

**Outcomes of
Queensland Corrective Services
Sexual Offender Treatment Programs**

Stephen Smallbone

&

Meredith McHugh

School of Criminology and Criminal Justice

Griffith University

FINAL REPORT

February 2010

CONTENTS

ACKNOWLEDGEMENTS	iii
AUTHORS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
EXECUTIVE SUMMARY	viii
INTRODUCTION	1
Principles of effective offender rehabilitation	1
Sexual offenders and recidivism	5
<i>Criminal versatility</i>	6
Effectiveness of sexual offender treatment	8
QCS sexual offender programs	9
Aims of the present evaluation	10
METHOD	11
Participants	11
Measures	11
<i>Risk</i>	11
<i>Criminogenic needs</i>	13
<i>Recidivism</i>	16
Procedure	16
<i>Treatment group</i>	16
<i>Comparison group</i>	17
<i>Data management and analysis</i>	18
RESULTS	19
Treated offenders	19
<i>Treatment non-completion</i>	20

CONTENTS

RESULTS

Treated and untreated offenders	21
Intermediate treatment effects	22
<i>Empathy and cognitive distortions</i>	23
<i>Sexual attitudes and behaviour</i>	25
<i>Emotional regulation</i>	28
<i>Intimacy and loneliness</i>	30
<i>Therapist ratings of treatment progress</i>	32
<i>Outcomes for the Indigenous programs</i>	34
<i>Outcomes for the Inclusion program</i>	35
Recidivism	37
<i>Treatment and recidivism</i>	38
<i>Risk, treatment, and recidivism</i>	39
<i>Recidivism among Indigenous offenders</i>	45
<i>Discharge status and recidivism</i>	46
<i>Univariate predictors of recidivism</i>	48
<i>Multivariate predictors of recidivism</i>	51
DISCUSSION	52
Participation in QCS sexual offender programs	52
Effectiveness of QCS sexual offender programs	54
<i>Intermediate outcomes</i>	54
<i>Recidivism outcomes</i>	56
Predicting recidivism	60
Recommendations	62
REFERENCES	63

ACKNOWLEDGEMENTS

The authors would like to acknowledge QCS Offender Programs and Services Directorate staff for their contribution and support throughout the evaluation process. First, we would like to acknowledge Dr Mark Rallings for his foresight and leadership in establishing the foundations for the present evaluation. Thanks also to Keiren Bennett, who provided key support and leadership over the course of the evaluation.

We would like to acknowledge Regina O'Toole, Eli Sky, Karla Hartnett and Trudy Sheffield for their support and guidance in the provision of data to the evaluation team and for addressing the many queries that have arisen throughout the evaluation project.

We would also like to acknowledge the time, effort and resources contributed by Peter Conroy and his staff at Queensland Police Statistical Services.

We congratulate all those involved in the development and provision of the QCS sexual offender treatment programs. We understand that this can be difficult work, and we know it is important work.

Finally, we would like to acknowledge the indirect contribution of the many offenders represented in this evaluation. We offer our sincere hopes for all these offenders to go on to lead responsible and fulfilling lives.

AUTHORS

Stephen Smallbone PhD is a Professor in the School of Criminology and Criminal Justice at Griffith University, and an Australian Research Council 'Future' Fellow. Professor Smallbone worked for eight years as a correctional and consulting psychologist with Queensland Corrective Services before taking up an academic position at Griffith University in 1998. He has published widely on sexual violence and abuse prevention, including many studies of adult and youth sexual offenders. His recent publications include a co-authored book (with William Marshall and Richard Wortley) on *Preventing child sexual abuse* (2008; Willan Publishing), a co-edited book (with Richard Wortley) on *Situational prevention of child sexual abuse* (2006; Criminal Justice Press), and a co-authored Policing guide (with Richard Wortley) on *Internet child pornography* (2006; US Department of Justice).

Meredith McHugh BSc BPsych (Hons) recently submitted her PhD which she undertook with School of Psychology, Griffith University. Her research addresses the biological basis of fear and anxiety. Since 2008 Ms McHugh has also worked as a Senior Research Assistant with the Key Centre for Ethics, Law, Justice and Governance at Griffith University. During this time she has contributed to several large-scale government commissioned reports. To date, Ms McHugh has publications in *Psychophysiology*, the *International Journal of Psychophysiology*, and has also recently contributed to an edited book on *adolescent risk behaviour*. Ms McHugh has presented papers on her research at various national and international level conferences and has also been invited to present workshops and lectures in the areas of cognitive and affective neuroscience.

LIST OF TABLES

Table 1. Assessment and intervention structure of QCS sexual offender programs	17
Table 2. Characteristics of treated offenders (n = 158), by program type	20
Table 3. Demographic and risk-related characteristics of treated and untreated offenders	21
Table 4. Proportions of Inclusion program participants meeting criteria for clinically significant improvement across the seven risk domains of the TIPS-ID	36
Table 5. Recidivism Rates (%) for treated and untreated offenders	39
Table 6. ROC values (confidence intervals) for the Static-99, Stable-2000, ORNI-R and RoR-PV as predictors of sexual, nonsexual violent, and any recidivism	40
Table 7. Recidivism by treatment and Indigenous Status	45
Table 8. Recidivism by treatment and discharge Status	48
Table 9. Characteristics distinguishing sexual recidivists, nonsexual violent recidivists, and non-violent recidivists, from non-recidivists	50

LIST OF FIGURES

Figure 1. Mean empathy for victims in general and for the offender's own victim, before (pre) and after (post) treatment	23
Figure 2. Mean empathy for adult victims in general and for offenders' own adult victims, pre- and post-treatment	24
Figure 3. Mean self-reported cognition distortions associated with child molestation and rape, for offenders with child victims and adult victims, pre- and post-treatment	25
Figure 4. Mean self-reported desire to use sex as a coping strategy pre- and post-treatment, for child-sex offenders and offenders with adult victims	26
Figure 5. Mean self-reported beliefs about entitlement to sex pre- and post-treatment, for child-sex offenders and for offenders with adult victims ..	27
Figure 6. Mean self-reported emotional identification/congruence with children pre- and post-treatment, for child-sex offenders only	27
Figure 7. Mean self-reported beliefs that women are deceitful pre- and post-treatment, for child-sex offenders and offenders with adult victims	28
Figure 8. Mean scores across the four domains of emotional regulation pre- and post-treatment, for child-sex offenders	29
Figure 9. Mean scores across the four domains of emotion regulation pre- and post-treatment, for offenders with adult victims	29
Figure 10. Pre- and post-treatment mean scores for secure, fearful, preoccupied and dismissive attachment styles, for child-sex offenders	30
Figure 11. Pre- and post-treatment mean scores for secure, fearful, preoccupied and dismissive attachment styles, for offenders with adult victims	31
Figure 12. Mean self-reported social intimacy pre- and post-treatment, for child-sex offenders and offenders with adult victims	31
Figure 13. Mean self-reported social self-esteem pre- and post-treatment, for child-sex offenders and offenders with adult victims	32
Figure 14. Proportion of treated offenders rated as satisfactory or above on intellectual understanding and emotional acceptance/demonstration across the 17 topics addressed by the Therapist Rating Scale	33

Figure 15. Mean therapist ratings for poor coping, unrealistic long-term goals, and unfeasible release plans pre- and post-treatment (IMISOP and IHISOP)	35
Figure 16. Mean therapist ratings across the seven risk domains measured by the TIPS-ID before (pre) and after (post) participation in the Inclusion program	36
Figure 17. Mean self-reported endorsement of paedophilic and rape attitudes pre- and post-participation in the Inclusion program	37
Figure 18. Sexual recidivism survival curves for treated and untreated sexual offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge	41
Figure 19. Nonsexual violent recidivism survival curves for treated and untreated sexual offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge	42
Figure 20. Violent (including sexual) recidivism survival curves for treated and untreated offenders, demonstrating the cumulative proportion of offenders in each group surviving (not-re-offending) at each month since discharge	43
Figure 21. ‘Any’ recidivism survival curves for treated and untreated offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge	44
Figure 22. Recidivism rates (%) as a function of recidivism type (sexual, nonsexual violent, and non-violent) and discharge status (no supervision, standard supervision, and DPSCOA)	47

EXECUTIVE SUMMARY

The present authors were engaged by Queensland Corrective Services (QCS) in March 2009 to conduct an independent outcome evaluation of QCS prison-based sexual offender programs. The evaluation set out to answer two main questions:

1. do QCS sexual offender programs produce discernable and intended therapeutic effects, and
2. do these programs produce positive effects on recidivism?

The evaluation also set out to answer a number of secondary questions, namely:

1. does the effectiveness of treatment vary according to offender characteristics (e.g. for offenders with child versus adult victims; for Indigenous and non-Indigenous offenders; for higher- or lower-risk offenders), and
2. are treatment effects moderated by post-release circumstances (e.g. release with or without community supervision)?

Risk assessment and recidivism data were obtained on 409 adult males who had served a term of imprisonment for a sexual offence, and who were discharged between April 2005 and June 2008. Recidivism data were obtained from searches of QCS and Queensland Police Service records between April 2005 and the ‘census’ date of 14 September 2009. Additional clinical data were obtained on 158 offenders who had completed a treatment program. Time-at-risk ranged from 15 months to 53 months, with an average of 29 months.

Intermediate treatment outcomes were analysed by comparing pre- and post-treatment scores on a range of offender- and therapist-reported measures for the treated group ($n = 158$). Intermediate outcomes are reported in terms of both statistical significance and clinical significance. Longer-term treatment outcomes were analysed by comparing treated ($n = 158$) and untreated offenders ($n = 251$) on sexual recidivism, nonsexual violent recidivism, and non-violent recidivism. Because these two groups differed on static risk measures, comparisons are reported with and without statistically controlling for these differences.

Key findings

1. Allocation of offenders to the various QCS sexual offender programs was consistent with the 'risk principle' of offender rehabilitation. Specifically, assessed risk for participants completing medium intensity programs was concentrated in the low and low-moderate risk categories, and for participants completing the high intensity programs assessed risk was concentrated in the moderate-high and high risk categories.
2. Participation (versus non-participation) in QCS programs was, however, not consistent with the risk principle. Treated offenders were on average assessed as lower risk than were untreated offenders. Untreated offenders were also more likely to have previous sexual (27% vs 19%) and especially nonsexual violent offences (43% vs 28%), and, perhaps counter-intuitively, to be serving shorter average sentences (54 months vs 74 months).
3. Overall, pre-post treatment changes were statistically significant, and in the intended direction. That is to say, in general, reliable improvements were observed overall in the psychological 'functioning' of treated offenders, specifically with respect to the psychological factors targeted in treatment.
4. The clinical significance of these pre-post treatment changes was highly variable, with proportions of offenders demonstrating clinically significant improvement ranging from as low as one percent to as high as 75%. For most treatment targets, clinically significant improvement was demonstrated for fewer than 25% of treated offenders. Particularly for self-report measures, pre-treatment means indicated that offenders presented initially with generally low levels of psychological problems of the kind targeted in treatment.
5. Low rates of sexual (4.9%) and nonsexual violent recidivism (6.8%), and moderately high rates of nonsexual non-violent recidivism (16.1%) and 'any' recidivism (27.8%), were observed in the present sample. Taking into account differences in follow-up periods, the recidivism rates found in the present evaluation are reasonably comparable to international estimates.

6. In absolute terms, all types of recidivism were lower for treated offenders than for untreated offenders. This difference was significant for nonsexual violent (2.5% vs 9.6%) and 'any' recidivism (20.9% vs 32.3%), but not for sexual recidivism (3.2% vs 6.0%). Even though untreated offenders were almost twice as likely to be detected for new sexual offences, the low base-rates of sexual recidivism prevented meaningful statistical analysis.
7. After controlling statistically for assessed static risk, a significant treatment effect was observed for nonsexual violent recidivism, and for any violent (including sexual) recidivism.
8. Almost half (47%) of all offenders in the present sample were released with no community supervision, with treated offenders more than twice as likely (73% vs 31%) to be released under a standard supervision order. Comparatively few of either group (treated = 6.5%; untreated = 5.3%) were released under a post-sentence (DPSOA) supervision order.
9. Controlling for risk and treatment effects, sexual recidivism was marginally lower for offenders who received standard post-release supervision. Nonsexual violent recidivism was almost eight times lower for offenders released under standard supervision orders. None of the 10 treated DPSOA offenders, and only one of the 13 untreated DPSOA offenders, were identified as sexual recidivists.
10. Standard community supervision appears to have had a stronger independent effect than treatment on reducing sexual and violent recidivism.
11. Leaving aside any treatment effects, Indigenous sexual offenders were more likely to commit new sexual offences (8.2% vs 4.2%), new nonsexual violent offences (30.1% vs 1.8%), and new nonsexual non-violent offences (20.5% vs 15.6%). Overall, 59% of the Indigenous sexual offenders committed some kind of post-release offence, compared to 22% of the non-Indigenous sexual offenders.

12. The sexual recidivism rate for treated Indigenous offenders (4.8%) was lower than for untreated Indigenous offenders (10.2%), but due to the low sexual recidivism base-rate it was not possible to test for a significant treatment effect. There was a significant treatment effect for nonsexual violent recidivism, with a much lower rate for treated (14.3%) than for untreated Indigenous offenders (38.8%), but this effect did not remain after controlling for differences in risk.
13. In general, the predictive accuracy of the risk instruments used by QCS was comparable to that reported elsewhere. The Static-99 was the best predictor of sexual recidivism, with moderate predictive accuracy. The Stable-2000 was a weak predictor of sexual recidivism, but was a moderate predictor of nonsexual violent recidivism. The locally-designed RoR-PV was the best predictor of nonsexual violent recidivism, although this was based on a very small recidivism sample. The ORNI-R, also locally designed, was a moderate predictor of nonsexual violent recidivism, but performed less well than the RoR-PV and the Stable-2000. None of the standard instruments predicted 'any' recidivism with acceptable reliability.
14. Overall, data analysis indicated that higher assessed risk, not participating in a treatment program, identifying as Indigenous, and being discharged without supervision, are all associated in some way with sexual, nonsexual violent, and any recidivism.
15. Multivariate analysis identified two significant and unique predictors of each of the three recidivism types:
 - Higher assessed static risk and being discharged without supervision were significant and unique predictors of **sexual recidivism**
 - Identifying as Indigenous and being discharged without supervision were significant and unique predictors of **nonsexual violent recidivism**
 - Higher assessed static risk and identifying as Indigenous were significant and unique predictors of **any recidivism**

16. Although the present data indicate that treatment contributes to reduced recidivism, treatment by itself was not a unique predictor of recidivism.

Recommendations

Recommendations suggested by the present evaluation are:

1. Procedures for the identification and selection of sexual offenders for participation in treatment programs should be reviewed. A greater emphasis is needed on giving priority to engaging higher risk offenders in treatment.
2. A greater emphasis should be given in initial assessments to developing individual case formulations, identifying individual treatment needs, and developing individualised treatment plans.
3. Once offenders have been recruited into treatment, the present procedure of allocating higher risk offenders to the higher intensity programs, and moderate risk offenders to medium intensity programs, should be continued.
4. A greater emphasis should be given to engaging Indigenous sexual offenders, and especially higher risk Indigenous offenders, in treatment. Priority should also be given to improving the effectiveness of treatment for this group.
5. Standard post-release supervision should be made more accessible for both treated and untreated sexual offenders.
6. Recidivism outcomes for the offenders included in the present evaluation should be re-examined in three to five years time (2012-2014). A longer follow-up period is likely to allow a clearer picture of recidivism, and particularly the effects of treatment on recidivism, to emerge.

INTRODUCTION

Since the early 1990s, most State and Territory governments in Australia have made significant and sustained investments in the development, implementation and evaluation of specialised sexual offender programs. The greatest share of these resources has been directed to prison-based programs for adult sexual offenders. Comparatively less attention has been given to community-based programs for adult offenders, and in many jurisdictions important gaps remain in ensuring the continuity of treatment services for, and managing the transition of, adult sexual offenders from prison to the community. At the same time, many jurisdictions have introduced special legislation for the management of sexual offenders in the community (e.g. post-sentence supervision orders; offender registers; residency and employment restrictions). In some cases, including in Queensland, these laws also provide for post-sentence detention of sexual offenders.

Local developments in sexual offender treatment and risk management are best considered in the wider context of international developments in understanding sexual offenders, the risks they pose, and how those risks may best be managed. While many commentators warn of a widening gap between research evidence and policy responses to sexual offending (e.g. Zimring, 2004; Finkelhor, 2009), the empirical and conceptual foundations of sexual offender assessment and treatment have generally been strengthened by this research. These advances have been part of broader research efforts concerning offending in general, focused on the questions “what works (to reduce recidivism), for which offenders, in what kind of circumstances”. Research directed to these questions has produced a large body of knowledge on the effectiveness of various kinds of rehabilitation programs for various types of youth and adult offenders.

Principles of effective offender rehabilitation

Large-scale meta-analytic reviews of the effectiveness of various offender rehabilitation programs show that high quality programs can produce significant reductions in recidivism (Gendreau & Goggin, 1996; Lipsey, 1992; McGuire, 2002). These reviews also show considerable variation in the effectiveness of individual

programs, with some programs associated with positive effects, some with neutral effects, and some with negative effects. The search for the critical elements of the more successful programs has led to the identification of three main principles of effective offender rehabilitation (Andrews & Bonta, 2003; Gendreau & Goggin, 1996; Hollin, 2001). These are 1) the risk principle, 2) the needs principle, and 3) the responsivity principle, which together constitute the so-called risk-needs-responsivity model of offender rehabilitation. While these principles apply to all types of rehabilitation programs, the emphasis here is on their application to offence-focused treatment programs.

The *risk principle* asserts that the most significant gains in offender treatment are achieved when priority is given to the highest-risk offenders. Prior to the 1990s many offender programs gave priority to lower risk offenders, probably because these offenders presented fewer difficulties to treatment providers (i.e. were easier to work with) and were more likely to ‘succeed’ (i.e. were less likely to be identified as recidivists, and therefore as treatment failures). The risk principle instead requires treatment providers to concentrate their efforts on engaging with the highest risk offenders, who are likely to present with the most complex and difficult problems and who by definition pose the greatest risk to public safety.

Risk levels vary widely among offenders, including among sexual offenders. Risk levels also tend to be unevenly distributed within offender populations. Generally, smaller proportions of offenders will be identified in the highest risk categories, and larger proportions in the lower risk categories. A second aspect of the risk principle is that program intensity (usually defined as frequency and duration of engagement with program activities) should vary according to risk level: high-risk offenders should be provided with high-intensity programs, moderate-risk offenders should be provided with medium-intensity programs, and so on.

There remains some debate about whether intensive treatment, or even any treatment at all, should be provided to offenders in the lowest risk categories. Recidivism studies show that many offenders do not come to the attention of the criminal justice system for any further offences, even without treatment. Most sexual offenders, for example, are not re-arrested for further sexual offences (see, e.g. Hanson & Morton-Bourgon, 2005). Engaging low risk offenders in intensive

treatment may not only introduce unnecessary inefficiencies in the allocation of treatment resources but, particularly in group-based programs, may even increase recidivism risk by exposing offenders who would not otherwise be exposed to close and sustained contact with more serious offenders. On the other hand, offenders identified as low risk may still present a significant potential for recidivism, because some apparently lower risk offenders will over time 'graduate' to higher risk categories. Excluding some apparently low risk offenders from treatment may therefore miss opportunities for early intervention with potentially high risk offenders.

The *needs principle* asserts that offender treatment programs are most effective when they directly target criminogenic needs (defined as 'dynamic' or potentially modifiable factors that have been empirically or theoretically related to recidivism). There has been a great deal of empirical research directed to identifying reliable predictors of recidivism. For adult offenders, much of this work has focused on static or historical risk factors (e.g. offending histories) which, by definition, cannot be changed (even though recidivism risk itself may change). However there has also been considerable research directed toward identifying so-called dynamic (potentially modifiable) risk factors (i.e. criminogenic needs). The main focus of research with adult offenders has been on individual-level risk factors. Antisocial attitudes, poor social problem-solving skills, psychopathy, and substance dependence problems, are some examples of general individual-level criminogenic needs. These factors have been shown to predict recidivism among general and violent offenders, as well as general and violent (i.e. nonsexual) recidivism among sexual offenders. Another set of individual-level factors (e.g. deviant sexual interests; pro-offending attitudes; intimacy and relationship problems) has been found more specifically to predict sexual recidivism among adult sexual offenders.

For younger offenders, criminogenic needs are usually understood in terms of risk and protective factors located within the offender's social systems, as well as within the offender himself. Research has identified a broad range of individual-level (e.g. impulsivity), family (e.g. parental conflict), peer (e.g. attachments to antisocial peers), school (e.g. poor academic performance) and community-level risk factors (e.g. community disorganisation) for youth offenders (see, e.g. Lipsey & Derzon, 1998). Much less research attention has been given to identifying systemic risk and

protective factors for adult offenders, even though there are good theoretical reasons to target these factors for adult offenders as well (Smallbone, Marshall, & Wortley, 2008). Even less attention has been given to the immediate situational factors associated with sexual offender recidivism, though again there are good theoretical reasons to expect these to be critical for understanding and preventing recidivism (Wortley & Smallbone, 2006). Because sexual offenders are more likely to be re-arrested for nonsexual offences than for sexual offences, there has recently been some recognition that treatment programs for sexual offenders should target criminogenic needs associated with both sexual and nonsexual recidivism.

Programs may also need to target factors that are not directly related to recidivism, but which may interfere in some way with successful rehabilitation. For example, although depression or low self-esteem are apparently not related to recidivism, these factors may make therapeutic engagement with offenders difficult. Leaving aside its intrinsic benefits, treating depression, low self-esteem or other personal problems may therefore be of benefit in some cases because it assists the offender to engage more fully in the offence-focused treatment itself. A distinction can thus be made between *criminogenic needs* (factors related to recidivism) and *non-criminogenic needs* (factors unrelated to recidivism, but when targeted may improve the offender's engagement in offence-focused treatment). It is very important that there is a clear rationale for targeting non-criminogenic needs in any given case. Treatment providers should not target factors simply because it may be subjectively or intuitively appealing to do so. The main focus for programs aiming to reduce recidivism must remain on criminogenic needs.

The *responsivity principle* asserts that offender treatment programs are most effective when they are designed in ways that maximise therapeutic engagement with (or responsiveness of) offenders. There are many factors that may act as barriers to the responsiveness of offenders – low intelligence, poor literacy, mental illness, language and cultural differences, and a lack of treatment 'readiness' are a few examples. A key debate is to what extent programs can be individualised to take account of variations in offender responsivity. Since the 1990s offender rehabilitation programs have become increasingly standardised and manualised, and critics have argued that this leaves little room for individualising the program content and processes (Marshall, et

al., 2006). Some offenders may even be excluded from opportunities for treatment because the standardised treatment does not accommodate their particular individual circumstances. The format of many programs is group-based, and again this raises questions of whether such programs can be designed for maximum responsiveness of individual offenders. A key question here is whether treatment providers should try to 'fit' offenders to inflexible, standardised programs, or instead design individualised programs in ways that best accommodate wide variations in the individual needs of offenders. Proponents of prescriptive, manualised programs argue that they offer the best way to achieve program integrity (defined as the extent to which the program-as-designed matches the program-as-delivered). Critics argue that a more flexible approach is needed, and that professional responsiveness and discretion should be exercised in order to maximise offender responsiveness.

The trade-off between program integrity and professional discretion is a complex professional issue. It is very important that those who deliver offender treatment programs do not depart too far from the way the program was designed in the first place, providing of course that the program itself is well-designed (i.e. it has clear goals, is informed by established scientific theory and evidence). At the same time, it doesn't make sense for programs to be so prescriptive that they become unresponsive and therefore potentially ineffective. The solution seems to be to ensure that programs are properly designed and not overly prescriptive, and that the professionals who deliver the programs are properly qualified, trained, and supervised. It is very important that professionals involved in delivering these programs maintain a firm adherence to evidence-based practice, and that they possess personal and professional qualities that promote positive therapeutic engagement with offenders.

Sexual offenders and recidivism

Clearly the purpose of treatment programs and other risk management strategies is to reduce recidivism. Perhaps ironically, one of the most significant obstacles to sexual offender treatment and recidivism research has been the low observed base-rates of sexual recidivism among sexual offenders. Because of these low sexual recidivism base-rates, large sample sizes (in the hundreds) and long

follow-up periods (a minimum of 2 to 5 years is generally recommended) are needed to detect sufficient numbers of sexual recidivists to be able to test prediction models or treatment effects. The most significant advances in this respect have been large-scale meta-analytic reviews of sexual offender recidivism studies, which involve averaging findings from many smaller-scale studies.

The most comprehensive meta-analytic review of sexual offender recidivism studies to date is that reported by Hanson and Morton-Bourgon (2005). This review included 82 separate studies, involving almost 30,000 sexual offenders from nine countries, including Australia. The average observed sexual recidivism rate was 13.7% over an average at-risk period of just over six years (76 months). This review included studies of treated sexual offenders, but more than 60% of the studies involved untreated offenders. Thus the average sexual recidivism rate reported by Hanson and Morton-Bourgon could be considered to approximate the 'base-rate' of observed sexual recidivism over six years. Demonstrating the effectiveness of treatment or other risk-reduction strategies requires showing an observed recidivism rate for 'treated' offenders that is significantly lower than the 'untreated' base-rate.

The studies included in Hanson and Morton-Bourgon's meta-analysis used a variety of definitions and methods for identifying recidivism, including national and state criminal justice records, child protection records, clinical records, and offender self-reports. Nevertheless it is widely recognised that recidivism records do not necessarily represent true recidivism. The main concerns in this regard are with underestimation of true sexual recidivism due primarily to under- or delayed reporting of sexual offences, particularly those involving children as victims. Delays in finalising cases can also affect studies using re-conviction data. Other biases may also exist, for example the higher risk of detection for persistent, treated, or supervised offenders, or the inclusion of compliance breaches as recidivism incidents.

Criminal versatility

Although the emphasis in sexual offender treatment has been more or less exclusively on reducing further sexual offences, research evidence consistently shows that convicted sexual offenders are two to three times more likely to be re-arrested for new nonsexual offences than for new sexual offences. Sexual offenders are also likely

to have a previous history of nonsexual offending. In a Queensland study of 362 child-sex offenders, 62% had at least one prior conviction recorded in their official criminal histories. All 16 of the Australian Bureau of Statistics offence categories, including abduction, robbery and homicide (although rare), were represented in these offenders' criminal histories. The most common prior convictions were for theft (29.7%), traffic and motor vehicle offences (23.5%), sexual offences (22.3%), justice offences (20.7%), personal injury offences (18.9%), burglary (14.4%), and drug offences (13.3%) (Smallbone & Wortley, 2004a). In other analyses involving the same Queensland sample, more than 80% of recidivist offenders (those with at least one prior conviction for any offence) were first convicted of a nonsexual offence, and this first conviction typically preceded their first self-reported sexual offence incident (Smallbone & Wortley, 2004b).

Miethe, Olson, and Mitchell (2006) examined persistence and versatility in the criminal records of almost 10,000 sexual offenders and some 24,000 nonsexual offenders released from prisons in 15 US States in 1994. Representing about 10% of all offenders released in the US in those States in that year, and drawing on complete criminal histories as well as recidivism records at three years post-release, this study provides the most comprehensive test to date of the assumptions of persistence and offending specialisation among sexual offenders. Consistent with previous studies, Miethe, et al. found low levels of persistence and specialisation in both absolute and relative terms (i.e. compared to nonsexual offenders). In Hanson and Morton-Bourgon's (2005) meta-analysis described above, the average rate for sexual recidivism was 13.7%, the rate for nonsexual violent recidivism was 14.3%, and the rate for 'any' recidivism was 36.2%.

The increasing recognition of criminal versatility among sexual offenders has led to calls for practitioners working with sexual offenders to assess risk for both sexual and nonsexual recidivism (Hanson & Bussiere, 1998). However, even though some nonsexual offences committed by sexual offenders are very serious offences, adult sexual offenders are still widely assumed to require specialised treatment, focused more or less exclusively on sexual offending.

Effectiveness of sexual offender treatment

Even more so than for other kinds of offenders, as noted above there has been a clear trend to establish specialised treatment programs for sexual offenders. There is now a considerable body of research on the outcomes of these programs, with meta-analytic reviews showing pharmacological, cognitive behavioural and systemic treatment models to be associated with the most successful outcomes (Hanson et al. 2002; Losel & Schmucker, 2005).

The most comprehensive meta-analytic review examined results of 69 separate treatment outcome studies, involving more than 22,000 sexual offenders (Losel & Schmucker, 2005). Overall, treatment was found to reduce sexual recidivism by 6.4% in absolute terms, representing a 37% reduction from the sexual recidivism base-rate (from 17.5% to 11.1%). Even though we can assume that reducing recidivism was the central focus of these programs, overall effects on violent recidivism were similarly positive, with treatment producing a 44% reduction (from 11.8% to 6.6%). General (any) recidivism was reduced by 31%, from 32.5% to 22.4%.

‘Physical’ treatments, including surgical castration and pharmacological treatments, were associated with the strongest effects. Of course, surgical castration would not be considered an appropriate ‘treatment’ for sexual offenders nowadays, and the present consensus is that so-called ‘chemical castration’ may be indicated for only a small minority of offenders, and even in those cases should be complemented with psychosocial treatments. Of the psychosocial treatments examined in the meta-analysis, behavioural and cognitive behavioural models were most effective. Unlike the findings from a previous review by Hanson et al. (2002), Losel and Schmucker did not find that more modern treatment methods were necessarily more effective.

Losel and Schmucker found that community-based programs were generally more effective than programs in prison settings, with mixed-setting programs showing intermediate effects. These findings are consistent with the results of reviews of the effectiveness of general offender rehabilitation programs, which have also shown that community-based programs are generally more effective than prison-based programs. These effects tend to hold even when pre-existing risk-related differences between community-based and prison-based offenders are controlled. Prison-based programs

can be effective, but it is very important that they are linked structurally with community-based services (Hollin, 2001).

Reviews have consistently shown that sexual offenders who begin but do not complete treatment are at a higher risk of recidivism than treatment completers. Indeed it seems that sexual offender treatment ‘drop-outs’ may even be more likely to re-offend than those who do not begin treatment in the first place (Hanson, et al., 2002). These findings highlight the importance of minimising attrition from sexual offender programs. Following from the responsivity principle, in general attrition is probably most effectively minimised when programs are highly responsive to the wide variations in offender characteristics and needs.

QCS sexual offender programs

Dedicated sexual offender programs were first introduced to Queensland prisons in 1990. An evaluation of outcomes for nearly 196 offenders treated between 1992 and 2001, and followed-up for an average five years, showed marginally lower sexual recidivism (3.1%) than a matched untreated control group (4.9%, $n = 164$), but this difference was not statistically significant (Schweitzer & Dwyer, 2003). These are unexpectedly low sexual recidivism rates for an average five-year follow-up, and probably too low to detect any true effects.

Content evaluations of a second generation of QCS sexual offender programs (implemented in the mid-1990s to early 2000s) recommended, among other things, a clearer application of the risk-needs-responsivity model, and a more systematic and evidence-based approach to clinical and risk assessment (Dennison, Smallbone, & Dombrowski, 2004; Smallbone, Dennison & Dombrowski, 2004). Programs were later redesigned and a new cohort of treatment staff recruited and trained, in close consultation with William Marshall (Professor Emeritus, Queen’s University, Ontario) – a leading world expert in the clinical assessment and treatment of adult sexual offenders. It is this most recent generation of QCS sexual offender programs that are the subject of the present evaluation.

Aims of the present evaluation

In March 2009 the present authors were engaged to evaluate outcomes of the present generation of QCS prison-based sexual offender programs. The original aims of the evaluation were to answer two main questions: 1) whether the QCS sexual offender programs produce discernable and intended therapeutic effects, and 2) whether these programs produce a positive effect on recidivism for sexual offenders who successfully complete the programs.

The evaluation also originally set out to answer a number of secondary questions, dependent on the availability and quality of relevant data. For example, does treatment have a greater or lesser effect for different kinds of offenders (e.g. offenders with child vs adult victims; Indigenous vs non-Indigenous offenders; higher risk vs lower risk offenders), and are treatment effects moderated by different kinds of release circumstances (no supervision vs standard supervision vs intensive monitoring and supervision)?

METHOD

Participants

Data were obtained on 409 adult males who had served a term of imprisonment in Queensland for a sexual offence, and who had been discharged between 4 April 2005 and 30 June 2008. Seventy three (17.8%) identified as Indigenous. Offenders had been sentenced to a mean of 61.2 months imprisonment (range = 0.2 months to 264.0 months). Almost one in four (23.2%) had a prior history of sexual offences, and 35.5% had a prior history of nonsexual violent offences.

Mean age at discharge was 45.0 years (range = 20.2 years to 90.0 years). One hundred and eighty nine (46.2%) were discharged with no community supervision, 190 (46.5%) were discharged under a standard community supervision (e.g. parole) order, and 30 (7.3%) were discharged under a post-sentence DPSOA (Dangerous Prisoners [Sexual Offenders] Act) order.

One hundred and fifty eight (39%) had completed a sexual offender program.

Measures

Risk

Static-99. The Static-99 (Hanson & Thornton, 2000) is a 10 item actuarial risk assessment scale developed specifically for assessing sexual offenders. Each item reflects a static risk factor known to be reliably associated with adult sexual offender recidivism. Scores range from 0 to 12, with higher scores indicating higher risk for re-offending. The Static-99 has moderate to good predictive validity for sexual and violent recidivism among sexual offenders (Barbaree, Seto, Langton, & Peacock, 2001; Hanson & Thornton, 2000; Nunes, Firestone, Bradford, Greenberg, & Broom, 2002).

Stable-2000. The Stable-2000 (Hanson, Harris, Scott, & Helmus, 2007) assesses stable dynamic risk factors for adult sexual offenders. Sixteen items are organised into six subsections: significant social influences; intimacy deficits; sexual self-regulation; attitudes supportive of sexual assault; co-operation with supervision; and general self-regulation. Each item is assessed on a three-point scale (0 = no problem; 1 = some concern/slight problem; 2 = present/definite concern). The total

score is derived by tallying the highest score in each of the six subsections (i.e. a maximum of 2 per subsection), resulting in a total score ranging from 0 to 12. Good inter-rater reliability based on file reviews (no interview component) has been reported (Hanson et al., 2007). The stable-2000 also exhibits moderate predictive validity with respect to sexual recidivism (Hanson, et al., 2007).

Offender Risk Needs Inventory - Revised (ORNI-R). The ORNI-R was developed by Queensland Corrective Services to assess static (historical) and dynamic risk factors, or criminogenic needs, associated with general re-offending. It includes five sections, but only the first section, *Risk and Needs Factors*, contributes to the ORNI-R score examined in the present report. *Risk and Needs Factors* comprises 41 items measuring six factors known to be associated with general criminal recidivism: criminal history; education/employment; alcohol and drug abuse; recreational activities; relationships; and criminal/antisocial attitudes. Items are scored 0 (not present) or 1 (present). Subtotal scores for each of the six factors are summed for a total score, ranging from 0 to 39. The ORNI-R is administered by trained and accredited correctional staff. Its reliability and validity are presently unknown.

Risk of Re-offending - Prison Version (RoR-PV). The RoR-PV is a brief screening tool developed by Thomson and Stewart (2007) for Queensland Corrective Services to assess offenders' risk of re-offending. The measure contains four items, each representing a factor shown to predict recidivism in a Queensland sample of discharged offenders: age at admission; number of convictions in the past 10 years; convictions for assault or related offences; and conviction for a Breach of Justice offence. Items are weighted and summed to produce a total score, ranging from 1 to 22. Higher scores indicate a higher risk of re-offending. The RoR-PV has moderate internal consistency and good convergent validity, and good predictive validity for male and female, Indigenous and non-Indigenous offenders (Thomson & Stewart, 2007).

Three-Predictor model. The 3-Predictor model (Allan & Dawson, 2002) was developed for assessing risk specifically for Australian Indigenous sexual and violent offenders. The measure assesses three factors shown to predict recidivism in this group: coping skills; release plans; and long-term goals. It includes pre-program and post-program sections. The items are rated by a program facilitator on a 5 point scale

(0 to 4) with higher scores reflecting greater endorsement of each item. The 3-predictor model has good discriminate and predictive validity, discriminating between recidivists and non-recidivists in 109 Australian Indigenous sexual offenders, and outperforming various competing risk prediction models for this particular offender population (Allan & Dawson, 2002).

Treatment Intervention and Progress Scale for Sexual Abusers with Intellectual Disabilities (TIPS-ID; McGrath, Livingston, & Falk, 2007). The TIPS-ID was designed to aid in the identification and management of supervision and treatment needs of males with an intellectual disability who have committed a sexual offence. The measure is completed by trained assessors and addresses 25 dynamic risk factors thought to be associated with sexual recidivism (e.g. sexual knowledge). Assessors obtain information from various sources (e.g. family members; formal records) as well as through behavioural observations and interviews with the offender. They then score each of the 25 risk factors on a 4-point scale from 0 (minimal or no need for improvement) to 3 (very considerable need for improvement). Item scores are summed to produce a total score ranging from 0 to 75, with higher scores reflecting higher levels of risk for sexual recidivism and a greater need for treatment and higher level of supervision. The scale exhibits adequate internal consistency and good inter-rater reliability (McGrath et al., 2005). Scores on the TIPS-ID have been found to discriminate higher risk (according to type of offence, level of supervision and poor treatment progress) from lower risk sexual offenders with an intellectual disability.

Criminogenic needs

A comprehensive pre- and post-program assessment battery was administered to offenders completing a mainstream sexual offender program (MISOP or HISOP). The assessment battery included self-report measures designed to assess change across a range of presumed criminogenic needs, and selected to measure key treatment targets for the QCS programs. Some alternative and/or additional measures were used for specific groups where appropriate. All pre-post criminogenic needs measures are listed below according to the problem areas targeted in the QCS programs.

Empathy and cognitive distortions. The Child Molester Empathy Measure (CMEM) (Fernandez, Marshall, Lightbody, & O'Sullivan, 1999) includes 60 self-report items relating to offenders' empathy generally for children who have been sexually abused (Part A, 30-items), and specifically for their own child victim/s (Part B, 30-items). Total scores range from 0 to 300, with higher scores reflecting higher levels of general or specific victim empathy. The CMEM has good internal consistency and test-retest reliability (Fernandez, et al., 1999).

The Adult Female Empathy Measure (AFEM) (Fernandez & Marshall, 2003) includes 60 self-report items and aims to measure offenders' empathy generally for female adult sexual abuse victims (30-items), and specifically for offenders' own adult victim/s (30-items). Total scores range from 0 to 300, with higher scores reflecting higher levels of general or specific victim empathy. The measure has good internal consistency and test-retest reliability for Part A, but no reliability data are available for part B.

The Bumby Cognition Scale (BCS) (Bumby, 1996) is a 74 item self-report instrument which aims to measure cognitive distortions thought to be conducive to sexual offending. The BCS includes a RAPE scale and a MOLEST Scale. Total scores for the RAPE scale range from 36 to 144, with higher scores reflecting more justifications, minimisations, rationalisations, and excuses for the sexual assault of women. Scores for the MOLEST scale range from 38 to 152, with higher scores indicating more justifications, minimisations, rationalisations and excuses for sexual activity with children. Both the RAPE and MOLEST scales have good internal consistency and test-retest reliability.

The Modified Cognition Scale for Developmentally Disabled Offenders (MCSDDO) (Haaven, 2002) was developed specifically for use in the treatment and management of sexual offenders with a developmental disability. The MCSDDO contains two subscales: a paedophilic attitudes scale (23 items); and a rape attitudes scale (17 items). Each item is rated by a therapist on a 5 point scale ranging from 1 (strongly agree) to 5 (strongly disagree). Higher scores for each scale reflect *less* endorsement of paedophilic/rape attitudes.

Sexual attitudes and behaviour. The Coping Using Sex Inventory (CUSI) (Cortoni & Marshall, 2001) is a 16 item self-report measure designed to assess the

extent to which an offender uses sex as a coping strategy. Total scores range from 16 to 80, with higher scores indicating greater use of sex as a coping strategy. The CUSI has good internal consistency, and has been shown to discriminate between child molesters, rapists and violent nonsexual offenders (Cortoni & Marshall, 2001).

The Entitlement to Sex Scale (ESS) (Hanson, Gizzarelli, & Scott, 1994) is a nine-item subscale of the larger Hanson Sex Attitudes Questionnaire. The ESS was designed to measure expressed sexual entitlement. Total scores range from 0 to 36, with higher scores reflecting stronger entitlement beliefs. The measure has good internal consistency, but no other reliability or validity data have been reported.

The Children and Sex Questionnaire (CSQ) (Becket, 1987) comprises 15 self-report items that aim to measure offenders' sense of emotional congruence and identification with children. The CSQ is a subscale of a larger questionnaire employed with sexual offenders in the United Kingdom. Items sum to a total score ranging from 0 to 60, with higher scores indicating a greater level of identification with Children. The measure has good internal consistency and test-retest reliability (Beech, 1998).

The Women are Deceitful scale (WDS) (OBPU, Date unknown) includes five items which measure beliefs that women manipulate and use men. Total scores range from 0 to 20, with higher scores indicating a more strongly held belief that women are deceitful. The scale exhibits good internal consistency and test-retest reliability.

Emotional regulation. The Emotional Control Questionnaire 2 (ECQ-2) (Roger & Najarian, 1989) is a 56 item scale measuring emotional response style. It contains four subscales, each reflecting a type of emotional responding: rumination; emotional inhibition; aggression control; and benign control. The total score for each individual subscale ranges from 0 to 14, with higher scores indicating a greater tendency to exhibit that type of emotional response style. The subscales have good internal consistency, test-retest reliability, and concurrent validity.

Intimacy and loneliness. The Relationship Scales Questionnaire (RSQ) (Griffin & Bartholomew, 1994) is a 30 item self-report measure containing four subscales assessing one of four attachment styles: secure; fearful; preoccupied; and dismissing. Higher scores for each subscale indicate a greater identification with that attachment style. Scores on the secure and dismissing scales range from 5 to 25, and on the fearful and preoccupied scales from 4 to 20.

The Miller Social Intimacy Scale (MSIS) (Miller & Lefcourt, 1982) is a 17 item self-report measure of intimacy, and conversely loneliness, in close relationships. Items are summed to produce a total score ranging from 17 to 170, with *lower* scores reflecting higher levels of loneliness. The scale has good internal consistency, and strong test-retest reliability at one and two months (Miller & Lefcourt, 1982). Miller and Lefcourt (1982) also report convergent and construct validity for the MSIS.

The Social Self-Esteem Inventory (SSEI) (Lawson, Marshall, & McGrath, 1979) is a 30 item self-report instrument designed to measure social rejection and loneliness. Total scores range from 30 to 180, with lower scores reflecting lower levels of social self-esteem. Test-retest reliability has been reported as good (Lawson, et al., 1979).

Recidivism

Recidivism data were obtained from QCS and Queensland Police Service (QPS). QCS data were based on official records of new corrections 'episodes'. QPS data were based on a search of police records, and included any official contact with police (new cautions, arrests, charges, or convictions) relating to any (sexual or nonsexual) offences between April 2005 (the earliest discharge date for offenders in the present sample) and 14 September 2009 (the 'census' date for the present evaluation). Only seven offenders were identified as recidivists by QCS who were not also identified by QPS. The time at risk for offenders in the current sample ranged from 14.7 months to 53.4 months (Mean = 28.8 months).

Procedure

Treatment group

Potential sexual offender program participants were initially identified by the QCS Criminogenic Programs Unit, based on details held in the Integrated Offender Management System (IOMS) (a database which includes information on offence type, sentence date, sentence length, and parole eligibility date). The names of eligible offenders were forwarded to a trained assessor, who approached each offender individually. If an eligible offender consented to participate they were allocated to a suitable program, according to risk/needs status (based on Static 99 and Stable-2000

scores), cognitive/intellectual capacity, and Indigenous status. Offenders completing a sexual offender program are referred to in the remainder of this report as “treated offenders”.

Program length and pre- and post-treatment assessment varied according to the type of program to which offenders were allocated (see Table 1). Risk/needs measures (Static-99; Stable-2000; ORNI-R; & RoR-PV) were completed separately as part of standard QCS screening procedures.

Table 1 Assessment and intervention structure of QCS sexual offender programs.

Program Type	Pre-program assessment	Program length	Post-program assessment
<i>MISOP</i>	Standard assessment	22 weeks	Standard assessment; Therapist ratings
<i>HISOP</i>	Standard assessment	39 weeks	Standard assessment; Therapist ratings
<i>IMISOP</i>	3-Predictor model	22 weeks	3-Predictor model
<i>IHISOP</i>	3-Predictor model	39 weeks	3-Predictor model
<i>Inclusion</i>	TIPS-ID; Modified Cognition Scale	24 weeks	TIPS-ID; Modified Cognition Scale

MISOP = Medium Intensity Sexual Offender Program; HISOP = High Intensity Sexual Offender Program; IMISOP = Indigenous Medium Intensity Sexual Offender Program; IHISOP = Indigenous High Intensity Sexual Offender Program

Comparison group

All remaining offenders in the present evaluation had *not* participated in a sexual offender program, and served as the comparison group for the purposes of the analyses reported below. Reasons for not participating in a sexual offender program included: ineligibility due to short sentence length; ineligibility due to denial; declining an offer of program participation; accepting an offer but being discharged

prior to commencement; and not being offered a place in a program. Program non-participants are referred to in the remainder of the report as “untreated offenders”.

Data management and analysis

Data from pre- and post-intervention measures, as well as all risk measures, demographic, offence, sentence, program type, discharge, and re-admission data were provided by QCS to the evaluation team in a de-identified format. QCS provided a list of the same offenders (with identifying information) to QPS, who created a secondary list of those with whom police had had contact at any point between their discharge date and 14 September 2009. These QPS recidivism data were returned to QCS, who removed identifying information before forwarding to the evaluation team. The evaluation team converted and merged all de-identified QCS and QPS data into a single SPSS (Statistical Package for the Social Sciences) database for further analysis. The evaluation study was approved by the Griffith University Human Research Ethics Committee.

Descriptive data are presented on demographic characteristics, criminal histories, and risk profiles, and analysed with Chi-square tests and independent samples *t*-tests. Intermediate treatment outcomes were examined by comparing pre- and post-intervention scores across the various clinical assessment measures (see *Criminogenic needs*, above) with dependent samples *t*-tests. Mixed-design ANOVAs (Analyses of Variance) were conducted to determine whether treatment outcomes varied as a function of assessed risk. Intra-class correlations (ICCs) were also conducted to assess inter-rater reliability for the Therapist Rating Scale. Recidivism outcomes were analysed with ROC (Receiver Operating Characteristic) analysis, Chi-square tests, Cox regression (survival analysis), and logistic regression.

For ease of communicating findings, statistical results are reported with minimal technical detail. In figures and tables, asterisks (*) are used to indicate statistically significant effects.

RESULTS

Results are reported in five sections. First, the demographic characteristics, criminal histories, and risk profiles of treated offenders ($n=158$) are described. Second, treated offenders ($n=158$) are compared with untreated offenders ($n=251$), primarily to test for pre-existing risk-related differences between the treatment and comparison groups.

Third, criminogenic needs (clinical assessment) data on treated offenders were analysed to test for intermediate treatment effects. These analyses compare pre- and post-program scores on the assessment instruments described on pp. 13-16. Fourth, longer-term treatment effects were examined by comparing recidivism outcomes for treated and untreated offenders. Effects for various subgroups (indigenous vs non-indigenous offenders; risk level; program type; supervised vs unsupervised release) were also examined. Where relevant, comparisons are reported with and without statistically controlling for risk-related differences. Finally, univariate and multivariate predictors of various kinds of recidivism (sexual, violent, nonsexual, any) were analysed.

Treated offenders

Table 2 summarises data on Indigenous status, criminal histories, age at discharge, sentence length, Static-99 risk categories, and discharge type for offenders who completed a sexual offender program (treated offenders, $n = 158$). These data are detailed for each program type.

Most of the treated offenders (68%) completed the Medium Intensity Sexual Offender Program (MISOP). Twenty-seven (16%) completed the High Intensity Sexual Offender Program (HISOP). Four offenders (2%) participated in the 'Inclusion' program, designed for sexual offenders with low intellectual ability.

Of the 73 offenders in the total sample who self-identified as Indigenous, 21 (29%) completed a sexual offender program. Half of this group opted to participate in one of the mainstream programs (MISOP = 9; HISOP = 1), and the other half participated in one of the Indigenous Sex Offender Programs (IMISOP = 5; IHISOP = 6).

Table 2. Characteristics of treated offenders ($n = 158$), by program type.

	Program type				
	MISOP $n = 115$	HISOP $n = 27$	IMISOP $n = 5$	IHISOP $n = 6$	Inclusion $n = 4$
Indigenous (%)	7.8	3.8	100.0	100.0	0.0
Criminal history					
Sexual offences (%)	7.0	66.7	0.0	40.0	50.0
Nonsexual violent offences (%)	20.2	44.4	80.0	60.0	50.0
Age at discharge (mean, in years)	45.8	43.7	40.8	42.5	49.1
Sentence length (mean, in months)	71.3	72.2	58.0	77.1	123.0
Static 99 risk categories					
Low (%)	42.5	3.7	20.0	0.0	0.0
Moderate-low (%)	38.1	11.1	80.0	25.0	0.0
Moderate-high (%)	19.5	44.4	0.0	75.0	100.0
High (%)	0.0	40.7	0.0	0.0	0.0
Discharge status					
No supervision (%)	15.7	22.2	60.0	66.7	25.0
Standard supervision (%)	82.6	40.7	40.0	33.3	50.0
DPSOA (%)	1.7	37.0	0.0	0.0	25.0

For the mainstream programs (MISOP and HISOP), data indicate that allocation of offenders to the higher intensity program was generally consistent with the offenders' risk profiles. Specifically, HISOP participants were more likely to have prior sexual and nonsexual violent offences, and more likely to be assessed as moderate-high or high risk. Conversely, MISOP participants were more likely to be assessed as low or moderate-low risk. Compared to MISOP participants, HISOP participants were less likely to be released under standard supervision arrangements, and more likely to be subjected to the more stringent DPSOA ('Dangerous Prisoner') provisions.

Treatment non-completion

Ten offenders were originally identified as commencing but not completing treatment. Because treatment non-completion has been identified as a significant risk factor for recidivism, our original intention was to include treatment non-completers

as a separate comparison group. On closer examination, only three offenders could be identified as having ‘dropped out’ of treatment for reasons other than having been discharged prior to completion. While this extraordinarily low treatment non-completion rate is in itself a very positive finding, the number was far too small to allow any statistical examination of the effects of treatment non-completion on recidivism.

Treated and untreated offenders

To assess whether pre-existing risk-related differences existed between the treatment and (untreated) comparison groups, the two groups were compared across the four standard risk measures (Static-99, Stable-2000, ORNI-R, & RoR-PV), age at discharge, sentence length, and criminal history. Table 3 summarises these risk-related factors for treated and untreated offenders.

Table 3. Demographic and risk-related characteristics of treated and untreated offenders.

	Treated (<i>n</i> = 158)	Untreated (<i>n</i> = 251) ^a
Indigenous (%)	13.3	19.5
Criminal History		
Sexual offences (%)	19.3	27.4†
Non-sexual violent offences (%)	28.2	42.6*
Sentence Length (mean, in months)	73.95	53.62*
Age at Discharge (mean, in years)	44.10	44.92
Static-99 (mean)	2.64	3.29*
Stable-2000 (mean)	7.54	7.80
ORNI-R (mean)	12.15	13.32
RoR-PV (mean)	7.77	8.35

a. Sample sizes are smaller for some risk measures (particularly the Stable-2000) because offenders may have declined to participate in the assessments.

† Group difference approached significance.

* Group difference is statistically significant.

Treated offenders had significantly lower Static-99 total scores than the untreated offenders. Examination of Static-99 items indicated that untreated offenders were more likely to have a prior history of nonsexual violent offences and sexual offences, though the latter group difference only approached significance. Untreated offenders were also more likely to have been sentenced on more than three previous occasions. No group differences were found on any other risk-related characteristics. The group difference in Static-99 scores is taken into consideration later in the report when examining recidivism outcomes for these two groups.

Intermediate treatment effects

Findings below are reported for the battery of psychometric measures administered to offenders who completed a MISOP or HISOP ($n = 142$). The number of cases with missing data varied between measures, and sample sizes reported for each measure will therefore vary slightly. A smaller range of findings for the IMISOP, IHISOP, and Inclusion programs are reported later in this section.

Findings are primarily presented in figures which display the average (mean) scores on these measures before (pre) and after (post) participation in the MISOP or HISOP. Where a statistically significant difference from pre- to post-treatment is present, an asterisk appears above the post-intervention bar in the figure. The number of asterisks (*, **, or ***) indicates the size of the treatment effect, with more asterisks indicative of a stronger or more reliable treatment effect. Error bars (I) are also presented in the figures. These bars represent the degree to which individual scores in a group vary around the mean of that group.

Pre-post treatment differences are also assessed against Jacobson, Follette, and Revenstorff's (1984) criteria for clinically significant change. This is a method of measuring the extent to which observed differences represent meaningful therapeutic effects. The proportion of offenders meeting Jacobson et al.'s criteria for clinical significance¹ is reported for each measure.

The findings are reported in sections according to the type of dynamic risk factor addressed in treatment. These are: empathy and cognitive distortions; sexual

¹ The criterion for clinically significant improvement is a Reliable Change Index (RC) score exceeding 1.96, which represents a 95% probability that treatment has led to a true and clinically-meaningful change.

attitudes and behaviour; emotional regulation; and intimacy and loneliness. Data are generally presented separately for offenders with child victims and offenders with adult victims.

Empathy and cognitive distortions

As indicated in Figure 1, treatment for child-sex offenders ($n=103$) was associated with a statistically significant increase in empathy towards child victims of sexual abuse in general, as well as an increase in empathy for the offenders' own child victims. Prior to program commencement, child-sex offenders expressed significantly lower empathy for their own victim relative to child victims of sexual abuse in general. After program completion, this difference was no longer significant. Ten percent (10%) met criteria for a clinically significant improvement in empathy towards child victims in general, and 8% for empathy towards their own child victim/s.

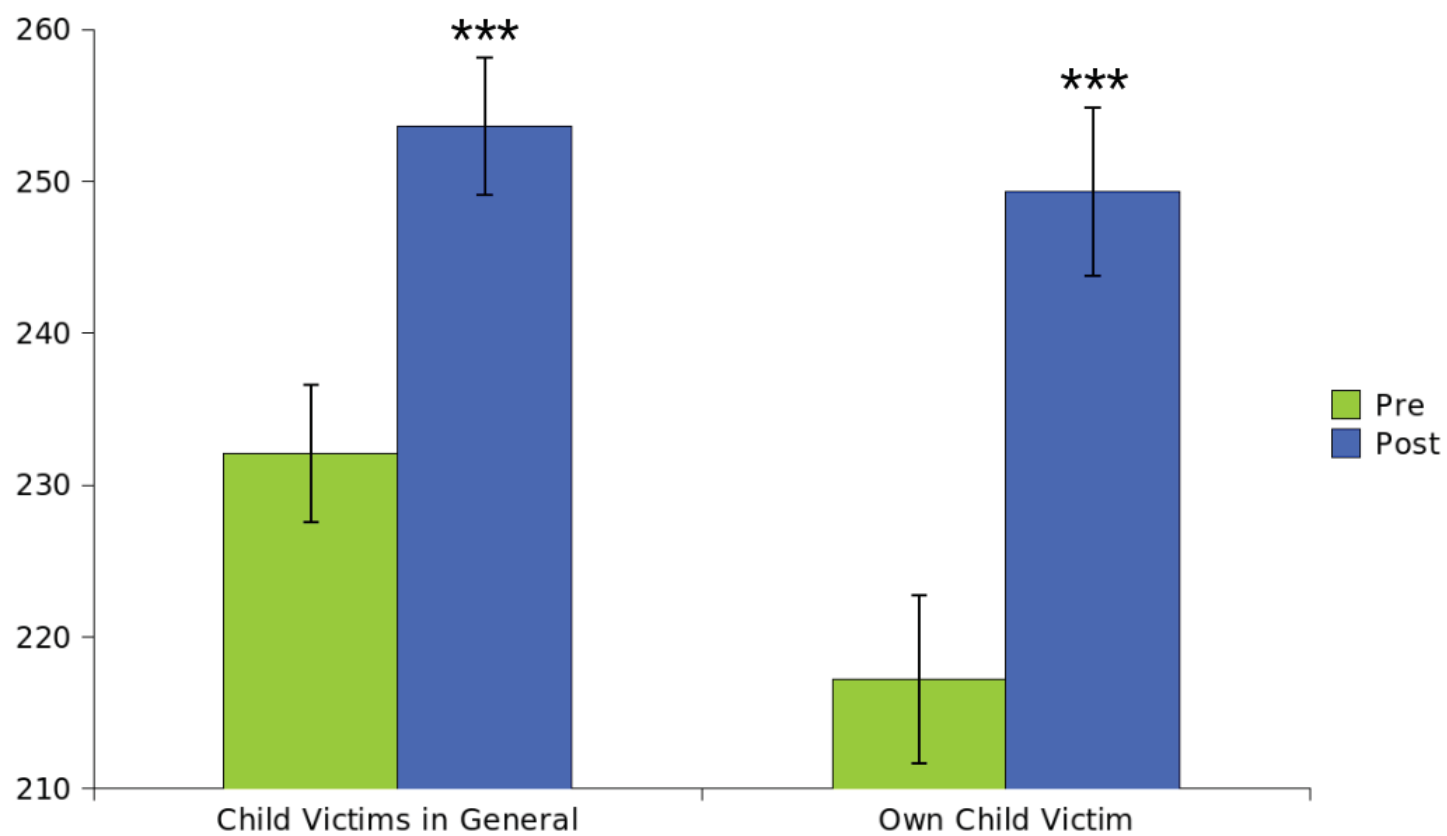


Figure 1. Mean empathy for victims in general and for the offenders' own victims, before (pre) and after (post) treatment. Higher scores indicate more empathy.

Figure 2 presents mean levels of empathy expressed by offenders with adult victims ($n=26$). Treatment was associated with marginal increases in empathy towards adult sexual abuse victims in general and towards offenders' own victims, but these changes were not statistically significant. Prior to program commencement, empathy for their own victim did not significantly differ from that expressed for adult victims in general. When empathy was measured after program completion, the offenders exhibited significantly less empathy towards their own female victim relative to female victims in general. Thirteen percent (13%) met criteria for a clinically significant improvement in empathy towards adult victims in general, and 12% for empathy towards their own victim/s.

To summarise, statistically significant improvement in victim empathy was observed for child-sex offenders, but not for sexual offenders with adult victims. A similarly small proportion of both groups (10% and 8%, versus 13% and 12%) met criteria for clinically significant improvement. These findings should be considered in light of the pre-treatment means for both offender groups which indicate moderately high empathy before treatment for both victims in general and their own victim. Thus the overall lack of clinically significant change may reflect a level of empathy at pre-treatment that did not require substantial improvement for a majority of offenders.

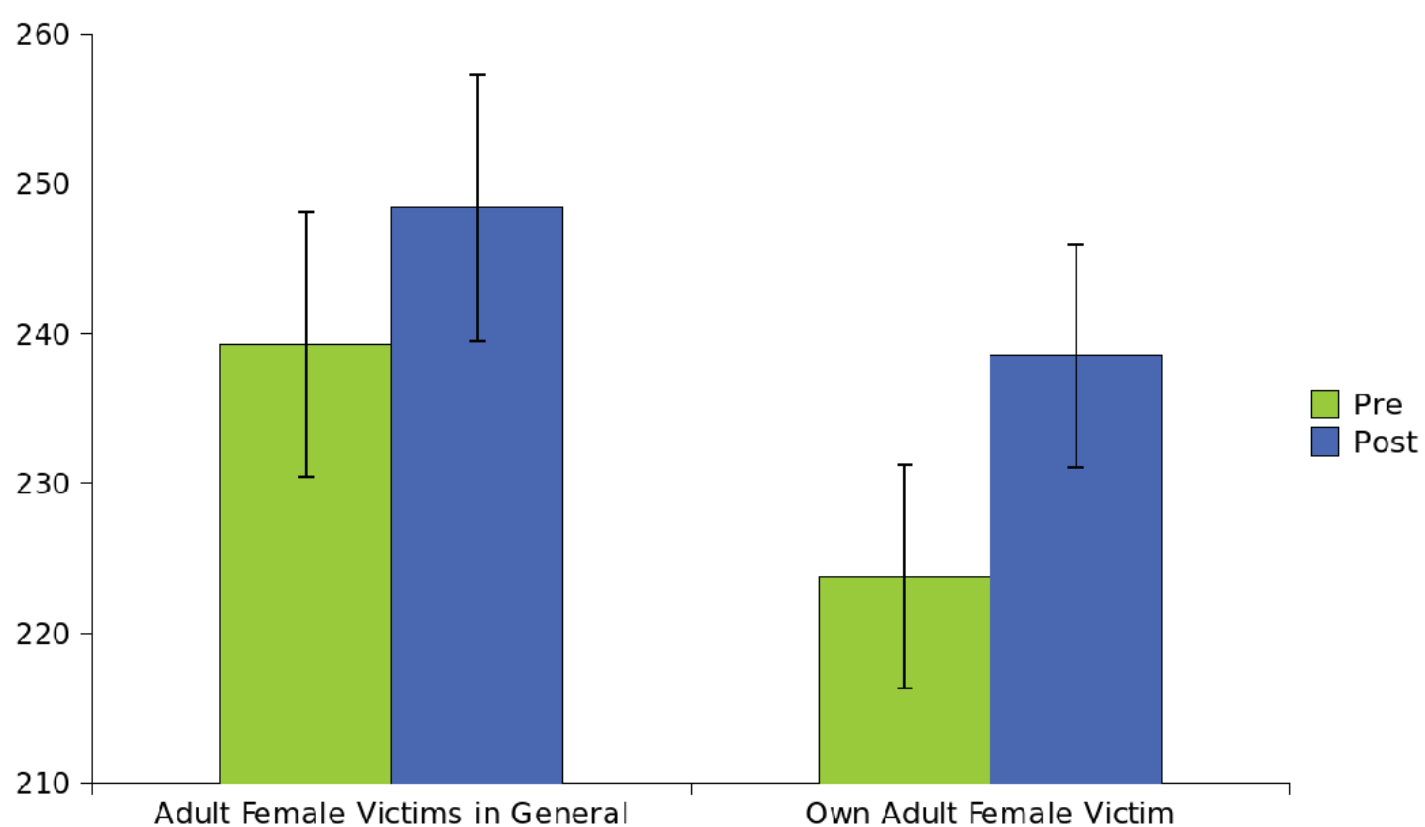


Figure 2. Mean empathy for adult victims in general and for offenders' own adult victims, pre- and post-treatment. Higher scores indicate more empathy.

Figure 3 displays pre-post treatment scores on the MOLEST and RAPE subscales of the Bumby Cognition Scale. Cognitive distortions associated with child molestation are presented for child-sex offenders ($n=102$), and those associated with rape are presented for offenders with an adult victim ($n=27$). Cognitive distortions associated with both child molestation and rape were significantly reduced following program participation. For child-sex offenders, 47% met criteria for a clinically significant improvement. For the offenders with an adult victim, 15% met criteria for clinical significance. Mean scores above 90 (for the MOLEST scale) and 95 (for the RAPE scale) would indicate positive average endorsement of the cognitive distortion items. While post-treatment reductions in these scores are a positive outcome, pre-treatment scores indicated an already low level of cognitive distortions at a group level.

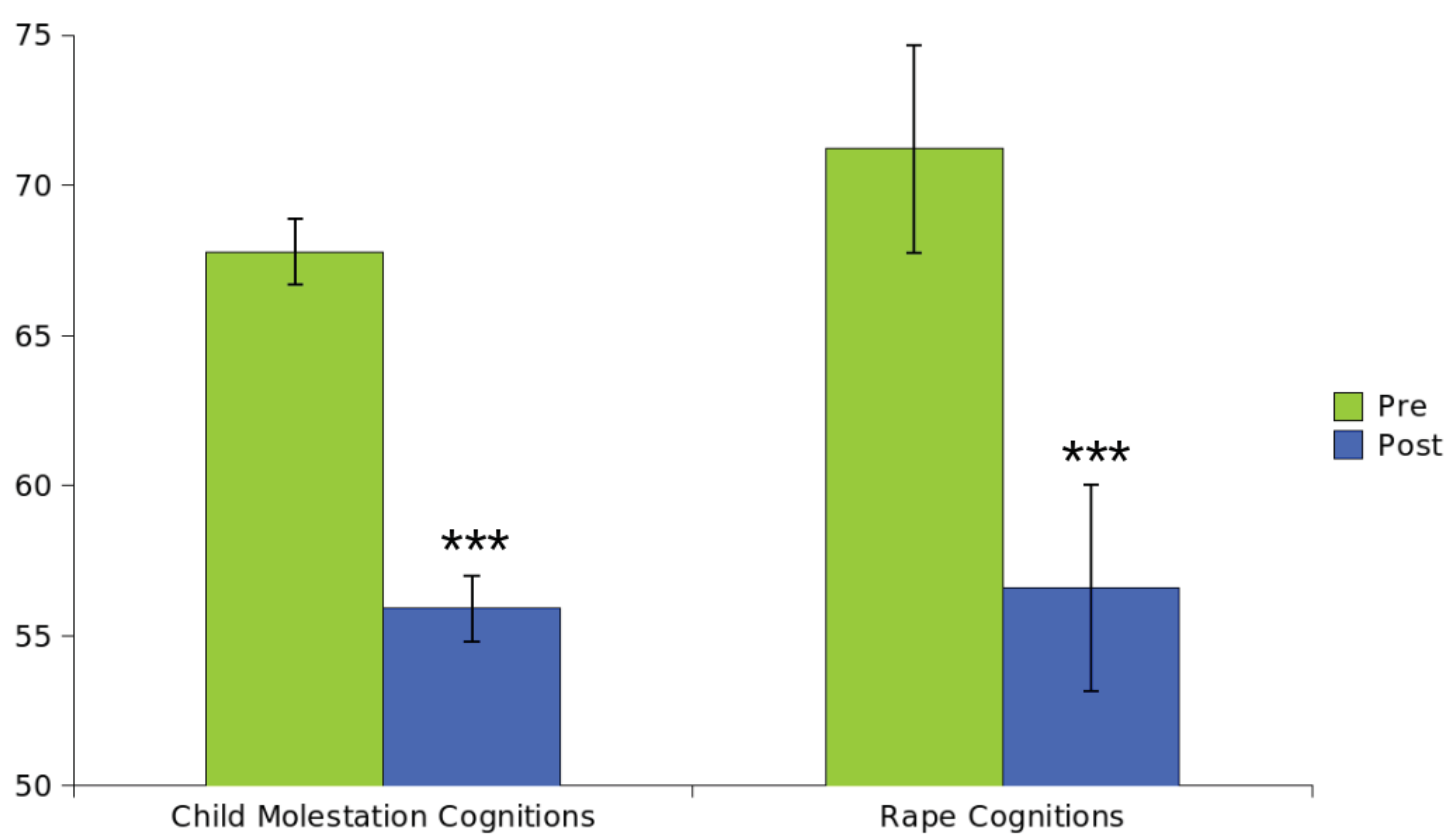


Figure 3. Mean self-reported cognition distortions associated with child molestation and rape, for offenders with child victims and adult victims, pre- and post-treatment.

Sexual attitudes and behaviour

Figure 4 presents means for self-reported desire to use sex as a coping strategy, before and after treatment. Offenders with child victims ($n=101$) reported a significantly reduced desire to use sex as a coping strategy. The same pattern was observed for offenders with adult victims ($n=27$). Criteria for clinically significant

improvement were met by only 5% of child-sex offenders and 11% of offenders with adult victims. Once again mean scores at pre- and post-treatment indicate few self-reported problems at a group level with using sex as coping.

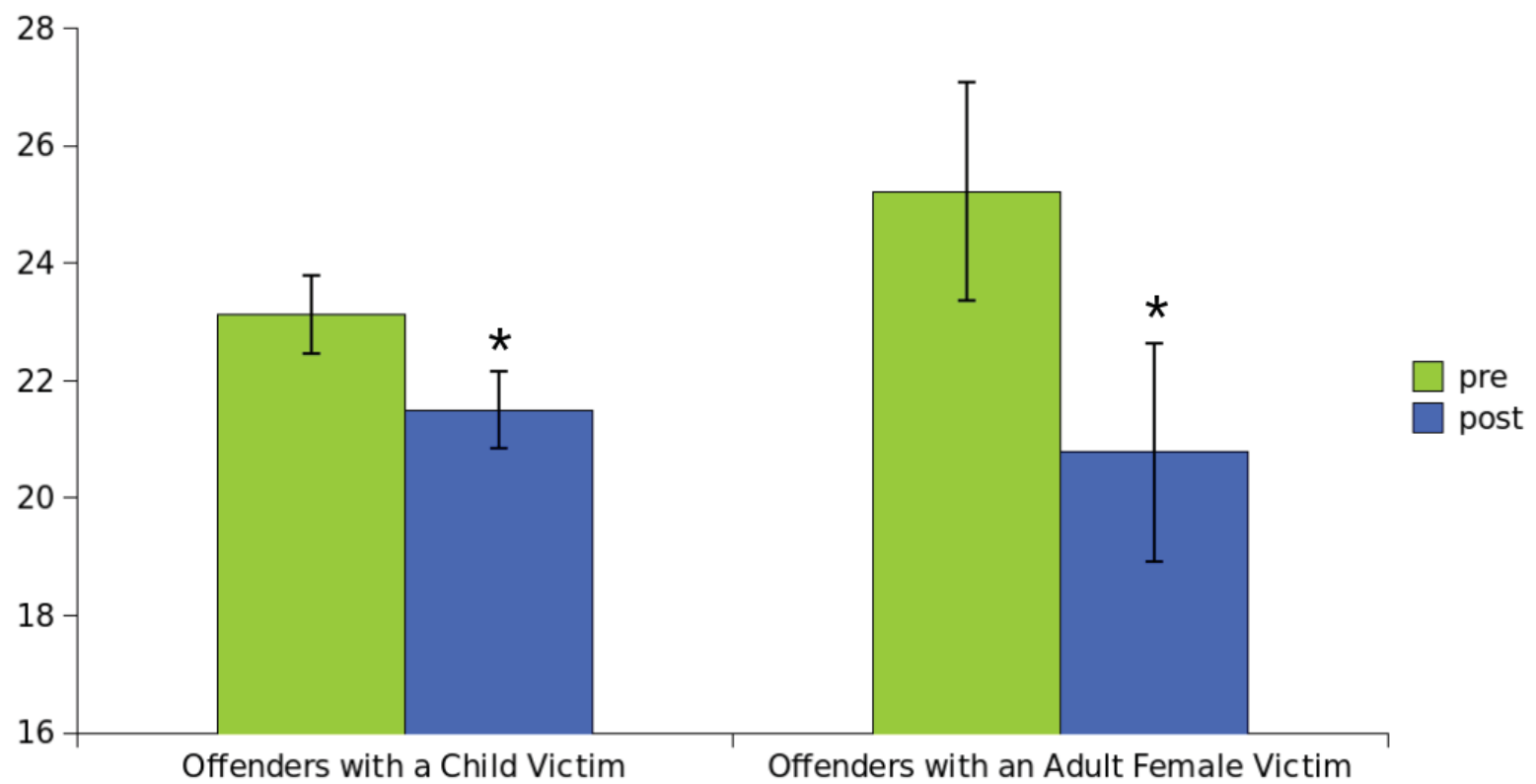


Figure 4. Mean self-reported desire to use sex as a coping strategy pre- and post-treatment, for child-sex offenders and offenders with adult victims.

Figure 5 illustrates offenders' beliefs about entitlement to sex, with data presented separately for offenders with child victims ($n=102$) and for offenders with adult victims ($n=28$). For both offender types, program participation was associated with a statistically significant reduction in beliefs about entitlement to sex. Nineteen percent (19%) of child-sex offenders and 21% of offenders with adult victims met criteria for clinically significant improvement. Mean scores at both pre- and post-intervention indicate once again that, as a group, offenders did not express strong beliefs about entitlement to sex.

The data presented in Figure 6 illustrate mean scores for child-sex offenders ($n=101$) on the Children and Sex Questionnaire. There was a very small trend towards reduced emotional congruence or identification with children following treatment, and this difference was not statistically significant. Only 1% of the sample met criteria for a clinically significant improvement. Average scores at both pre- and post-treatment suggest that the present offenders did not express strong identification with children.

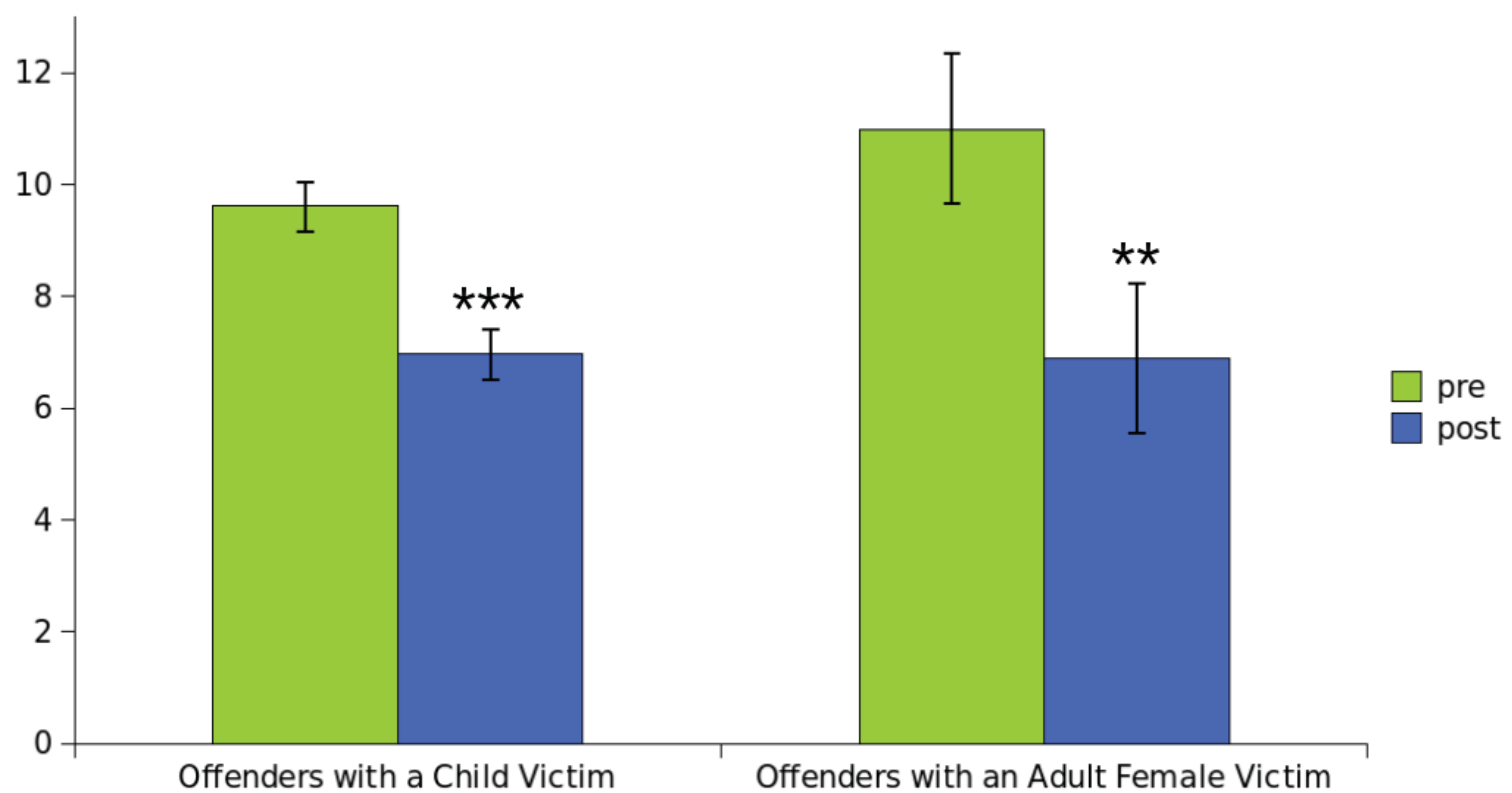


Figure 5. Mean self-reported beliefs about entitlement to sex pre- and post-treatment, for child-sex offenders and for offenders with adult victims. Higher scores reflect stronger endorsement of beliefs about entitlement to sex.

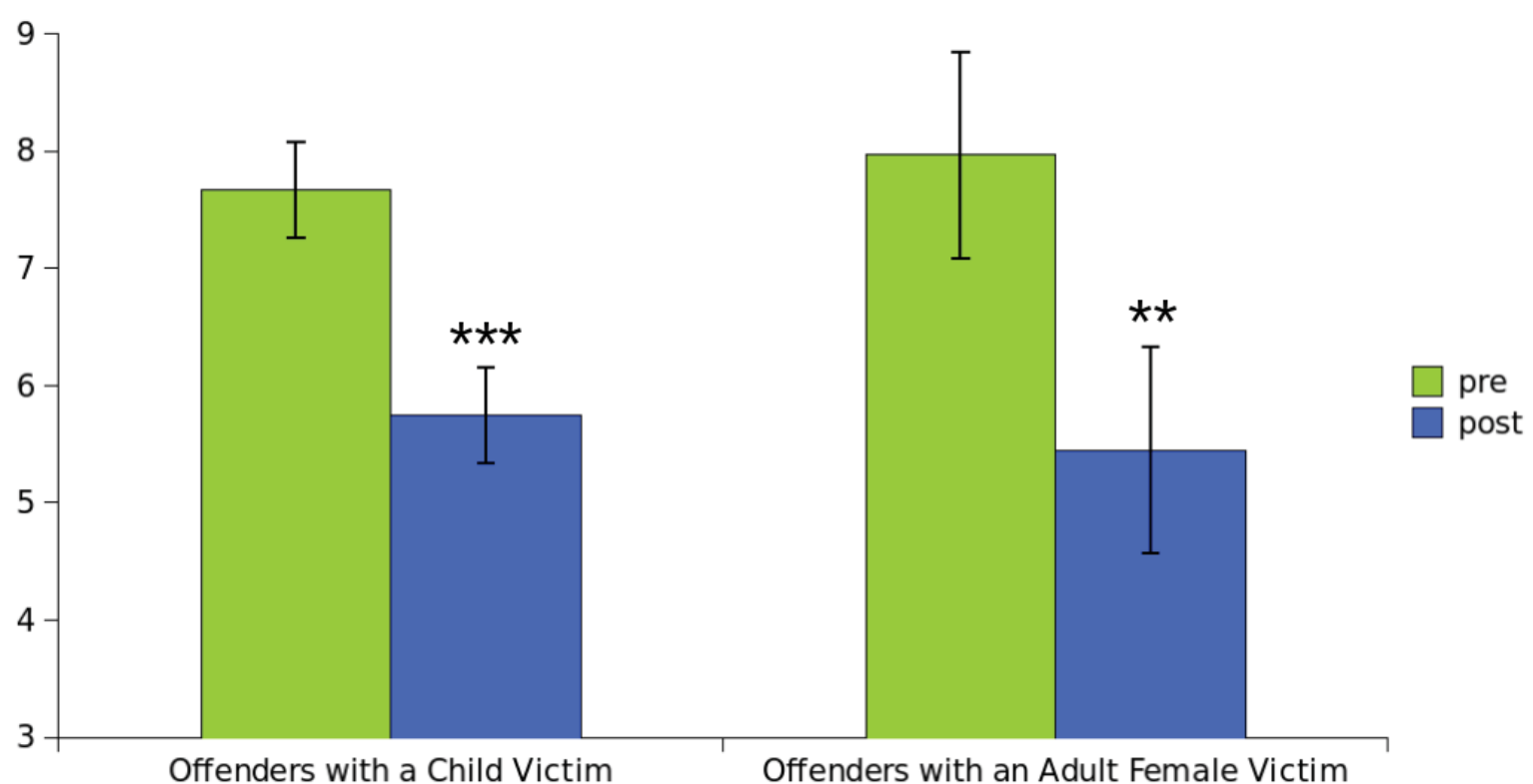


Figure 6. Mean self-reported emotional identification/congruence with children pre- and post-treatment, for child-sex offenders only. Lower scores reflect greater levels of identification with children.

Figure 7 displays the mean scores on the Women are Deceitful scale for child-sex offenders ($n=103$) and offenders with adult victims ($n=29$). Both groups displayed a statistically significant reduction in the endorsement of beliefs that women are

deceitful. Criteria for clinically significant improvement were met by 16% of child-sex offenders and 24% of offenders with adult victims.

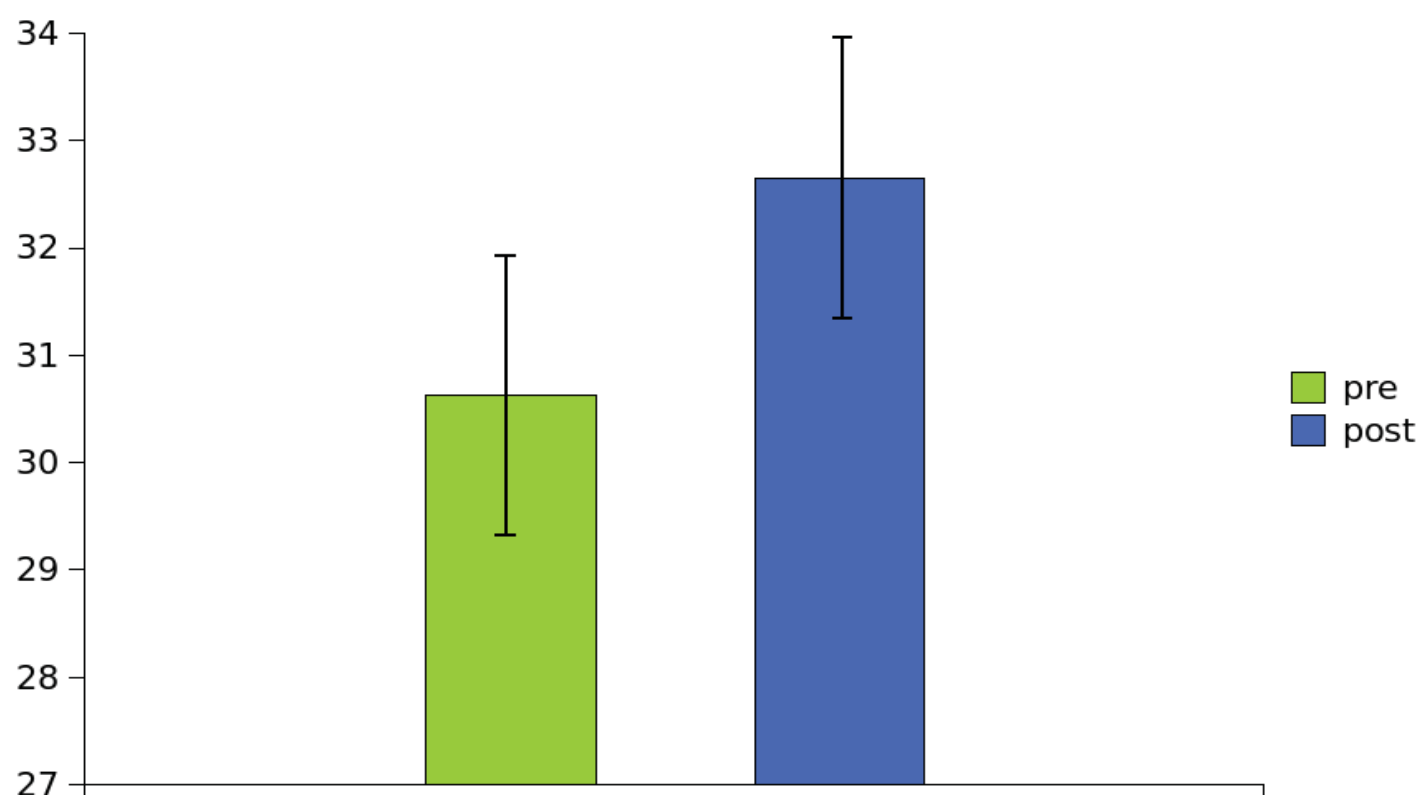


Figure 7. Mean self-reported beliefs that women are deceitful pre- and post-treatment, for child-sex offenders and offenders with adult victims.

Emotional Regulation

Figure 8 presents mean scores on the four subscales (rumination, emotional inhibition, aggression control and benign control) of the Emotional Control Questionnaire (ECQ) for child-sex offenders ($n=103$), before and after program completion. Treatment aims to reduce rumination and emotional inhibition, and to increase aggression control and benign control. Treated offenders exhibited a significant reduction in rumination and emotional inhibition; an increase in benign control, but no significant change in aggression control. The strongest treatment effects were apparent for benign control, suggesting that treatment was particularly effective at enhancing emotional and behavioural restraint. Criteria for clinically significant improvement were met by 20% of child-sex offenders for rumination, 21% for emotional inhibition, 21% for benign control, and 8% for aggression control.

Figure 9 presents mean scores on the four subscales of the ECQ for offenders with adult victims ($n = 28$). This group also exhibited a significant reduction in rumination and emotional inhibition. In contrast to child-sex offenders, offenders with

adult victims exhibited a significant increase in aggression control but no change in benign control. All significant differences were in the intended direction. In this group, 25% met criteria for a clinically significant improvement in rumination, 17% for emotional inhibition, 18% for aggression control, and 29% for benign control.

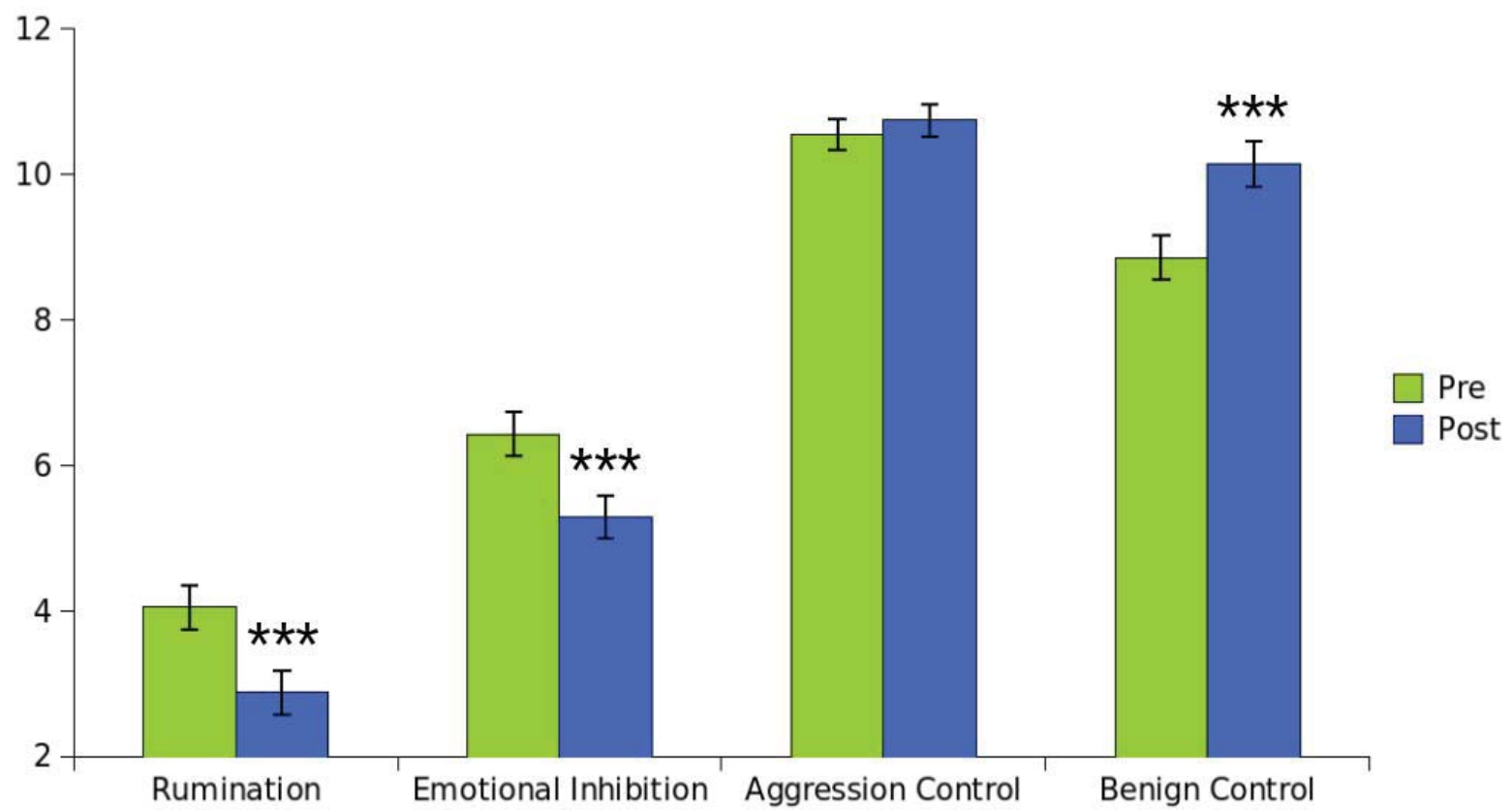


Figure 8. Mean scores across the four domains of emotional regulation pre- and post-treatment, for child-sex offenders.

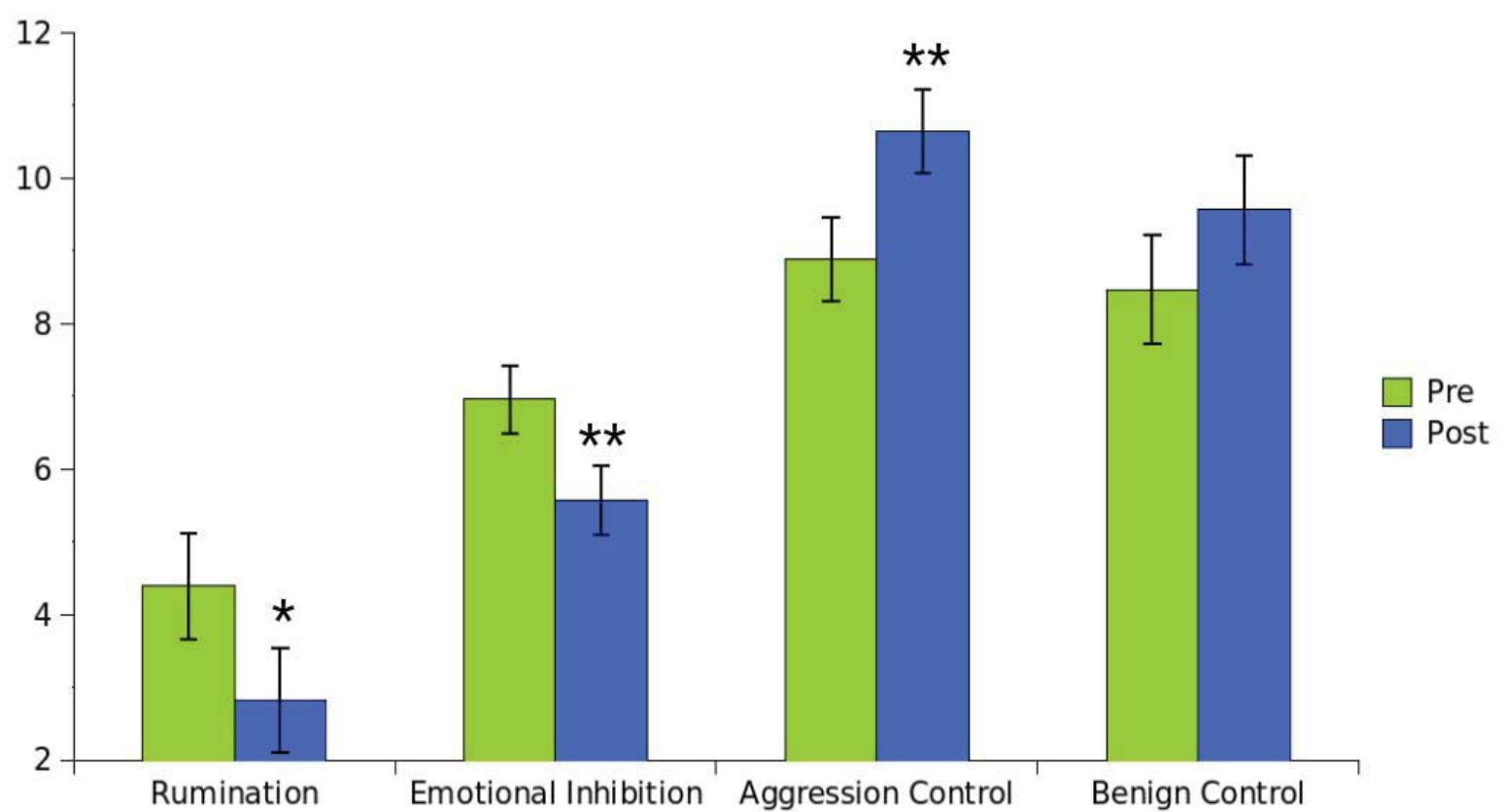


Figure 9. Mean scores across the four domains of emotion regulation pre- and post-treatment, for offenders with adult victims.

Intimacy and loneliness

Figures 10 and 11 display mean scores for the four attachment styles measured by the Relationship Scales Questionnaire for child-sex offenders ($n=103$) and offenders with adult victims ($n=28$). Treatment success may be indicated by increases in secure attachment, and decreases in the other (insecure) attachment styles. A significant increase in secure attachment style, a small but significant decrease in fearful attachment style, and no change in either preoccupied or dismissive attachment styles, were found. A clinically significant improvement was observed in 21% of child-sex offenders for secure attachment, 10% for fearful attachment, 7% for preoccupied attachment, and 18% for dismissive attachment. As indicated in Figure 11, treatment was associated with a significant reduction in fearful and dismissive attachment, but had no impact on secure or pre-occupied attachment, for offenders with adult victims.

Small proportions of offenders met criteria for a clinically significant improvement: 7% for secure; 14% for pre-occupied; 11% for dismissive; and 14% for fearful attachment.

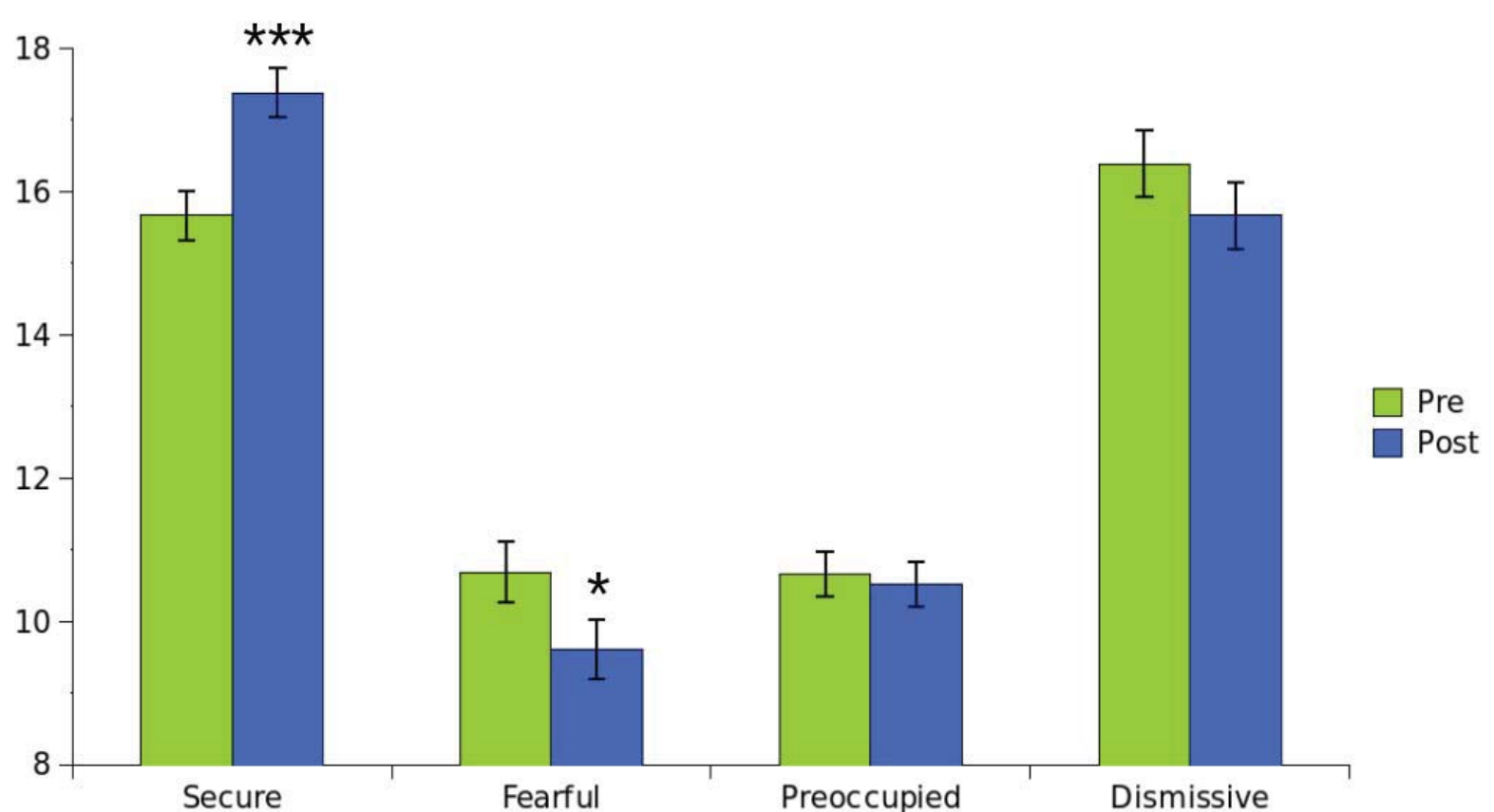


Figure 10. Pre- and post-treatment mean scores for secure, fearful, preoccupied and dismissive attachment styles, for child-sex offenders.

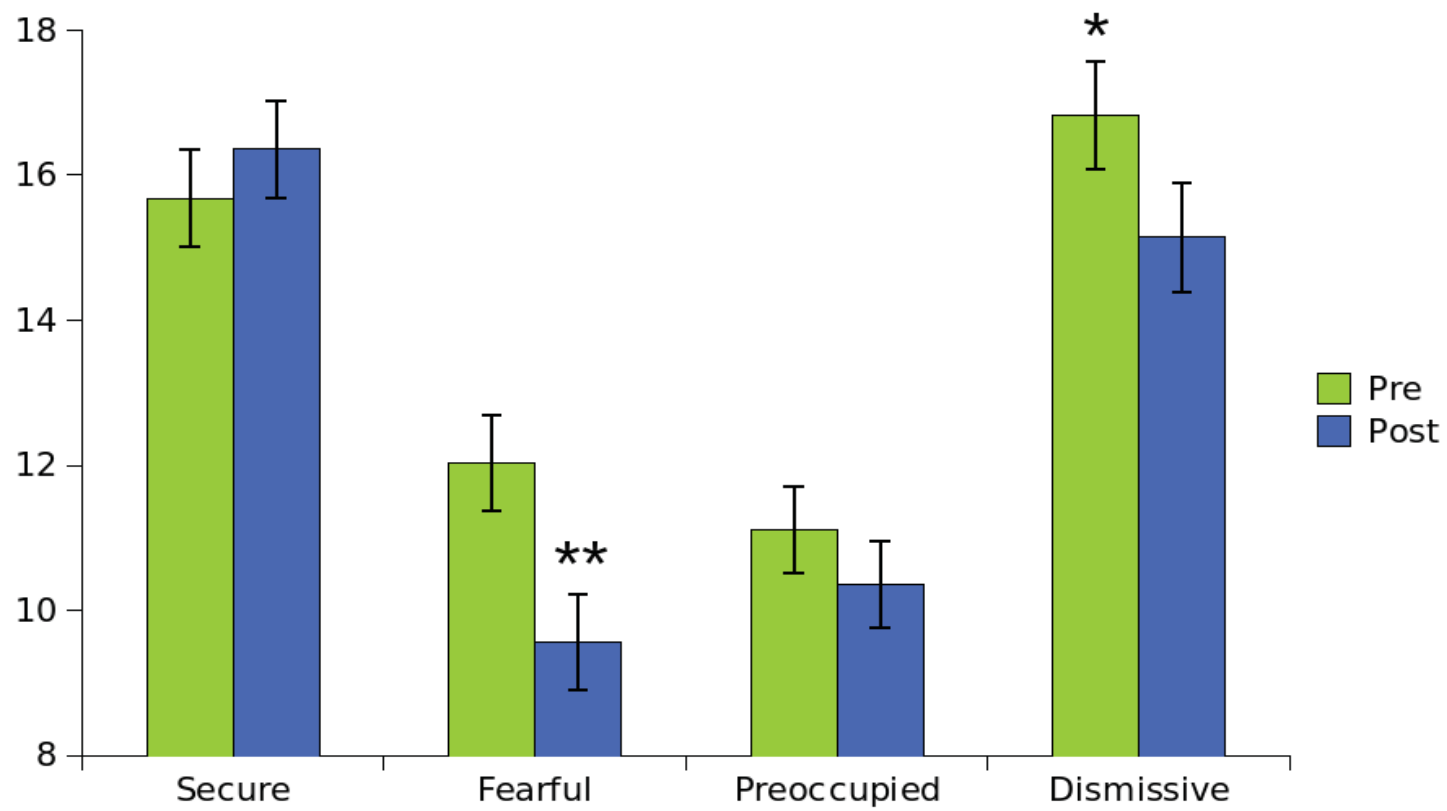


Figure 11. Pre- and post-treatment mean scores for secure, fearful, preoccupied and dismissive attachment styles, for offenders with adult victims.

Figure 12 displays mean scores on the Miller Social Intimacy Scale for child-sex offenders ($n=103$) and for offenders with adult female victims ($n=28$). As indicated, child-sex offenders reported a significant increase in social intimacy after program participation. No change was observed for offenders with adult victims. Criteria for clinically significant improvement were met by 17% of child-sex offenders, and 11% of offenders with adult female victims.

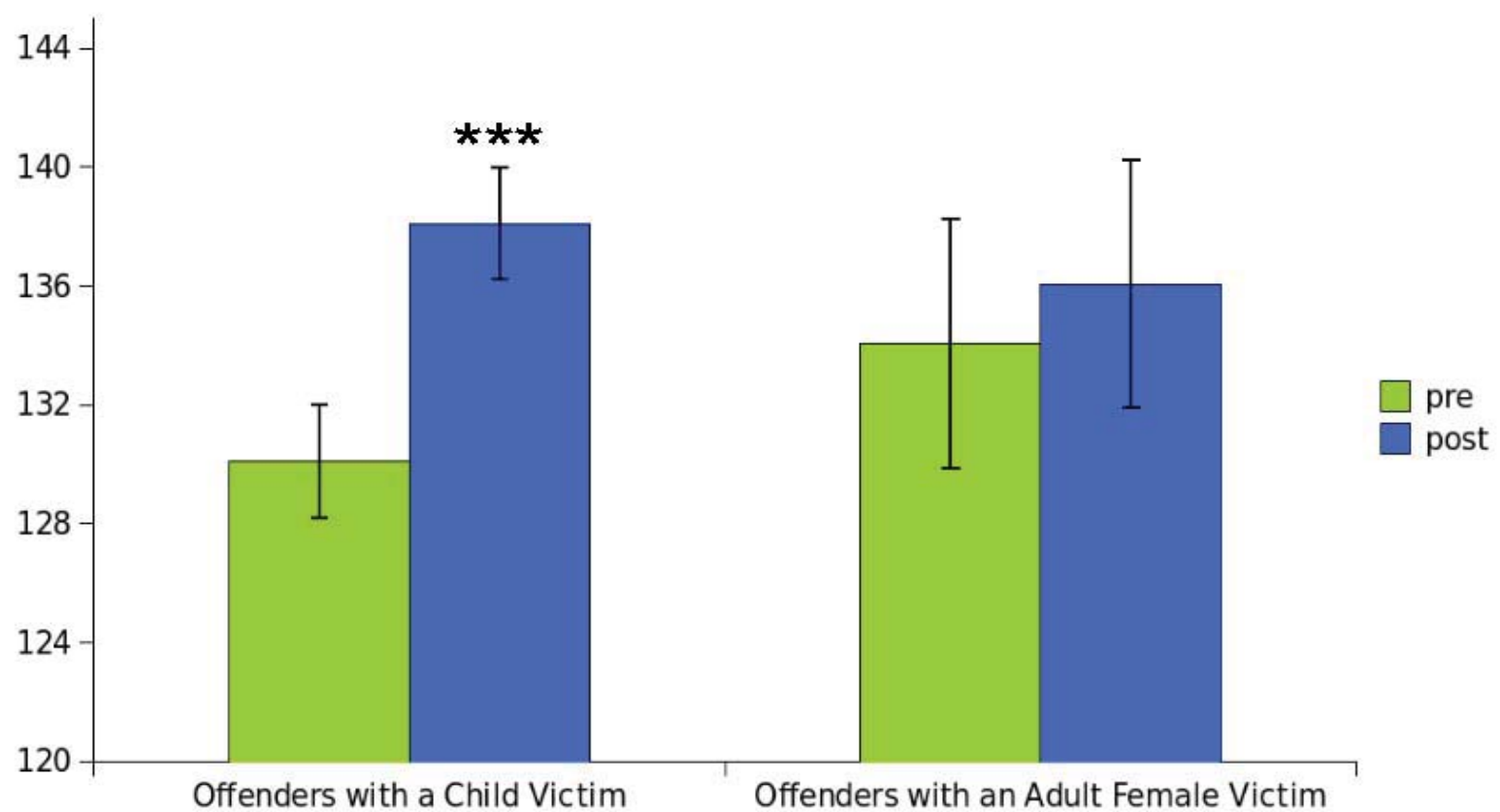


Figure 12. Mean self-reported social intimacy pre- and post-treatment, for child-sex offenders and offenders with adult victims.

Figure 13 displays means for self-reported social self-esteem for child-sex offenders ($n=103$) and offenders with adult victims ($n=27$). Both groups reported a significant increase in social self-esteem following treatment. Criteria for clinically significant change were met by 23% of child-sex offenders and 16% of offenders with adult victims.

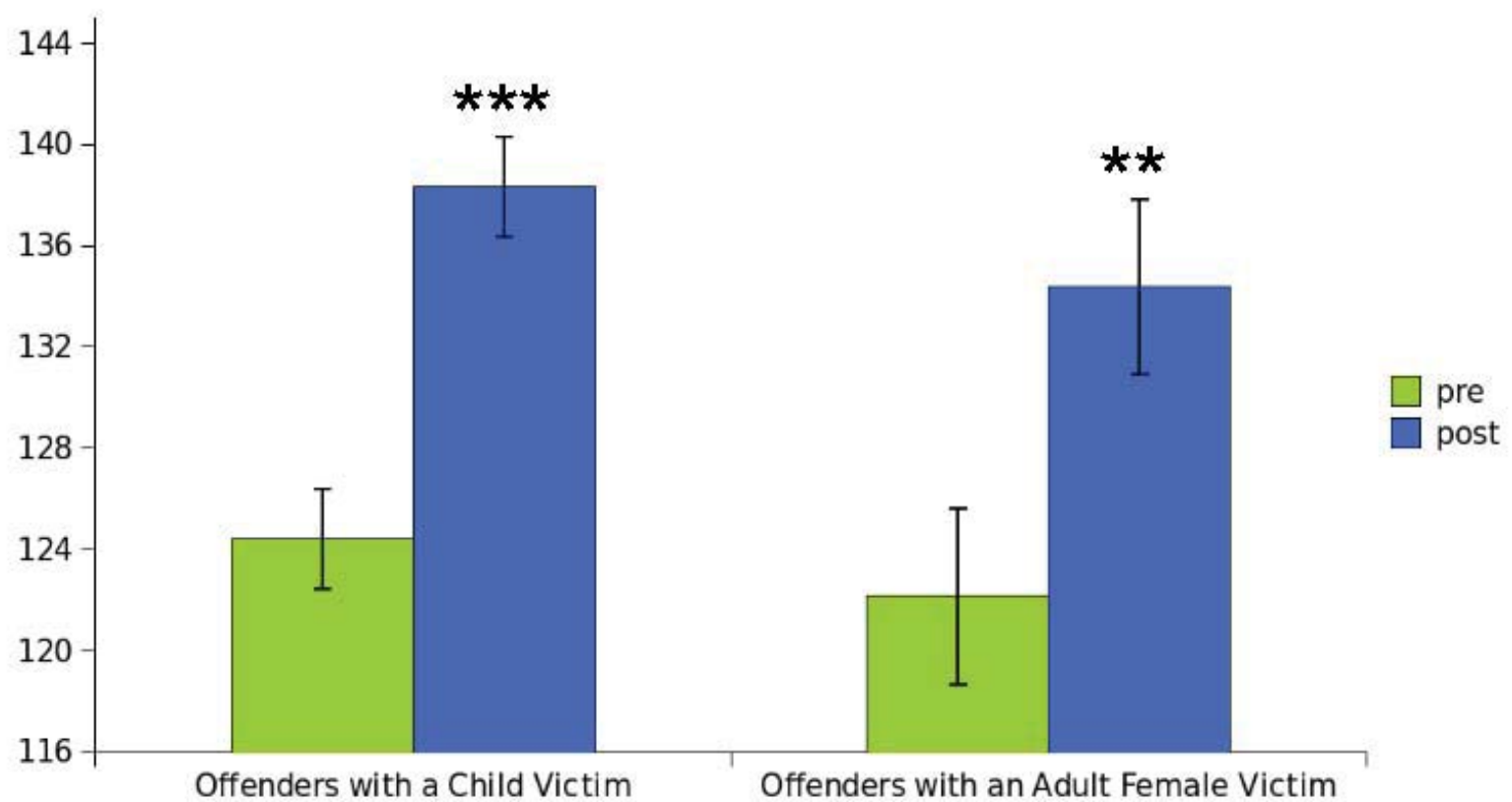


Figure 13. Mean self-reported social self-esteem pre- and post-treatment, for child-sex offenders and offenders with adult victims.

Therapist ratings of treatment progress

Therapist ratings of treatment progress were available for 103 MISOP or HISOP participants. Of these, 74 were rated independently by two professional staff, and these ratings were averaged. Seventeen topics (see Figure 14) were rated separately for intellectual understanding and emotional acceptance/demonstration. Topics were rated on a 4 point scale: 1 (unsatisfactory), 2 (marginal), 3 (satisfactory) and 4 (optimal). Intra-class correlations were computed to examine inter-rater reliability across the 17 topics for both intellectual understanding and emotional acceptance/demonstration. For intellectual understanding, marginal to strong agreement (ICC between .40 and .80) between raters was observed for 12 of the 17

topics. Poor inter-rater agreement (less than .40) was found for the remainder of the topics. Highest agreement between therapist ratings of intellectual understanding was observed for control over substance abuse and normative sexual views/interests. The poorest agreement was apparent for quality of relapse prevention plans and adequate coping skills/styles.

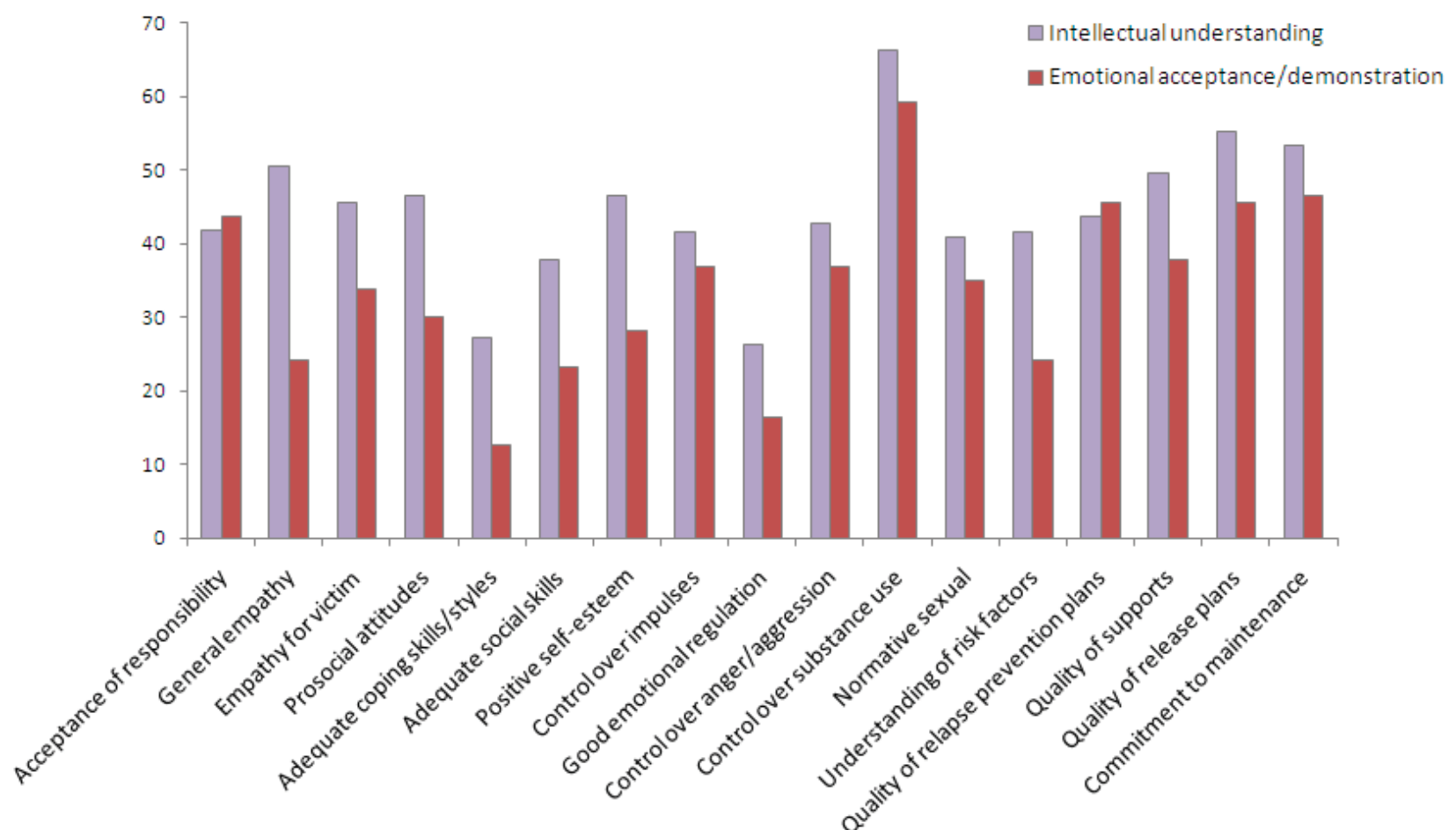


Figure 14. Proportion of treated offenders rated as satisfactory or above on intellectual understanding and emotional acceptance/demonstration across the 17 topics addressed by the Therapist Rating Scale.

A moderate to strong level of agreement between therapist ratings of emotional acceptance/demonstration was apparent for twelve of the 17 topics. Agreement between therapist ratings of the remaining topics was poor. A high level of therapist agreement in ratings of emotional acceptance/demonstration was observed for control over anger/aggression and control over impulses. Poor agreement was most apparent for ratings of adequate social skills and adequate supports.

The proportion of treated offenders receiving averaged ratings of satisfactory and above (a score of 3 or above) across each of the 17 topics, for both intellectual understanding and emotional acceptance/demonstration, are illustrated in Figure 14. For all but two topics, the proportion of offenders rated as satisfactory or above on

intellectual understanding exceeded that seen for emotional acceptance/demonstration (average 44.6% and 34.1%, respectively, across the 17 topics). For both intellectual understanding and emotional acceptance/demonstration offenders were most likely to receive a rating of satisfactory or above on control over substance use (66.4% and 56.4% respectively). Offenders were least likely to receive a rating of satisfactory or above for adequate coping skills/styles and good emotion regulation.

Outcomes for the Indigenous programs

Intermediate treatment outcomes for the IMISOP and IHISOP were evaluated by examining pre-post treatment change according to the 3-Predictor model (Allan & Dawson, 2002). Findings are presented for 21 Indigenous offenders who participated in the IMISOP or IHISOP between June 2005 and November 2008². Figure 15 presents the pre- and post-treatment mean scores for these 21 offenders across the three risk domains assessed with the 3-Predictor Model: poor coping, unrealistic long term goals and unfeasible release plans. There was a statistically significant improvement across all three domains. For coping skills, the pre-treatment mean suggested frequent major problems with coping skills. Although this improved, on average offenders were still assessed as exhibiting frequent moderate problems with coping skills at post-intervention.

Prior to treatment, Indigenous offenders were assessed as having unrealistic release plans, with many problems and at least one long-term goal considered to be unobtainable. Following treatment, IMISOP and IHISOP participants were assessed as having good release plans and obtainable long-term goals, with comparatively few problems associated with each. In terms of clinically significant improvement, 14% met criteria for coping skills, 35% for long-term plans, and 24% for release plans.

² As indicated in Table 2, 11 of the 409 offenders discharged prior to 30 June 2008 completed either an IMISOP or IHISOP. Only 7 of these were assessed with the 3-predictor model. Data presented in Figure 15 include all offenders who had completed the IHISOP or IMISOP, regardless of their discharge date ($n=21$). The remaining 14 individuals were either discharged after 30 June 2008 or are yet to be discharged.

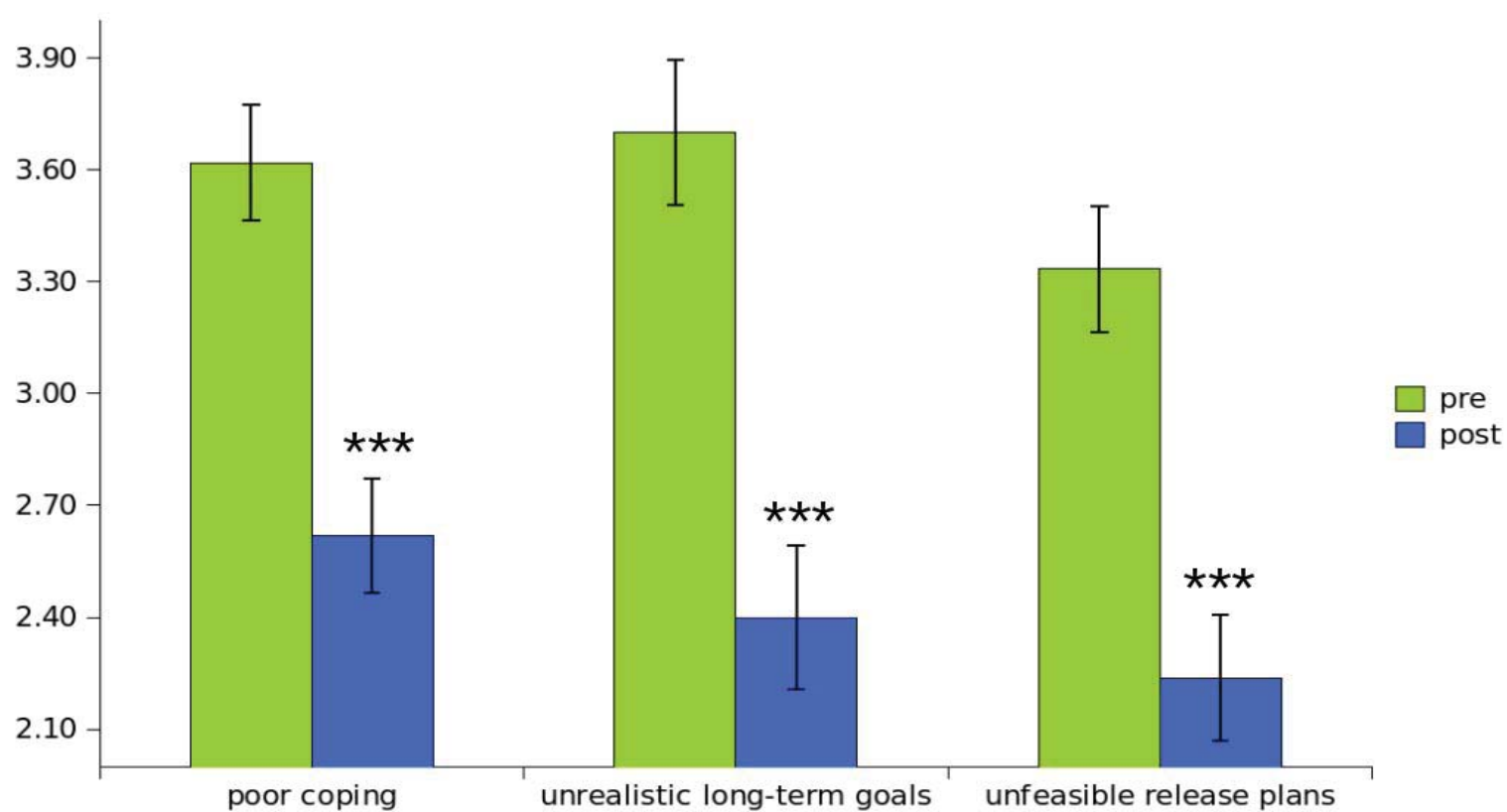


Figure 15. Mean therapist ratings for poor coping, unrealistic long-term goals, and unfeasible release plans pre- and post-treatment (IMISOP and IHISOP).

Outcomes for the Inclusion program

The TIPS-ID and Haaven's Modified Cognition Scale were used to assess intermediate treatment outcomes for Inclusion program participants. Data are reported on 12 offenders who participated in the Inclusion program³. As indicated in Figure 18, offenders exhibited statistically significant improvement across all seven risk domains examined by the TIPS-ID. Prior to participating in the Inclusion program, on average, offenders were assessed as having considerable need for improvement across all domains except for criminality, for which they were assessed as having some need for improvement. After completing the Inclusion program, offenders were assessed as having minimal or no need for further improvement for offence responsibility, sexuality and criminality, and some need for improvement across all other domains.

³ As indicated in Table 2, 4 of the 409 offenders discharged prior to 30 June 2008 completed the Inclusion program. Data presented in Figure 16 include all offenders who had completed the Inclusion program regardless of their discharge date ($n=12$). The remaining 8 offenders were either discharged after 30 June 2008 or are yet to be discharged.

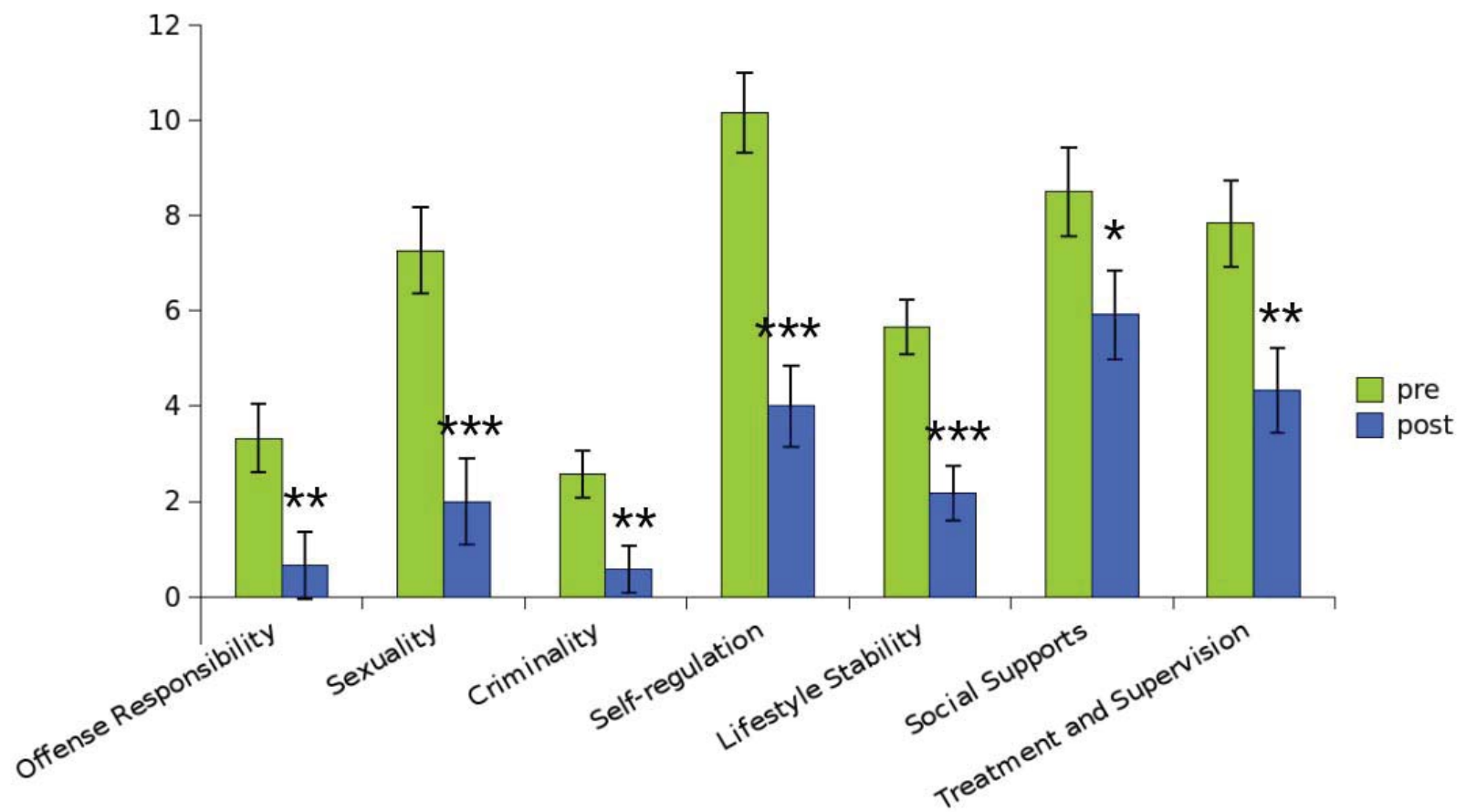


Figure 16. Mean therapist ratings across the seven risk domains measured by the TIPS-ID before (pre) and after (post) participation in the Inclusion program.

Table 4 displays the proportion of Inclusion program participants who met criteria for clinically significant improvement across the seven risk domains. These data suggest that the Inclusion program was most effective with sexuality and lifestyle stability, and least effective with treatment and supervision.

Table 4. Proportions of Inclusion program participants meeting criteria for clinically significant improvement across the seven risk domains of the TIPS-ID.

TIPS-ID Risk Domain	Clinically significant improvement (%)
Lifestyle Stability	75.0
Sexuality	72.7
Self-regulation	58.3
Criminality	50.0
Offence Responsibility	41.6
Social Supports	33.3
Treatment and Supervision	25.0

As illustrated in Figure 17, Inclusion program completion was also associated with statistically significant improvements in both paedophilic and rape attitudes, with 30% meeting criteria for clinically significant improvement. Pre-treatment mean scores indicated a general *disagreement* with paedophilic attitudes among the majority (86.9%) of the sample. In contrast, only 43% of this sample presented at pre-treatment with a general disagreement with rape attitudes.

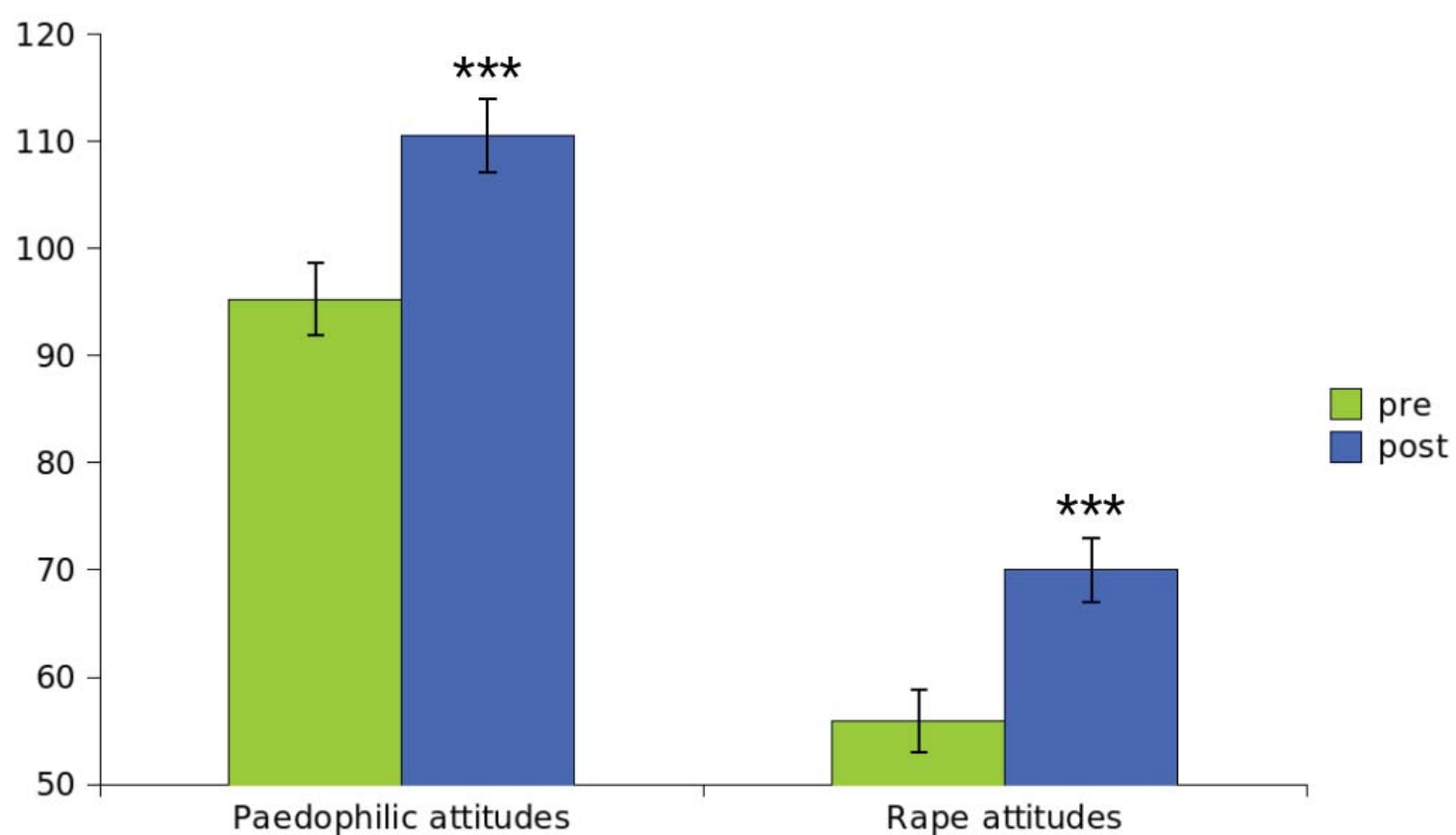


Figure 17. Mean self-reported endorsement of paedophilic and rape attitudes pre- and post-participation in the Inclusion program.

Recidivism

Overall, 114 (27.8%) of the 409 offenders included in the present evaluation were identified as having re-offended in some way since their discharge from prison. Even if offenders had committed more than one kind of offence post-discharge, recidivism incidents were counted only as the most serious offence (i.e. only once for each offender). Sexual recidivism was regarded as the most serious type of offence, followed by nonsexual violent recidivism and (nonsexual) non-violent recidivism. This method creates three mutually exclusive recidivism categories (sexual, nonsexual violent, and non-violent). According to this scheme, 20 offenders (4.9%) had committed a new sexual offence, 28 (6.8%) had committed a new nonsexual violent offence, and 66 (16.1%) had committed a new non-violent offence.

Recidivism outcomes are reported below in relation to treatment status, Indigenous status, discharge status and assessed risk. Results are reported separately for sexual recidivism (committing at least one sexual offence since discharge), nonsexual violent recidivism (committing at least one non-sexual violent offence, but no sexual offences since discharge), and non-violent recidivism (committing at least one non-violent offence and no sexual or non-sexual violent offences since discharge). In one case, data for a composite category of violent recidivism (including any sexual or violent offences) are reported. For some other analyses, the all-inclusive category of any recidivism is used, either in addition to or instead of non-violent recidivism.

Treatment effects are considered first, with treated and untreated offenders compared across the three separate recidivism categories. We then consider the predictive validity of the various risk measures (Static-99, Stable-2000, ORNI-R and RoR-PV). Following this, the effects of pre-existing risk-related differences (between the treated and untreated comparison groups) on treatment outcomes is examined. Treatment effects on recidivism are then considered in relation to Indigenous status and type of post-discharge supervision (no supervision, standard community supervision, DPSOA supervision). The final two sections present overviews of the factors associated with recidivism, and take a closer look at the individual characteristics related to each of the three kinds of recidivism.

Treatment and recidivism

Table 5 displays recidivism rates for treated ($n=158$) and untreated offenders ($n = 251$). Sexual recidivism was almost twice (1.9 times) as high for untreated offenders than for treated offenders. However, most likely due to the low base-rate of sexual recidivism (4.8%; $n = 20$), this difference was not statistically significant.

Although the base-rate for nonsexual violent recidivism was also low, a significant treatment effect was observed. As illustrated in Table 5, 9.6% of untreated offenders and 2.5% of treated offenders were identified as nonsexual violent recidivists. Further nonsexual violent offending among untreated offenders was thus almost four (3.84) times higher than that for treated offenders.

Non-violent recidivism was marginally lower for treated (15.5%) than for untreated offenders (16.7%), but this difference was not statistically significant. Twenty-four (34.8 %) of the 69 non-violent recidivists were classified as such due to a statutory breach only (e.g. failing to comply with reporting obligations). Excluding these statutory breaches, there were still no significant differences in non-violent recidivism between treated (13.0%) and untreated offenders (13.7%).

A significant treatment effect was found for ‘any’ recidivism (20.9% for treated offenders, and 32.3% for untreated offenders).

Table 5. Recidivism Rates (%) for Treated and Untreated Offenders.

Recidivism Type	Treated (n=158)	Untreated (n=251)
Sexual recidivism	3.2	6.0
Nonsexual violent recidivism ^a	2.5	9.6**
Non-violent recidivism ^b	15.2	16.7
Any recidivism	20.9	32.3**

a. non-sexual violent recidivism includes any offence/s against the person, *excluding* sexual offences;

b. non-violent recidivism includes all offences other than sexual or non-sexual violent offences.

** statistically significant difference between program participants and non-participants.

Risk, treatment, and recidivism

A series of ROC (Receiver Operating Characteristic) analyses were computed to examine whether the recidivism risk measures used by QCS (Static-99; Stable-2000; ORNI-R; RoR-PV) predicted observed recidivism. These analyses were conducted separately for sexual recidivism, nonsexual violent recidivism, and any recidivism. ROC analysis is a standard method of assessing the validity of a measure to predict a dichotomous outcome. The ROC value is a summary statistic which, for the present purposes, indicates how well recidivism risk measures distinguish recidivists from non-recidivists (the ROC statistic represents the probability that a randomly selected recidivist will have a higher risk score than a randomly selected non-recidivist). An ROC value of 1.0 would indicate perfect prediction, and a value of 0.5 would indicate prediction that is no better than chance. Results are presented in

Table 6. For each recidivism type, the ROC value is presented first, with its accompanying confidence interval following in parentheses. If the confidence interval contains 0.50, the risk measure can be said to have performed no better than chance in predicting recidivism outcomes.

Table 6. ROC values (confidence intervals) for the Static-99, Stable-2000, ORNI-R and RoR-PV as predictors of sexual, nonsexual violent, and any recidivism.

Recidivism Type	Risk Prediction Measures			
	Static-99	Stable-2000	ORNI-R	RoR-PV ^a
Sexual (<i>n</i> = 20)	.80 (.72-.89)	.65 (.44-.86)	.67 (.55-.79)	.66 (.43-.88)
Nonsexual violent (<i>n</i> = 28)	.69 (.60-.78)	.85 (.78-.92)	.76 (.66-.86)	.89 (.78-1.0)
Any (<i>n</i> = 110)	.64 (.58-.70)	.62 (.54-.70)	.67 (.61-.73)	.65 (.53-.77)

a. only 4 sexual recidivists and 4 nonsexual violent recidivists with RoR-PV scores were identified.

As indicated in Table 6, the Static-99 out-performed all other risk measures in predicting sexual recidivism. The Stable-2000 and RoR-PV out-performed the ORNI-R and the Static-99 in predicting nonsexual violent recidivism. All four risk measures performed quite poorly in predicting ‘any’ recidivism, with the ORNI-R doing marginally better than the other measures.

To examine whether pre-existing risk-related differences between treated and untreated offenders moderated the relationship between treatment and recidivism outcomes, differences in recidivism outcomes for treated and untreated offenders were examined both before and after statistically controlling for assessed risk (Static-99 scores)⁴. For these analyses the outcome measure is time (in months) to recidivism.

Figure 18 displays sexual recidivism survival curves for treated and untreated offenders. The two survival curves indicate the proportions of offenders in each group ‘surviving’ (*not* re-offending) at each month since discharge. Treated offenders were

⁴ The model was tested using Cox Regression Survival Analysis with Static-99 scores entered as a covariate

marginally more likely than untreated offenders to ‘survive’ at each time-point, although this difference was not statistically significant. Controlling for risk (Static-99 scores) did not change this outcome. Again, the ability to detect a significant treatment effect may be hindered by the low base-rate of observed sexual recidivism.

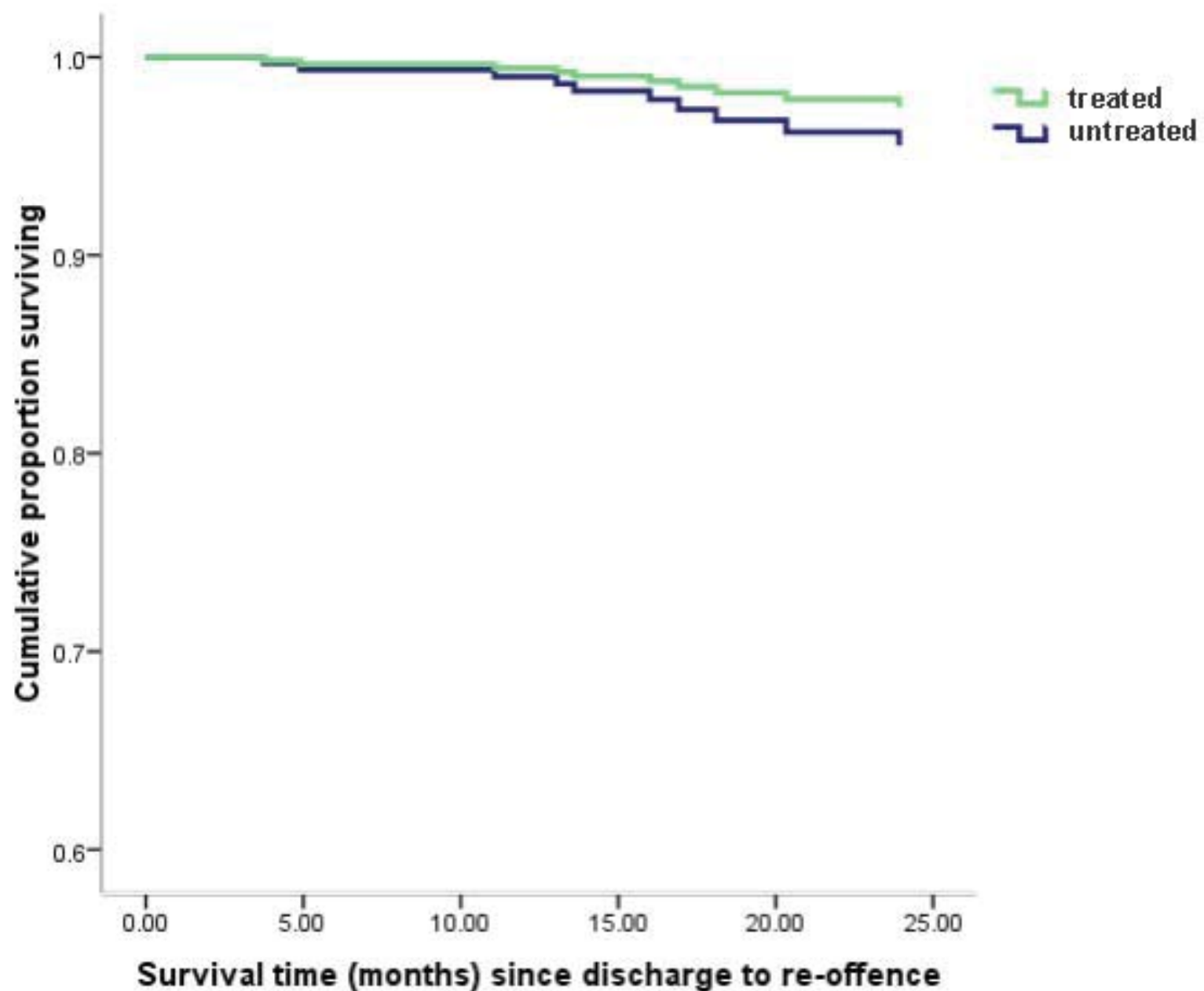


Figure 18. Sexual recidivism survival curves for treated and untreated sexual offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge.

The same method was employed to examine nonsexual violent recidivism. Figure 19 presents the nonsexual violent recidivism survival curves for treated and untreated offenders. When considered alone, the effect of treatment on survival time until nonsexual violent re-offence was statistically significant, with more treated than untreated offenders ‘surviving’ at each time-point post-discharge. This treatment effect remained after controlling for risk.

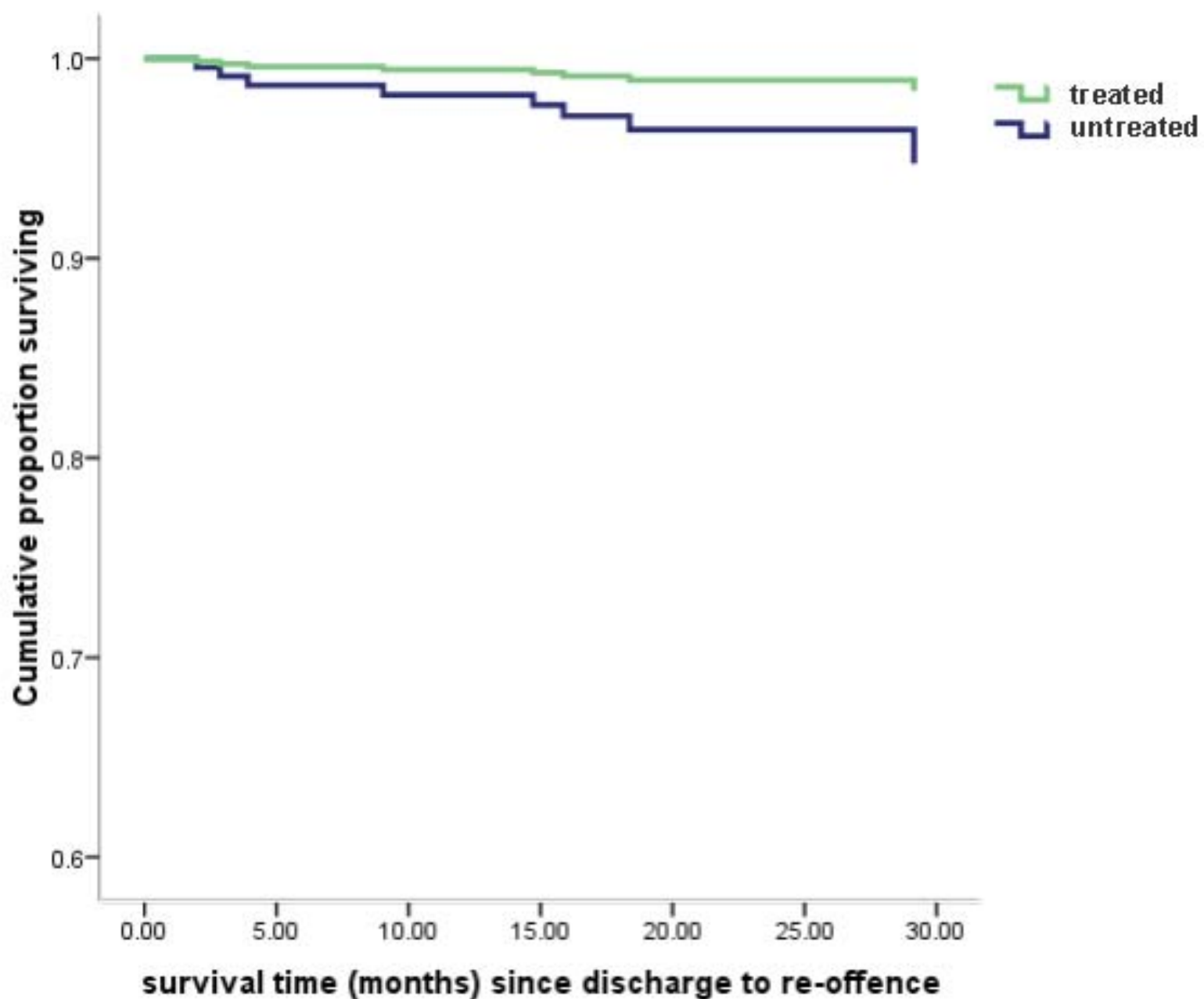


Figure 19. Nonsexual violent recidivism survival curves for treated and untreated sexual offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge.

Treatment was also examined as a predictor of months since discharge until any violent or sexual re-offence, before and after controlling for pre-existing differences in risk. Figure 20 depicts the violent (including sexual) recidivism survival curves for treated and untreated offenders. When examined alone, treatment was a significant predictor of months until violent re-offence, with more treated offenders surviving at each time point post-discharge. When Static-99 scores were controlled for, treatment remained a significant predictor of (lower) violent recidivism.

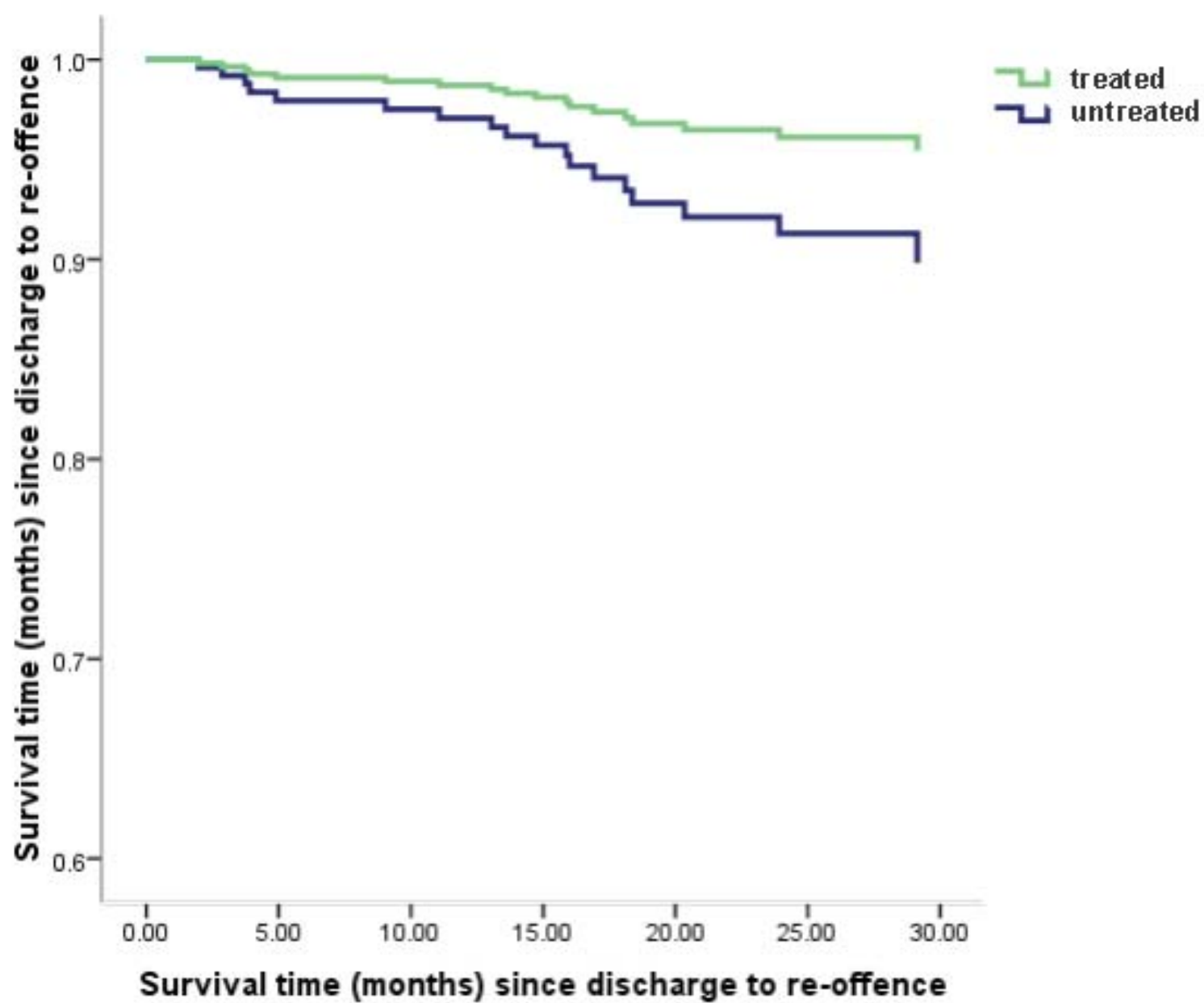


Figure 20. Violent (including sexual) recidivism survival curves for treated and untreated offenders, demonstrating the cumulative proportion of offenders in each group surviving (not-re-offending) at each month since discharge.

Figure 21 displays the survival curves for ‘any’ recidivism. As the figure indicates, more treated than untreated offenders ‘survived’ at each time point post-discharge, and this effect is statistically significant. The effect was only marginally significant after controlling for pre-existing risk differences.

In sum, treatment was not significantly associated with a reduction in sexual recidivism, regardless of pre-existing risk-related differences between the treated and untreated offenders. This may be due to reduced statistical “power” to detect true effects, associated with the low base-rate of observed sexual recidivism in the present sample. Given that the rate of sexual recidivism observed among untreated offenders was almost twice that observed among treated offenders, a statistically significant treatment effect may emerge with a larger sample size and/or with a longer follow-up period.

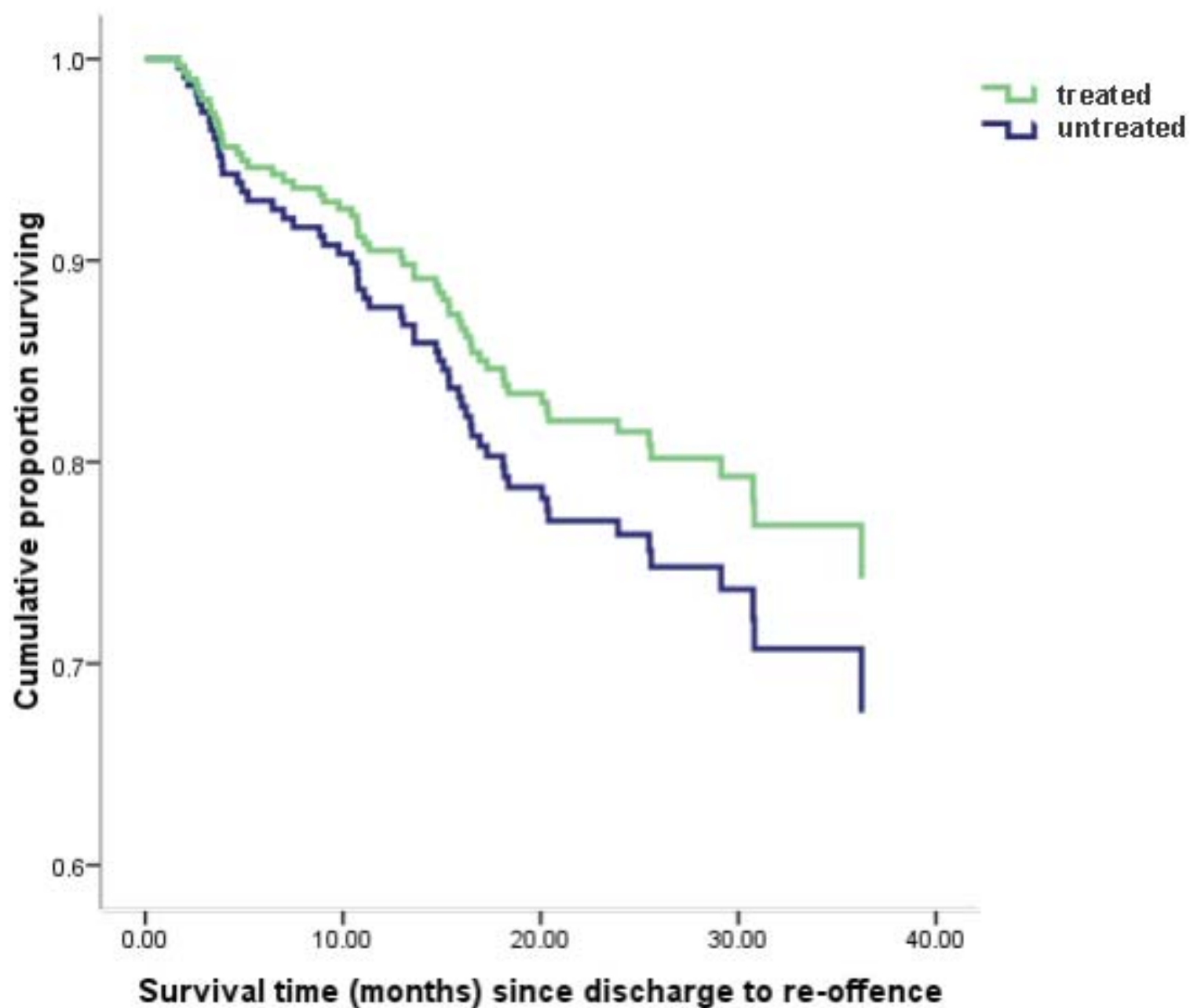


Figure 21. 'Any' recidivism survival curves for treated and untreated offenders, demonstrating the cumulative proportion of offenders in each group surviving (not re-offending) at each month since discharge.

A clear treatment effect was found for nonsexual violent recidivism, including when pre-existing risk differences between treated and untreated offenders were statistically accounted for.

When sexual and nonsexual violent recidivism were combined (violent recidivism), a significant treatment effect was found, and this effect remained when risk was controlled for.

Finally, a significant treatment effect was found for 'any' recidivism, although this effect was only marginally significant after controlling for risk.

Recidivism among Indigenous offenders

Compared to their non-Indigenous peers, and leaving aside for the moment any treatment effects, Indigenous offenders exhibited significantly higher rates of sexual recidivism (8.2% vs 4.2%), nonsexual violent recidivism (30.1% vs 1.8%), non-violent recidivism (20.5% vs 15.6%), and any recidivism (58.9% vs 21.6%). Table 7 displays observed recidivism rates among treated and untreated Indigenous and non-Indigenous offenders.

Table 7. Recidivism by Treatment and Indigenous Status.

Recidivism Type	Treatment		No Treatment	
	Indigenous (<i>n</i> = 21)	Non-Indigenous (<i>n</i> = 136)	Indigenous (<i>n</i> = 49)	Non-Indigenous (<i>n</i> = 191)
Sexual (<i>n</i> = 20)	4.8	2.9	10.2	5.2
Nonsexual violent (<i>n</i> = 28)	14.3	0.7	38.8	2.6
Any (<i>n</i> = 110)	47.6	16.9	65.3	24.6

Due to the small number of Indigenous offenders identified as sexual recidivists (*n* = 6), it was not possible to reliably test for a statistically significant effect for sexual recidivism.

For nonsexual violent recidivism, a significant treatment effect was found for Indigenous offenders, with the rate of observed recidivism for treated Indigenous offenders 2.7 times lower than that of untreated Indigenous offenders. However, when pre-existing risk differences were accounted for, the treatment effect on nonsexual violent recidivism for Indigenous offenders was no longer statistically significant. This suggests that the effect of treatment on nonsexual violent recidivism for Indigenous offenders can, in part, be accounted for by a marginally higher level of pre-existing risk for untreated Indigenous offenders⁵.

When ‘any’ recidivism was considered, 65.3% of untreated Indigenous offenders (*n* = 21) and 47.6% of treated Indigenous offenders (*n* = 49) were identified

⁵ Although non-treated Indigenous offenders had somewhat higher mean Static-99 scores than treated Indigenous offenders (2.93 versus 2.12), this difference was not statistically significant.

as having re-offended in some way post-discharge. Although this appears to be a substantial difference, the difference was not statistically significant.

Discharge status and recidivism

Recidivism outcomes were also examined as a function of discharge status, by comparing those offenders who were discharged from prison a) without supervision, b) with standard supervision (e.g. parole), and c) under the more stringent supervision and monitoring provisions of the Dangerous Prisoners (Sexual Offenders) Act (DPSOA). Figure 22 presents recidivism rates across three recidivism outcomes (sexual recidivism, nonsexual violent recidivism, and non-violent recidivism), as a function of discharge type. Offenders who received no post-discharge supervision exhibited a higher rate of sexual recidivism (7.1%) relative to those under standard supervision (2.6%) and DPSOA orders (3.2%). The difference between standard supervision and no supervision was statistically significant.

Highly significant group differences emerged for discharge status and nonsexual violent recidivism. Specifically, nonsexual violent recidivism was significantly higher for offenders discharged without supervision (12.2%) than for those offenders under standard supervision (1.6%), and those discharged under a DPSOA order (3.2%). No group differences were found for non-violent recidivism.

Overall, offenders receiving no supervision exhibited significantly higher rates of 'any' recidivism (34.7%) relative to those under standard supervision (21.9%). The 'any' recidivism rate of offenders under no supervision also exceeded that for offenders under a DPSOA order (22.6%), but this difference was not statistically significant.

To determine whether the effect of supervision status on recidivism could be accounted for by group differences in risk or treatment status, risk status, treatment status and supervision status (no supervision versus standard supervision) were entered into three regression models predicting the number of months until re-offence for each of the three recidivism outcomes (sexual recidivism, nonsexual violent recidivism, and 'any' recidivism).

After controlling for risk and treatment status, supervision status was marginally related to sexual recidivism, with offenders who received no post-discharge supervision somewhat more likely to re-offend sexually.

The rate of nonsexual violent recidivism among offenders receiving no post-discharge supervision was almost eight (7.63) times higher than that observed for offenders who received community supervision. This effect was independent of treatment or pre-existing risk differences between supervised and unsupervised offenders.

Supervision status was no longer a significant predictor of ‘any’ recidivism after controlling for risk and treatment status.

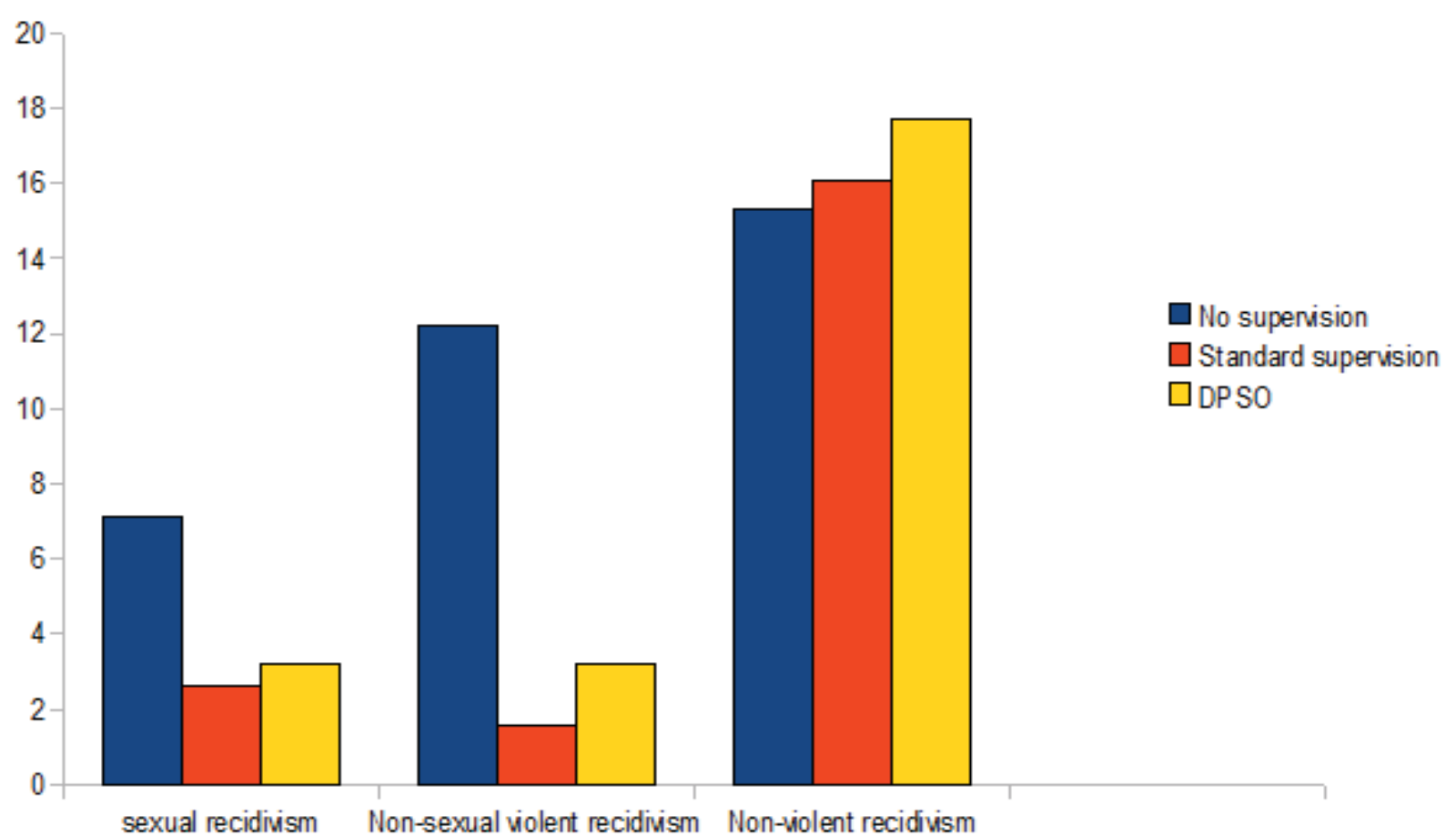


Figure 22. Recidivism rates (%) as a function of recidivism type (sexual, nonsexual violent, and non-violent) and discharge status (no supervision, standard supervision, and DPSOA).

Table 8 shows the proportions of recidivist offenders as a function of treatment and post-discharge supervision status. When each supervision type was examined separately, no treatment effect was found for sexual recidivism, nonsexual violent recidivism, or any recidivism. A significant treatment effect was, however, found for non-violent recidivism, but only for those offenders receiving standard

supervision, with supervised treated offenders almost half as likely as supervised untreated offenders to commit new non-violent offences.

Table 8. Recidivism by treatment and discharge status

Recidivism Type	Treatment			No Treatment		
	No supervision (n = 32)	Standard supervision (n = 113)	DPSOA (n = 10)	No supervision (n = 157)	Standard supervision (n = 77)	DPSOA (n = 13)
Sexual (n = 20)	6.3	2.7	0	7.6	2.6	5.9
Non-sexual violent (n = 28)	6.3	0.9	7.7	14	2.6	0.0
Non-violent (n = 69)	21.9	13.3	15.4	12.7	24.7	17.6
Any (n = 110)	34.3	16.8	22.6	34.3	29.9	23.5

Univariate Predictors of Recidivism

In this section we summarise the preceding analyses and present the results of new analyses on the individual characteristics that distinguish sexual recidivists, non-sexual violent recidivists and non-violent recidivists from non-recidivists. Each of these recidivism groups were compared separately to non-recidivists on all items from the Static-99 and the Stable-2000, age at discharge, post-discharge supervision status, and Indigenous status. Note that the findings presented here are simply descriptive – they do not distinguish between stronger and weaker associations, and do not account for co-variation among the variables.

Compared to non-recidivists, **sexual recidivists** were:

- more likely to identify as Indigenous (30% vs 10%)
- more likely to have been sentenced on four or more previous occasions (85% vs 35%)
- more likely to have a history of sexual offences (65% vs 23 %)
- more likely to have a history of non-sexual violent offences (65% vs 30%)

- more likely to have a victim who is a stranger (55% vs 19%)
- more likely to have an index nonsexual offence (45% vs 20%)
- more likely to have committed a non-contact sexual offence (35% vs 17%)
- more likely to have a known but unrelated victim (90% vs 62%)
- more likely to endorse pro-rape attitudes
- more impulsive
- more likely to have been released without supervision (70% vs 42%)

Compared to non-recidivists, **non-sexual violent recidivists** were:

- more likely to identify as Indigenous (82% vs 10%)
- more likely to have been sentenced on four or more previous occasions (96% vs 35%)
- more likely to have a history of nonsexual violent offences (88% vs 30%)
- more likely to have an index non-sexual offence (60% vs 20%)
- *less* likely to have a male victim (0.0% vs 20%);
- more likely to have a stranger victim (36% vs 19%)
- more impulsive
- more hostile towards women
- more driven or pre-occupied with sex
- more likely to feel entitled to sex
- more likely to have poor cognitive problem solving skills
- younger on average at discharge (37 years vs 47 years)
- more likely to have been discharged without supervision (90% vs 43%)

Compared to non-recidivists, **non-violent recidivists** are:

- more likely to identify as Indigenous (22% vs 10%)
- more likely to have been sentenced on four or more previous occasions (53% vs 35%)
- more hostile towards women
- more impulsive
- younger on average at discharge (38 years vs 47 years)

Table 9 presents a visual summary of these univariate relationships between offender characteristics and recidivism. Darker shading in the table indicates a stronger statistical effect (i.e. a stronger and more reliable difference between the particular recidivist group and non-recidivists on that particular characteristic).

Table 9. Characteristics distinguishing sexual recidivists, nonsexual violent recidivists, and non-violent recidivists, from non-recidivists.

	<i>Recidivism Type</i>		
	Sexual	Nonsexual violent	Non-violent
<i>Criminal History</i>			
4+ prior sentencing occasions	Dark	Dark	Light
History of sexual offences	Dark	White	White
History of nonsexual violence	Light	Dark	White
Index nonsexual offence	Light	Dark	White
Stranger victim	Dark	Light	White
Known, unrelated victim	Light	White	White
Male victim	White	Light	White
<i>Identifies as Indigenous</i>			
	Light	Dark	Light
<i>Psychological characteristics</i>			
Impulsivity	Light	Dark	Light
Poor cognitive problem solving	White	Light	White
Pro-rape attitudes	Dark	White	White
Hostile to women	White	Light	Light
Sexual preoccupation	White	Light	White
Sexual entitlement	White	Light	White
<i>Discharge characteristics</i>			
Younger at discharge	White	Dark	Dark
No post-discharge supervision	Light	Dark	White

All recidivists groups are compared separately to non-recidivists. Shading indicates a significant difference between the particular recidivist group and non-recidivists. Darker shading reflects a stronger statistical effect (i.e. a stronger or more reliable difference between the two groups)

Multivariate Predictors of Recidivism

The preceding analyses show that higher assessed risk, identifying as Indigenous, not participating in treatment, and being discharged without supervision, are all associated in some way with sexual, nonsexual violent, non-violent, and any recidivism. Elements of these predictive factors co-vary with elements of other predictors. The final step is to examine whether any, and if so which, of these factors provides unique information in the prediction of recidivism. To address this, program participation, Indigenous status, discharge status, and Static-99 scores were entered as predictors⁶ in three binomial logistic regression models, with sexual, nonsexual violent, and any recidivism as outcome variables.

Two factors were **significantly and uniquely related to sexual recidivism:**

- higher assessed static risk, and
- being discharged without supervision

Two factors were **significantly and uniquely related to nonsexual violent recidivism:**

- identifying as Indigenous, and
- being discharged without supervision

Finally, two factors were **significantly and uniquely related to 'any' recidivism:**

- higher assessed static risk, and
- identifying as Indigenous

Note that although treated offenders were either marginally or significantly *less* likely than untreated offenders to re-offend, treatment (by itself) was not a unique predictor of recidivism. In terms of factors that can be controlled by QCS, participation in treatment, together with standard community supervision, seems to be the best combination for reducing re-offending.

⁶ Stable-2000 scores were not entered into the regression models as 51.8% of the total sample and 75.3% of Indigenous offenders were not assessed with the Stable. As regression models include only those cases for whom all measures were available, including the Stable-2000 would have essentially halved the sample size. This was found to significantly alter the relationship between the other factors in the model and recidivism outcomes.

DISCUSSION

This report has presented results of an evaluation of Queensland Corrective Services (QCS) prison-based sexual offender programs. Data were obtained on 409 adult sexual offenders who had served a prison sentence and were discharged between April 2005 and June 2008. One hundred and fifty eight (39%) of these had participated in a sexual offender program (treated offenders), with the remainder (251; 61%) serving as a comparison group (untreated offenders).

Intermediate treatment outcomes were examined by analysing pre-post treatment scores for treated offenders on a range of psychological measures representing key treatment targets. Longer-term outcomes were examined by analysing recidivism for both treated and untreated offenders, and by correcting statistically for pre-existing risk-related differences between these two groups. QCS and (Queensland) police data were used to analyse recidivism outcomes, with time-at-risk calculated by subtracting the discharge date for each offender from the follow-up census date of September 2009. Mean time-at-risk was 29 months, ranging from 15 months to 53 months.

Participation in QCS sexual offender programs

One of the key principles of effective offender rehabilitation is the *risk principle* (Andrews & Bonta, 2003), which asserts that a) offender treatment is most effective when it targets higher-risk offenders, and treatment resources should therefore be prioritised for higher-risk offenders, and 2) offender treatment is most effective when treatment intensity (frequency and duration of engagement in treatment activities) is varied according to assessed risk, such that higher-risk offenders are engaged in high-intensity programs, moderate-risk offenders in medium-intensity programs, and so on.

Over the period examined in the present evaluation, QCS provided a suite of sexual offender programs. The two 'mainstream' programs were the Medium Intensity Sexual Offender Program (MISOP), and the High Intensity Sexual Offender Program (HISOP). Most of the treated offenders included in the present evaluation

(142; 90%) had participated in one of these programs: 115 in the MISOP, and 27 in the HISOP.

Research consistently shows that risk-level distributions among convicted sexual offenders tend to be positively skewed, with fewer offenders in the higher risk categories and larger numbers in the lower risk categories. Risk distributions for the Static-99, for example, tend to be concentrated in the 'low-moderate' risk category (Static-99 score of 2 or 3) (Harris, Phenix, Hanson, & Thornton, 2003). In this respect the uneven distribution of offenders in the MISOP and HISOP is consistent with more general research findings. Static-99 risk categories associated with the QCS programs indicated that the allocation of offenders to the MISOP and HISOP was consistent with the risk principle. Specifically, assessed risk for MISOP participants was concentrated in the low and low-moderate risk categories, and for HISOP participants was concentrated in the moderate-high and high risk categories. HISOP participants were much more likely than MISOP participants to have previous convictions for both sexual (67% vs 7%) and nonsexual violent offences (44% vs 20%).

A smaller number of offenders participated in special-needs sexual offender programs. Over the period examined in the present evaluation, five completed the Indigenous Medium Intensity Sexual Offender Program (IMISOP), and six completed the Indigenous High Intensity Sexual Offender Program (IHISOP). An additional ten Indigenous offenders completed one of the mainstream programs (MISOP = 9; HISOP = 1). As with the mainstream programs, allocation of offenders to the special Indigenous programs was consistent with the risk principle, with low and low-moderate risk categories concentrated in the IMISOP and moderate-high and high risk categories concentrated in the IHISOP. An additional four offenders completed the 'Inclusion' program, designed for sexual offenders with significant intellectual impairments.

Fewer than half (39%) of the sexual offenders included in the present evaluation participated in a sexual offender program. Available data did not allow us to be precise about the proportion of eligible offenders who did and did not participate, or for what reason. For the present sample, reasons for non-participation may have included: ineligibility due to sentence length (too short a sentence to allow time for program completion); ineligibility due to denial of guilt (an exclusion

criterion for QCS sexual offender programs); declining an offer to participate; accepting an offer to participate but being discharged prior to program commencement; and not being offered a place on a program. Further analysis of the true proportion of, and reasons for, non-participation would be helpful when considering the broader implications of the present evaluation.

Whereas the allocation of offenders to the various sexual offender programs was consistent with the risk principle, program participation itself apparently was not. Application of the risk principle would require treatment resources to be prioritised toward the higher risk offenders. In the present case the reverse was true: as a group, treated offenders were assessed as lower risk than were untreated offenders. While the magnitude of this difference is small (Static-99 scores of 3.29 and 2.64, respectively), the difference is statistically significant. Untreated offenders were also more likely to have previous sexual (27% vs 19%) and especially nonsexual violent offences (43% vs 28%), and, perhaps counter-intuitively, to be serving shorter average sentences (54 months vs 74 months). A review of procedures for identifying potential program participants, and perhaps an increased effort to engage higher risk offenders, may be needed to improve the identification and selection of higher risk offenders for future sexual offender programs.

Effectiveness of QCS sexual offender programs

The effectiveness of QCS sexual offender programs was evaluated in two main ways: evaluating intermediate (pre-post treatment) outcomes; and evaluating longer-term (recidivism) outcomes.

Intermediate outcomes

Another key principle of effective offender treatment is the *needs principle* (Andrews & Bonta, 2003), which asserts that treatment is most effective when it directly targets factors that are empirically or theoretically associated with recidivism (i.e. criminogenic needs). For the present evaluation, pre-post treatment data relating to presumed criminogenic needs were available for almost all treated offenders. We analysed these pre-post treatment data in two ways: by measuring statistically

significant changes for the group as a whole; and by measuring the proportion of offenders demonstrating clinically significant improvements.

Overall, pre-post treatment changes were statistically significant, and in the intended direction. That is to say, in general, reliable improvements were observed overall in the psychological 'functioning' of treated offenders, specifically with respect to the psychological factors targeted in treatment. The clinical significance of these pre-post treatment changes was highly variable, with proportions of offenders demonstrating clinically significant improvement ranging from as low as one percent (for self-reported emotional identification with children), to as high as 75% (for therapist-rated lifestyle stability for intellectually impaired offenders). For most treatment targets, clinically significant improvement was demonstrated for fewer than 25% of treated offenders. Particularly for self-report measures, pre-treatment means indicated that offenders presented initially with generally low levels of psychological problems of the kind targeted in treatment.

Despite a great deal of research effort devoted to the question, knowledge concerning the dynamic risk factors associated with sexual offender recidivism (otherwise referred to as criminogenic needs) remains limited. Some of the psychological characteristics commonly targeted for improvement in sexual offender programs (e.g. sexual preoccupations; impulsivity; intimacy problems) tend to be only weakly (even if significantly in a statistical sense) associated with sexual offender recidivism. Other common treatment targets (e.g. denial; victim empathy) have recently been shown, on average, to be unrelated to sexual offender recidivism (Hanson & Morton-Bourgon, 2005). These findings suggest that generally, as with the QCS programs, proportionally small numbers of sexual offenders present with significant self-identified psychological problems of one kind or another. This in turn presents a challenge to standardised group-based programs, which by definition tend to target the same criminogenic needs for all offenders. That some (perhaps many) offenders do not begin treatment with significant problems of a particular kind, but nevertheless receive intensive treatment for those problems, raises obvious questions about cost-efficiency.

This problem may be attenuated to some extent, even within otherwise standardised programs, by giving a greater or lesser emphasis to particular needs for

particular offenders. This would involve linking pre-treatment assessments more directly to individual treatment plans. Caution of course needs to be exercised when relying on offenders themselves to self-report their psychological problems, even with standardised self-report instruments, since especially in a correctional environment offenders are likely to minimise their own problems. This in turn suggests that more emphasis may need to be given to developing the expertise of professional program staff to conduct objective individual assessments and case formulations, and to use these assessments and formulations to develop individualised treatment plans.

Recidivism outcomes

Low rates of sexual (4.9%) and nonsexual violent recidivism (6.8%), and moderately high rates of nonsexual non-violent recidivism (16.1%) and ‘any’ recidivism (27.8%), were observed in the present sample. The comparatively high rates of nonsexual recidivism are consistent with more general findings that adult sexual offenders, including child-sex offenders, are two to three times more likely to be convicted of nonsexual offences than of sexual offences, both before and after a conviction for a sexual offence (Smallbone & Wortley, 2004a). This ‘criminal versatility’ among sexual offenders raises questions about whether specialised sexual-offence-specific treatment is sufficient, or indeed even required, for all sexual offenders, and whether some sexual offenders would benefit from more generic offender rehabilitation programs. The consensus view is that specialised sexual offender programs are an important part of a broader rehabilitation effort, but it is less clear whether all sexual offenders require specialised intensive treatment.

Recidivism rates found in the present evaluation are reasonably comparable to international estimates. A meta-analytic review of sexual offender recidivism studies, involving more than 80 separate studies and almost 30,000 sexual offenders, found an average sexual recidivism rate of 13.7% over an average time at risk of five to six years (Hanson & Morton-Bourgon, 2005). In that meta-analysis, rates for nonsexual violent recidivism were 14.3%, and for ‘any’ recidivism 36.2%. For the present evaluation, the average time at risk of two years and five months was a little less than half the average observation period for the studies included in Hanson and Morton-Bourgon’s meta-analysis. Notwithstanding jurisdictional variations in crime reporting

and recording, it would be reasonable to expect that over the next two or three years observed recidivism base-rates for the Queensland offenders would be more similar to international averages.

As with all recidivism studies, the recidivism data for the present evaluation are unlikely to be a true representation of re-offending. Most crimes (particularly ‘personal’ offences) are under-reported to some extent, and sexual offences are widely thought to be even more under-reported than other personal offences. Further, unlike most other kinds of crime, sexual offences against children are also susceptible to delayed reporting (Finkelhor, 2009). Although the observation period for the present evaluation is not atypical for recidivism studies, it is unlikely to have been sufficient to include delayed reports. On the other hand, further offending by known offenders, and particularly those under community supervision orders, is probably more likely to be detected than is the case for ‘first-time’ offenders.

Notwithstanding the limitations of official recidivism data, it seems clear that a significant proportion (perhaps the majority) of convicted sexual offenders do not go on to commit further sexual offences, even without treatment. Studies that have followed sexual offenders for 20 years or more still tend to find sexual recidivism rates well below 50% (Hanson, 2000; Janus & Meehl, 1997). This raises further questions about the universal need for specialised sexual offender treatment. Prioritising treatment services for higher risk offenders, and perhaps not requiring low risk offenders to complete specialised programs, is one way to address this problem, but this requires careful risk assessment to avoid misclassification of risk levels. Risk assessment tends to rely heavily on historical factors (e.g. previous offending), so another problem is that offenders are only identified as high risk after earlier opportunities for intervention have passed – many high risk offenders would have been assessed as low risk at some time in the past. Offenders assessed as low risk on static risk measures (e.g. Static-99) should therefore still be further assessed for their potential for further offending.

A central question for the present evaluation was whether participation in QCS treatment programs reduced recidivism. In absolute terms, all types of recidivism were lower for treated offenders than for untreated offenders. This difference was significant for nonsexual violent (2.5% vs 9.6%) and ‘any’ recidivism (20.9% vs

32.3%), but not for sexual recidivism (3.2% vs 6.0%). Even though untreated offenders were almost twice as likely to be detected for new sexual offences, the low base-rates of sexual recidivism prevented meaningful statistical analysis. Re-examining recidivism in, say, three to five years time may provide a clearer test of treatment effects for sexual recidivism in the present offenders.

The 'gold standard' method for evaluating treatment effects is the randomised control trial (RCT), in which any pre-existing differences between the treatment and untreated comparison groups are controlled by random allocation to treatment or no (or alternative) treatment. RCT designs are notoriously difficult to implement in correctional settings; indeed we are aware of only one RCT involving adult sexual offender treatment (Marques, Wiederanders, Day, Nelson, & van Ommeren, 2005). Treatment outcome studies more generally rely either on *a priori* matching of the treatment and comparison groups on relevant variables, or more commonly *post hoc* on statistically controlling for pre-existing differences. The present evaluation employed the latter design.

As noted above, the treatment and comparison groups in the present evaluation were not equivalent with respect to assessed static risk (untreated offenders were assessed as higher risk), and to correct for these differences recidivism outcomes were compared by controlling statistically for risk. For these analyses, a significant treatment effect was observed for nonsexual violent recidivism, as well as for any violent (including sexual) recidivism.

There were several reasons to consider the potential effects of post-release circumstances on recidivism. First, release policies and practices for incarcerated sexual offenders have undergone dramatic changes in Queensland, as elsewhere, over the last decade, with substantial declines in the proportions of sexual offenders being granted standard post-prison supervision orders (e.g. parole). Conversely, over the last six years increasing numbers of sexual offenders in Queensland have been subjected to post-sentence supervision under DPSOA (Dangerous Prisoners [Sexual Offenders] Act 2003) orders. Second, with release to parole increasingly linked to participation in treatment, treated and untreated offenders were unlikely to have had equivalent access to standard community supervision. Third, post-release supervision may itself have an independent effect on recidivism, either in one direction by increasing detection of

further offending, or in the other by preventing or delaying further offending. Finally, evidence indicates that prison-based treatment programs are generally more effective when they are linked to community-based interventions (Hollin, 1999).

Almost half (47%) of all offenders in the present sample were released with no community supervision, with treated offenders more than twice as likely (73% vs 31%) to be released under a standard supervision order. Comparatively few of either group (treated = 6.5%; untreated = 5.3%) were released under a post-sentence (DPSOA) supervision order (figures for post-sentence detention under DPSOA were not requested for the present evaluation). Controlling for risk and treatment effects, sexual recidivism was marginally lower for offenders who received standard post-release supervision. Nonsexual violent recidivism was almost eight times lower for offenders released under standard supervision orders. None of the 10 treated DPSOA offenders, and only one of the 13 untreated DPSOA offenders, were identified as sexual recidivists, but these numbers are too small to detect any meaningful trends, or indeed any differential effects of standard and DPSOA supervision.

The most important conclusion from these analyses is that standard community supervision appears to have a stronger independent effect than treatment on reducing sexual and violent recidivism. The present findings thus provide a clear justification for increasing the accessibility of standard community supervision to both treated and untreated sexual offenders.

The present data do not provide for an adequate test of the effects of DPSOA supervision. It is perhaps worth noting here that reviews of general offender studies show that highly restrictive supervision regimes do not necessarily reduce recidivism. For example a meta-analysis of the effects of more intensive supervision programs (involving more frequent supervisory contact, confining offenders to their homes, enforcing curfews, electronic monitoring, and so on) on more than 19,000 offenders found that highly intensive supervision had no discernable additional impact on recidivism (Gendreau, Goggin, & Fulton, 2001). The more stringent monitoring and supervision provisions available under DPSOA may serve to reduce risk for a small number of particularly concerning offenders, but best-practice principles would require DPSOA orders to be highly individualised and restricted to only the most

concerning offenders. As the present data show, standard community supervision may be preferable for the majority of sexual offenders.

It is well known that Indigenous offenders are over-represented in Australian prisoner populations, including in Queensland. It has also long been known that Indigenous sexual offenders are more likely than their non-Indigenous counterparts to re-offend in various ways (Broadhurst & Maller, 1991). Consistent with these previous findings, following their release from prison Indigenous sexual offenders in the present evaluation were more likely to commit new sexual offences (8.2% vs 4.2%), new nonsexual violent offences (30.1% vs 1.8%), and new nonsexual non-violent offences (20.5% vs 15.6%). Overall, 59% of the Indigenous sexual offenders committed some kind of post-release offence, compared to 22% of the non-Indigenous sexual offenders.

The sexual recidivism rate for treated Indigenous offenders (4.8%) was lower than for untreated Indigenous offenders (10.2%), but once again due to the low sexual recidivism base-rate it was not possible to test for a significant treatment effect. There was a significant treatment effect for nonsexual violent recidivism, with a much lower rate for treated (14.3%) than for untreated Indigenous offenders (38.8%), but this effect did not remain after controlling for differences in risk.

Clearly, it would be desirable to improve treatment engagement with Indigenous sexual offenders, especially with higher risk Indigenous offenders, and to improve the effectiveness of treatment for this group. Too few cases were available to test for the combined effects of treatment and post-release supervision for the Indigenous offenders, but there are good reasons to expect that post-release support and monitoring would be critical elements of an effective intervention for this special-needs group.

Predicting recidivism

In general, the predictive accuracy of the risk instruments used by QCS was comparable to that reported elsewhere. The Static-99 was the best predictor of sexual recidivism, with moderate predictive accuracy. The Stable-2000 was a weak predictor of sexual recidivism, but was a moderate predictor of nonsexual violent recidivism. The locally-designed RoR-PV was the best predictor of nonsexual violent recidivism,

although this was based on a very small recidivism sample. The ORNI-R, also locally designed, was a moderate predictor of nonsexual violent recidivism, but performed less well than the RoR-PV and the Stable-2000. None of the standard instruments predicted ‘any’ recidivism with acceptable reliability, although as noted all four were shown to predict sexual and violent recidivism to some degree. These results thus provide some support for the continued use of this suite of risk assessment instruments for making decisions at a group level (e.g. allocation of offenders to programs of varying intensity). These instruments should however be used very cautiously for decision-making at an individual level (e.g. whether a particular offender should be released). Predicting recidivism at an individual level is highly uncertain, even with risk instruments that have proven predictive validity at a group level (see e.g. Hart, Mitchie, & Cooke, 2007).

Overall, data analysis indicated that higher assessed risk, not participating in a treatment program, identifying as Indigenous, and being discharged without supervision, are all associated in some way with sexual, nonsexual violent, and any recidivism. Multivariate analysis identified two significant and unique predictors of each of these three recidivism types:

- Higher assessed static risk and being discharged without supervision were significant and unique predictors of **sexual recidivism**
- Identifying as Indigenous and being discharged without supervision were significant and unique predictors of **nonsexual violent recidivism**
- Higher assessed static risk and identifying as Indigenous were significant and unique predictors of **any recidivism**

Although the present data indicate that treatment contributes to reduced recidivism, treatment by itself was not a unique predictor. Considering those factors that can potentially be controlled by QCS, the present data suggest that improving therapeutic engagement with Indigenous offenders, improving therapeutic engagement with high risk offenders, improving the efficiency and effectiveness of treatment programs themselves (e.g. by more carefully targeting individual treatment needs), and increasing accessibility of standard community supervision, would be sensible directions for future rehabilitation efforts with sexual offenders.

Recommendations

Recommendations suggested by the present evaluation are:

1. Procedures for the identification and selection of sexual offenders for participation in treatment programs should be reviewed. A greater emphasis is needed on giving priority to engaging higher risk offenders in treatment.
2. A greater emphasis should be given in initial assessments to developing individual case formulations, identifying individual treatment needs, and developing individualised treatment plans.
3. Once offenders have been recruited into treatment, the present procedure of allocating higher risk offenders to the higher intensity programs, and moderate risk offenders to medium intensity programs, should be continued.
4. A greater emphasis should be given to engaging Indigenous sexual offenders, and especially higher risk Indigenous offenders, in treatment. Priority should also be given to improving the effectiveness of treatment for this group.
5. Standard post-release supervision should be made more accessible for both treated and untreated sexual offenders.
6. Recidivism outcomes for the offenders included in the present evaluation should be re-examined in three to five years time (2012-2014). A longer follow-up period is likely to allow a clearer picture of recidivism, and particularly the effects of treatment on recidivism, to emerge.

REFERENCES

- Allan, A., & Dawson, D. (2002). *Developing a Unique Risk of Violence Tool for Australian Indigenous Offenders*. Canberra: Criminology Research Council.
- Andrews, D. A., & Bonta, J. (2003). *The Psychology of Criminal Conduct* (Vol. 3). Cincinnati, OH: Anderson.
- Barbaree, H. E., Seto, M. C., Langton, C. M., & Peacock, E. J. (2001). Evaluating the predictive accuracy of six risk assessment instruments for adult sex offenders. *Criminal Justice and Behavior*, 28(4), 490-521.
- Becket, R. C. (1987). *Children and Sex Questionnaire*. Unpublished manuscript.
- Beech, A. R. (1998). A psychometric typology of child abusers. *International Journal of Offender Therapy and Comparative Criminology*, 42(4), 319-339.
- Beech, A., Friendship, C., Erikson, M., & R.K, H. (2002). The relationship between static and dynamic risk factors and reconviction in a sample of U.K Child Abusers. *Sexual Abuse: A Journal of Research and Treatment*, 14(2), 155-167.
- Broadhurst, R., & Maller, R. (1991). *Sex Offending and Recidivism*. Perth: Crime Research Centre, University of Western Australia.
- Bumby, K. M. (1996). Assessing the cognitive distortions of child molesters and rapists: Development and validation of the MOLEST and RAPE scales. . *Sexual Abuse: A Journal of Research and Treatment*, 8, 37-54.
- Casey, S., Day, A., & Howells, K. (2005). The application of the transtheoretical model to offender populations: Some critical issues. *Legal and Criminological Psychology*, 10, 157-171.
- Cortoni, F. A., & Marshall, W. L. (2001). Sex as a coping strategy and it's relationship to juvenile sexual history and intimacy in sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, 8, 27-43.
- Cortoni, F., & Marshall, W. L. (1996). Juvenile sexual history, sex and coping strategies: A comparison of sexual and violent offenders. *International Journal of Psychology*, 31(3-4), 1803-1803.
- Dennison, S., Smallbone, S., & Dombrowski, J. (2004). *Evaluation of the Community Sex Offender Program and Community Maintenance Program*. Brisbane: Qld Dept of Corrective Services.

- El-Bassel, N., Schilling, R. F., Ivanoff, A., Chen, D. R., Hanson, M., & Bidassie, B. (1998). Stages of change profiles among incarcerated drug-using women. *Addictive Behaviors, 23*(3), 389-394.
- Fernandez, Y. M., & Marshall, W. L. (2003). Victim empathy, social self-esteem, and psychopathy in rapists. *Sex Abuse, 15*(1), 11-26.
- Fernandez, Y. M., Marshall, W. L., Lightbody, S., & O'Sullivan, C. (1999). The Child Molester Empathy Measure: Description and examination of its reliability and validity. *Sexual Abuse: A Journal of Research and Treatment, 11*, 17-31.
- Finkelhor, D. (2009). The prevention of childhood sexual abuse. *Preventing Child Maltreatment, 19*(2), 169-192.
- Gendreau, P., Goggin, C., & Fulton, B. (2001). Intensive supervision in probation and parole settings. In C. R. Hollin (Ed.), *Handbook of Offender Assessment and Treatment* (pp. 195-204). Chichester, UK: Wiley.
- Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works. *Criminology, 34*(4), 575-607.
- Griffin, D. W., & Bartholomew, K. (1994). The Metaphysics of Measurement: The Case of Adult Attachment. . In K. B. a. D. Perlman (Ed.), *Advances in Personal Relationships: Vol 4. Attachment Processes in Adulthood* (pp. 17-52). London: Jessica Kingsley.
- Haaven, J. (2002). *Modified Cognition Scale for the Developmentally Disabled*. Paper presented at the Vermont Department of Developmental and Mental Health Services.
- Hanson, R. K. (2000). Treatment outcome and evaluation problems (and solutions). In D. R. Laws, S. M. Hudson & T. Ward (Eds.), *Remaking Relapse Prevention: A Sourcebook* (pp. 485-499). Thousand Oaks, CA: Sage.
- Hanson, R. K., & Bussiere, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*(2), 348-362.
- Hanson, R. K., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*(6), 1154-1163.

- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*(1), 119-136.
- Hanson, R. K., Gizzarelli, R., & Scott, H. (1994). The Attitudes of Incest Offenders - Sexual Entitlement and Acceptance of Sex with Children. *Criminal Justice and Behavior, 21*(2), 187-202.
- Hanson, R. K., Gordon, G., Harris, A. J. R., Marques, J. K., Murphy, W., Quinsey, V. L., et al. (2002). First report of the collaborative outcome data project on the effectiveness of psychological treatment for sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 14*, 169-194.
- Hanson, R. K., Harris, A.J.R., Scott, T., & Helmus, L (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project*. Ottawa: Public Safety Canada.
- Harris, A., Phenix, A., Hanson, R. K., & Thornton, D. (2003). *Static-99 Coding Rules Revised*. Ottawa: Corrections Directorate, Solicitor General Canada.
- Hart, S. D., Mitchie, C., & Cooke, D. J. (2007). Precision of actuarial risk assessment instruments: Evaluating the 'margins of error' of group v. individual predictions of violence. *The British Journal of Psychiatry, 190*, s60-s65.
- Hollin, C. (2001). *Handbook of Offender Assessment and Treatment*. New York, NY: Wiley & Sons.
- Hollin, C. R. (1999). Treatment programs for offenders - Meta-analysis, "what works," and beyond. *International Journal of Law and Psychiatry, 22*(3-4), 361-372.
- Jacobson, N. S., Follette, W. C., & Revenstorf, D. (1984). Psychotherapy Outcome Research - Methods for Reporting Variability and Evaluating Clinical-Significance. *Behavior Therapy, 15*(4), 336-352.
- Janus, E. S., & Meehl, P. E. (1997). Assessing the legal standard for predictions of dangerousness in sex offender commitment proceedings. *Psychology Public Policy and Law, 3*(1), 33-64.
- Lawson, J. S., Marshall, W. L., & McGrath, P. (1979). The Social Self-Esteem Inventory. *Educational and Psychological Measurement, 39*, 803-881.

- Lipsey, M. W. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. D. Cook, H. Cooper, D. S. Cordray, H. Hartmann, L. V. Hedges, R. J. Light, T. A. Louis & F. Mosteller (Eds.), *Meta-Analysis for Explanation: A Casebook*. New York, NY: Russell Sage Foundation.
- Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood. In R. Loeber & D. P. Farrington (Eds.), *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions* (pp. 86-105). Thousand Oaks, CA: Sage.
- Losel, F., & Schmucker. (2002). The effectiveness of treatment for sexual offenders: A comprehensive meta-analysis. *Journal of Experimental Criminology*, 1(1), 117-146.
- Marques, J. K., Wiederanders, M., Day, D. M., Nelson, C., & van Ommeren, A. (2005). Effects of a relapse prevention program on sexual recidivism: Final results from California's sex offender treatment and evaluation project (SOTEP). *Sexual Abuse-a Journal of Research and Treatment*, 17(1), 79-107.
- Marshall, W. L. (Date Unknown). Therapist Rating Scale. Unpublished manuscript.
- Marshall, W. L., Cripps, E., Anderson, D., & Cortoni, F. A. (1999). Self-esteem and coping strategies in child molesters. *Journal of Interpersonal Violence*, 14(9), 955-962.
- Marshall, W. L., Marshall, L. E., Serran, G. A., & Fernandez, Y. M. (2006). *Treating Sexual Offenders: An Integrated Approach*. New York, NY: Routledge, Taylor & Francis Group.
- Marshall, W. L., Marshall, L. E., Serran, G. A., & Fernandez, Y. (2006). *Treating sexual offenders: an integrated approach*. New York, NY: Routledge, Taylor Francis Group.
- Marshall, W. L., Serran, G. A., & Cortoni, F. A. (2000). Childhood attachments, sexual abuse, and their relationship to adult coping in child molesters. *Sex Abuse*, 12(1), 17-26.
- McConaughy, E. A., Diclemente, C. C., Prochaska, J. O., & Velicer, W. F. (1989). Stages of Change in Psychotherapy - a Follow-up Report. *Psychotherapy*, 26(4), 494-503.

- McConaughy, E. A., Prochaska, J. O., & Velicer, W. F. (1983). Stages of Change in Psychotherapy - Measurement and Sample Profiles. *Psychotherapy-Theory Research and Practice*, 20(3), 368-375.
- McGrath, R. J. (2005). Progress Scale for Sexual Abusers with Intellectual Disabilities (TIPS-ID) Scoring Manual. Unpublished manuscript.
- McGrath, R. J., Livingston, J. A., & Falk, G. (2007). A structured method of assessing dynamic risk factors among sexual abusers with intellectual disabilities. *American Journal on Mental Retardation*, 112(3), 221-229.
- McGuire, J. (2002). Integrating findings from research reviews. In J. McGuire (Ed.), *Offender Rehabilitation and Treatment: Effective Programmes and Policies to Reduce Re-offending* (pp. 3-38). Chichester, UK: Wiley.
- Miethe, T. D., Olson, J., & Mitchell, O. (2006). Specialization and persistence in the arrest histories of sex offenders - A comparative analysis of alternative measures and offense types. *Journal of Research in Crime and Delinquency*, 43(3), 204-229.
- Miller, R. S., & Lefcourt, H. M. (1982). The assessment of social intimacy. *Journal of Personality Assessment*, 46(514-518).
- Nunes, K. L., Firestone, P., Bradford, J. M., Greenberg, D. M., & Broom, I. (2002). A comparison of modified versions of the Static-99 and the Sex Offender Risk Appraisal Guide. *Sex Abuse*, 14(3), 253-269.
- OBPU. (Date Unknown). Women are Deceitful Questionnaire. Unpublished manuscript.
- Roger, D., & Najarian, B. (1989). The Construction and Validation of a New Scale for Measuring Emotion Control. *Personality and Individual Differences*, 10(8), 845-853.
- Schweitzer, R., & Dwyer, J. (2003). Sex crime recidivism - Evaluation of a sexual offender treatment program. *Journal of Interpersonal Violence*, 18(11), 1292-1310.
- Smallbone, S. W., & Wortley, R. K. (2004a). Onset, persistence, and versatility of offending among adult males convicted of sexual offenses against children. *Sexual Abuse-a Journal of Research and Treatment*, 16(4), 285-298.

- Smallbone, S. W., & Wortley, R. K. (2004b). Criminal diversity and paraphilic interests among adult males convicted of sexual offenses against children. *International Journal of Offender Therapy and Comparative Criminology*, 48(2), 175-188.
- Smallbone, S., Dennison, S., & Dombrowski, J. (2004). *Evaluation of the Sex Offender Intervention Program*. Brisbane: Qld Dept of Corrective Services.
- Smallbone, S., Marshall, W. L., & Wortley, R. (2008). *Preventing Child Sexual Abuse: Evidence policy and practice*. London: Willan Publishing.
- Thompson, C., & Stewart, A. (2007). Risk of Re-offending: Prison version (RoR-PV) Screening Tool Administration Manual. Justice Modelling @ Griffith, Griffith University.
- Wechsler, D. (1981). *Wechsler Adult Intelligence Scale*. San Antonio, TX: The Psychological Corporation.
- Wortley, R., & Smallbone, S. (2006). *Situational Prevention of Child Sexual Abuse*. Monsey, NY: Criminal Justice Press.
- Zimring, F. E. (2004). *An American Tragedy: Legal Responses to Adolescent Sexual Offending*. Chicago: Chicago Press.