) and those in which the offender refused until release (refusal until release). * $p < .01$; ** $p < .005$.

Approximately twice as many cases of refusal of treatment offer resulted in the offender being released before entering programs ($n = 286$) as cases in which the offender later engaged in treatment ($n = 142$). A series of chi-squared tests were conducted to explore whether offenders who later commenced treatment gave different reasons for refusing treatment offers than those who were ultimately released without entering treatment (see Table 5).

Offenders who continued to refuse treatment offers until the time of their release were more likely to refuse on the grounds of lack of remaining time on their sentence; denial of sex offending; or intentions to attend other sex offender treatment, compared to offenders who later engaged in treatment. On the other hand, offenders who later entered treatment more frequently cited reluctance to attend the location of program offered; preferences to remain at their current site of custody; and clashes with their current or impending attendance to other programs or activities.

The qualitative data gathered on refusal of treatment offer indicated that the location of offer was a critical factor in decisions to engage in treatment. To explore this possibility further, we compared historical offer acceptance rates across the three primary CUBIT sites (Long Bay MSPC, Parklea and

Cessnock) in addition to two other sites which were responsible for implementing the CORE program for periods (Kirkconnell and Bathurst Correctional). Results are given in Figure 3.

A chi-squared analysis showed that the rates of offer acceptance varied significantly across the locations ($\chi^2(4) = 78.91$; $p < .0005$). As can be seen in Figure 3, refusals of treatment offers almost doubled when comparing Long Bay MSPC (23.8%) to Parklea (38.6%), and tripled when comparing Long Bay MSPC to Cessnock (62.7%) or Bathurst (61.1%). Referrals to the Kirkconnell site resulted in an intermediate rate of refusals (32%).

The pattern of results suggests that both the location of the program site and the security level of that site may have aggregate effects on likelihood of refusal. For example, the lowest rates of refusal were recorded for Long Bay MSPC, which is in a metropolitan location and houses low security inmates (C classification). The rate of refusals increased for sites which are in regional locations (Kirkconnell) or of higher security (Parklea). The highest rates of refusals were recorded for those sites that are both regional in location and held in custodial units that had higher security classifications (Bathurst, Cessnock).

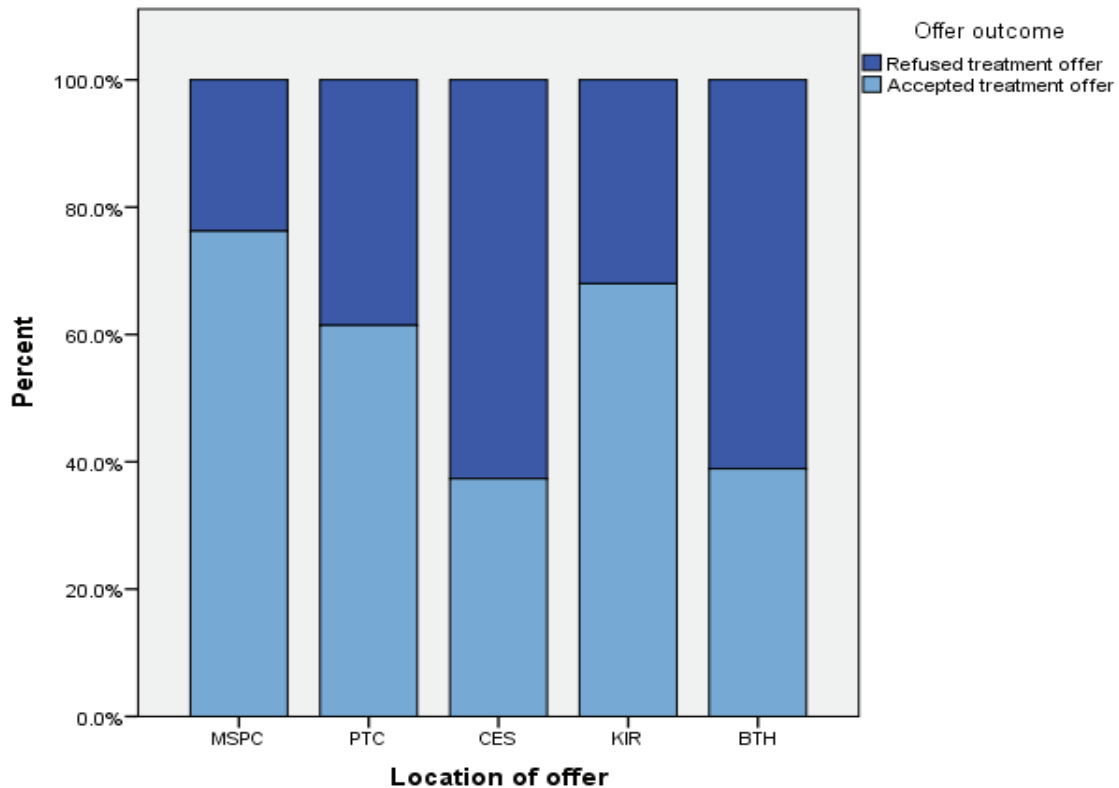


Figure 3: Outcomes of cases of treatment offer by location of offered program. MSPC: Long Bay Metropolitan Special Programs Centre; PTC: Parklea; CES: Cessnock; KIR: Kirkconnell; BTH: Bathurst Correctional Centre.

Program entries

Table 6 outlines characteristics of participants who entered each of the sex offender programs. Consistent with the eligibility criteria of programs, participants entering CUBIT had various indicators of higher reoffending risk compared to those entering CORE, such as higher adjusted Static-99R and LSI-R scores; a more extensive history of prior convictions and custodial episodes; lower age and longer index sentences. Participants who entered CUBIT were also more likely to exhibit needs relating to lower education; indicators of limited psychosocial functioning such as never being married in the past; and histories of institutional misconduct than CORE participants.

	CUBIT	CORE	Deniers	SRP:SO
Sample <i>n</i>	676	396	46	42
Age at program entry	39	45	52	35
Aboriginal / Torres Strait Islander (%)	23.1	19.1	15.6	38.5
Less than Year 10 education (%)	52.2	40	53.3	74.4
Ever married (%)	39	67.8	59.1	28.9
History mental health treatment (%)	57.5	53.9	43.2	66.7
Adjusted Static-99R score	5	1	1	5
LSI-R score	26	16	18	29
Index sentence length (days)	2,556	1,917	2,921	2,190
Index convictions	4	4	5	3
Index sex convictions	2	3	4	2
Prior custodial episodes (%)	57.8	28.4	42.2	48.7
Child sex offender (%)	57.6	70.8	82.6	72.5
Criminal versatility	.50	.0	.11	.50
Conditional release (%)	87.6	84.9	95.2	91.7

Table 6: Characteristics of participants entering CSNSW sex offender programs.

An examination of the characteristics of participants who entered the Deniers Program and SRP:SO gives some insight into these subsamples of sex offenders. Relative to other program participants, those in the Deniers Program appeared to have relatively low risk of reoffending and limited offence histories. Participants entering the Deniers Program had high rates of social commitment such as marriage. Deniers also had the highest rates of child sex offending, in addition to external pressure to enter programs arising from conditional release at the discretion of SPA. These factors may contribute both to social motivations to deny offending, and also to the decision to enter sex offender programs despite the categorical denial of sex offending.

In contrast, participants entering the SRP:SO had the highest average risk profile, including equal highest adjusted Static-99R and highest LSI-R median scores. It is consistent with the eligibility criteria of this program that most participants had not completed up to Year 10 of formal education. Two-thirds of participants also had a history of intervention for mental health problems. Participants entering the SRP:SO were relatively young and had the lowest rates of experience of intimate social relationships such as marriage. Almost 2 in 5 participants entering SRP:SO (38.5%) were of Indigenous background, which is a substantially higher proportion than in other programs.

Rates of program non-completion

Over the history of the current CSNSW sex offender programs there were 158 recorded cases of participants being discharged from programs prior to completion. In comparison, 977 cases of referral resulted in program completion. This translates into a non-completion rate relative to total cases of program entry of 13.9%.

Reasons for program non-completion are provided in Table 7. Participants were most commonly expelled from the program at the discretion of staff, either in relation to inappropriate behaviours or factors associated with poor treatment engagement such as limited therapeutic progress over time, refusal to accept responsibility for offending, or failure to make adequate disclosures. Almost a quarter of cases were self-initiated by the participant. Smaller numbers of discharges were associated with administrative interruptions such as release from custody, or with the participant’s exhibition of other needs (e.g. language or cognitive deficits) that could not be accommodated by that particular program.

Reason for Program Non-completion	Frequency	Percent
Expulsion: behavioural problems	46	29.1%
Expulsion: poor treatment engagement	46	29.1%
Self-initiated drop out	37	23.4%
Administrative interruption	18	11.4%
Other needs	13	8.2%

Table 7: Reasons for program non-completion.

Factors associated with program non-completion

Analysis of factors associated with program non-completion was conducted for participants entering the flagship CUBIT program for moderate to high risk / needs offenders only. We decided on this approach for a number of reasons. First, the four programs have varying features and operations that may have different effects on the likelihood of completion. Findings for the impact of variables that are inherent to one program may not readily generalise to different programs. For example, we

aimed to assess the effects of major operational changes made in 2005. These analyses may have limited applicability to CORE (which is run in closed groups) or to the SRP:SO and the Deniers Program (which were established after 2005 and have no prior basis for comparison). The latter programs also have limited uptake and discharge rates to date, which precludes meaningful independent analysis. Another consideration is that some variables of interest have available data predominantly for CUBIT or only for CUBIT (e.g. psychometric test data), which indicates that other programs would naturally be excluded from analyses through listwise deletion of cases with missing data. In light of these factors and the observation that CUBIT accounts for the majority of all program non-completions (72.7%), it was decided that conducting analyses for this program only had the benefit of specificity of outcomes while retaining much of the available valid sample.

The maximum valid sample size available for the following analyses was relatively small compared to others in this report (completed $n = 547$; discharged $n = 81$). This has implications for the power of regression models on predictors of group membership. To account for this we examined only a subset of predictor variables that are relevant to RNR principles or key factors associated with the operation of programs. These included:

- **Demographics:** demographics of interest included age at program entry and Aboriginal or Torres Strait Islander status.
- **Reoffending risk:** measures of sexual reoffending (adjusted Static-99R) and general reoffending (LSI-R) were included.
- **Offending characteristics:** the extent to which target offender sub-populations completed the program was assessed by entering history of child, or solely adult, sex offending in addition to our measure of criminal versatility as predictors.
- **Administrative variables:** key administrative factors included the delay participants experienced between the start of their custodial episode and program entry, and whether they entered CUBIT prior to or after changes made in September 2005. To distinguish effects of operational changes made in 2005 from the general evolution of CUBIT over time (Ware & Bright, 2008), we adjusted for year of operation as a covariate in the multivariable regression model.
- **Motivation:** the presence of external incentives to enter programs was assessed by subjective offender reports that identified external or internal motivations for treatment, in addition to an objective measure of pressure from SPA in the form of conditional release.
- **Cognitive responsivity:** Education history (more / less than Year 10) was entered as a marker for cognitive or learning responsivity factors.
- **Psychological responsivity:** relevant variables included a history of treatment for mental health disorder; pre-treatment self-esteem as measured by the Social Self Esteem Inventory (SSEI: Lawson et al., 1979); and pre-treatment anti-authority attitudes as assessed by the Attitudes to Law, Courts and Police subscale of the Criminal Sentiments Scale (CSS: Gendreau et al., 1979).

To account for the limited power of analyses and prevent model overspecification (e.g. Babyak, 2004), only those variables that were found to have an association with outcome in univariate comparisons were included in the multivariable model. Because this approach has the potential to

inflate Type II error we employed a relatively lenient decision criterion ($p > .1$) when excluding predictor variables. In accordance with previous research (e.g. Laroche et al., 2011), the outcome variable was any form of program non-completion, including voluntary drop out and expulsion in addition to administrative exits.

Variable	Univariate Comparisons			Multivariable Regression
	Completed	Discharged	Test Statistic	Odds Ratio
Age at entry	40	34	$z = -3.12^{**}$	1.007
Aboriginal / Torres Strait Islander (%)	21.4	29.6	$\chi^2 = 2.75^{\sim}$	1.22
Criminal versatility	.45	.67	$z = 2.46^*$.68
LSI-R total score	25	29	$z = -2.39^*$	1.005
Proportion sentence completed before program entry	.56	.50	$\chi^2 = -2.58^{**}$	5.19
Post 2005 program (%)	79.3	24.7	$\chi^2 = 105.2^{***}$.064^{**}
Conditional release (%)	86.3	93.2	$\chi^2 = 2.74^{\sim}$.45
CSS score	3.84	3.52	$z = -3.96^{***}$.36^*
Education < Year 10 (%)	50.1	61.4	$\chi^2 = 2.60$	-
Mental health history (%)	57.9	54.4	$\chi^2 = .25$	-
Child sex offender (%)	58.9	49.4	$\chi^2 = 2.60$	-
Adjusted Static-99R	5	5	$z = -.90$	-
Offences in custody (%)	44.4	53.1	$\chi^2 = 2.13$	-
Reported external motivation (%)	21.2	24.6	$\chi^2 = .57$	-
SSEI score	4.13	3.99	$z = 1.54$	-

Table 8: Results for univariate comparisons between participants who completed and did not complete CUBIT, and for multivariable regression modelling of predictors of non-completion. CSS: Criminal Sentiments Scale; SSEI: Social Self-esteem Inventory. $\sim p < .1$; $*p < .05$; $p < .01$; $***p < .001$.**

Univariate analyses

Individual variables: The results of univariate comparisons between participants who had a ‘peak’ status of program non-completion and those who completed CUBIT are given in Table 8. Program non-completers were younger and had signs of more extensive general criminality such as higher LSI-R scores and criminal versatility compared to those who completed CUBIT. Non-completing participants also reported greater anti-authority attitudes on the CSS. Individual variables including Aboriginal or Torres Strait Islander status; education; mental health history; actuarial risk of sexual

reoffending; type of sex offending; prior institutional misconduct; external motivation to attend programs; and social self-esteem were not significant predictors of program non-completion.

Administrative variables: In accordance with the stated rationale for major operational changes made to CUBIT in September 2005 (Ware & Bright, 2008), we expected that year of program entry would be a significant predictor of non-completion. Univariate analysis showed that the rate of non-completion relative to all CUBIT program entries was 35.1% prior to changes made in 2005, and 4.4% after this time ($\chi^2(1) = 105.20$; $p < .0005$). As can be seen in Figure 4, non-completion rates were variable in the initial years of operations and reached close to 50% in 2003. Program non-completion has remained relatively steady at around 5% over the past several years, however.

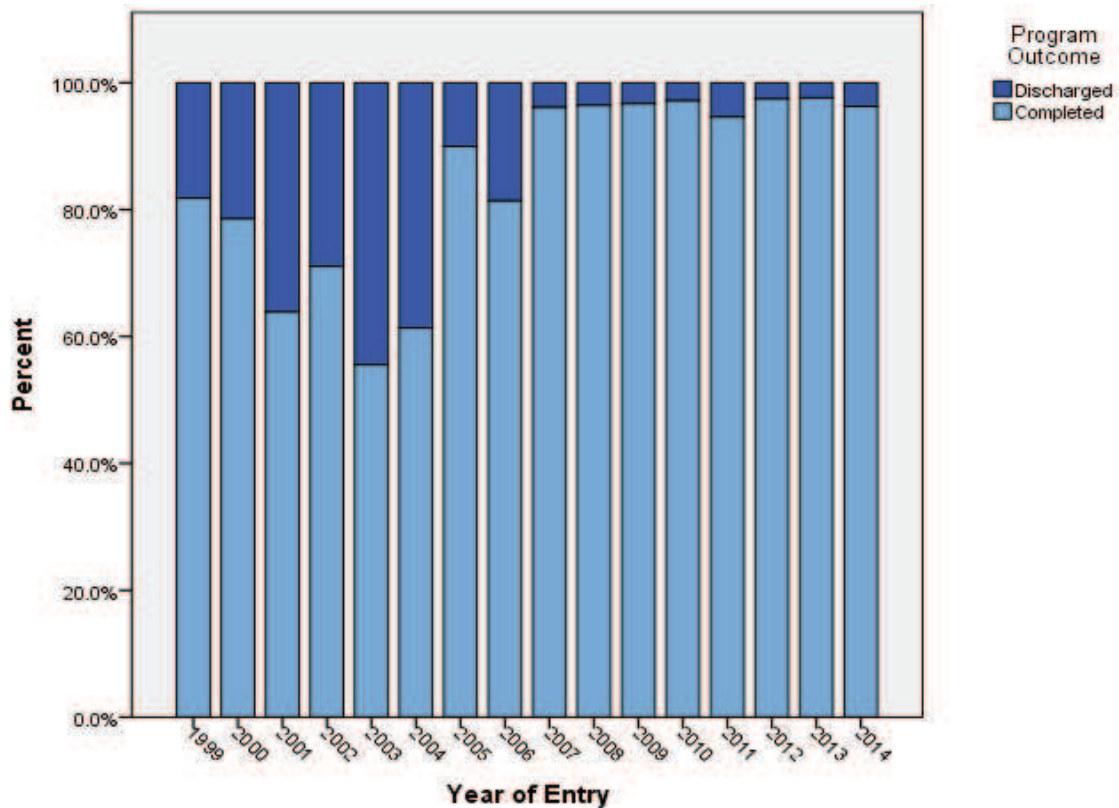


Figure 4: Proportions of program entries ending in program completion and non-completion by year of entry.

To explore the effects of changes adopted in 2005 further, we examined the prevalence of the different forms of program non-completion over time. Results are shown in Table 9. The proportion of participants who left CUBIT prematurely under each of the most common categories of non-

completion⁴ declined significantly after program changes were made in 2005. This indicates that since 2005, reduced non-completion rates have been associated not only with higher administrative thresholds for expulsion from CUBIT, but also with an increased likelihood that participants have been encouraged to persevere with treatment without resorting to self-initiated drop out.

Another administrative variable of interest was the effect of differences in the case management pathway of participants, in terms of the delay between custodial episode start and program entry. Participants who completed CUBIT entered the program at a significantly later stage of their sentence compared to those who did not complete the program.

Reason for Program Non-completion	Original Program	Current Program	Chi-squared Statistic
Self-initiated drop out	8.0%	0.9%	24.50**
Expulsion: behavioural problems	17.0%	1.7%	55.32**
Expulsion: treatment engagement	18.0%	1.1%	69.41**
Administrative interruption	1.5%	0.9%	-
Other needs	0.5%	1.7%	-

Table 9: Rates of program non-completion by category, before and after operational changes made to CUBIT in 2005. Percentages are proportions of discharge relative to all program entries. *p < .01; **p < .001.

Multivariable analysis

A binary logistic regression model was conducted to examine which variables predicted unique variance in the likelihood of program non-completion. The full regression model was significant ($\chi^2(9) = 87.65$; $p < .0005$) and a Hosmer-Lemeshow test indicated good model fit ($\chi^2(8) = 9.43$; $p = .307$). Predictor variables were conservatively estimated to account for 23% of variance in the likelihood of program non-completion (Cox & Snell pseudo $R^2 = .23$).

As shown in Table 8, most of the individual variables did not predict unique variance in the likelihood of program non-completion. Only higher anti-authority attitudes as measured by the CSS were associated with a significant increase in the likelihood of program non-completion.

On the other hand, timing of program entry was a highly significant administrative predictor of outcome. Participants who entered the program after major administrative changes were made to CUBIT in 2005 were only 6.4% as likely to fail to complete the program as those who entered prior to these changes. In contrast, the year of operation covariate was not significant (OR = .86; $p = .27$). This pattern of results indicates that declines in program non-completion in recent years are more

⁴ It was not possible to conduct similar analyses on rates of administrative interruption and discharge for needs-related reasons because of the low prevalence of these outcomes, which violated test assumptions for minimum sample size.

likely attributable to operational changes made in 2005 as opposed to general cumulative changes in program delivery or the characteristics of participants entering the program over time.

Significant independent predictors of program non-completion:

- Commencing CUBIT prior to major operational changes made in 2005
- Higher anti-authority attitudes (CSS Attitudes to Law, Courts and Police score)

DISCUSSION

Offender treatment programs comprise a major criminal justice strategy for managing risk of sexual offending. Offenders who fail to complete programs are unlikely to benefit from such initiatives, however, which suggests that efforts to reduce reoffending through treatment must address the issue of program attrition (Beyko & Wong, 2005). The aim of this study was to examine factors associated with program completion across the suite of custodial sex offender treatment programs currently delivered by CSNSW. Uptake and attrition rates were assessed at stages of referral, eligibility screening, treatment offer and program entry to identify factors that may affect offenders' progress through the referral process and likelihood of successful completion.

Results indicated that less than two-fifths (38.2%) of all offenders approached for referral ultimately completed programs during their index custodial episode. Attrition of target offenders commonly occurred at stages of initial referral (18.3% of all episode outcomes), screening for program suitability (12%), and when offenders were placed on program waitlists but later refused treatment (11%) or otherwise were released prior to entering treatment (15.9%). While the available data is limited, these rates of pre-program attrition appear to be positive when compared to other SOTP. Jones et al. (2006) found that 48.9% of eligible offenders did not volunteer for a custody-based SOTP and of the remainder, 16% were denied entry by staff and 22% refused to enter treatment after consenting to be placed on a waitlist. Clegg and colleagues (2011) similarly reported that 38% of imprisoned sex offenders refused to be referred to treatment and a further 39% consented to referral but ultimately did not complete treatment.

Only 4.6% of all offenders who were approached for referral entered one of the CSNSW sex offender programs but failed to complete that program. This translates into a non-completion rate relative to all program entries of 13.9%, which is substantially lower than the average of 27.6% reported in a meta-analysis of 34 SOTP (Olver et al., 2011).

Factors impacting program uptake and completion

A review of attrition across stages of the referral process indicates that difficulties engaging the target population were most often encountered when obtaining consent to the initial referral. Higher rates of attrition were observed at the time of approach for referral than at any other stage. This underscores the importance of examining referral strategies and factors affecting refusal when considering program reach. Offenders who refused referral had signs of increased general antisociality, including higher LSI-R scores and more extensive histories of offending other than sex offending, compared to offenders who consented to referral. Those who refused referral were also more likely to be adult sex offenders, who tend to exhibit a greater range of general criminogenic needs and antisocial behaviours than child sex offenders on average (e.g. Hanson & Bussiere, 1998; Harris et al., 2009; Simon, 2000). Specialised sex offender programs may be perceived as less viable by those offenders who view themselves as more generalist offenders or are reluctant to identify as sex offenders. Previous research has indicated that central themes underlying treatment refusal include concerns about the stigma or loss of status associated with attending (Mann et al., 2013), in addition to perceptions that the program would be irrelevant or inappropriate (Brown & Tully, 2014). The results suggest that because offenders who refuse SOTP are relatively more likely to have various non-sexual criminogenic needs, it would be beneficial for sentence pathway planning to remain open to other rehabilitative avenues that are not solely focused on sex offending or prejudiced by refusal of sex offender programs in particular.

On the other hand, multivariable regression modelling showed that offenders who refused referral to SOTP did not have significantly different adjusted Static-99R scores compared to those who consented to referral. There is the implication that while attrition at the stage of initial referral may have a biasing effect by selecting out those offenders with the highest risk of general reoffending, this does not correspond with biased retention of offenders in terms of sexual reoffending risk in particular. This finding is significant because systematic attrition of offenders who are at higher risk of sexual reoffending is both a critical violation of RNR principles for SOTP and a common outcome of treatment refusals and non-completions in these programs (Beyko & Wong, 2005; Grady et al., 2012; Olver et al., 2011; Olver & Wong, 2013).

Another important stage of referral from an attrition standpoint was assessment of suitability for programs. It is not unexpected that attrition was relatively common at this stage because it represents an opportunity to screen offenders for core eligibility criteria. Offenders were most often found unsuitable because they were deemed to not be a sex offender, had a low risk / needs profile or had inadequate time to complete programs. However, factors relating to offender denial and level of cognitive functioning were also common reasons for being deemed unsuitable. In a similar manner to discharge from treatment, administrative exclusion resulting from such responsivity issues represents a failure to meet RNR principles for those offenders. The historical prevalence of denial and cognitive needs as reasons for finding offenders unsuitable supports the development of specialised treatment programs such as the Deniers Program and SRP:SO in recent years.

The utility of the SRP:SO in promoting treatment engagement for low cognitive functioning offenders is particularly relevant, considering indications that participants entering this program had a relatively extensive range of criminogenic needs and had the highest risk of sexual and general reoffending on average. This pattern of results is consistent with other studies showing the overrepresentation of low intellectual functioning in custodial and reoffending samples (e.g. Craig & Hutchinson, 2005; Cantor et al., 2005; Holland et al., 2002). Within the local context, the SRP:SO also appears to have had a disproportionate number of Indigenous entrants, who are of higher risk of general and violent reoffending compared to non-Indigenous sex offenders (Donaldson, 2011). Cognitive impairment has been cited as a typical reason for SOTP attrition (e.g. Jones et al., 2006), suggesting that without supporting resources such as the SRP:SO many programming initiatives would fail to provide treatment for these high priority target demographics.

Conversely, it appears that participants entering the Deniers Program had relatively low risk / needs profiles on average. With some exceptions, the existing research indicates that denial is not a psychologically meaningful risk factor (Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005; Mann et al., 2010). Denial may be associated with lower risk of reoffending when it is motivated by underlying protective factors, such as efforts to maintain existing social relationships or tendencies towards social self-control (e.g. Lord & Wilmott, 2004). An implication of the results, however, is that historical or recent participant recruitment practices for the Deniers Program have not been consistent with program eligibility parameters relating to the treatment of moderate to high risk / needs offenders on average.

A key finding of this study was that the number of program entries that ended in non-completion was low, both in comparison to the existing empirical literature (Olver et al., 2011) and in comparison to pre-program attrition rates. Regression analyses indicated that the low program non-completion rate for CUBIT may be attributable to major operational changes that were made to this program from 2005. As discussed by Ware and Bright (2008), the introduction of rolling groups may be beneficial to this end by permitting the use of disciplinary measures other than expulsion; allowing offenders to progress with program content at their own pace and thus decreasing the likelihood of discharge for lack of treatment gains; and reducing large simultaneous intakes of inexperienced and potentially resistant offenders. Promotion of positive therapist features has also been posited to influence treatment effectiveness primarily by moderating offender engagement and adherence (e.g. Marshall et al., 2003; Ross et al., 2008; Taft et al., 2003). It is possible that the impact of these operational changes was conflated with other innovations made since 2005, including the effects of having additional options to allocate eligible offenders to the Deniers Program or SRP:SO. However, it does appear that the difference in program non-completion rates before and after 2005 was independent of cumulative improvements to the program or to changes in the characteristics of offenders entering CUBIT over time.

Individual variables relating to offender risk, need and responsivity were largely non-significant predictors of program completion. From the results it appears that the influence of many individual variables may have been effectively suppressed by administrative changes made to CUBIT in 2005.

This interpretation is consistent with Beyko & Wong's (2005) proposal that successful adherence to RNR principles is represented by an absence of systematic predictors of program non-completion. Regression analyses did identify one individual factor that contributed significant unique variance to outcomes, namely anti-authority attitudes. A number of studies have similarly found that correlates of antisocial attitudes are significant predictors of SOTP non-completion, including negative impression management, poor attitudes to treatment, antisocial personality disorder and psychopathy (see Larochelle et al., 2011; Olver et al., 2011 for reviews). Poor attitudes towards therapeutic staff or justice authorities in general may have a fundamental impact on treatment engagement, resulting in increased risk of voluntary drop out in addition to expulsion for behavioural problems or perceived lack of progress in treatment. A complicating factor is that the experience of treatment non-completion could in turn potentiate risk of reoffending by aggravating negative perceptions of relevant authorities (McMurran & Theodosi, 2007). Further research is needed to better understand how features of the therapeutic relationship are developed with offenders and act to modify anti-authority attitudes, particularly in regards to more resistant participants who are prone to attrition. While empirical evidence for the association between working alliance and attrition in SOTP is limited (Beyko & Wong, 2005; DeSorcy et al., 2014), studies have shown that factors such as risk of reoffending, ethnicity, and therapist gender may moderate how sex offenders perceive the therapeutic relationship (Blasko & Jeglic, 2014; DeSorcy et al., 2014). On a positive note, there are also indications that sex offenders who score high on antisocial characteristics can be effectively treated on the proviso that they are successfully retained in programs and make therapeutic gains (Olver & Wong, 2009).

Considering attrition across the referral process as a whole, it appears that an enduring administrative challenge is to manage treatment planning with regards to each offender's stage of sentencing and anticipated date of release. Inadequate time to complete programs was a prevalent reason for offenders being found unsuitable for programs and refusing treatment offers. Proportion of sentence served was also a significant predictor of refusal of initial referral and program non-completion. Difficulties managing the timing of program referrals and entries are expected in custodial SOTP considering limited operational resources; uncertain dates of conditional release for many offenders; and the fact that many offenders do not receive long enough custodial sentences to successfully complete programs.

Unfortunately the available data gives mixed insights into strategies for sentence planning that may reduce attrition risk. Results of the current study showed that offenders who were approached for referral later in their sentence were more likely to refuse, and those participants who entered CUBIT later in their sentence were more likely to complete the program. In contrast, Pelissier (2007) found that program entry in the first 3 months of a custodial sentence had a positive association with completion, whereas Clegg et al. (2011) concluded that sex offenders who were approached for referral closer to the time of their parole were more likely to consent to programs. One account for the disparate results is that the intensity and foci of motivations for treatment vary over the course of sentencing. For example, offenders may be more likely to have personal motivation to make change in the immediate aftermath of sentencing, and perceive more external incentives in the

latter stages of their sentence when anticipating eligibility for conditional release. It has previously been observed that there is a dearth of research to inform operational planning that could exploit the interaction between motivation and stage of sentencing in offender treatment (Pelissier, 2007). From a more procedural standpoint, participants who have a greater interval between referral and program entry may also have more time to negotiate the referrals process and overcome obstacles to treatment such as allocation to unfavourable program locations.

A related challenge observed throughout the referral and treatment process was that external incentives or pressures to engage in treatment were common. A large proportion of offenders cited aims to obtain parole or perceptions of coercion as motivations to attend programs. The prospect of conditional release was also found to be one of the most robust predictors of consent to initial referral, although did not predict program completion after entry. External factors such as judicial directions and conditional release have utility from an operational perspective by retaining more serious offenders and maximising program throughput (Jones et al., 2006). However, concerns have been raised that while external incentives can drive entry into programs they may not be sufficient to promote treatment gains or program completion (Aydin et al., 2013; Clegg et al., 2011). There is also limited data to suggest that sex offenders may be more likely to refuse program referrals in the event that external incentives are associated with perceptions of coercion (Brown & Tully, 2014). Given the prevalence of external motivations in the current sample, it is important that these inducements are bolstered by strategies that clarify and reinforce personal motivations such as motivational interviewing and Good Lives Model program components (Jones et al., 2006; Marshall et al., 2011; Mann et al., 2013; Pelissier, 2007). Offenders may also have difficulty identifying personal incentives for treatment because they often have limited knowledge about the content and aims of SOTP prior to entry (Mann et al., 2013). Provision of detailed program information throughout the referral process may help to align treatment engagement with some of the more internalised motivations commonly reported by offenders in the current sample, such as desires to understand problem behaviour or achieve personal change.

Another operational challenge to treatment uptake and completion that warrants attention is the location of available programs. Offenders who refused treatment offers frequently reported being reluctant to attend a specific programs site or to be transferred to the correctional centre in which a program was located. While the reasons for preferring one location over another were not explored further in qualitative analysis, a comparison of offer acceptance rates across sites indicated that both geographical region and site security level were influential. It is intuitive that offenders may be less willing to attend programs at locations that limit their access to social supports or have more stringent security restrictions relative to their current classification. Given the stigma attached to sex offenders in correctional settings, many potential participants may also prefer to attend centres that have established sex offender populations. The results suggest that when allocating programs resources across correctional centres, there is a need to balance representation of different regions and security levels with considerations of how offender social networks, community identification, access to other services and perceptions of safety affect uptake rates.

Limitations

Some limitations of this study are noted. Whereas the available sample size was large on average, valid data for testing factors associated with program non-completion were more modest. A related limitation was that the available datasets contained missing data for a range of variables. In binary logistic regression the power of a model is partly determined by the sample size of the smaller group of membership, which in this case comprised those participants who did not complete CUBIT. This necessitated testing of only a limited array of variables and selection on the basis of prior univariate outcomes, which may have inflated Type II error. The approach was made in favour of sequential regression methods so as to avoid systematic model overfitting (e.g. Babyak, 2004).

In addition, analysis of factors associated with program non-completion was limited to CUBIT participants, whereas other analyses incorporated potential participants of all CSNSW sex offender programs. Early stages of the referral process are uniform for all eligible offenders and it is often not possible to reliably identify the particular program they are being screened for or ultimately likely to attend. As such results of analyses of program discharges may not be generalisable to the particular characteristics of other SOTP. Another limitation is that data relating to offender motivation for treatment and reasons for refusal of treatment offers were based on inmate self-reports made under conditions of scrutiny by CSNSW authorities, and thus may be vulnerable to response bias.

A final observation is that while this report is part of a process evaluation of CSNSW sex offender programs, a number of factors that are relevant to process were not addressed. Other process variables that may be relevant to the current study of attrition include program implementation, factors that contribute to variance in the working alliance or perceptions of the therapeutic community, and dynamics of within treatment change. Similarly, whereas the results indicated that CSNSW programs operations have substantially reduced the prevalence of non-completion over the past several years, it is currently uncertain how this affects treatment outcomes such as reoffending. Retention of the most resistant offenders may not translate into effective treatment for these offenders, and could potentially disrupt processes of therapeutic change for other participants. However, it has been observed that high intensity sex offender programs demonstrate effectiveness in treating offenders who have similar characteristics to those who commonly drop out of or are discharged from treatment (Hanson et al., 2009; Olver & Wong, 2009; 2013).

Conclusions

The results of this report indicate that CSNSW sex offender programs have acknowledged the problems that attrition pose to treatment effectiveness and have had a degree of success in promoting program completion. In particular, operational changes made to CUBIT in 2005 appear to have had significant effects in reducing program discharge or drop out prior to completion, independent of other evolution of program content over time or changing characteristics of the referral sample. In addition, the introduction of the Deniers Program and SRP:SO in recent years suggests adaptation to previous failures to accommodate related responsivity factors.

This study also highlights some of the difficulties inherent to providing intensive treatment to sex offenders in custodial contexts. These include variable timeframes of imprisonment, competing pressures for participation, and challenges of distributing program resources across sites to account for the needs and demographics of the target population. In this regard the results emphasise that attrition is the product of interactions between the offender, the program and the broader context (Beyko & Wong, 2005; Day et al., 2010; Ward et al., 2004).

Outstanding challenges for management of attrition in CSNSW sex offender programs include improving uptake rates at the time of initial approach for referral; managing sentencing pathways to allow for timely referral and treatment within the restraints of offenders' custodial episodes; counterbalancing external incentives for participation such as conditional release with enhancement of internal motivations; and utilising aspects of the broader referral process as an opportunity to modify antisocial attitudes and optimise treatment engagement.

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