



ARCHIVED - Archiving Content

Archived Content

Information identified as archived is provided for reference, research or recordkeeping purposes. It is not subject to the Government of Canada Web Standards and has not been altered or updated since it was archived. Please contact us to request a format other than those available.

ARCHIVÉE - Contenu archivé

Contenu archivé

L'information dont il est indiqué qu'elle est archivée est fournie à des fins de référence, de recherche ou de tenue de documents. Elle n'est pas assujettie aux normes Web du gouvernement du Canada et elle n'a pas été modifiée ou mise à jour depuis son archivage. Pour obtenir cette information dans un autre format, veuillez communiquer avec nous.

This document is archival in nature and is intended for those who wish to consult archival documents made available from the collection of Public Safety Canada.

Some of these documents are available in only one official language. Translation, to be provided by Public Safety Canada, is available upon request.

Le présent document a une valeur archivistique et fait partie des documents d'archives rendus disponibles par Sécurité publique Canada à ceux qui souhaitent consulter ces documents issus de sa collection.

Certains de ces documents ne sont disponibles que dans une langue officielle. Sécurité publique Canada fournira une traduction sur demande.

_____ **Research Report** _____

**Within-Treatment Change on
Dynamic Predictors of Sexual
Offense Recidivism**

Ce rapport est également disponible en français. Pour en obtenir un exemplaire, veuillez vous adresser à la Direction de la recherche, Service correctionnel du Canada, 340, avenue Laurier Ouest, Ottawa (Ontario) K1A 0P9.

This report is also available in French. Should additional copies be required, they can be obtained from the Research Branch, Correctional Service of Canada, 340 Laurier Ave. West, Ottawa, Ontario K1A 0P9.

Within-Treatment Change on Dynamic Predictors of Sexual Offense Recidivism

Leigh Harkins
University of Birmingham, UK

Jeffrey Abracen
Correctional Service of Canada

Jan Looman
Correctional Service of Canada

&

Greg Maillet
Correctional Service of Canada

May 2011

Copyright of this document does not belong to the Crown.
Proper authorization must be obtained from the author for
any intended use.

Les droits d'auteur du présent document n'appartiennent
pas à l'État. Toute utilisation du contenu du présent
document doit être approuvée préalablement par l'auteur.

Acknowledgements

The authors would like to thank Brian Grant for his input on the final version of the manuscript. We would also like to thank Franca Cortoni for input on earlier versions of this manuscript.

Executive Summary

Key words: *Sex offender, assessment.*

There is a lack of consensus regarding the best measure of treatment success. It has been suggested that in addition to the ultimate outcomes of interest (i.e. the elimination, or at least the reduction of, recidivism) proximate (i.e. within treatment) outcomes could also be explored. Marshall, Anderson, and Fernandez (1999) cogently argue that typical recidivism studies, which offer a count of the percentage of clients who reoffend, are an insufficient index of the value of treatment. One avenue in particular that could prove worthy of further investigation is within-treatment changes on dynamic measures (Hanson, 1997). Hanson (2000) identified intimacy deficits, negative social environment, attitudes tolerant of sexual offending, emotional/ sexual self-regulation deficits, and general self-regulation deficits as possible dynamic predictors of recidivism for sex offenders.

This study examined changes within-treatment as an additional measure of treatment effectiveness in 75 sexual offenders, treated at the Regional Treatment Center Sex Offender Treatment Program (RTCSOTP) in Ontario. Changes were examined on measures of attitudes tolerant of sexual offending, intimacy deficits, and self-management. Attitudes tolerant of sexual offending were measured using the Cognitive Distortion-Molest (CD-M) and Cognitive Distortion-Rape Scales (CD-R, Bumby, 1996). Intimacy deficits were measured using the Miller Social Intimacy Scale (SIS; Miller & Lefcourt, 1982) and the Revised UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980). Self-management was measured using The High Risk Situation Test (HRST; Marques, Day, Nelson, Miner & West, 1991) and the Relapse Prevention Test developed by staff at RTC.

As expected, a number of significant improvements were observed over the course of treatment. This study found that following treatment the sex offenders in this study endorsed fewer justifications, minimizations, rationalizations, and excuses related to sexual offending against women and children on the CD-R and the CD-M. Sexual offenders also demonstrated significantly increased knowledge related to relapse prevention concepts and an increased ability to identify situations that elevate the offender's risk for recidivism.

The offenders examined did not demonstrate significant changes in intimacy deficits over the course of treatment. Specifically, the offenders in the sample did not perceive increased levels of intimacy following treatment. As well, no significant changes were observed with reference to the Revised UCLA Loneliness Scale. This could be explained in that their life situations have not changed and they consequently did not have an opportunity for changes in perceived intimacy to occur because they remained incarcerated at post-treatment testing. As for loneliness, it again makes sense that perhaps the offenders feel equally lonely at post-treatment because they are still incarcerated and do not have social supports readily available to them, aside from other offenders. The Miller SIS was correlated with socially desirable responding at pre-treatment and post-treatment. Additionally, the Revised UCLA Loneliness Scale was correlated with socially desirable responding at post-treatment. This indicates that the results regarding these measures

should be interpreted with caution because the offenders may have been trying to present an image of themselves not reflective of their true responses for these measures.

This study explored the valuable addition of proximate outcome variables to studies of treatment effectiveness. It is encouraging that many of the variables being targeted by the RTC sex offender treatment programs evidenced significant improvement over the course of treatment.

Table of Contents

Acknowledgements	ii
Executive Summary	iii
Table of Contents	v
List of Tables	vi
Introduction	1
Measures of Treatment Effectiveness	1
Within-Treatment Change	1
Present Study	3
Objectives	3
Method	5
Setting	5
Participants	5
Measures	6
<i>Socially Desirable Responding (SDR)</i>	6
<i>Attitudes Tolerant of Sexual Offending</i>	6
<i>Intimacy Deficits</i>	6
<i>Self-Management Deficits</i>	7
Procedure	8
<i>Data Collection</i>	8
<i>Data Analysis</i>	8
Results	9
Social Desirability	9
Distorted Attitudes	9
Intimacy Deficits	10
Self-Management	10
Discussion	12
Limitations and Future Directions	13
Conclusions	14
References	15

List of Tables

Table 1 <i>Mean Psychometric Test Scores</i>	11
--	----

Introduction

In spite of a number of treatment outcome studies and meta-analyses, the evidence regarding the effectiveness of sexual offender treatment remains equivocal. While recent meta-analyses and reviews provide encouraging evidence in support of contemporary treatment (e.g. Gallagher, Wilson, Hirschfield, Coggeshall, & MacKenzie, 1999; Hall, 1995; Hanson et al., 2002), there are those that remain skeptical (e.g. Quinsey, Harris, Rice, & Lalumiere, 1993; Rice & Harris, 2003).

There is also a lack of consensus regarding the best measure of treatment success. Although the goal of sex offender treatment is clearly the reduction of recidivism, proximate (i.e. within treatment) outcomes are also relevant. Changes on theoretically meaningful measures may provide some degree of insight as to why certain offenders recidivate whereas others do not. The present investigation aims to explore issues associated with change on a number of psychometric instruments among sex offenders completing an inpatient based treatment program.

Measures of Treatment Effectiveness

It has been suggested that, especially given the low base rate of sexual recidivism, criterion outcomes that are more practical than new convictions should be examined (Hanson, 1997). The base rate describes the percentage of sexual offenders in a particular population who reoffend after release. A recent study reported the base rate for sexual offending as approximately 13% for a new sexual offense within 4-5 years of being released (e.g., Hanson & Bussiere, 1998). The difficulty with finding significant results given the low base rate of sexual recidivism is elegantly described by Barbaree (1997), who demonstrated that large sample sizes, long follow-up periods, or very large effect sizes are necessary to produce significant results. Marshall, Anderson, and Fernandez (1999) cogently argue that typical recidivism studies, which offer a count of the percentage of clients who reoffend, are an insufficient index of the value of treatment.

Within-Treatment Change

Researchers have demonstrated that changes from pre-treatment to post-treatment are observable for a number of variables. For instance, one area that has been examined is change

within treatment in terms of acceptance of guilt and personal responsibility (e.g., Barrett, Wilson, & Long, 2003; Stirpe, Wilson, & Long, 2001). Stirpe, Wilson, and Long (2001) examined a group of high risk and a group of low risk offenders. They found that both groups changed positively within treatment in their acceptance of responsibility and guilt but only the low risk group continued to improve following release to the community. Encouragingly though, the higher risk group did at least maintain their post-treatment gains. Beech, Fisher, and Beckett (1998) also demonstrated that sexual offenders significantly decreased their level of denial and improved their acceptance of accountability throughout treatment. Recent research has also demonstrated that pre-treatment psychometric assessment data adds to the prediction of sexual offending even after controlling for actuarial assessed risk for sexual offence recidivism (Allan, Grace, Rutherford & Hudson, 2007) and that post-treatment changes on a variety of psychometric measures can be obtained (Williams, Wakeling & Webster, 2007). Williams et al. (2007), for example, were able to examine six dynamic measures administered both pre and post-treatment to 211 men who had participated in HM Prison Service's sex offender treatment program. They obtained significant pre/post differences with reference to five of these six measures.

Studies have also shown that offenders can improve their understanding of relapse prevention concepts by the end of treatment. Significant improvements have been demonstrated on awareness of high-risk situations (i.e. were able to identify more), generation of effective strategies (i.e. were able to generate more), and recognition of future risk (i.e. more realistically identified themselves as higher risk at end of treatment; Beech, et al., 1998).

A number of studies have looked at changes within treatment in terms of the cognitive distortions endorsed by the group members (e.g. Bumby, 1996; Hudson, Wales, Bakker, & Ward, 2002; Watson & Stermac, 1994). Offenders have shown significant positive changes within treatment in terms of cognitive distortions regarding children and regarding rape and sexual myths (Pithers, 1994; Pithers, 1999; Watson & Stermac, 1994). Additionally, changes in pro-offending attitudes have been shown to be associated with reduced recidivism, in that reoffenders had more deviant scores post-treatment and showed less prosocial change than nonreoffenders (Hudson et al, 2002). Marques, Nelson, West, and Day (1994) also demonstrated that those offenders who had fewer cognitive distortions at post-treatment were less likely to commit a new violent crime.

Other areas that have been shown to change significantly within treatment are victim empathy (Marshall, Champagne, Sturgeon, & Bryce, 1997; Pithers, 1994; 1999), intimacy, and loneliness (Bumby & Hansen, 1997; Fisher, Beech, & Brown, 1999; Seidman, Marshall, Hudson, & Robertson, 1994). As well, Thornton (2002) identified distorted attitudes, more socio-affective dysfunction, and poor self-management as distinguishing between repeat offenders and those with only one conviction. Hanson (2006), in a recent review of dynamic factors related to recidivism in sexual offenders, has suggested that intimacy deficits, attitudes supportive of sexual offending, and emotional/sexual self-regulation are among the dynamic variables which research has shown to be related to sexual recidivism.

Present Study

The purpose of this study was to examine treatment effectiveness using proximate outcomes. The study examines changes on within-treatment psychometric instruments administered to offenders attending the Regional Treatment Centre Sex Offender Treatment Program (RTCSOTP). Changes will be examined on measures of attitudes tolerant of sexual offending, intimacy deficits, and self-management. Attitudes tolerant of sexual offending will be measured using the Cognitive Distortion-Molest (CD-M) and Cognitive Distortion-Rape Scales (CD-R, Bumby, 1996). Intimacy deficits will be measured using the Miller Social Intimacy Scale (SIS; Miller & Lefcourt, 1982) and the Revised UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980). Self-management will be measured using The High Risk Situation Test (HRST; Marques, Day, Nelson, Miner & West, 1991) and the Relapse Prevention Test developed by staff at RTC.

Objectives

The purpose of the present research is to contribute to knowledge regarding possible dynamic risk predictors that may be useful targets in sex offender treatment. As noted above, changes on dynamic measures may provide an alternative methodology to traditional research on sex offender treatment outcome which has focused on measures of recidivism.

The following research question will be addressed in this study: Do scores on measures of dynamic risk factors (e.g. attitudes tolerant of sexual offending, intimacy deficits, and self-management) change from pre-treatment to post-treatment?

It is hypothesized, with reference to the attitudes tolerant of sex offending, that the treated

sex offenders will self-report significantly lower levels of distorted attitudes at post-treatment testing. With reference to intimacy deficits and loneliness, it is predicted that sex offenders as a group will experience reduced levels of both loneliness and intimacy deficits as a result of treatment. It is also predicted that sex offenders will show significant improvements on measures of self-management at post-testing.

Method

Setting

The participants attended the RTCSOTP. The RTCSOTP is housed in a residential psychiatric center that is located in the security perimeter of a maximum security Canadian federal penitentiary in the Ontario region of the Correctional Service Canada (CSC). The RTC provides treatment programming to high risk/need sex offenders. Using a cognitive-behavioural approach, the program includes components dealing with attitudes towards sexuality and relationships, empathy enhancement and victim awareness, anger and emotion management, techniques to reduce or control deviant arousal, and healthy self-management skills. The RTCSOTP offers inpatient-based treatment with both a group and individual component (See Abracen & Looman 2004; Abracen, Looman & Langton, 2008 for a description). The efficacy of the RTCSOTP has previously been demonstrated. Looman, Abracen, and Nicholaichuk (2000) have shown that, relative to matched untreated comparison subjects, those sex offenders treated at the RTC recidivated at approximately half the rate of untreated subjects (23.6% versus 51.7%) over a 10 year follow-up period. More recent outcome data (e.g., Abracen, Looman, Ferguson, Harkins, Mailloux, & Serin, 2010) has demonstrated that, both treated and comparison group subjects recidivated at very low levels (approximately 10% for both groups over follow up periods that extended beyond nine years). However, treated subjects who were rated as being higher risk on an actuarial measure designed to assess risk for sexual offence recidivism (i.e., the Rapid Risk Assessment of Sexual Offence Recidivism Scale or RRASOR) evidenced substantially lower than predicted rates of sexual offending. In fact, only two of the 34 treated subjects who were rated as moderate or higher risk on this risk assessment measure recidivated sexually over the follow-up period. Only 13 subjects in the comparison group scored at the moderate or higher risk level on this measure, two of whom recidivated sexually.

Participants

Participants were 75 sexual offenders who attended the RTCSOTP between 1998 and 2003. These participants completed some or all of the measures of interest prior to beginning treatment and following the completion of treatment.

All of the participants signed consent forms allowing their information to be used for

research purposes.

Measures

These measures were selected from a number of self-report questionnaires that were administered to the treated participants prior to beginning treatment and following the completion of treatment.

Socially Desirable Responding (SDR)

This was measured using the Balanced Inventory of Desirable Responding (BIDR; Paulus, 1984). The self-deception scale (20 items) is designed to measure self-deceptive tendencies (Paulus, 1984). The impression management scale (20 items) was used to measure the tendency to intentionally deceive others (Paulus, 1984). Coefficient alphas were over .8 for both subscales and test-retest reliabilities over .6 were demonstrated (Paulhus, 1991). Concurrent validity has been demonstrated with other measures of social desirability (.71-.80; Paulhus, 1991).

Attitudes Tolerant of Sexual Offending

This was measured using the Cognitive Distortion-Molest (CD-M) and Cognitive Distortion-Rape Scales (CD-R, Bumby, 1996). These two scales consist of a series of questions related to cognitive distortions regarding either child sexual abuse or sexual assault against adults respectively. Each question is rated on a Likert scale. Higher scores on these measures indicate more justifications, minimizations, rationalizations, and excuses (Bumby, 1996). There is convincing evidence for the internal consistency (alpha coefficient .97), test-retest reliability ($r = .84$) over a two-week interval, convergent validity and discriminative validity of the CD-M (Bumby, 1996). For the CD-R, there is good evidence for the internal consistency (alpha coefficient .96) and test-retest reliability ($r = .86$) over a two-week interval. There is less supportive evidence for the convergent and discriminative validity of the CD-R. Researchers have used both the CD-M (e.g. Marshall, Marshall, et al., 2003) and the CD-R in studies of sex offenders (e.g. Blumenthal, Gudjonsson, & Burns, 1999). While there is somewhat less support for the CD-R, the available literature still supports the use of this measure (Bumby, 1996).

Intimacy Deficits

This was measured using the Miller Intimacy Scale (SIS; Miller & Lefcourt, 1982). This

scale consists of 17 items that ask respondents to rate the frequency or intensity with which they engage in activities that reflect intimacy with a partner. Higher scores on this measure indicate higher reported levels of intimacy. This scale has shown internal consistency (Cronbach alpha coefficient .91) and test-retest reliability over 2 months ($r = .96$; Miller & Lefcourt, 1982). Miller and Lefcourt (1982) demonstrated satisfactory convergent validity (.71) and discriminative validity (.41-.57) for the scale.

The SIS has been used in a variety of research related to sexual offender treatment (e.g. Looman, Abracen, DiFazio, & Maillet, 2004; Marshall, Champagne, Brown & Miller, 1997; Seidman, et al., 1994). According to the theory elaborated by Marshall (1989, 1993) intimacy deficits and the associated feelings of loneliness are integral aspects underlying sexual assault.

A second measure relevant to this treatment domain is the Revised UCLA Loneliness Scale (Russell, et al., 1980). This measure requires respondents to rate on a 4-point scale, how often they feel as described in each statement reflecting satisfaction or dissatisfaction with interpersonal relationships. Higher scores on this measure indicate higher levels of loneliness. This measure has a high internal consistency (Cronbach alpha coefficient is .94) and has demonstrated concurrent (r 's ranging from .32 to .62) and discriminative validity (Russell, et al., 1980). A test-retest reliability of .7 over 7 months has been demonstrated (Beech, 1998).

The Revised UCLA Loneliness Scale has also been used in research with sex offenders (e.g. Beech, 1998; Fisher, Beech & Browne, 1999; Hudson, et al., 2002; Milsom, Beech, & Webster, 2003). Fischer et al. (1999) found that child molesters differed significantly from non-offenders on this scale. Beech (1998) found that high-deviance sex offenders demonstrated significantly higher emotional loneliness on the Revised UCLA Loneliness Scale than low-deviance sex offenders.

Self-Management Deficits

This was measured using the High Risk Situation Test (HRST; Marques et al., 1991). This measure asks clients to rate whether, if faced with a particular situation, their risk of recidivism would be increased. It is hoped that by the end of the treatment program that clients recognize a wider range of situations as presenting them with a risk of recidivism. Higher scores indicate an improvement in identification of high-risk situations. All situations are rated on a Likert scale.

The Relapse Prevention Test is another measure that was examined. It was developed by

the staff at RTC to assess knowledge related to relapse prevention concepts. This knowledge is assessed by a number of means. It is expected that the scores will increase following treatment. No psychometric data exists as of yet.

Procedure

Data Collection

Data was collected from the files of offenders treated at the RTC. The item scores for the psychometric tests completed prior to beginning the RTCSOTP and following the completion of treatment were collected.

Data Analysis

First the pre-treatment and post-treatment scores were examined to determine whether or not they were related to social desirability. Next paired *t*-tests were conducted to determine if the offenders scores changed significantly from pre-treatment to post-treatment on the psychometric measures of interest. These analyses were conducted using SPSS 12.0.

Results

Social Desirability

Each test was examined to determine if it was correlated with the BIDR. At pre-treatment testing, there was a moderate correlation between the Self-Deception Scale of the BIDR and the High Risk Situation Test ($r = -.38, p=.04$). Lower scores on the High Risk Situation test indicate a poor ability to identify high-risk situations. This correlation with the BIDR indicates that perhaps the offenders have deceived themselves into reporting that they are less at-risk than they actually are, by endorsing fewer situations as high-risk on the High Risk Situation Test. The Impression Management Scale was moderately correlated with the Miller Intimacy Scale ($r = .34, p=.025$) at pre-treatment, indicating that these offenders may have been attempting to present a positive image of themselves (i.e. higher levels of intimacy) on this measure. None of the other pre-treatment scores were correlated with the BIDR scales.

At post-treatment the Revised UCLA Loneliness Scale was moderately correlated with both the Self Deception and Impression Management Scales ($r= -.43, p= .013$ and $r= -.48, p= .005$, respectively). This indicates that the offenders were presenting themselves as less lonely (intentionally and unintentionally). As well, at post-treatment the Miller Intimacy Scale was moderately correlated with both the Self Deception and Impression Management Scales ($r= .38, p= .041$ and $r= .50, p= .005$, respectively). This indicates that subjects were possibly presenting themselves as having more intimate relationships. None of the other tests were correlated with the BIDR scales at post-treatment.

Distorted Attitudes

Table 1 presents the means and standard deviations for all the measures examined at pre-treatment and post-treatment as well as the change scores on these measures. Paired sample *t*-tests were performed for the pre/post differences on the CD-R and CD-M scales. As can be seen from Table 2 the participants evidenced significantly lower scores at post-treatment on the CD-R ($t(65)= 4.25, p<.01$ and the CD-M, $t(64)=4.45, p=.01$). This demonstrates that following treatment the sex offenders in this study endorsed fewer justifications, minimizations, rationalizations, and excuses related to sexual offending against women and children on the CD-R and the CD-M.

Intimacy Deficits

Paired sample t-tests were performed for both the Revised UCLA Loneliness Scale as well as the SIS to determine if there were significant changes between pre and post-treatment scores. For the SIS, results indicated that there were not significant differences between pre and post treatment levels ($t(29)=-1.11$, n.s.). This indicates that the sex offenders in the sample did not report greater levels of intimacy following treatment. With reference to the Revised UCLA Loneliness Scale, no significant difference was observed between pre and post-treatment testing ($t(30)=1.5$, n.s.). This indicates that the offenders in the sample reported similar levels of loneliness both pre and post treatment.

Self-Management

Paired sample t-tests were performed for the RP test and HRST. For the RP test, offenders' scores improved significantly from pre-treatment to post-treatment ($t(55)=-7.4$, $p<.01$), demonstrating increased knowledge related to relapse prevention concepts. In addition, for the HRST offenders' scores improved significantly from pre-treatment to post-treatment ($t(72)=-4.04$, $p<.01$), indicating an increased ability to identify situations that elevate the offender's risk for recidivism.

Table 1
Mean Psychometric Test Scores

	Pre-treatment		Post-treatment		Change in Scores	
	M	SD	M	SD	M	SD
BIDR Self-Deception	5.83 (n=54)	3.50	5.93 (n=43)	4.00	.465 (43)	3.16
BIDR Impression Management	5.31 (n=54)	3.64	5.70 (n=43)	3.96	.581 (n=43)	3.92
CD-M	55.68 (n=69)	20.04	48.06 (n=69)	13.61	-8.015 (n=65)	14.51**
CD-R	55.62 (n=70)	17.19	49.73 (n=69)	14.65	-5.74 (n=66)	10.98**
Miller SIS	124.15 (n=59)	28.93	129.49 (n=31)	25.52	5.23 (n=30)	25.92
Revised UCLA Loneliness Scale	44.64 (n=61)	9.73	43.23 (n=56)	12.27	-1.36 (n=55)	10.26
HRST	86.35 (n=74)	34.37	102.92 (n=74)	40.37	16.82 (n=73)	35.62**
RP Test	13.52 (n=56)	3.80	16.05 (n=75)	3.55	2.67 (n=56)	2.64**

Note. BIDR= Balanced Inventory of Desirable Responding, CD-M= Cognitive Distortions- Molest Scale, CD-R= Cognitive Distortions- Rape Scale, SIS= Social Intimacy Scale, HRST= High Risk Situation Test, RP= Relapse Prevention Test

*p<.05, **p<.01

Discussion

As discussed in the introduction, demonstrating the effectiveness of sex offender treatment can be difficult. One avenue that has been suggested as an addition to recidivism outcome studies was employed in this study. Specifically, change within treatment was examined for variables demonstrated to be characteristics of sex offenders or thought to represent dynamic predictors of recidivism. It was hypothesized that attitudes tolerant of sexual offending, intimacy deficits, and self-management deficits would change from pre-treatment to post-treatment. As expected, a number of significant improvements were observed over the course of treatment. In particular, offenders' attitudes tolerant of sexual offending improved significantly. This suggests that the treatment staff were successful in positively modifying offenders' cognitive distortions about children and women. Also, the offenders significantly improved their ability to understand the concepts of relapse prevention and their ability to identify high-risk situations. Of course, without a no-treatment comparison group it is impossible conclude that these changes were solely attributable to treatment. Nonetheless, such results provide for the possibility that treatment resulted in positive changes with reference to these dynamic risk factors. At pre-treatment, scores on the High-Risk Situation Test were correlated with self-deceptive responding. This indicates that these offenders had potentially deceived themselves into presenting as lower risk than they actually were. However, the significant change over the course of treatment, and lack of significant correlation with socially desirable responding at post-treatment, suggests that these offenders more honestly reported which situations increase their risk for recidivism at post-treatment.

The offenders examined did not demonstrate significant changes in intimacy deficits over the course of treatment. Specifically, the offenders in the sample did not perceive increased levels of intimacy following treatment. This could be explained in that their life situations had not changed and they consequently did not have an opportunity for changes in perceived intimacy to occur because they remained incarcerated at post-treatment testing. As for loneliness, it again makes sense that perhaps the offenders feel equally lonely at post-treatment for the reasons stated above. Other studies have failed to find significant changes within treatment using the same measure of loneliness (Beech, et al., 1998)

These findings do not necessarily cast doubt on this factor as an important treatment target. It may simply mean that the follow-up testing may need to occur once the offenders have

had an opportunity to put their new skills to use with people in their lives besides other federal offenders (e.g. once they are released).

The Miller SIS was correlated with socially desirable responding (SDR) at pre-treatment and post-treatment. Additionally, the Revised UCLA Loneliness Scale was correlated with SDR. This suggests that the results regarding these measures should be interpreted with caution. The offenders included in the present sample may have been trying to present an image of themselves not reflective of their true responses on these measures.

An alternative explanation of SDR results has been suggested by Mills and Kroner (2005) who note that a significant negative relationship has been found between SDR measures and criminal risk in a variety of independent correctional samples. These findings apply especially to the Impression Management Scale of the BIDR. The data indicate that offenders who score low on measures of SDR (those answering honestly) are at higher risk of recidivism. As these authors note "adequately explaining this relationship is a challenge (p.77)." Mills and Kroner (2006) argue that one possible explanation for these findings is that the offenders in their samples may have been willing to answer honestly when asked about relatively minor criminal offences. Non-offender samples may exhibit a response bias when asked about such types of criminal behaviour (e.g., theft) due to perceived psychological threat or impact upon social standing. However, these questions may not hold the same significance to offenders serving sentences for serious offences such as assault or murder (i.e., the offenders in their samples). Such an explanation might clarify the counter-intuitive findings reported by Mills and Kroner (2005). The authors note that the BIDR should be applied with caution when used with correctional samples. Given the recently reported findings by Mills and Kroner (2006) the results of the current investigation with reference to SDR must be interpreted very cautiously. It may be that the analyses reported without the use of BIDR data used as a covariate, such as those in the current study, may be more accurate.

Limitations and Future Directions

This study has a number of limitations. One of the most important limitations is the small sample size. Sample size was limited by the number of psychometric tests that had been administered at the time of this study. Some tests have only recently begun to be administered therefore many of the offenders who completed them at pre-treatment had not completed treatment at the time of this study. It would be valuable to examine these psychometric tests

results as more data accumulate. An additional factor that should be explored is the length of time between the completion of the post-treatment measures and release. An offender who makes gains positive/appropriate changes from pre- to post-treatment on these measures may nevertheless regress substantially/lose such gains before his release, particularly if that release is not for years after treatment completion. The relationship between change on the variables examined and recidivism would also make an important contribution to our understanding of dynamic risk predictors and useful treatment targets.

Further examination of the dynamic risk predictors identified by Hanson (2006) would also be valuable. Innovative methods need to be employed to examine these treatment targets without the recall biases associated with retrospective studies in which the outcomes are known. Prospective studies of potential dynamic risk factors, using offenders under supervision would likely be valuable in clarifying the relationship of these variables with recidivism. These would then provide empirically based treatment targets to be included in sex offender treatment programs.

Conclusions

This study explored the valuable addition of proximate outcome variables to studies of treatment effectiveness. It is encouraging that many of the variables being targeted by the RTCSOTP evidenced significant improvement over the course of treatment.

References

- Abracen, J., & Looman, J. (2004). Issues in the treatment of sexual offenders: Recent developments and directions for future research. *Aggression and Violent Behavior, 9*, 229-246.
- Abracen, J., Looman, J., Ferguson, M., Harkins, L., Mailloux, D., & Serin, R. C. (2010). Recidivism among treated sexual offenders and comparison subjects: Recent outcome data from the Regional Treatment Centre (Ontario) High Intensity Sex Offender Treatment Program. *Journal of Sexual Aggression*, First published on: 25 May 2010 (iFirst).
- Abracen, J., & Looman, J., & Langton, C. M. (2008). Treatment of psychopathy: Clinical and research perspectives. *Trauma, Violence and Abuse, 9*, 144-166.
- Allan, M., Grace, R. C., Rutherford, B., & Hudson, S. M. (2007). Psychometric assessment of dynamic risk factors for child molesters. *Sexual Abuse, 19*, 347-367.
- Barratt, M., Wilson, R.J., & Long, C. (2003). Measuring motivation to change in sexual offenders from institutional intake to community treatment. *Sexual Abuse: A Journal of Research and Treatment, 15*(4), 269-283.
- Barbaree, H.E. (1997) Evaluating treatment efficacy with sexual offenders: The insensitivity of recidivism studies to treatment effects. *Sexual Abuse: A Journal of Research and Treatment, 9*, 111-128.
- Beech, A.R. (1998). A psychometric typology of child abusers. *International Journal of Offender Therapy and Comparative Criminology, 42*, 319-339.
- Beech, A., Fisher, D. & Beckett, R. (1998). Step 3: An evaluation of the prison sex offenders treatment programme. Home Office Occasional Report. London: HMSO. Available electronically from www.homeoffice.gov.uk/rds/pdfs/occ-step3.pdf
- Blumenthal, S., Gudjonsson, G., & Burns, J. (1999). Cognitive distortions and blame attribution in sex offenders against adults and children. *Child Abuse and Neglect, 23*(2), 129-143.
- 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.
- Bumby, K. M. & Hansen, D. J. (1997). Intimacy deficits, fear of intimacy, and loneliness among sexual offenders. *Criminal Justice and Behavior, 24*(3), 315-331.
- Fisher, D., Beech, A., & Browne, K. (1999). Comparison of sex offenders to nonoffenders on selected psychological measures. *International Journal of Offender Therapy and*

- Comparative Criminology*, 43(4), 471-491.
- Gallagher, C.A., Wilson, D.B., Hirschfield, P., Coggeshall, M.B., MacKenzie, D.L. (1999) A quantitative review of the effects of sex offender treatment on sexual offending. *Corrections Management Quarterly*, 3, 19-29.
- Hall, G.C.N. (1995). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology*, 63, 802-809.
- Hanson, R. K. (1997). How to know what works with sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 9, 129-145.
- Hanson, R.K. (2000). Treatment outcome and evaluation problems (and solutions). In D.R. Laws, S.M. Hudson, & T. Ward (Eds.) *Remaking Relapse Prevention with Sex Offenders: A Sourcebook* (pp. 484-499). London: Sage Publications, Inc.
- Hanson, R. K. (2006). Stability and change: dynamic risk factors for sexual offenders. In W. L. Marshall, Y. M. Fernandez, L. E., Marshall, & G. A. Serran (Eds.). *Sexual Offender Treatment: Controversial Issues* (pp. 17-31). England: John Wiley and Sons.
- Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66, 348-362.
- Hanson, R.K., Gordon, A., Harris, A.J.R., Marques, J.K., Murphy, W., Quinsey, V.L., & Seto, M.C. (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.
- Hudson, S.M., Wales, D.S., Bakker, L., & Ward, T. (2002). Dynamic risk factors: The Kia Marama evaluation. *Sexual Abuse: A Journal of Research and Treatment*, 14(2), 103-119.
- Looman, J. Abracen, J., DiFazio, R., Maillet, G. (2004). Alcohol and drug abuse among sex offenders: Relationship to intimacy deficits, loneliness and coping strategies. *Sexual Abuse: A Journal of Research and Treatment*, 16(3), 177-189.
- Looman, J., Abracen, J., & Nicholaichuk, T. P. (2000). Recidivism among treated sexual offenders and matched controls: Data from the Regional Treatment Centre (Ontario). *Journal of Interpersonal Violence*, 15, 279-290.
- Marques, J. K., Day, D. M., Nelson, C., Miner, M. H., & West, M. A. (1991). The sex offender treatment and evaluation project: Fourth report to the legislature in response to PC 1365. Sacramento, CA: California State Department of Mental Health.
- Marques, J., Nelson, C., West, M.A., & Day, D.M. (1994). The relationship between treatment goals and recidivism among child molesters. *Behavior Research and Therapy*, 32(5),

577-588.

- Marshall, W. L. (1989). Invited essay. Intimacy, Loneliness and sexual offenders. *Behavior Research and Therapy*, 27, 491-503.
- Marshall, W. L. (1993). The role of attachment, intimacy, and loneliness in the etiology and maintenance of sexual offending. *Sexual and Marital Therapy*, 8, 109-121.
- Marshall, W. L., Anderson, D., & Fernandez, Y. (1999). *Cognitive behavioral treatment of sexual offenders*. N.Y.: J. Wiley & Sons.
- Marshall, W. L., Champagne, F., Brown, C., & Miller, S. (1997). Empathy, intimacy, loneliness, and self-esteem in nonfamilial child molesters. *Journal of Child Sexual Abuse*, 6, 87-97.
- Marshall, W.L., Champagne, F., Sturgeon, C., & Bryce, P. (1997). Increasing the self-esteem of child molesters. *Sexual Abuse: A Journal of Research and Treatment*, 9(4), 321-333.
- Marshall, W.L., Marshall, L.E., Sachdev, S., & Kruger, R.L. (2003). Distorted attitudes and perceptions, and their relationship to self-esteem and coping in child molesters. *Sexual Abuse: A Journal of Research and Treatment*, 15(3), 171-181.
- Mills, J. F., & Kroner, D. G. (2005). An investigation into the relationship between socially desirable responding and offender self-report. *Psychological Services*, 2, 70-80
- Mills, J. F., & Kroner, D. G. (2006). Impression management and self-report among violent offenders. *Journal of Interpersonal Violence*, 21, 178-192.
- Miller, R. S., & Lefcourt, H. M. (1982). The assessment of social intimacy. *Journal of Personality Assessment*, 46, 514-518.
- Milsom, J., Beech, A.R., & Webster, S.D. (2003). Emotional loneliness in sexual murderers: A qualitative analysis. *Sexual Abuse: A Journal of Research and Treatment*, 15(4), 285-296.
- Paulhus, D.L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Individual Differences*, 46(3), 598-609.
- Paulhus, D.L. (1991). Measurement and control of response bias. In J.P. Robinson, P.E. Shaver, & L.S. Wrightsman (Eds), *Measures of personality and social psychological attitudes*, (pp.17-59. New York: Academic Press.
- Pithers, W. (1994). Process evaluation of a group therapy component designed to enhance sex offender's empathy for sexual abuse survivors. *Behavioural Research and Therapy*, 32(5), 565-570.
- Pithers, W. (1999). Empathy: Definition, enhancement, and relevance to the treatment of sexual abusers. *Journal of Interpersonal Violence*, 14(3), 257-284.

- Quinsey, V.L., Harris, G.T., Rice, M.E., & Lalumiere, M.L. (1993). Assessing treatment efficacy in outcome studies of sex offenders. *Journal of Interpersonal Violence, 8*, 512-523.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology, 39*, 472-480.
- Rice, M. E., & Harris, G. T. (2003). The size and sign of treatment effects in sex offender therapy. In R. A. Prentky, E. S., Janus, and M. C. Seto. (Eds.). *Annals of the New York Academy of Science*, Volume 989 (pp. 428-440). New York: The New York Academy of Sciences.
- Seidman, B. T., Marshall, W. L., Hudson, S. M., & Robertson, P. J. (1994). An examination of intimacy and loneliness in sex offenders. *Journal of Interpersonal Violence, 9*, 518-534.
- Stirpe, T., Wilson, R.J., & Long, C. (2001). Goal attainment scaling with sexual offenders: A measure of clinical impact at post-treatment and at community follow-up. *Sexual Abuse: A Journal of Research and Treatment, 13*(2), 65-77.
- Thornton, D (2002). Constructing and testing a framework for dynamic risk assessment. *Sexual Abuse: A Journal of Research and Treatment, 14*(2), 139-153.
- Williams, F., Wakeling, H., Webster, S. (2007). A psychometric study of six self-report measures for use with sexual offenders with cognitive and social functioning deficits. *Psychology, Crime & Law, 13*, 505-522.
- Watson, R. J. & Stermac, L.E. (1994). Cognitive group counseling for sexual offenders. *International Journal of Offender Therapy and Comparative Criminology, 38*(3), 259-270.