ABSTRACT

Title of Dissertation: AN OUTCOME EVALUATION OF THE BRUNSWICK CORRECTIONAL CENTER SEX OFFENDER RESIDENTIAL TREATMENT (SORT) PROGRAM

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There is much disagreement among clinicians, politicians, the general public, and researchers about how best to manage sex offenders. Many states have taken punitive approaches, enacting sex-offender registration and civil commitment statutes. Mental health professionals discourage these strategies and call for more treatment. The Virginia Department of Corrections (DOC) provided prison-based, cognitive-behavioral treatment within a relapse prevention framework to incarcerated sex offenders through the Sex Offender Residential Treatment (SORT) program. The purpose of the current study was to examine the effectiveness of this program to reduce recidivism. Specifically, the study assessed whether participation in SORT (both treatment as assigned and treatment completion) reduced the likelihood of re-offending after release from incarceration. In addition, the study aimed to distinguish whether treatment had differential effects for two types of sex offenders – rapists and child molesters.

This study compared a group of 97 male inmates who received sex offender treatment through DOC to a comparison group of 64 inmates who did not receive treatment. All subjects were released from prison during the period February 2001

through April 2004. The evaluation utilized existing data maintained by DOC. From this database, a variety of predictors of sex offender recidivism were measured, including the Static-99 to account for between-group differences in recidivism risk. Official reports of any new arrests and probation violations for a minimum of a 12-month follow-up period were used to measure recidivism. There was no indication that sex offender treatment decreased the probability of recidivism. Specifically, treatment participants had a greater prevalence of re-arrests for sex offenses, non-sex offenses, and a composite measure for any new offense, and a lower prevalence of probation violations, than controls. In the multivariate equations, treatment significantly reduced the likelihood of being violated on supervision during the follow-up period but this was only applicable to child molesters. Treatment completion did not substantially alter these findings. Rapists were significantly less likely to re-offend sexually than child molesters, whereas they were significantly more likely than child molesters to be re-arrested for a new non-sex crime.

Several aspects related to the type of inmates sampled, the institutional program itself, and the community supervision component were discussed as potential explanations for the null finding that sex offender treatment was generally ineffective at reducing recidivism. This research suggested there are substantial differences in the criminogenic needs and responsivity of rapists and child molesters; however, current treatment for sex offenders was developed primarily for the latter and is inadequate to treat and manage primary rapists. Limitations of the research were discussed, including the small sample size and the short follow-up period. It was noted that correctional administrators should incorporate an evaluation design into the planning phase of treatment programs so that the processes of program implementation and operation can

be monitored rigorously and appropriate data can be gathered consistently to establish program efficacy. Additionally, data on dynamic risk factors and community supervision processes should be collected to obtain a more accurate account of recidivism and the factors associated with these outcomes.

AN OUTCOME EVALUATION OF THE BRUNSWICK CORRECTIONAL CENTER SEX OFFENDER RESIDENTIAL TREATMENT (SORT) PROGRAM

By

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Dedication

To my parents, who never gave up on me.

Acknowledgements

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Chapter 1: Introduction

Criminal Justice System Responses to Sex Offenders

Over the past decade, the release of sex offenders to the community has generated a great deal of controversy. Although rates of reported rape and cases of substantiated child sexual abuse have declined since the 1990's (Casey & Nurius, 2006; Finkelhor, 1994; Jones & Finkelhor, 2003; Jones, Finkelhor, & Kopiec, 2001), there have been an unprecedented number of laws introduced in Congress and several states in the past few years to address the problem of sexual offending. Notwithstanding the statistical evidence, policymakers must respond to high-profile cases and a largely media-initiated public perception of an epidemic of sexual crimes against children and adults (Cheit, 2003; Davey, 2006; Koch, 2006; Robinson, 2003; Quinn, Forsyth, & Mullen-Quinn, 2004). This fear of "sexual predators" or "sexual psychopaths," for which no uniform legal definition exists (Miller, Amenta, & Conroy, 2005), is driving legislatures to impose tough penalties directed at those who have committed specified sex crimes (Cole, 2000; Janus, 2003; Pratt, 1998; Simon, 1998). Measures include lengthy mandatory minimum sentences, restrictions on where sex offenders can live and work, provision of global positioning systems (GPS) or satellite monitoring to track sex offenders in the community, some for the rest of their lives, strict penalties for failure to register, expanding the list of offenses that qualify as sex offenses, and requiring distinctive forms of identification designating the person as a sex offender.

Sex offender laws are seen as a means to protect the public from further victimization by sex offenders. One popular approach is the creation of a sex-offender registry, otherwise known as Megan's Law. In brief, the statute requires government

entities to establish registration programs so both local law enforcement and the public at-large will know the whereabouts of sex offenders released into their jurisdictions and communities (Matson, 1999; SEARCH, 1998). Currently, all states and the federal government have sex-offender registry statutes (Trivits & Reppucci, 2002).

Civil commitment is another fledgling yet quite contentious strategy to manage sex offenders. Civil commitment follows criminal incarceration, occurring for an indefinite period of time after the offender has completed a prison term. Civil commitment prolongs the confinement of inmates who were incarcerated for sex offenses (Lieb, Quinsey, & Berliner, 1998). Presently, civil commitment statutes aimed at sexual offenders exist in at least seventeen states, including Virginia (Falk, 1999), and they have received popular support among the general public (Pfaffenroth, 2003). Furthermore, the U.S. Supreme Court has weighed in on the matter, upholding the constitutionality of sex offender commitment statutes. In *Kansas v. Hendricks* (1997), the U.S. Supreme Court rejected the constitutional challenges that sex offender commitments created double jeopardy in violation of the Fifth Amendment and that they violated the Fourteenth Amendment right to "due process" of law (Janus, 2000). Still, they are not without criticism.

The American Psychiatric Association (APA) has taken a strong stand against civil commitment laws (Cole, 2000; Fitch, 2003). Questioning the laws' purpose, the APA filed an *amicus curiae* brief for the respondent in the *Hendricks* case in the interest of "…ensuring that medical diagnoses not be improperly invoked to support involuntary confinement" (APA, 1996, p. 1). The American Psychological Association similarly opposes the civil commitment of sex offenders, suggesting instead that legislatures and

correctional agencies provide therapeutic opportunities for sex offenders to reduce the rate of recidivism (Kersting, 2003; Winick & LaFond, 2003).

In Virginia, not unlike most states, the correctional response to sex offenders has been primarily punitive in nature (Burdon & Gallagher, 2002; Green, 2005; Simon, 1998). During the 2006 session, the Virginia General Assembly enacted 20 separate Acts of Assembly (i.e., legislation bills) directly related to the punishment, monitoring, and restrictions against sex offenders. Notwithstanding the emphasis on retribution, incapacitation, and deterrence paradigms of justice for sex offenders, the state correctional system has established a prison-based therapeutic program to address the rehabilitation of sex offenders.

The state legislature funded the Sex Offender Residential Treatment (SORT) program in conjunction with the Sexually Violent Predator laws in an effort to provide treatment to sex offenders who were potentially eligible for civil commitment under the Civil Commitment of Sexually Violent Predators Act (Code of Va. § 37.2-900 et seq.). Treatment is available to offenders determined to be at moderate to high-risk for sexual re-offending with a practical goal of diverting them from civil commitment. To date, the efficacy of SORT has not been evaluated. With budget cuts a serious problem in the state of Virginia and throughout the country, correctional agencies should be guided by objective, evidence-based knowledge about the effectiveness of sex offender programs in order to enhance the administration of justice and public safety. Unfortunately, there is a scarcity of quality research and evaluation in the area of sex offender treatment to provide this guidance (Hall, 1995; Lösel & Schmucker, 2005; Rice & Harris, 2003).

Study Purpose

The purpose of this study was to examine the effectiveness of institution-based cognitive-behavioral treatment with a relapse prevention focus to reduce recidivism among sex offenders. Specifically, this study assessed the impact of participation in the institutional SORT program on official reports of re-arrest and probation violation among a mixed group of sex offenders after their release from incarceration. Treated offenders must be compared to untreated offenders who are equivalent in terms of risk to detect the "true" treatment effect. Accordingly, this study compared a group of inmates who participated in SORT to a group of similar, untreated inmates and incorporated an objective measure of each inmates risk of re-offending to address potential, pre-existing group differences resulting from a non-random assignment research design (Friendship, Mann, & Beech, 2003; Seager, Jellicoe, & Dhaliwal, 2004). Additionally, because the literature indicates that completion of the treatment program is critical to achieving positive outcomes, such as a reduction in recidivism (Beyko & Wong, 2005; Hanson & Bussiere, 1998; Marques, 1999) completer status was examined in separate analyses. After examining the effect of treatment as assigned, the present study disaggregated the treatment group into two groups based on completion status (i.e., completers and non-completers) and compared them to the controls to assess the effect of treatment as delivered on official measures of recidivism.

There is widespread acceptance, particularly within the behavioral sciences, that sex offenders constitute a heterogeneous group. A developing body of research indicates some clear psychological, interpersonal, and behavioral differences across types of sex offenders (see, e.g., Bard et al., 1987; Bumby, 1996; Lussier, 2005; Stinson, Becker, &

Tromp, 2005). Unfortunately, empirical findings related to such distinctions have rarely translated into evaluations of treatment programs that investigate the potential differential effects of treatment for subgroups of sex offenders. To address this gap in knowledge, this study also examined the interaction effect between sex offender type (i.e., rapist and child molester) and treatment on recidivism outcomes. This evaluation will contribute to the wider body of evidence on sex offender treatment by becoming part of the small pool of empirical research on the utility of treatment for different offender sub-types.

This evaluation is beneficial to the field of corrections in that it provides information on best practices for managing sex offenders. This project has the potential to impact policy and practice within corrections in several ways. If research demonstrates that this model of intensive treatment reduces sex offender recidivism, the treatment of sex offenders could be expanded in the current facility and to other institutions across the State. In this way, larger numbers of medium to high-risk sex offenders can receive treatment, as opposed to the limited number able to participate at this time. Subsequently, this would have an impact on the number of offenders likely to be involved in the costly civil commitment process in Virginia.

Beyond the impact on the state correctional system, the study can inform the larger audience of correctional practitioners and researchers about issues surrounding the efficacy of treatment for sex offenders on which there exists much debate and disagreement (Furby, Weinrott, & Blackshaw, 1989; Hall, 1995; Hanson et al., 2002; Rice & Harris, 2003). This research may reveal relative strengths and weaknesses within sex offender programming. For example, it is important to determine whether cognitive-behavioral and relapse prevention approaches are uniformly beneficial for rapists and

child molesters. Such knowledge may lead to increased insight regarding the personality and behavioral traits of offenders that engender treatment success. This would assist practitioners in adjusting or adapting treatment programming, through policy and/or practice changes, to improve its effectiveness for a variety of sex offenders.

In sum, this evaluation is focused on the effectiveness of treatment on reduction in post-release recidivism. This research will help increase the understanding of the role that corrections can play in rehabilitating sex offenders that will eventually be released to the community, enhance public safety, and improve the accountability of correctional officials in responding to sexual offenses. Awareness of program effectiveness on recidivism provides information to practitioners about who may or may not respond to existing treatment modalities, as well as crucial information to policymakers who have to determine where to allocate limited correctional funds.

Research Questions

The research questions examined in this study were:

1. Does participation in the SORT program decrease the probability of recidivism among a mixed group of sex offenders?
2. Does completion of the SORT program decrease the probability of recidivism among a mixed group of sex offenders?
3. Does participation in the SORT program have differential effects on the probability of recidivism for rapists and child molesters?

Chapter 2: Review of the Sex Offender Recidivism and Correctional Treatment Literature

Sex Offender Recidivism

Most of the laws directed at sex offenders are premised on the idea that sex offenders lack the capacity to control their behavior without continual supervision. This view, however, is debatable (Freeman-Longo, 2000). Recidivism rates vary based on operational definitions and over the length of time offenders are followed; however, research has demonstrated they recidivate at lower rates than other types of offenders (Hanson, Scott, & Steffy, 1995; Langan, Schmitt, & Durose, 2003). According to Langan and colleagues (2003), sex offenders had a lower overall rearrest rate within three years of release from prison than released non-sex offenders (43% compared to 68%, respectively). Further, for those rearrested, the offense was a felony for 75% of sex offenders compared to 84% for non-sex offenders. In a recent study that aggregated ten individual samples from across the United States, Canada, and England and Wales for a total sample of 4,724 sex offenders, the five-year recidivism rate was 14% (Hanson, Morton, & Harris, 2003).

On the other hand, studies utilizing victim rather than police reports have indicated that sex crimes are vastly under-reported. One national study estimated that only 16% of rapes were reported to police (Kilpatrick, 2004; Kilpatrick, Edmunds, & Seymour, 1992). The National Crime Victimization Survey reports a higher but still alarming figure – in their estimation, only about one-third of rapes and sexual assaults were reported to the police (BJS, 2000). Furthermore, studies of self-reported crimes of sex offenders have shown a higher frequency of sex offending than that reported in

official records (Abel et al., 1987; Weinrott & Saylor, 1991).

Adding to the confusion is the fact that recidivism rates exhibit considerable variability for different types of sex offenders. There is no uniform agreement on how best to categorize sex offenders but most use some pragmatic combination of variables of interest, usually involving sex and/or age of victim (Bard et al., 1987; Bickley & Beech, 2001). While the research is not definitive, it suggests that rapists have higher rates of recidivism than child molesters and incest offenders (Alexander, 1999; Hanson et al., 2003; Langan et al., 2003; Maletzky & Steinhauser, 2002; Sample & Bray, 2006; Weinrott & Saylor, 1991). For example, Hanson and Bussiere (1998) conducted a meta-analysis of 61 sex offender recidivism studies and reported the mean sex re-offense rate over an average period of 4 to 5 years was approximately 13%; however, nearly 19% of rapists compared to 13% of child molesters committed recidivated sexually. In terms of non-sexual violent re-offending, 10% of child molesters recidivated compared to 22% of rapists. Similarly, Serin, Mailloux and Malcolm (2001) found that a significantly greater percentage of rapists (61%) were reconvicted for any new offense in comparison to child molesters (31%). Further, average time to re-offending was significantly shorter for rapists (mean = 48 months) than child molesters (mean = 68 months). This variation in recidivism rates between different types of sex offenders may be a reflection of how child molesters are categorized. Studies that further sub-divide child molesters by the sex of the victim have found that male victim child molesters sexually re-offended at a higher rate than rapists and female victim child molesters (Hanson & Harris, 2004; Maletzky & Steinhauser, 2002).

Inconsistencies in recidivism rates across studies also appear to be a function of

methodological variation in follow-up time. A study that followed a sample of 251 sex offenders for 25 years after being released from prison found no differences in overall recidivism rates between child molesters and rapists. The failure rate for any charge was 74% for rapists and 75% for child molesters by the end of the study period. Lussier (2005) reported that in studies that employed a short follow-up period, sexual offenders of adult women were more likely to commit a new sex crime than offenders of children. However, as the follow-up period increased, a higher proportion of child molesters continued to re-offend sexually compared to rapists. Hanson (2002) showed that the sexual recidivism rate for rapists dropped gradually with age, whereas for child molesters it remained steady into their late forties.

On the whole, studies of sex offender recidivism suggest that rapists and child molesters may differ in terms of the *type* of criminality in which they engage. Research on the criminal activity of sex offenders lends support to this conclusion. In examining the presumption of specialization in offending among sex offenders, researchers found that the nature and dimensions of criminal behavior varied between rapists and child molesters. In particular, rapists showed an earlier age of onset of offending and a higher frequency of property and violent crimes, whereas child molesters presented a higher frequency of sex crimes (Lussier, LeBlanc, & Proulx, 2005). Prentky et al. (1997) also found that child molesters and rapists varied on the type of offense for which they were charged. Over a 25 year period, more child molesters were charged with a new sex offense than rapists (52% versus 39%, respectively). In contrast, 49% of rapists compared to 23% of child molesters were charged with a non-sex offense during the same follow-up period. In his review of the literature, Lussier (2005) reported that rapists

had higher rates of non-sex crimes, offended more frequently, and were comparatively similar to violent offenders in their criminal offending, whereas child molesters were less diversified in their offending, more likely to recidivate sexually, and remained at risk of sexual recidivism for a longer period than rapists. In his conclusion, he stated, "the criminal activity of aggressors of women is more precocious, frequent and diversified than that of aggressors of children who, comparatively speaking, tend to be late-onset offenders, with a low frequency and a more restricted criminal repertoire, mostly characterized by sexual crimes" (Lussier, 2005, p. 279). These observations suggest that rapists and child molesters show different patterns of offending.

While such typologies have important clinical implications and are useful in determining base rates of recidivism, they discount the heterogeneous sexual behavior of sex offenders. For example, contrary to the assumption that rapists only sexually assault adult females and child molesters only molest children, research has shown that many sex offenders commit "crossover" sexual offenses (i.e., victims of multiple age, gender, and relationship categories). One study found that 52% of males incarcerated for sexually assaulting adults admitted to sexually molesting children, and 78% of incarcerated child molesters admitted to sexually victimizing adults (Heil, Ahlmeyer, & Simons, 2003). Overall, the majority of inmates admitted to committing sex offenses involving both adults and children from multiple relationship types. In a separate study of child molesters distinguished as incest or non-incest based on their index conviction offense, the authors found that nearly 60% of the offenders classified as incest child molesters self-reported molesting non-incest victims (Studer, Clelland, Aylwin, Reddon, & Monro, 2000). The results of these studies challenge the notion that sex offenders can be

classified into mutually exclusive categories. However, Lussier (2005) has argued that empirical findings that support both the generality and specialization hypotheses are not incompatible if one considers that these constructs do not stand at opposite ends of a single dimension but rather reflect the development of offending over time.

In sum, although the most reliable figures suggest that the overarching societal perception of all sex offenders as dangerous predators is a myth (Quinn, Forsyth, & Mullen-Quinn, 2004; Simon, 1998), the high re-offending rates of some sex offenders, the emotional and physical impact on victims, as well as the goal of public safety necessitates that the correctional system identify and employ strategies that effectively manage sex offenders. Treatment for sex offenders under correctional supervision is one such response.

In the 1970's, correctional rehabilitation programming came under attack when a prominent study determined that correctional treatment, including that for sex offenders, was ineffective in reducing recidivism (Lipton, Martinson, & Wilks, 1975; Martinson, 1974). In a report summarizing the extensive findings of their review, Martinson (1974) concluded that "with few and isolated exceptions the rehabilitative efforts that have been reported so far have had no appreciable effects on recidivism" (p. 25). Although subsequent examinations challenged the conclusions of these studies (e.g., due to poor program implementation and inadequate methodology used to evaluate programs) (Palmer, 1975), the findings were interpreted to suggest that "nothing works" in correctional rehabilitation (Sechrest, White, & Brown, 1979).

Since the publication of this report, the debate has moved from "nothing works" to "what works" and "for whom" (Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen;

1990; Cullen & Gendreau, 2000; Losel & Schmucker, 2005). Researchers in the field of correctional treatment have begun to understand some of the limitations and flaws in these earlier studies and have moved towards the use of better research designs utilizing contemporary models of treatment. In particular, the most rigorous research shows that cognitive-behavioral treatment (CBT) is the most promising approach to reduce recidivism rates among correctional populations (Andrews & Bonta, 1998; Cullen & Gendreau, 2000; Lipsey, Chapman, & Landenberger, 2001; Pearson, Lipton, Cleland, & Yee, 2002; Wilson, Bouffard, & MacKenzie, 2005). As such, the field of corrections, including that related to the application of treatment for sex offenders, is increasingly adopting evidence-based programs based on the CBT model. In the sections that follow, the principles and goals of this approach for offenders in general, and with sex offenders specifically, will be presented.

Principles of Cognitive-Behavioral Treatment

Cognitive-behavioral theory represents the integration of principles derived from both behavioral and cognitive theories, and it provides the basis for a more inclusive and comprehensive approach to treating behavioral disorders (Enright, 1997; Peake, Borduin, & Archer, 1988). Behavioral theories posit that disorders, such as sex offending, are developed and maintained through learning and reinforcement; thus, one of the major tenets of behavioral theory is that changes in behavior come about through learning new behaviors (Bandura, 1977). The same learning processes that create problem behaviors can be used to change them. Maladaptive behaviors, such as criminal offending and sexual deviance, can be changed by teaching the client alternative, pro-social behaviors.

The focus of behavioral therapies is on identifying and altering or eliminating observable problem behaviors through a variety of classical conditioning and operant learning techniques (Lipton et al., 2002; Marshall & Laws, 2003).

Cognitive theory posits that most problem behaviors derive from faulty thinking processes (Beck, 1976, 1993; Ellis, 1962, 1994). According to one of the leading theorists in the field, the general framework of cognitive theory is "that there is a bias in information processing that produces dysfunctional behavior, excessive distress, or both" (Beck, 1993: p.196). Cognitive theory places primary emphasis on cognitions. The way individuals feel and behave is affected by beliefs, attitudes, perceptions and attributions. To the extent that our thinking processes are faulty, our emotional and behavioral responses will also be faulty; therefore, changing thinking should change feelings and behavior. Cognitive treatment is directed primarily at recognizing and changing distorted or maladaptive thinking patterns. Once the maladaptive thoughts are discovered, clients are able to change their related behavioral dysfunction through the application of rational thoughts.

The combination of these two theories into CBT provides for a problem-focused therapeutic approach designed to help individuals identify and change the dysfunctional beliefs, thoughts, and patterns of behavior that contribute to their problems. According to McGuire (1996), "Work of this kind is best thought of as a 'family' or collection of methods rather than any single technique easily and clearly distinguished from others" (p. 7). Therefore, CBT is viewed as multi-dimensional and comprising multiple approaches. The primary goal of CBT is development of the mental skills necessary for individuals to control their own behaviors. CBT with correctional populations have been

conceptualized as cognitive restructuring, cognitive or coping-skills development, and life skills training (Carey, 1997; Wilson et al., 2005). The focus of treatment is on restructuring the cognitive distortions and dysfunctional thought processes of the offender that lead to inappropriate, deviant, and illegal behavior.

CBT programs for offenders target character deficits related to antisocial attitudes, values and beliefs, and antisocial personality factors (Cullen and Gendreau, 2000). This is accomplished by learning to identify and challenge the high-risk thoughts, beliefs, and situations that support offending and develop the necessary skills to cope with these expectancies (Carey, 1997; McGrath, Hoke, & Vojtisek, 1998). Therapeutic techniques are designed to motivate and train offenders to change distorted cognitions related to thoughts, conceptualization of self and others, and assumptions, beliefs, or rules about how one should behave. Examples of such distorted thoughts include the distrust of others and related belief that everyone is out to get you, justification of criminal behavior by neutralizing the harm caused to others, and hostilities directed at authority figures.

The basic approach of CBT can be summarized as "recognize, avoid, and cope." In addition to teaching offenders to understand their maladaptive behavior, CBT-influenced programs teach offenders to identify situations in their personal life ("triggers") that elicit these distorted thoughts, to consider the potential negative consequences of such behavior, and engage participants in thought and behavioral exercises to restructure belief systems towards a more pro-social perspective. Treatment is geared towards developing coping methods necessary to prevent re-offending (Hildebran & Piether, 1992; Laws, Hudson, & Ward, 2000). Skills-training includes

developing appropriate and constructive strategies to cope with improper or deviant thoughts and manage high-risk situations. These skills are developed through practice, role-play, and homework assignments. The goal is that offenders will incorporate effective coping techniques when confronted with triggering situations, thereby reducing reliance on antisocial, violent, or criminal responses.

A growing body of evidence indicates that programs that are behavioral, primarily of the cognitive and modeling type, are effective at reducing recidivism among offenders in general (Andrews et al., 1990; Lipsey, et al., 2001; Wilson et al., 2005). Scholars in the field of correctional rehabilitation have used meta-analysis to quantify the effects of various forms of correctional interventions. For clinically relevant appropriate treatments such as CBT the effect size is typically between .25-.30, which relates to a 25-30% difference in recidivism between the treatment and control group (Cullen & Gendreau, 2000). For example, Lipsey and colleagues (2001) estimated the magnitude of the recidivism differences between offenders receiving CBT programs in comparison to control groups of non-treated offenders and reported an effect size of .31 (i.e., recidivism outcomes were .31 standard deviations lower for the CBT group). Additionally, findings from the Correctional Drug Abuse Treatment Effectiveness (CDATE) project provide further evidence that CBT programs were successful at reducing substance abuse and related criminality (Pearson et al., 2002). Similarly, Wilson and his colleagues (2005) found moderate, positive effects for CBT programs, stating "…a small reduction in the offending behavior of a large number of offenders will still represent a large number of crimes prevented" (2005, p. 199). CBT has been designated an appropriate treatment

because, as Cullen & Gendreau (2000) point out, it targets the "criminogenic needs" – the known predictors of recidivism that are amenable to change – of offenders.

Cognitive-Behavioral Treatment as Evidence-Based Practice

CBT is consistent with the principles of effective correctional interventions, or what has come to be widely referred to as "what works" and, more recently, "evidence-based practices" (Andrews et al., 1990; Latessa, 2004; MacKenzie, 2000, 2001; Nicholaichuk, 1996; Sherman, Gottfredson, MacKenzie, Eck, Reuter, & Bushway, 1997). Evidence-based practice (EBP) draws on science to inform the operational practice of services and programs for offenders. The aim is to employ empirically tested practices that produce reductions in recidivism among offenders. Correctional research on EBP consistently finds that the principles of risk, needs, and responsivity are a necessary component of correctional services for treatment programs to be effective (Andrews, 2000; Andrews & Bonta, 1998; Gendreau & Goggin, 2000; Latessa, Cullen, & Gendreau, 2002).

The risk principle states that supervision and treatment programming should be commensurate with the risk level, or probability of recidivism, of the offender (Andrews, 2002; Lowenkamp & Latessa, 2005). Specifically, intense services should be directed at higher-risk offenders rather than provided indiscriminately. Empirical research and meta-analyses have shown that correctional programs that follow the risk principle yield the largest reductions in recidivism (Dowden, Antanowicz, & Andrews, 2003; Lowenkamp & Latessa, 2004).

The needs principle recommends that interventions for offenders target known predictors of crime and recidivism. In particular, correctional treatment should focus on dynamic risk factors, commonly referred to as "criminogenic needs" (Andrews et al., 1990; Cullen & Gendreau, 2000; Hanson & Harris, 2000; Laws, 1995). Dynamic risk factors, such as low self-control, dysfunctional family ties, substance abuse and antisocial values, are characteristics of an individual that are mutable. Whereas we know that certain static factors (e.g., offense history) highly predictive of recidivism cannot be modified, dynamic predictors can potentially be changed. CBT attempts to restructure the distorted cognitions of offenders (i.e., antisocial thoughts that justify offending) and assist them in learning and applying alternative pro-social skills and solutions (e.g., education, work ethic).

The principle of responsivity requires that services be matched to particular characteristics of offenders. That is, factors such as gender, culture, learning style, and developmental stage, will influence whether an offender is responsive to treatment. The responsivity principle also necessitates that an offender be provided treatment relevant and effective for their offender type. For example, counselors report that primary drug dealers receive no benefit and are actually quite disruptive in substance abuse treatment programs; thus, substance abusers, not dealers, should be targeted for this type of treatment. Finally, services meet the principle of responsivity if the type of program is geared to the offender's stage of change (Prochaska, DiClemente, & Norcross, 1992).

Cognitive-Behavioral Treatment for Sex Offenders

CBT programs for sex offenders were primarily modeled after cognitive-behavioral based substance abuse treatment programs with a relapse prevention component (Hanson, 1996; Marlatt & Gordon, 1985). While the behaviors are vastly different, the same basic principle can be applied to both disorders: a change in the patterns of thinking that are supportive of maladaptive and destructive behavior leads to a change in the behavior itself. Furthermore, the behavioral component necessitates the development of alternative, appropriate coping skills to facilitate this change in behavior. Just as substance abusers learn how to restructure the thoughts and feelings that support drug use, the cognitive-behavioral approach for sex offenders emphasizes changing thinking styles that encourage sexual offending (Kirsch & Becker, 2006; Marshall & Laws, 2003).

In the case of sex offenders, CBT programs target the cognitive distortions (commonly referred to as "thinking errors") surrounding deviant sexual fantasies and patterns of arousal that contribute to sex offending (Bumby, 1996; Wood, Grossman, & Fichtner, 2000). Offenders learn to recognize the cognitive distortion process, and identify specific distortions in which they engage, such as minimization, justification, rationalization, and externalization to mitigate culpability (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989; Ward, Hudson, Johnston, & Marshall, 1997). Specific treatment aims include aiding the offender in identifying the continuous conflict cycle that leads up to offending behavior and that may bring about future sexual deviance. Offender awareness of these thought processes is critical to developing motivation and desire to change. Treatment strategies focus on substituting maladaptive and deviant

sexual thoughts with healthy sexual attitudes and beliefs. In addition to group discussion, role-playing is a critical component of sex offender treatment. Role-playing helps offenders develop pro-social coping skills and techniques to deal with the stressors that contribute to the sex offending cycle. Additionally, the offender is challenged to accept responsibility for their crime and to empathize with their victim(s).

The majority of CBT programs for sex offenders incorporate a relapse prevention framework (Hanson, 1996; Pithers, Marques, Gibat, & Marlatt, 1983). RP helps the offender identify the situations ("triggers") that place him at risk for sex offending and teaches strategies to cope with these high-risk situations and gain control of their antisocial behavior (Kirsch & Becker, 2006). In short, successful CBT programs provide the sex offender with the opportunity to gain self-awareness, change deficient thought processes, and acquire the necessary tools to help them eschew deviant sexual behavior.

Efficacy of Sex Offender Treatment in Reducing Recidivism

While supported by the medical and mental health community, treatment for sex offenders has long been controversial. Early studies indicated that correctional treatment, including that for sex offenders, did not reduce re-offending (Martinson, 1974). These findings have historically plagued the field and become part of the general public's attitude toward sex offenders and therapeutic programming (Furby, et al., 1989; Quinsey, Harris, Rice, & Lalumiere, 1998). Despite the discouraging results, more recent evaluations of sex offender therapeutic programming suggest that treatment, in particular cognitive-behavioral, produces moderate reductions in recidivism.

For example, Nicholaichuk, Gordon, Gu, and Wong (2000) evaluated the efficacy

of the Clearwater Sexual Offender Treatment Program, an in-patient cognitive-behavioral and relapse prevention treatment program through the Correctional Service of Canada, for sexual offenders who volunteered between 1981 and 1996. They matched a mixed group of sex offenders (e.g., rapists, pedophiles, N = 296) who participated in treatment to a comparison group of 283 non-treated sex offenders on age at index offense, date of offense, and prior criminal history. The authors found that significantly fewer sex offenders were convicted of a new sexual offense during a 6-year follow-up period when compared to the matched group of controls (15% versus 33%, respectively). They also found a significant difference in time to re-offend, with untreated offenders recidivating earlier after release from incarceration and at higher rates throughout the follow-up period than offenders who had undergone treatment. Additionally, they reported that treated rapists and treated pedophiles had lower proportions of sexual reconvictions than their untreated counterparts. These latter results, however, may not reflect actual rates of new convictions for the different types of sex offenders as the two groups were not matched on this variable and the authors were only able to identify offender type for 80 men in the comparison sample.

In an evaluation of the Regional Treatment Centre (RTC), a separate sexual offender program also provided through the Correctional Service of Canada, Looman, Abracen, and Nicholaichuk (2000) used the same procedure as Nicholaichik and colleagues (2000) to match a group of 89 treatment participants referred to the program between 1976 and 1989 to a comparison group of 89 sex offenders that did not receive treatment. Like most sex offender treatment programs, the group was made up of a variety of offender types, including rapists, pedophiles, and incest offenders. The authors

reported that, during the follow-up period of up to 6 years, 24% of the treated group was convicted for a new sexual offense compared to 52% of the untreated group.

These findings stand in contrast to those of another independent evaluation of the same program (RTC) conducted by Quinsey, Khanna, and Malcolm (1998). Where Looman et al. (2000) included in their treatment group only those 89 inmates for whom they could obtain a match, Quinsey et al. (1998) included in their sample all 213 inmates who received treatment between 1976 and 1989 and used as a comparison group those inmates who were referred but did not receive treatment. In their analyses of RTC, participation in treatment had opposite the anticipated effect. After statistically controlling for the effect of a number of risk factors, regression analyses showed a positive relationship between treatment and new sex offense arrests. Unlike Looman and colleagues, they also looked at new arrest patterns for different types of sex offenders. Among the sample of inmates that had offended against adults only (i.e., rapists), 67% incurred a new arrest, 25% for a new sex offense, and among those adult men that offended against only children, 38% were rearrested for any offense, 17% for sex offenses. The disparity in re-offending detected by the two studies could be due to a difference in the length of follow-up or variation in the composition of sex offenders in both the treatment and control groups that made up the two samples.

In their study of the Vermont Treatment Program for Sexual Aggressors (VTPSA), a prison-based intervention founded on the cognitive-behavioral and relapse prevention model, McGrath, Cumming, Livingston & Hoke (2003) compared three groups of diverse sex offenders (i.e., 56 treatment completers, 49 treatment dropouts, and 90 no-treatment) on new charges for sexual, violent, and other offenses after their release

from incarceration. They found that treatment completion was significantly associated with reduction in sexual recidivism. Individuals that completed the treatment program committed a new sexual offense at the rate of 5.4%. In contrast, individuals that attended partial or no treatment had significantly higher recidivism rates (31% and 30%, respectively) (McGrath et al., 2003). Inferences regarding treatment efficacy, however, are confounded by the degree to which the groups were equivalent in their level of risk for recidivism. The authors did not provide information regarding outcomes by sex offender type.

Notwithstanding the mostly positive results of these outcome evaluations, there is evidence to refute the conclusion that sex offender treatment reduces recidivism. Schweitzer and Dwyer (2003) evaluated the cognitive-behavioral based Sexual Offenders Treatment Program (SOTP) in Australia with a sample of 445 adult males imprisoned for a sexual offense and released during the period 1992-2001. They compared three groups – SOTP completers, SOTP non-completers, and a control group matched on offense type, year of offense, sentence length, prior convictions, and ethnicity – on subsequent rates of reconviction after their release and found no statistically significant differences in recidivism between groups. According to their results, 3% of program participants, compared to 7% of non-completers and 5% of controls were reconvicted for any sexual offense. Convictions for non-sexual offenses were also similar across groups; 10% of completers, 11% of non-completers and 9% of the controls were convicted for a non-sex offense during the follow-up period. The authors indicated that extensive missing data precluded them from conducting multivariate analyses.

In the only randomized trial of treatment for sex offenders to date, the authors found that inpatient relapse prevention treatment for sex offenders, provided through California's Sex Offender Treatment and Evaluation Project (SOTEP), produced no significant effect on recidivism (Marques, Wiederanders, Day, Nelson, & van Ommeren, 2005). During the period from 1985-1995, a mixed group of sex offenders who volunteered to participate in treatment were randomly assigned to the relapse prevention treatment group (N = 259) at a secure state hospital or to the no-treatment condition (N = 225) and remained in prison. A third group of inmates who qualified but refused to participate in treatment and remained in prison served as a second, non-volunteer control group (N = 220). Recidivism rates, operationalized as new charges, were tracked for at least five years. Results from main effects analyses showed that 22% of the treatment group compared to 20% of the volunteer controls and 19% of the non-volunteer controls sexually re-offended. Similarly, time to re-arrest did not differ for the groups either for sexual or non-sexual violent re-offense.

The authors also examined the outcomes for offender subgroups and found no significant differences across the three conditions within the child molester group. For rapists, who comprised about one-fifth of each group, results indicated that 20% of the treated rapists compared to 29% of the volunteer control rapists and 14% of the non-volunteer control rapists were charged with a new sex offense during follow-up (these differences were not significant). If one considers non-volunteer rapists higher risk because they were not as motivated to participate in treatment as the two other groups, then these findings suggest treatment participation increased the likelihood of sexual recidivism. On the other hand, the non-volunteer rapists could feasibly be construed as

lower risk than the volunteers in that their judgment of their treatment needs were accurate. If the latter is true, then treatment for rapists would appear to be of some benefit, at least for those who have the desire to change. Marques et al. (2005) examined a treatment program based solely on the relapse prevention model which did not incorporate many of the treatment components found in modern-day cognitive-behavioral based programs. Relapse prevention in isolation is unlikely to be successful with clients who have not undergone the required treatment readiness and stage-of-change phases considered important to engage offenders in treatment (Miller, 1993; Miller & Rollnick, 2002; Prochaska et al., 1992, 1994).

A number of literature reviews and meta-analyses have indicated that treatment services founded on the CBT model produce lower rates of sexual re-offending. For example, in their assessment of the research on sex offender treatment, Polizzi, MacKenzie & Hickman (1999) applied the Maryland Scale of Methodological Rigor to 21 relevant studies and identified CBT as a program that “works” in reducing recidivism among sex offenders. This finding applied primarily to community-based sex offender programs. Their review found that CBT in-prison programs are promising but that there were insufficient numbers of rigorous empirical studies to draw any definitive conclusions. In addition, they noted there were an insufficient number of studies that distinguished outcomes by type of sex offender; therefore, they could draw no conclusions about treatment effectiveness for specific offender typologies.

Hanson and his colleagues (2002) conducted a comprehensive meta-analysis of psychological treatment for sex offenders. They reviewed 43 studies with a total of 5,078 treated sex offenders and 4,376 untreated sex offenders. In their review, the recidivism

rates of treated sex offenders were lower than the recidivism rates of untreated sex offenders. More importantly, CBT was associated with the largest reductions in both sexual and general recidivism. On average, current CBT programs reduced sexual re-offending from roughly 17 to 10% and general recidivism from 51 to 32%, both moderate and significant decreases (Hanson et al., 2002). Additionally, they reported that offenders who dropped out of treatment had consistently higher sexual recidivism rates than those who completed treatment. There were no differences in effect sizes for institutional versus community-based treatment. There was no information as to whether treatment had differential benefits for sub-types of sex offenders, although the authors called for such research noting that different sex offenders would be expected to have different treatment needs.

The Hanson et al. (2002) meta-analysis was critiqued by Rice and Harris (2003) on the grounds that most of the studies included in the study did not meet the necessary criteria for minimally useful evaluation, i.e., at minimum the groups should be comparable on established static predictors of recidivism. When they re-evaluated the 43 studies, they concluded that only 6 studies of sex offender treatment met the minimum criteria necessary to provide useful scientific data on the effectiveness of treatment. Based on these studies, the mean effect of treatment on sexual recidivism was insignificant and indicated a trend toward treatment having a detrimental effect. Rice and Harris (2003) stated, “In the end, we are obliged to conclude that the available data afford no convincing scientific evidence that psychosocial treatments have been effective for adult sex offenders” (p. 437).

More recently, Lösel and Schmucker (2005) conducted a meta-analysis of 69 sex offender treatment studies. They reported that the various treatment approaches differed considerably in effect size, not all beneficial; however, CBT and classic behavior therapy had a significant impact on sexual recidivism, with the most robust effects found for CBT programs. This was important considering that studies using only treatment dropouts as a control group were excluded from the meta-analyses. Nevertheless, only 40% of the comparisons could be classified as a level 3 or higher on the Maryland Scale of Methodological Rigor (Sherman et al., 1997). The authors also noted that very few studies differentiated offender categories but that there was a significant treatment effect for both rapists and child molesters. The authors called for more high-quality outcomes studies noting that "one should draw very cautious conclusions from our meta-analysis" (Lösel & Schmucker, 2005, p.135) due to the weak design quality of many of the studies.

Overall, the evidence on the efficacy of sex offender treatment programs remains equivocal. While meta-analyses suggest a moderate treatment effect on sex offender recidivism, almost all qualify their findings by noting the lack of scientific rigor in existing studies. Flawed methodological techniques are an ongoing problem with much of the research (Craig, Browne & Stringer, 2003; Lösel & Schmucker, 2005). One issue on which reviewers agree is that existing studies of sex offender treatment too often rely on poor comparison groups such as program dropouts. Program dropouts may substantially differ from those who remain in treatment. For example, Schweitzer & Dwyer (2003) found that treatment completers had a lower average rate of prior sex convictions than dropouts and controls. In such instances, it is not possible to disentangle the treatment effect from that of pre-existing differences between individuals on

recidivism. As Marques et al. (2005) has noted, “To avoid potentially misleading distortions in study results, we urge researchers who plan to assess the effects of treatment to control for prior risk by using an appropriate actuarial measure for both treatment and comparison groups.” (p. 103). The current evaluation attempted to address this flaw by accounting for between-group differences in initial level of criminal risk.

Despite the differential criminal activity of child molesters and rapists (Lussier, 2005), research has failed to distinguish between specific subgroups of sex offenders in evaluating the effect of treatment on recidivism. Evaluations typically sample a mixed group of sex offenders but do not report the distribution of type nor are interaction effects between type and treatment tested. Among other differences, studies have shown that rapists are more likely to drop out of treatment than child molesters (Beyko & Wong, 2005; Marques et al., 2005); thus, any observed treatment effect could be due to unique features of the type of sex offender that comprises the groups under comparison rather than treatment itself. Further, the offending patterns of rapists are sufficiently different from those of child molesters to warrant consideration in treatment effectiveness evaluations. It is possible that the disparity in criminal behavior between these sex offenders are related to divergent clinical presentation and interpersonal characteristics that have meaningful implications for sex offender rehabilitation and management (Eher, Neuwirth, Fruehwald, & Frottier, 2003; Mills, Anderson, & Kroner, 2004; Serin et al., 2001). Studies are needed to determine whether the same therapeutic approach has equivalent effects for subgroups of sex offenders. Such research can inform treatment planning by generating knowledge regarding the risk and needs to target for change. To date, few studies have examined whether different types of sex offenders respond

differently to treatment (Allam, Middleton, & Browne, 1997). Additionally, sex offenders with primarily adult victims are under-represented in the research (Harris, 1995; Lösel & Schmucker, 2005). The current study will address these concerns by exploring the effectiveness of SORT in reducing recidivism for two groups of sex offenders, rapists and child molesters.

Chapter 3: Description of the Sex Offender Residential Treatment (SORT) Program

The SORT Program is located at Brunswick Correctional Center (BCC) in Lawrenceville, Virginia, a medium to medium-high security level institution for male inmates serving their sentence in the Virginia Department of Corrections (DOC). SORT began operations in January 2000. At the time data collection began, the program had a capacity of 78 participants. SORT participants resided in a separate housing unit from the general population and most group therapy sessions and other treatment-related activity occurred in this housing unit. There were six, full-time treatment providers working in SORT, including the program director. These staff members were responsible for facilitating all group therapy and individual counseling sessions. Each treatment team member held a minimum of a Master's degree in a counseling-related discipline and additionally had obtained state-required certification in sex offender counseling.

SORT provides comprehensive assessment and treatment services to inmates identified as moderate to high risk for sexual re-offending. The program utilizes CBT within a relapse prevention framework (Pithers et al., 1983; Pithers, 1991), including a coordinated community transition and monitoring plan. The SORT philosophy dictates there is no "cure" for sexually deviant behavior. As such, the goal of SORT is to help sex offenders develop control over their sexual deviance in an effort to prevent re-offending.

Referral Process

The institutional counselor initially screens inmates for referral to the program. Inmates who are convicted of a sexual offense or who were charged with a sexual offense

but had the charge dismissed or nolle prossed due to a plea agreement are eligible for admission. Inmates must have between 18 to 36 months remaining on their sentence to participate in SORT. A member of the SORT Treatment Team completes the necessary risk assessment (i.e., Static-99). The treatment team determines whether the inmate is appropriate for inclusion into the program, based on the noted criteria, a risk for re-offense in the moderate to high range, and available space. Inmates in the moderate to high risk for re-offense range are prioritized. As there is insufficient bed space to meet need, a waiting list is maintained prioritized according to sentence time remaining.

Inmates accepted into the program are typically engaged in treatment at the facility for approximately two years. However, the length of involvement ranges in time, based on factors such as length of time remaining on the offender's sentence, progress through the phases, and whether or not the inmate is terminated from the program based on his behavior or other conflicting issues (e.g., medical problems that require him to be transferred to another facility).

SORT Program Phases

The phases of the program are loosely based on a two-year cycle; however, not all offenders complete treatment in exactly two years. The SORT program is composed of five phases. Although the program has been divided into general, distinct phases, they are not mutually exclusive and usually overlap. Phase I consists of orientation, Phase II is assessment, Phase III consists of treatment readiness, Phase IV is treatment, and Phase V is release planning. The duration of the program varies but participation typically ranges 18-24 months.

Phase I: Orientation

Orientation introduces the offender to the purpose and goals of the unit and is approximately three weeks in duration. During program orientation, the offender is assigned a primary therapist. Additionally, an individualized treatment plan is developed and the offender is given a handbook, describing the program objectives, the expectations of the offender, and available services (e.g., self-help materials, recreational games, and audiotapes for relaxation).

Phase II: Assessment

During the assessment phase, typically four weeks in duration, the offender undergoes a comprehensive, psychological assessment. Offenders are administered assessments in several key areas of functioning and risk including: deviant sexual interest(s); psychopathy and criminogenic needs; cognitive abilities; mental health; social skills; family dynamics; empathy; aggression; substance abuse; and, self-disclosure of historical and primary conviction sex offending. Examples of some of the batteries include the Level of Service Inventory-Revised (LSI-R), Abel Assessment for Sexual Interest, Sexual Adjustment Inventory (SAI), and Minnesota Multiphasic Personality–2 (MMPI-2). While this particular phase focuses on assessment, the offender is also assessed at various points during his treatment program to evaluate progress. A preliminary risk assessment completed prior to admission is updated within two weeks of entry into the program.

Phase III: Treatment Readiness

Treatment Readiness involves the offender attending the “Sex Offender Awareness Program” (SOAP), a 15-session program that lasts approximately four weeks.

This component is a didactic, psycho-educational group designed to educate offenders on the basic principles of sex offender behavior and treatment. At the end of this initial group, participants are required to take and pass an examination with a minimum score of 80%. If the offender does not pass the exam he has to repeat the treatment readiness curriculum before he can move to the next phase.

Phase IV: Treatment

During the Treatment phase, offenders participate in a variety of cognitive, process-oriented groups to gain an understanding of their offense-specific and offense-related behavior and cognitions, to confront discrepancies between thoughts, feelings, and actions, and to develop skills to control their deviant sexual behavior. Therapeutic activities are organized around the relapse prevention (RP) model. A more thorough description of RP elements is provided in the next section; however, the primary focus of RP is to help sex offenders identify the high-risk factors and situations that are related to, and place them at risk of, sex offending, and develop strategies and coping resources to control their sexually deviant behavior.

Inmates are required to participate in psycho-educational groups designed to teach skills in communication, problem-solving, and interpersonal skills. Several ancillary groups are part of this phase and cover awareness in areas such as domestic violence, anger management, assertiveness training, stress management, gender roles, chemical dependency, healthy relationships, sex education, human sexuality, parenting, criminal thinking, mental health, victim empathy, denial, and personal victimization. Group counselors use a wide variety of techniques, including didactic instruction, group discussion, videos, role-play, and homework assignments, to produce and maintain

positive change in offender cognitions and behaviors. The amount of time inmates spend in any group will vary in length depending on the inmate's assessed level of change (Prochaska & DiClemente, 1982; Prochaska, Norcross, & DiClemente, 1994).

The amount of time spent by the prisoner in the treatment phase is based on individual progress. In order for the offender to complete the group he is assigned to, he must demonstrate a competency to progress as directed. Should the treatment team determine an offender is not progressing satisfactorily, the offender is considered for removal from the program. Offenders are also required to complete polygraphs during treatment (e.g., disclosure polygraphs to determine sexual offending history). In addition to the group sessions, SORT participants meet individually with their primary therapist on a regular basis. During these sessions, the therapist and client review the treatment plan and offender progress.

Phase V: Release Planning

The final phase focuses on release planning. Discharge planning begins about six months before release. During that time, the offender focuses specifically on relevant issues related to a successful transition to the community, which should include contact with the supervising probation officer. Additionally, inmates are encouraged to foster communication with family members to develop social supports in the community and increase functional interactions with family members.

Although this is the final stage, a preliminary evaluation of future needs and a release plan is conducted during assessment phase to determine the extent of assistance required. Release planning groups focus on specific problems that the offender may encounter in the community. An offender may be recommended for discharge from

SORT once his primary therapist has determined that he has accomplished all of his therapeutic goals. The decision to discharge an offender will be made by the SORT program treatment team upon recommendation from his primary therapist. Most offenders will be released directly to the community upon completion of their sentence.

Chapter 4: Qualitative Assessment of the SORT Program

While a treatment program may claim to be cognitive and behavior-oriented, the substance of treatment typically goes undocumented in the program evaluation literature. Researchers refer to this neglected dimension as the “black box” of treatment because little is known about the group milieu or the internal elements of treatment (Ball, 1990; Goldkamp, White, & Robinson, 2000). As a means to determine if SORT met the criteria of CBT, this study incorporated a *limited* qualitative assessment of the treatment process. The techniques used included: interviews with treatment staff to provide descriptions of the content of their group sessions and individual therapy approaches; review of departmental operating procedures, program materials, and treatment curriculum; and, observation of group sessions, with inmate approval. It is imperative to acknowledge that this method did not constitute a comprehensive quality assessment of program fidelity, as it was not the primary goal of the study. A thorough, explicitly focused, and methodologically rigorous assessment of SORT is essential (Jones, 2006; Lowenkamp, Latessa, & Holsinger, 2006). Nonetheless, this served as a useful approach to gauge if the therapeutic elements were consistent with a cognitive-behavioral model.

SORT as Evidence-Based Practice

The first step in the assessment was determining whether SORT adhered to the principles of EBP as ‘best practices’ have been shown to have the greatest likelihood of reducing recidivism (Carey, 1997). As described in the literature, “best-practices” programs incorporate the principles of risk, needs, and responsivity (Latessa, 2004). To meet the risk principle, a program should target moderate to high-risk inmates, i.e., those

at highest risk of re-offending, for inclusion. Determination of risk status (as well as needs) requires that inmates be assessed using an actuarial instrument.

According to the SORT DOC Operating Procedure, offenders are prioritized for admission based on actuarial risk of sexual reoffense (Department Operating Procedure 776.2, 2005). Prior to program entry, offenders referred to SORT are administered the Static-99 (Hanson & Thornton, 2000a). The Static-99 is a ten-item actuarial risk assessment instrument designed to estimate the probability of sexual and violent re-offending for adult males who were charged with or convicted of at least one sexual offense (Harris, Phenix, Hanson, & Thornton, 2003). A number of studies have found the Static-99 to be a significantly valid predictor of sexual and violent recidivism (see e.g., Barbaree, Seto, Langton, & Peacock, 2001; Bartosh, Garby, Lewis, Gray, 2003; Hanson & Thornton, 2000b). According to the SORT program director, initial assessment is completed using the Static-99 to scientifically ascertain if an inmate is a moderate to high-risk candidate and therefore acceptable for program placement.

The needs principle asserts that programs should target dynamic predictors of crime and recidivism. Antisocial values and attitudes, which are said to contribute to deviant behavior, have been characterized as one of the most critical “criminogenic needs” that should be targeted for change (Cullen & Gendreau, 2000). Once individuals are accepted into the SORT program they are administered a battery of assessments, including deviant sexual interests, psychopathy, gender-stereotypes, general criminal lifestyle values and beliefs, and other emotional and personality disorders, to determine individual programming needs. This information is used to create each inmate’s individualized treatment plan. The treatment plan outlines treatment strengths, needs,

and goals, and specifies the behaviors that require improvement. According to conversations with treatment staff, the programs provided at SORT focus primarily on developing the skills necessary to recognize and reduce sexually deviant thoughts, which are hypothesized to be related to sex offending. For example, group work centers on understanding the sex offense cycle, identifying high-risk situations related to relapse, and developing skills to control impulsive behavior and inappropriate arousal. Inmates role-play strategies to cope with these risk factors and are given homework to reinforce and integrate adaptive responses when confronted with sexually deviant thoughts. During individual therapy, the counselor and participant review the treatment plan, evaluate progress made in treatment, and update it to target changing needs.

In addressing the responsivity principle, staff reported that the treatment regimen of each offender is individualized according to response-generating factors, such as stage of change, and assessed skill and educational levels. Initial assessments are used to create a treatment plan. Further, SORT participants are re-assessed during their time in the program to modify their treatment plan based on change and response to program content. Individual therapy sessions also inform modifications to the treatment plan.

Review of Treatment Phase Programming

The bulk of therapeutic programming occurs during the treatment phase of the SORT program, primarily in group therapy sessions. As such, one method to ascertain whether SORT adhered to a cognitive-behavioral model of treatment was to review the content of required and ancillary therapeutic programs in which inmates participated during this phase. To accomplish this, I met with SORT counseling staff to discuss

various features of the treatment program, including process, treatment intensity and mode of delivery, and treatment target factors. In addition, I reviewed the SORT Program Resident Handbook, which covered treatment planning and programming features, and several sex-offender specific and general criminal offender treatment workbooks SORT counselors routinely utilized to guide their group therapy sessions (e.g., Bush, Glick, & Taymans, 2002; Dryden, 2001; Longo & Bays, 2000; Schwartz & Canfield, 1996).

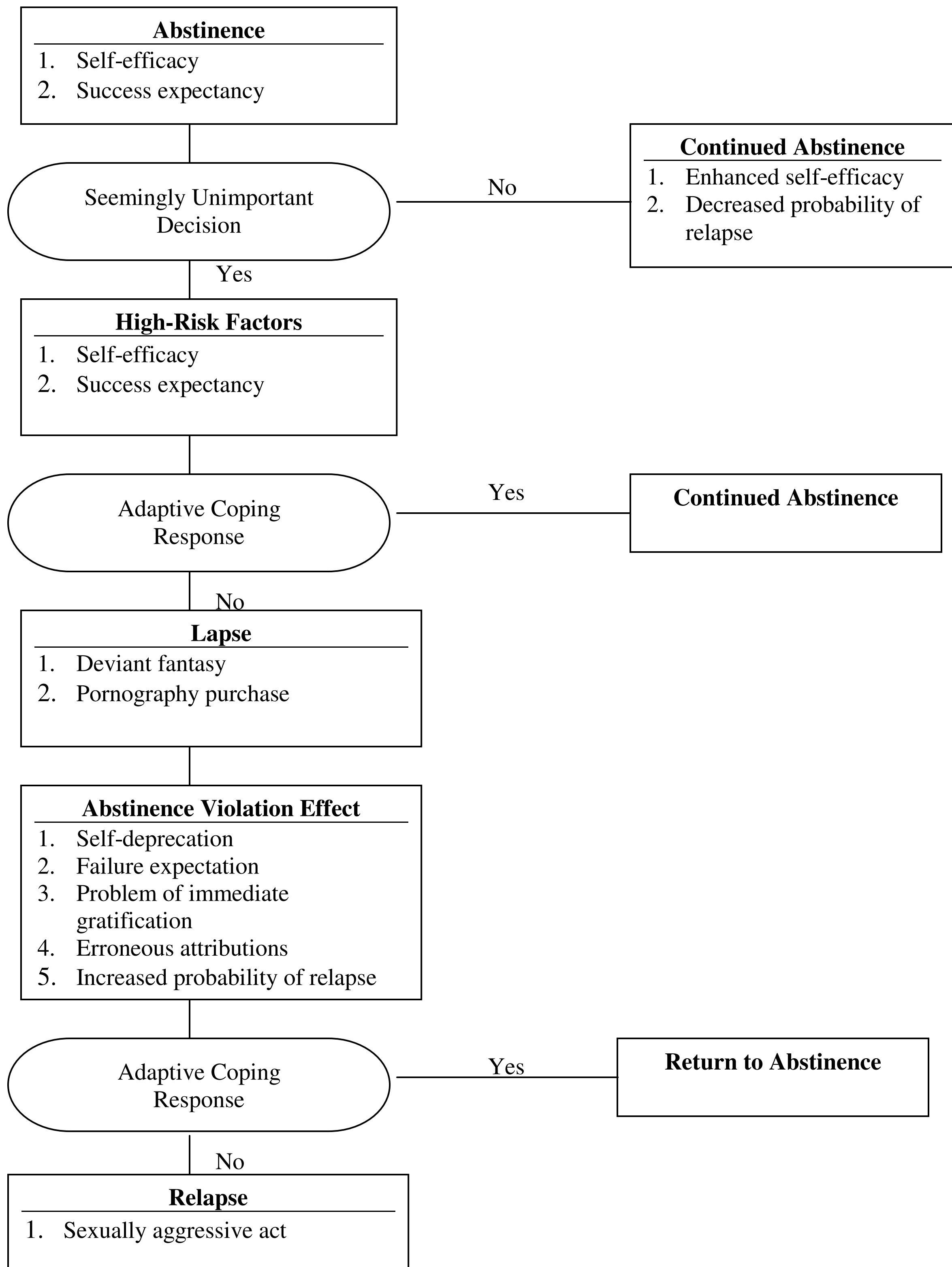
Most treatment at SORT is conducted in process groups, which primarily involves group discussion (as opposed to didactic groups, which are primarily educational) and participants are expected to share personal information. One of the main goals of treatment is developing relapse prevention knowledge and skills to help prevent re-offending. As such, although group assignment varies depending on the inmate's assessed needs and level of change, group topics are typically related to issues an offender will likely encounter when released to the community (e.g., learning internal cues and situations that increase risk of re-offending, developing coping strategies to manage high-risk situations). Generally, groups consist of approximately 10 inmates and are held one time per week for approximately 1.5 hours. For each group, a pre-test and a post-test are given to determine if the offender demonstrates knowledge of the information presented. Group facilitators hold a minimum of a Masters Degree and are also certified in sex offender counseling.

As noted, SORT organizes their therapeutic programming around a relapse prevention (RP) framework. The roots of RP were based on research in the field of addictions and primarily elaborated by Marlatt and Gordon (1985). In their original conceptualization, RP was design to maintain the effects of the initial substance

cessation-oriented treatment. The basic premise was to ascertain the high-risk situations or other related factors that were the greatest threat to abstinence and train treatment recipients the skills to cope specifically with each of these situations. The sex offender model of RP was originally outlined by Pithers and colleagues (1983) and has changed little in that time frame. Figure 1 provides a schematic of the sex offender RP model reproduced from Pithers (1991).

In brief, the path from abstinence to sexual relapse follows a similar route, with the main difference being adjustments to fit the nature of sexual offending. Primarily, the addictions RP and the sex offender RP models differ in their definition of a lapse. Committing a sexual offense is considered a relapse, not a lapse; therefore, the sex offender RP model places considerable emphasis on behaviors that may lead to a sexual offense but fall short of one (i.e., lapses, such as engaging in sexually deviant fantasies, walking by a neighborhood schoolyard). If the sex offender learns adaptive coping responses in the face of high-risk situations, he can avoid lapses and maintain abstinence. If no coping response is available (or elected), self-efficacy may be decreased. This is a critical point as sex offenders may experience the abstinence violation effect (AVE) in response to a lapse. The AVE is associated with negative affective states that include self-attributions of failure and low frustration tolerance, which increase the likelihood of relapse. Here again, adaptive coping responses can interrupt the relapse cycle. Although the sex offender RP model has been widely adopted throughout North America, it is not without its critics (Laws, 1999; Ward, Hudson, & Siegert, 1995; Ward, Louden, Hudson, & Marshall, 1995). Laws (1999) contends that the term RP has been used to describe a variety of interventions that bear little resemblance to its original conceptualization.

Figure 1. The Cognitive-Behavioral Sex Offender Model of Relapse Prevention



According to Hanson, RP is not a distinct treatment but one firmly rooted in traditional behavioral and cognitive theories; thus, it can be considered "an innovative application of cognitive/behavioral therapy to impulse control disorders" (1996, p. 202). Within SORT, RP is the overarching philosophy that conceptually links the cognitive-behavioral program components through its attention to long-term risk of recidivism by focusing primarily on factors (e.g., triggers, denial, immediate gratification, lapses) that predict relapse (i.e., sex re-offending) with the practical goal of helping sex offenders develop control over their sexually deviant behavior (Marques et al, 2005; Pithers et al., 1983). In SORT, participation in RP is on-going, through to the inmate's release from prison. As such, groups are open, allowing the therapist to focus on the process of treatment delivery and behavioral and attitudinal change in clients. When an inmate joins the RP group, he is provided with a handout that delineates the goals of RP. The following are the outlined goals of the SORT RP (as specified in the handout provided to the author by the program director):

1. Develop knowledge of the key concepts of the relapse prevention model as this model will only be useful if it is understood.
2. Learn self-monitoring methods to assist in detecting risk factors.
3. Identify specific high risk factors, triggering events, and other precursors to abuse.
4. Learn indicators that signify when risk factors are occurring or may occur soon.
5. Use adequate coping responses to manage risk factors.

6. Develop an external supervisory component who are aware of your risk factors to assist in self-management and provide support and confrontation as needed.
7. Develop confidence that you can learn and use coping strategies and maintain abstinence from reoffending.

As is evident from the list of goals, RP is composed of both an external supervisory dimension, but more importantly, an internal, self-management dimension designed to help sex offenders develop self-control over their sexually deviant behavior. The techniques help the sex offender identify the situations that place him at risk for re-offending and teach specific strategies to cope with these high-risk situations.

The focus of group work during the treatment phase is on problem solving through reliance on cognitive restructuring techniques, skill development, and RP with a particular emphasis on concepts and techniques related to sexual offending. Group therapy can be adapted to focus on both sex offender specific needs and target individual criminogenic needs, such as criminal attitudes and substance abuse, linked to criminality in general (McGrath et al., 2003; Nicholaichuk et al., 2000). The initial sessions are devoted to developing social skills necessary to be active listeners and participants, and learning to respectfully ask questions and provide feedback. As the offender progresses, group work emphasizes the importance of thought processes, recognition that deviant sexual thinking leads to trouble, and learning and applying new thinking styles. For example, offenders focus on examining the role of thoughts and feelings in controlling how people act and they work on developing appropriate responses and actions. Through such role-play, inmates learn to identify how their thoughts and attitudes lead to behavior,

recognize feelings that put them at risk, and apply new thinking that reduces the risk of engaging in trouble.

During these lessons, therapists address issues specific to sex offenders, such as denial, reasons why offenders may engage in denial, and the distortions that allow them to justify their behavior and minimize the harm caused to the victim(s) of their crime. The goal is for sex offenders to recognize their own distorted cognitions and alter these with beliefs that are antagonistic to sexual-offending. They practice specific interventions to overcome denial and accept responsibility for actions. During group discussion, participants give personal examples and engage in activities that model problem solving steps. In this fashion, issues related specifically to sex offending, such as sexual arousal control, can be identified and discussed, and concrete strategies to address and react to these situations can be developed.

The program also focuses on emotional regulation and provides techniques for responding to anger and other negative affective states. Participants learn to identify skills they can use when presented with negative emotions and stressful situations. Group work also incorporates concrete steps to solve problems, including the "stop and think" technique, describing the problem, and considering choices and consequences of those choices (Bush et al., 2002). Throughout treatment, inmates are supplied with handouts and given homework to reinforce the concepts. Following are the offense-specific and offense-related treatment topic areas covered in group therapy sessions offered at SORT as described in the resident handbook.

Basic Skills: Psycho-educational skills development in the areas of communication, interpersonal skills, and basic relationship issues. Offenders gain

knowledge of concepts and terminology of these basic issues and explore how these issues are related to sexual offending behavior.

Social Skills: Applies basic skills to social situations and examines more complex aspects of social interaction.

Criminal Thinking: Offenders learn about criminal thinking and develop an awareness of their own antisocial attitudes. Sessions are designed to confront these attitudes and beliefs and encourage the adoption of more pro-social beliefs.

Problem Solving: Problem-solving skills are taught using a cognitive skills training approach. Lessons focus on developing specific skills necessary to solve problems effectively, and relating these problem-solving skills to their sexual offending and RP plan. Offenders practice these skills and receive feedback from other group members on the effectiveness of their decision-making processes.

Victim Empathy: Content focuses on educating offenders on the impact of sexual assault on victims. Further, offenders participate in experiential exercises designed to enhance the capacity to have empathy for victims of their crime.

Denial: The objective is to encourage offenders who deny commission of a sexual offense to admit their offense in order to increase compliance with subsequent sex offender therapy. Content matter includes the consequences of continued denial, reasons for continued denial, and emphasizes the positive consequences of participating in treatment. Offenders are given the opportunity to discuss their reactions to participating in treatment.

Chemical Dependency: The program provides cognitive, behavioral-based substance abuse treatment within a RP framework. The goal is to prevent relapse of substance abuse and related problems.

Healthy Relationships: Lessons focus on developing an awareness of healthy social relationships, including intimate relationships, family relationships, and friendships. The offenders examine how dysfunctional relationships develop and how these problem relationships are related to sexual offending.

Sex Education: Psycho-educational lessons provide information on the male and female reproductive system, pregnancy, sexually transmitted diseases, and birth control. The goal is to dispel myths about human sexuality and sex, as well as to provide accurate information so offenders develop a language for discussing sexual issues.

Domestic Violence: Lessons explore how sex offenders use power and control over women in intimate relationships and focus on developing alternatives to physical violence.

Anger Management: The objectives are to understand anger and its effects, to build an awareness of anger as a problem behavior, and to build skills to cope with anger more effectively.

Assertiveness: Offenders are taught how to stand up for their rights while respecting the rights of others.

Stress Management: Lessons focus on stress management, appropriate coping skills, and application of these tools in the offender's own life. Additionally, participants are able to share their experiences, frustrations, and fears about stress in a supportive group of their peers.

Gender Roles: Lessons are designed to develop an awareness of male and female gender roles and to understand healthy interactions between the sexes.

Personal Victimization: Content focuses on offenders processing emotions related to their own prior victimization. The use of a group approach serves as a supportive environment for recovery. Individual therapy is provided as needed.

Observation of Group Therapy

In an effort to review the substance of material covered in group therapy sessions, I attended five separate sessions over the span of three visits to BCC. The goal was to attend 2-3 sessions lead by different therapists that covered a variety of content matter on the initial visit, and to conduct a second visit within a brief follow-up period (2 weeks), and attend the same sessions to assess continuity of subject. All of the observations occurred during Spring 2006.

At the start of each session, the therapist went into the room alone and explained to the group members the reason for my visit. Members were informed that I was a student interested in learning about the process of group therapy for sex offenders. The therapist also advised the group members that if they had any reservations, I would be asked to leave. All of the participants gave their approval before I entered the room. After participants gave their verbal consent, I entered the room, introduced myself, and informed them about the purpose of my study. I advised the group members that I was evaluating the SORT program but that they were not the subjects of my study. One requirement of my attending group sessions was that I maintain the confidentiality of the participants and what was discussed in the sessions. At no point before, during, or after

the group therapy sessions was I aware of the identity of the participants. I did not take notes or record treatment sessions so as to minimize discomfort and suspicion among group participants. At the end of the session, the therapist and I reviewed the content of the session and s/he provided me with any handouts used in the session. What follows are general observations about the structure and process of the treatment sessions I attended, along with examples of treatment topics discussed during these sessions.

As part of group therapy observation, I attended two (2) "Treatment Issues" sessions and three (3) Relapse Prevention sessions. Inmates were required to maintain and bring to each group session a notebook of materials, including handouts and homework assignments. During all group sessions, offenders sat in a circle to encourage discussion. Active participation in treatment sessions was required and was used as one measure to gauge treatment progress. Participation in treatment was rated on the following: attendance, offering constructive feedback about group topic to other members, assisting in problem-solving, and sharing personal experiences.

Most of the sessions were structured such that the counselor began by setting the agenda, followed by a quick mood check to monitor the emotional states of the participants. Next, the therapist provided a summary of the previous session and reviewed homework assignments. This was followed by a brief lesson of the current topic, which typically included handouts. The main component of all of the sessions was group discussion. The therapist used motivational interviewing (i.e., guided questioning methods) (Miller & Rollnick, 2002) to solicit client participation. All group members were encouraged to engage in discussion and respectfully challenge one another. At the end of the session, the therapist handed out homework assignments related to the session

topic. This ensured the client continued to work on the issue and served as a bridge between group sessions. Therapist reviewed the homework assignments after session, and provided members with written comments.

In the Treatment Issues sessions, treatment focused on educating participants about the relationship of cognitive distortions to sexually deviant behavior and employed a variety of cognitive restructuring procedures. For example, in one of the group sessions I observed, a participant presented to the group his narrative of the sex offense for which he was committed. The therapist used this as a jump off point for her lesson on thinking errors, or what the participants referred to as "stinkin' thinking" (e.g., "She made me do it." "She deserved it."). The group discussed the narrative, focusing on identifying the cognitive distortions present in the narrative and challenged the offender when he attempted to rationalize his behavior. During these sessions, participants often referenced their use of a journal. Therapists required participants to journal daily as a means of monitoring their feelings and attitudes and to use as discussion topics. During one of the Treatment Issues sessions, one of the group members noted how writing about his feelings of depression and worthlessness helped him better understand the relationship between these thoughts and his "offense cycle." Afterwards, other group members provided feedback and offered insights into how they managed similar emotional bottoms.

During all of the RP sessions, there was a strong focus on understanding the high-risk factors (i.e., "people, places, and things") that trigger sex offending as well as learning and rehearsing coping responses. The inmates were very familiar with RP terminology and routinely used RP language (e.g., cues, precipitating precursors, denial,

defense mechanisms) throughout group discussion. One of the lessons focused on the Problem of Immediate Gratification (PIG), the perspective that sex offending, like substance abuse, provides immediate positive feelings followed by delayed negative reactions. Discussion centered on the problems associated with ignoring the long-term consequences of sexual deviance. During this session, offenders noted the legal consequences of re-offending but primarily showed concern for the emotional and social consequences of their behavior. Many of the participants invoked personal feelings of shame and guilt as the primary reason for not wanting to re-offend.

In another RP session, the topic of discussion was decision-making and the role of Seemingly Unimportant Decisions (SUDS) in the sex offending cycle. After a brief lesson, group participants were asked to give personal examples of SUDS they made during their sex offense (e.g., drank alcohol, called an old drug-using friend, purchased pornography, agrees to baby-sit for a friend). Group peers more often than the counselor confronted other participants to identify and admit to their SUDS. Members also identified alternative strategies they could use in future, similar situations to avoid offending.

During all of the group therapy sessions I observed, the therapist placed a strong emphasis on the offender accepting responsibility for his sex offense(s). Participants were very candid in describing their sexual offense. When a group member spoke, he typically referenced his sex offense in some manner. For example, when discussing the letter of apology he had written to his victim, one participant started by telling the group he had molested his teenage cousin. Another offender convicted of rape, in discussing healthy ways to engage a woman in conversation, was asked to relate the nature of his

offense to the group. According to program staff, frequent and continuous acknowledgement of a client's sex offense served to help the offender recognize the behavior as problematic and increase personal desire to change. In addition, it encouraged victim empathy. Program staff advised they often used victim impact statements during group sessions as another means of increasing victim empathy.

Based on my observations, the role of the therapist appeared to be that of guiding the discussion to avoid tangential topics, assisting the participants in developing self-awareness of their deviant sexual behavior, and challenging them to identify and plan strategies to avoid future high-risk situations (referred to as their relapse prevention plan). Throughout treatment, therapists frequently stressed the link between thinking and behavior. Group work centered on the importance of discovering and understanding individual patterns of thoughts and behavior, i.e., sex offense cycle. The critical issue of discussion in the sessions appeared to be identifying warning signs and high-risk situations and devising ways to intervene in this cycle. In addition, responsibility for self and treatment success was continuously reinforced, e.g., while it was reiterated that behavioral change was possible, it was also made clear this was contingent on the amount of effort put into the program by the offender. Therapy was geared towards not only understanding the concepts, but also learning to apply the acquired knowledge to their individual situation and developing a long-term perspective to managing and controlling their sexually deviant behavior.

Conclusions

The purpose of this assessment was to determine if the therapeutic elements that composed the SORT program were consistent with a cognitive-behavioral model of treatment. This was accomplished through a simple, qualitative approach that included interviews with treatment staff, reviews of program materials, and observation of a handful of group sessions. This qualitative assessment did not constitute a comprehensive evaluation of program fidelity as that was beyond the scope of this study.

It is important to emphasize that the researcher is not a clinician or trained therapist and, therefore, not qualified to evaluate therapeutic skills or the quality of treatment. Reflections are limited to assessing whether the content of sessions covered topics reflective of CBT and RP, and that session topics followed a standard structure and maintained continuity. In short, the purpose of this qualitative assessment was to determine if, on its face, the SORT program contained elements that are essential to CBT interventions. It should also be noted that observations of therapy sessions occurred in Spring 2006, whereas the quantitative analysis is of treatment subjects who participated in SORT between 2001-2003. Although program philosophy and treatment goals remained constant over time, some of the treatment interventions may have evolved. It is possible that content matter may have changed and that the characteristics of the participants may vary over time (e.g., changes in risk score cutoffs for participation in treatment based on civil commitment laws). Nevertheless, this assessment does indicate the SORT program adhered at minimum to the basic principles of CBT, with a particular focus on relapse prevention.

A review of the CBT literature, in particular CBT with an offender population, helped identify the important elements that must be included in the program. CBT focuses on the distorted cognitions that trigger and maintain antisocial behavior, and cognitive restructuring and coping skills training (Ellis, 1997; Lipsey et al., 2001; Little, 2000; Pearson et al., 2002; Van Voorhis, Spruance, Ritchey, Listwan, & Seabrook, 2004; Wilson et al., 2005). Cognitive-behavioral interventions for sex offenders, therefore, should involve an examination of the relationship between dysfunctional thoughts, feelings and attitudes, and deviant sexual (and antisocial) behavior, acquisition and rehearsal of adaptive social and coping skills, and development of effective problem-solving strategies to control deviant arousal and sexual re-offending. In addition, many cognitive-behaviorally focused clinicians in the field of sex offending stress there is no "cure" for sexual deviance; therefore, attention to the problem should focus on control of, rather than elimination of, the behavior (e.g., prevent a return to sex offending through acquiring self-management skills) (Hanson, et al., 2002; Marshall & Laws, 2003; Wood et al., 2000).

Review of SORT program materials and observation of group therapy sessions suggests that SORT methods and techniques were consistent with CBT. Important treatment components included problem solving and skill building. Sessions focused on understanding the thoughts and feelings related to sexual offending and restructuring distorted thought patterns that blame the victim or minimize, justify, and rationalize the offense. Additionally, offenders learned to recognize seemingly unimportant decisions, plan for and manage high-risk situations, identify triggers, and cultivate coping techniques. Therapists used role play to help clients recognize the high-risk situations in

which they are most likely to offend and to develop more effective means of coping with them. Participants were required to journal about their thoughts, feelings and behaviors and complete homework assignments geared towards reinforcing session lessons and RP strategies. Taken together, it is sensible to conclude that the components of SORT were consistent with a cognitive-behavioral model of treatment. Nevertheless, while this assessment suggests the SORT therapeutic approach met many of the principles of CBT, there are many aspects to assessing the effectiveness of a correctional program that could not be accomplished in this limited evaluation. Periodic formal and comprehensive evaluations to determine the effectiveness of correctional interventions on a variety of characteristics, such as program adherence to standards and guidelines and therapeutic integrity, using validated procedures (e.g., Correctional Program Assessment Inventory; Gendreau & Andrews, 1996) are encouraged.

Chapter 5: Research Design and Methodology

This is an outcome evaluation of a sex offender treatment program implemented in a correctional facility within the Virginia DOC. To date, the effectiveness of SORT has not been evaluated. While randomization to the treatment or control condition is the "gold" standard (Maxfield & Babbie, 1995), this study was a retrospective evaluation of offenders who had previously participated in treatment; thus, a randomized experiment was not possible. An alternative design to assess the impact of SORT on recidivism is to control for pre-existing group differences utilizing a measure of recidivism risk. The following sections outline the methodology for the outcome evaluation.

Sample Selection

The current study compared a group of male inmates who received sex offender treatment at BCC to a comparison group of inmates who did not receive treatment. To be considered for the program, offenders must either be serving a sentence for a sex offense and/or have a history of sex offending. All of the offenders in the study sample had a sex offense conviction for their current incarceration term. SORT staff members determined eligibility and acceptance into the program. Any inmate who did not have a minimum of eighteen months remaining on their sentence was excluded from SORT because they did not have the sufficient time required to participate in core components. In addition, potential participants must meet the reading level threshold of a minimum of 7th grade. SORT considers an inmate with a history of mental illness if he has demonstrated approximately one year of stability prior to acceptance. Offenders comprising the

treatment and control groups were released from prison during the period February 2001 through April 2004.

Inmates convicted of a sex offense that participated in the SORT program between December 2000 and June 2003 make up the treatment group. The treatment group combines program completers and non-completers. Non-completers are those inmates who were initially accepted into the SORT program but were subsequently removed or expelled due to unsatisfactory progress or behavior problems (e.g., refusal to comply with treatment programming, excessive absences from group, lack of effort demonstrated by not completing homework, being disruptive). The program director reported that the majority of non-completers were removed from the program within the first 30 days of treatment. There were 97 inmates in the treatment group, of which 68 completed treatment and 29 were non-completers.

The control group includes those inmates convicted of a sex offense who were unable to participate in SORT because the amount of time left to serve on their sentence was of insufficient length to complete program requirements. *These offenders met the remaining eligibility criteria and would have otherwise been accepted into SORT*. While it cannot be determined with certainty whether these offenders would have completed the program successfully or dropped out/been removed, they serve as a satisfactory comparison because they are similar to those accepted into SORT in some important areas. A sample of 64 inmates fitting this description made up the control group.

Human Subject Protection and Confidentiality of Information

This is a secondary analysis of existing data in which no human subjects directly participated; nevertheless, necessary provisions were taken to maintain the confidentiality of information collected about all research subjects. DOC provided the database to the investigator.[1] The database only includes data on offenders released from prison no later than April 2004. It does not contain information on offenders participating in SORT during the qualitative assessment phase of this study (i.e., Spring 2006). Offenders who were present during the observation of group therapy sessions were not part of the sample of subjects for the quantitative evaluation of SORT. The database did not contain any identifying information, such as name, social security number, DOC number, dates, etc. The investigator did not have access to a list of names or any other similar information which can be used to determine the identity of the subject.

Data Collection

The evaluation is a retrospective analysis that utilizes existing data maintained by DOC. The database was provided to the student investigator with all study subject identifiers removed. The database was created by staff at DOC and combined information from institutional inmate records, probation & parole data, and statewide criminal offense records. The database contains extensive information on a variety of areas of interest to program evaluation within a correctional setting. Included are demographic characteristics, sentencing and institutional variables, treatment variables, criminal history, community supervision progress, and recidivism.

[1] The student investigator was previously employed by DOC and, during that time, the SORT Director requested her assistance in evaluating the program. The student investigator obtained permission from the DOC research division unit head to utilize the data for her dissertation research.

The purpose of this study was to evaluate the effectiveness of the SORT program in reducing recidivism. As noted earlier, one of the methodological flaws present in much of the sex offender evaluation literature is the reliance on non-equivalent comparison groups, such as treatment dropouts or treatment refusers, to analyze the effect of treatment participation on recidivism (Furby et al., 1989; Lösel & Schmucker, 2005; Nicholaichuk et al., 2000). In such cases, pre-existing differences in risk of recidivism between the groups rather than treatment could account for any observed effects. The current study attempted to address this limitation in two ways: (1) selecting for inclusion in the comparison group only those inmates who met all of the eligibility criteria to participate in SORT but were excluded because of insufficient time remaining on their sentence; and, (2) statistically accounting for between-group differences in recidivism risk level using scores from a validated risk assessment instrument. The following describes the variables created to investigate the study hypotheses.

Variables

Treatment Condition

The primary purpose of the study was to test the effectiveness of the SORT program in reducing recidivism; therefore, the main independent variable of interest is treatment condition. The dichotomous variable *Treatment* measures group status, coded as 1 if the inmate was a SORT participant, whether or not he completed the program, and 0 if the inmate was in the control group that did not receive treatment. To examine the hypotheses related to the effect of treatment completion on recidivism, the treatment group was disaggregated into two separate groups. Two dichotomous variables were

created: *Treatment Completers* represents inmates who completed the SORT program and *Non-Completers* is a measure of inmates who did not complete the SORT program.

Risk Assessment Measure

Given the nature of the research design (non-random assignment), it is critical to account for factors known to distinguish offenders in terms of the outcome variable of interest (i.e., recidivism). The standard approach would involve identifying all variables the literature has shown to be related to sex offending and including them in a statistical model comparing the treatment and comparison group. There are theoretical and practical limitations to this approach, however, and the relatively small sample in the present study restricts the use of an unlimited number of control variables. Another approach is to account for offender recidivism risk using a risk assessment measure.

Recidivism risk assessment is the estimation of an offender's likelihood of repeat criminal offending and the consequential classification of offenders in terms of their relative risk of such behavior. Actuarial risk assessment is based on empirical data rather than clinical prediction. Actuarial risk assessment is formulated from knowledge gained through empirical observation of actual behavior within groups of individuals. In essence, it is a composite based on overall group outcomes. Groups are defined by having a number of factors ("risks") in common that significantly predict repeat criminal offending. A valid actuarial risk assessment instrument incorporates factors associated with the re-offending behavior of interest (e.g., sex offending) and provides explicit directions on how to combine these items into an overall risk score. With regards to sexual recidivism, there is strong consensus regarding the factors most often associated with sex re-offending (Hanson & Bussiere, 1998; Hanson et al., 1995; Prentky, Knight, &

Lee, 1997). Research has consistently demonstrated there are two separate and reliable dimensions underlying sex offender recidivism risk: (1) antisocial orientation; and (2) sexual deviance (Dempster & Hart, 2002; Doren, 2004b; Hanson & Morton-Bourgon, 2005; Roberts, Doren, & Thornton, 2002).

The first dimension, antisocial orientation, refers to a conglomeration of personal attributes related to a criminal lifestyle (Gendreau, Little, & Goggin, 1996). This construct encompasses those attitudes, values, beliefs, and behaviors characteristic of persistent offenders. In this respect, it is consistent with the concept of 'low self-control' posited by Gottfredson and Hirschi (1990) in explaining criminal offending. In their view, individuals with low self control are impulsive risk-takers, they desire immediate gratification and do not consider the long-term consequences of their actions. They are described as self-centered, indifferent to the suffering of others, and have minimal tolerance for frustration. In the sex offender literature, this component has been categorized variously as antisocial, antisocial personality, general criminality, or psychopathy (Hanson & Morton-Bourgon, 2005), and persons displaying this constellation of characteristics have been described as egocentric, manipulative, lacking in empathy and guilt, sensation seekers, impulsive, and irresponsible (Serin et al., 2001). Studies of sex offender criminality and recidivism indicate that antisocial orientation is a strong and robust predictor of general recidivism (Hanson & Bussiere, 1998; Hanson et al., 2003; Lussier et al., 2005).

The second dimension, sexual deviance, refers to sexual interests and attractions that are typically considered abnormal, unusual, and/or illegal. While all sex offenses are deemed illegal, not all sex offenders have deviant sexual preferences. This construct

represents an enduring trait and characterizes persons who are preoccupied with sexual fantasies and acts that are generally deemed inappropriate. Sexual deviants typically have a strong sexual preference for children, or fixate on children as sexual objects, hold beliefs and attitudes that are highly tolerant of sexually deviant and aggressive behavior (e.g. the belief that sex with pre-pubescent children is not wrong and should not be condoned, hostile view of women, derive sexual satisfaction from humiliating and inflicting pain on their victims), have a greater incidence of paraphilias, and have difficulty forming stable, romantic, adult relationships (Hanson & Harris, 2000; Roberts et al., 2002). Factors related to sexual deviance have been shown to be the strongest predictors of sexual recidivism (Hanson & Bussiere, 1998; Serin et al., 2001).

The Static-99 is one of the most widely used actuarial risk assessment instruments to predict sex offender risk of recidivism (Hanson & Thornton, 2000a). The Static-99 was created by combining two prediction instruments: the Rapid Risk Assessment for Sex Offense Recidivism (RRASOR) and the Structured Anchored Clinical Judgment-Min (SACJ-Min) (Hanson & Thornton, 2000b). In developing the Static-99, Hanson and Thornton indicated that the RRASOR and the SACJ-Min tapped into overlapping but non-redundant constructs and their combination could improve the predictive accuracy of either individual scale. According to the authors, "Many of the variables used in Static-99 can be grouped into general dimensions that are plausibly related to the risk of sex offense recidivism, such as sexual deviance, range of available victims, persistence (lack of deterrence or 'habit strength'), antisociality, and age (young)" (Hanson & Thornton, 2000b, p. 131). In other words, several of the items that comprise the Static-99 are useful

for measuring the antisocial orientation factor, while other items tap into the sexual deviance construct.

The Static-99 contains the following ten risk factor items: Young, Single, Index non-sexual violent offense conviction, Prior non-sexual violent conviction, Prior sex offenses (charges or convictions), Prior sentencing dates (excluding index), Conviction(s) for non-contact sex offenses, Any unrelated victim(s), Any stranger victims. Raw scores on the Static-99 can range from 0-12. A total risk score is calculated by adding up scores from the individual risk items (Harris et al., 2003). Appendix A is a reproduction of the Static-99 coding form. Research by its developers, as well as several independent studies, have found the Static-99 to be valid in predicting sexual, and to a lesser extent violent and overall, recidivism (Barbaree, Seto, Langton, & Peacock, 2001; Bartosh, Gary, Lewis, & Gray, 2003; Doren, 2004a; Langton, Barbaree, Seto, Peacock, Harkins, & Hansen, 2007; Nunes, Firestone, Bradford, Greenberg, & Broom, 2002).

As previously noted, all offenders referred to SORT are administered the Static-99 by staff of the treatment program. A variable labeled *Static-99* representing the total raw score on the Static-99 at the time of referral was included in the model to measure the treatment and control subject's risk of recidivism. Incorporating an empirically-based risk assessment measure should minimize pre-existing variability between offenders in the treatment and comparison group to better isolate the treatment effect on recidivism outcome.

Control Measures

In addition to treatment status and the Static-99 score (i.e., a risk assessment score that accounts for levels of sexual deviance and antisocial orientation), a number of

variables identified as robust predictors of different measures of recidivism for sex offenders were measured (Hanson & Bussiere, 1998; Harris, Rice, Quinsey, Lalumiere, Boer, & Lang, 2003; Scalora & Garbin, 2003). These variables include the following: sex offender typology, victim harm, criminal history, substance abuse, marital status, and offender demographics.

Sex Offender Type. Sex offenders are commonly distinguished as child molesters (hereafter designated CM) who mainly victimize children, and rapists (hereafter designated R) who mainly victimize adults. Although the evidence indicates that sex offenders are not necessarily exclusive in the type of victim they select (i.e., child versus adult) (e.g., see Heil et al., 2003), differences in recidivism rates between groups warrant accounting for this distinction in the present analysis (Furby et al., 1989). The offense identification system based on the *Code of Virginia* provides a Virginia Crime Code (VCC) for all sex crimes. The VCC is comprised of a combination of nine letters and numbers (e.g., RAP-1121-F9), representing an abbreviation of the broad offense type, an four-number identification code unique to each crime, and the seriousness index based on the statutory maximum penalty for the crime.[2] Thus, for the example above, RAP refers broadly to a rape or other sexual assault, and 1121-F9 indicates this is a felony aggravated sexual battery with a victim under age 13. The VCC for the most serious commitment sex offense was available in the SORT dataset provided to the author and

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[2] In Virginia, violent sex offenses are designated with the RAP abbreviation. The four-number identification code provides a description of the offense. The seriousness index is made up of either the letter "F" or "M" (felony or misdemeanor, respectively), followed by a number ranging from 1-6, for level of seriousness, which increases in ascending order. Thus, M1 refers to a misdemeanor level 1 offense and M6 refers to a misdemeanor level 6 offense, where the latter is considered a statutorily more serious offense. F9 designates a felony offense with a special penalty structure. There was minimal variation in the seriousness index for the sample. All of the offenders in the sample were convicted of a felony sex offense. All but 19 of the offenses were designated with the F9 special penalty structure; the remainder were classified as either an F5 or F6 sex offense.

was used to classify the offender as either a CM or R. All of the offenders in the sample were convicted of a high seriousness level felony sex offense. Victim age is part of the VCC offense descriptor for sex offenses involving a minor victim (i.e., the VCC description incorporated age categories, such as under age 13, age 13 or 14, age 15, where a minor was the victim of a sex offense). Therefore, following convention, if the VCC indicated that the victim was aged 16 or below, the offender was classified as a CM (ATSA, 2004).[3] *Sex offender type* was a dummy variable coded 1 for R and 0 for CM.

Victim Harm. The seriousness of the index sex offense can be gauged by the degree of harm or injury sustained by the victim and the attendant level of physical aggressiveness of the offender. Three items related to the circumstances of the offense were available from the institutional data to measure harm to the victim during the commission of the offense: (1) the offender used a weapon (e.g., gun, knife); (2) the offender used or threatened physical force; and, (3) the victim sustained physical injury. The data provided information regarding the presence of each element during the offense (i.e., for use of weapon, use of force, or physical injury to victim, the response option was either "indicated" or "not indicated"). Unfortunately, there was no detailed data as to the severity of force used or the victim injury (e.g., emotional or psychological threats, life-threatening injury) nor was the offense seriousness score from the Virginia Criminal Sentencing Commission (VCSC) available (See Appendix B for additional technical detail on the research methodology issues related to data collection and creation of variables). In addition, there was between 6 and 19% missing data for the individual items. Therefore, rather than create a scale of the items that would result in the deletion

[3] There were no cases of statutory rape (i.e., where the victim was older than 15, the offender was no more than 5 years older than the victim, and the sex was considered consensual).

of a substantial portion of the sample, a dichotomous variable labeled *Victim Harm* was created and coded 1 if any one of the three elements was evident during the commission of the offense. This is a suitable alternative as the VCSC includes versions of these items in calculating the risk and total offense seriousness score for recommended rape and other sexual assault sentencing guidelines.

Criminal history. A history of criminal offending is an important indicator of future re-offending (Gottfredson & Hirschi, 1990). For the current study, the DOC provided official adult criminal history data obtained from the Virginia Criminal Information Network (VCIN) and the Offender-Based State Correctional Information System (OBSCIS) (these were also the sources for recidivism information). A number of criminal history measures were created based on these official records. VCIN provided information related to the number and type(s) of official arrests prior to the incident offense for which the offender was incarcerated. Two variables were created to measure criminal arrest history: *Prior Arrest* is a dichotomous variable (coded 1) to indicate an official record of at least one prior adult arrest (excluding the index offense) and *Prior Sex Offense Arrest* is a dichotomous variable (coded 1) to indicate an official record of at least one prior arrest for any sex offense (excluding the index offense). In addition, OBSCIS provided information on any prior incarceration(s) in either a local or state facility. *Prior Incarceration* is a dichotomous variable (coded 1) to indicate a history of at least one prior incarceration (excluding the current incarceration term).

History of Substance Abuse. Substance abuse has been identified as one of the most critical "criminogenic needs" among offenders and implicated as a stable dynamic predictor of some forms of recidivism among sex offenders (Hanson & Harris, 2000). An

index of substance abuse was created from five items available in the dataset that are frequently used as indicators of alcohol and/or other drug (AOD) abuse in addictions research (Belenko, 1998). The institutional records included one item that measured drug/alcohol abuse prior to the incarceration term (i.e., "Pattern of substantial drug or alcohol abuse 12 months prior to arrest for instant offense or revocation" with response option "yes" or "no"). The community supervision records included three items. The first two items were the results of a brief screening assessment for AOD use conducted by the supervising officer. One item indicated an alcohol use level that was problematic (i.e., "Assessment indicated an alcohol use level which is moderate to heavy" with response option "yes" or "no"). The second assessment item indicated a drug use level that was problematic (i.e., "Assessment indicated a drug use level which is moderate to heavy" with response option "yes" or "no"). The third measure available from the supervision records was an item that indicated if the offender was intoxicated at time of offense (i.e., "Intoxicants present at time of offense" with response options "yes, alcohol only," "yes, illicit drugs only," "yes, both alcohol and drugs" or "no"). The first three responses were combined to maintain the same response range format as the other indicators. The recoded item indicated whether the offender was under the influence of drugs and/or alcohol at the time of the offense (with response option "yes" or "no"). The final item was a count of the total number of drug arrests as recorded in VCIN. Again, to maintain consistency in response format, this was recoded into a dichotomous variable to reflect an official record of at least one prior drug arrest ("yes" or "no"). These five items were summed to create a cumulative scale variable labeled *Substance Abuse* that ranged from 0-5 with higher scores reflecting increasing severity in history of substance abuse.

Any of these items in isolation may not be sufficient to suggest a history or pattern of substantial AOD abuse but the combination of five indicators increases our confidence that the variable is adequately measuring the intended construct.

Marital Status. The literature has demonstrated that unmarried sex offenders are more likely to recidivate than married sex offenders (Scalora & Garbin, 2003). This is consistent with the life-course perspective of criminal offending that suggests marriage represents an adult institution of informal social control which serves to reduce the likelihood of continued criminal involvement (Sampson & Laub, 1993). Data from the community corrections files was used to determine the marital status of the offender while he was on community supervision (i.e., post-release from incarceration). The dichotomous variable *Marital Status* was coded 1 if the offender was single, divorced, or separated and 0 if married or cohabiting in accord with the view that the latter represents an existing social tie that serves to inhibit re-offending.

Offender Demographics. Two demographic variables were obtained from the data. *Race* is a dichotomous variable coded 1 for African-American and 0 for White according to the offender racial category reported in the institutional file. *Age* was a continuous variable reflecting the offender's age at the time of data collection.

Outcome Measures

The outcome of interest for this evaluation was recidivism. Sex offender treatment evaluations have alternately defined recidivism as rearrests, reconvictions, reincarcerations, or as any criminal justice system contact. Some definitions further refine these categories by specifying all crimes or sex-related crimes only. There are shortcomings to any of these measures. For example, research has found recidivism to be

substantially underestimated when criterion was based on conviction or incarceration (Prentky et al., 1997). The decision on how to operationalize recidivism in this study was guided by previous research, the data available in the DOC database, and the relatively short follow-up period.[4]

The DOC database included arrest record information from VCIN and probation files for each offender from the date of release from BCC through the end of May 2005. This allows for a minimum of a 12-month follow-up period (i.e., the sample consists of sex offenders released from prison no later than end of April 2004; thus, data collected through May 2005 factors in a 30-day lag period to account for data entry time). While most evaluations of sex offender treatment programs use a follow-up period of three years, Langan et al. (2003) indicated that the bulk of sex offender re-arrests that occurred within three years following release from incarceration took place in the first year after release, whereas most of the reconvictions and reincarcerations did not occur in the first year.

Arrest records and probation data were used to create four measures of post-release recidivism.[5] One of the most critical recidivism measures in sex offender evaluation research is a sex-related re-offense. Given that SORT programming focuses on restructuring cognitions related to deviant sexual urges and inappropriate sexual fantasies, places a strong emphasis on identifying triggers for this behavior, and works on developing coping skills and strategies to prevent relapse, sex re-offending is one of the

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[4] DOC did not provide the researcher data on prison release date due to concerns that this information could compromise the anonymity of the subjects. As a result, it was not possible to determine the length of time from prison release to date of first arrest or end of study period. This precludes controlling for time at risk in the community which could potentially be different between the treatment and control groups. This threat is minimized, however, because the control group includes sex offenders that were referred to SORT during the same time period as the treatment participants and released by April 2004.

[5] Arrest data for non-sex violent crime was available but there were only 11 cases for which this type of offense occurred. As such, it was impracticable to include a measure of violent re-offending in this study.

most important measures to consider. Thus, the first outcome measure was a dichotomous variable labeled *Sex Offense Re-Arrest* coded 1 if the offender had at least one officially recorded sex-offense arrest (violent or non-violent) during the follow-up period. In addition, because SORT includes treatment modules that target for change criminal thinking and antisocial attitudes and values common to criminals in general, a second arrest measure labeled *Any Offense Re-Arrest* was created, coded 1 if the offender had at least one official arrest for any crime during the follow-up period. This included any Part I (e.g., aggravated assault, burglary) and Part II (e.g., vandalism, forgery) offenses as defined by the Uniform Crime Reports, including sex offenses but excluding any traffic-related violations with the exception of arrest(s) for driving under the influence. To account for the research that suggests sex offending may be predicted by different factors than those that explain other types of criminal behavior, a third dependent variable was created that parsed out sex-related re-arrests. The dependent variable labeled *Non-Sex Offense Re-Arrest* was coded 1 if the offender had at least one official arrest for any Part I or Part II non-sex crime. Lastly, the database included community corrections records regarding offenders who were determined to be in violation of probation or post-release supervision for reasons other than a new criminal conviction. A probation violation, often referred to as a "technical violation" signifies non-compliance with the community supervision conditions established for every offender and/or special conditions specific to the individual offender. These are generally non-criminal behaviors that nonetheless are not allowable by the offender. Examples include fail to report to and/or unsuccessful discharge from mandated programs, change residence or leave the Commonwealth without permission, use/possess controlled substances, fail to maintain employment, and

abscond from supervision. A fourth dependent variable labeled *Probation Violation* is a dichotomous variable coded 1 if the offender was charged with at least one technical violation while on post-release probation/parole supervision. This measure excludes violations for new crimes (which is captured by the previous two variables). While there was no description regarding the condition(s) that resulted in the probation violation, a probation violator study conducted by the Virginia Criminal Sentencing Commission indicated the most common reasons for a probation violation were use of controlled substances (as determined through urinalysis testing), repeated failure to report for appointments, and abscond from supervision (VCSC, 2003).

Analytic Technique

The primary data analyses proceeded as follows: In the first phase, bivariate analyses were conducted to examine the association between treatment condition and the independent variables. Chi-square and *t*-test procedures were utilized to compare the treatment and control groups on Static-99 risk score and control variables to determine if any significant differences existed between the groups. A finding that treatment condition is significantly related to any of the independent variables raises concerns about the equivalence of the treatment and control groups.

In the second phase, bivariate analyses were conducted to examine the relationship between treatment condition and the dependent variables. Chi-square tests were used to determine whether an association existed between treatment status and prevalence of, Sex Offense Re-Arrest, Any Offense Re-Arrest, Any Non-Sex Re-Arrest, and Probation Violation. Furthermore, to determine whether there was preliminary

support for differences in outcomes based on treatment completion status, the bivariate analyses were conducted separately for treatment completers and non-completers

In the third phase, a multivariate model was estimated for each dependent variable. The use of ordinary least squares (OLS) regression with dichotomous dependent variables is problematic because there is no guarantee that the estimated probabilities will lie between the limits 0 and 1 (Fox, 1997). Because all the recidivism measures under examination were dichotomous, logistic regression was the appropriate statistical procedure to use. Logistic regression allows one to predict a discrete outcome, such as group membership, from a set of variables that may be continuous, discrete, dichotomous, or a mix of any of these. Logistic regression is an appropriate and well-established statistical technique to assess program effect on limited dependent variables such as those proposed in this study (Allison, 1999; Long, 1997). For each dependent variable, various logistic regression models were estimated to address potential multicollinearity issues that could result in incorrect conclusions about relationships between independent and dependent variables and to test for potential interaction effects.

In the final phase, treatment condition was disaggregated. Similar logistic regression procedures were estimated with the exception that the two dichotomous variables Treatment Completers and Non-Completers were introduced into the model. This was conducted to test the hypotheses that inmates who completed the SORT program would be less likely to recidivate than non-completers and control group members.

Chapter 6: Results

Sample Description

The present analysis included the 161 offenders who either participated in treatment or served as the comparison group. Characteristics of the study sample are presented in Table 1 by treatment condition. The treatment group included 97 SORT participants. The control group was made up of 64 inmates that were referred to SORT and met the eligibility criteria for acceptance but did not participate in the program.

Differences between the groups were tested using the chi-square test for categorical variables and *t*-tests for means. As seen in Table 1, the two groups were similar in age and racial composition. The average age of both groups was 42 and Whites comprised the majority, accounting for 69% of the treatment group and 64% of the control group. African-Americans made up 31% of the treatment group and 36% of the control group. With regards to marital status, the vast majority of subjects in both groups were single, divorced, or separated (hereafter 'single'). The treatment group had a higher prevalence of single offenders (87%) than the control group (76%) but this difference was not significant. Further examination of Table 1, however, suggests important distinctions between the two groups on other factors.

Table 1. Sample Characteristics by Treatment Condition[a]

	Group Condition				
	Treatment (N = 97)		Control (N = 64)		Total (N = 161)
Variable	**Mean**	**N**	**Mean**	**N**	**Mean**
Mean Static-99 Total Score (*SD*)**	3.43 (1.97)	97	2.22 (1.44)	64	2.95 (1.87)
Static-99 Risk Level**					
Low	13.4	13	32.8	21	21.1
Moderate-Low	45.4	44	50.0	32	47.2
Moderate-High	24.7	24	14.1	9	20.5
High	16.5	16	3.1	2	11.2
Sex Offender Type*					
Child Molester	82.5	80	67.2	43	76.4
Rapist	17.5	17	32.8	21	23.6
Victim Harm*					
No Victim Harm Indicated	45.4	44	29.0	18	39.0
Victim Harm Indicated	54.6	53	71.0	44	61.0
Prior Sex Offense Arrest	45.4	44	43.8	28	44.7
Prior Arrest	85.6	83	85.9	55	85.7
Prior Incarceration	34.0	33	34.4	22	34.2
Mean Substance Abuse (*SD)**	1.91 (1.46)	97	1.37 (1.24)	64	1.7 (1.40)
Marital Status					
Married/Cohabiting	13.4	13	24.2	15	17.6
Single/Divorced/Separated	86.6	84	75.8	47	82.4
Race					
White	69.1	67	64.1	41	67.1
African-American	30.9	30	35.9	23	32.9
Mean Age (*SD*)	42.4 (8.9)	97	42.4 (10.3)	64	42.4 (9.5)

[a]For dichotomous variables, percentages are reported; for continuous measures, the mean and parenthesized standard error are reported.
*p < .05, **p < .01

Despite attempts to formulate a control group that was similar to the treatment group, a comparison of mean score on the risk assessment measure indicates the

treatment group was at significantly greater risk of recidivism. Participants in the SORT program had a significantly higher mean score on the Static-99 than control group subjects (3.43 versus 2.22, $t = 4.22$, $p < .001$). This was also evident when offenders were classified into risk level according to Static-99 risk categories. A significantly greater proportion of treatment participants were categorized as moderate-high risk (24%) and high risk (17%) than controls (14% and 3%, respectively) and, conversely, there were a larger percentage of low-risk offenders in the control group (33%) than in the treatment group (13%) ($\chi^2 = 15.37$, $p < .01$). This finding provides further rationale for considering pre-existing risk differences between the groups when evaluating the effect of treatment on recidivism. There was also a difference between the groups on history of substance abuse. The treatment group had a significantly higher average score on the index measure of substance abuse than the control group ($t = 2.48$, $p < .05$).

Table 1 also shows that the treatment group had a significantly larger share of CM (83%) and lower prevalence of R (18%) than the control group (67 and 33%, respectively) ($\chi^2 = 5.00$, $p < .05$). Another factor on which the groups differed was victim harm. For 71% of the control group there was evidence of harm to the victim during the commission of the index offense in comparison to 55% for the treatment group ($\chi^2 = 4.24$, $p < .05$). This is likely due to the differences between the groups on sex offender type. Use of physical force and resulting injuries are more typical of adult rape than child molestation (Lisak & Miller, 2002). The existing data confirm that typology was significantly related to victim harm. The index sex offense involved harm to the victim for a significantly greater percentage of R (84%) compared to CM (54%) ($\chi^2 = 10.52$, $p < .001$).

In contrast, the treatment and control groups had nearly identical criminal histories. Analyses indicate that the vast majority of the inmates in both groups (86%) had at least one prior arrest. Additionally, there were no differences between the groups on prevalence of prior sex offense arrest and prior incarceration. For the treatment group, 45% had a prior sex offense arrest and for the control group 44% had a prior sex offense arrest. Lastly, nearly one-third of the offenders in both groups (34%) had a prior incarceration.

As noted, information regarding completion status of the SORT program was obtained for each participant. Of the 97 inmates in treatment, 68 (70%) completed the program and 29 (30%) did not complete the program. Differences between the groups on the Static-99 and other control variables were also tested to identify any factors that were related to non-completion of treatment. Only one variable significantly differentiated the completers and non-completers. Specifically, race was significantly related to treatment completion. There were a larger percentage of African-Americans in the non-completer group than the completer group (45% compared to 25%, respectively) and a greater proportion of white completers (75%) than White non-completers (55%) ($\chi^2 = 3.74$, $p < .05$). Although the difference was not significant, one other finding is worth noting. Evidence for at least one prior incarceration was present for 45% of the non-completers compared to 29% of the non-completers. In other respects, the two groups were fairly equivalent.

Main Effect of Treatment on Recidivism

Recidivism rates for the total sample and by treatment condition are presented in Table 2. The bivariate relationship between treatment status and each dependent variable was assessed using chi-square tests to investigate the hypotheses that the treatment group would be less likely to recidivate than the control group. It is important to note that, due to the small sample size and the small number of cases detected in the measures of recidivism, analyses may lack the statistical power necessary to detect significant differences (Cohen, 1988). In such instances, it is inadvisable to rely solely on statistical significance at the disregard of substantive significance (Dixon, 2003). Unfortunately, low base rates of officially recorded recidivism, particularly sex crimes, are a common peril in the sex offender treatment evaluation literature (Nicholaichuk et al., 2000).

Table 2. Prevalence of Recidivism by Treatment Condition

	Group Condition		
Recidivism Measure	**Treatment (N = 97)**	**Control (N = 64)**	**Total (N = 161)**
Sex Offense Re-Arrest	19.6% (19)	12.5% (8)	16.8% (27)
Any Non-Sex Offense Re-Arrest	32.0% (31)	25.0% (16)	29.2% (47)
Any Offense Re-Arrest	39.2% (38)	35.9% (23)	37.9% (61)
Probation Violation	27.8% (27)	37.5% (24)	31.7% (51)

According to official arrest records, the total number of sex offenders re-arrested for a new sex offense during the follow-up period was quite low (N = 27). In all, 17% of the sample was re-arrested for a sex offense. The most common charges in this category were forcible sodomy, indecent exposure, solicitation, and aggravated sexual battery. The total numbers were slightly higher for the other measures of recidivism. Larger

proportions of the sampled sex offenders were re-arrested for a non-sex offense (29%, N = 47) and any offense (38%, N = 61). Common non-sex offenses were drug possession/possession with intent, assault and battery, driving under the influence, trespassing, and grand larceny. Probation records indicated that 32% (N = 51) of the sample had a probation violation. As previously noted, this measure only included technical violations of supervision conditions. Violations that occurred with the greatest frequency are use of controlled substances, repeated failure to report for appointments, and abscond from supervision (VCSC, 2003).

Based on the figures provided in Table 2, there was little support for the hypothesis that treatment participants were less likely to recidivate than controls. In fact, other than for the measure of probation violation, offenders in the treatment group had a greater prevalence of recidivism than controls. While none of these findings are statistically significant, the differences between the groups for sex offense arrest, non-sex offense arrest, and probation violation were quite substantial. One should be cautious in interpreting these results, however, as the total number of recidivists for any of the measures is small.

Although the number of cases in each group was minimal, comparisons across the groups showed that a larger proportion of sex offenders in the treatment group (20%) were re-arrested for a sex offense than controls (13%). Similarly, treated sex offenders were more likely to be arrested for a non-sex offense than the non-treated offenders. Specifically 32% of the treatment group versus 25% of the control group had an arrest for any non-sex crime. The proportion of offenders arrested for any offense was fairly equivalent for the two groups; 39% of the treatment group and 36% of the control group

had an arrest for at least one new criminal offense. Conversely, treatment participants had a lower prevalence of probation violations. Probation records reported at least one probation violation for almost 28% of the treated sex offenders in comparison to 38% of sex offenders in the control group. Overall, these findings suggest that sex offenders in the treatment group did not recidivate, sexually or otherwise, at a lower rate than those in the control group. Furthermore, although differences were not statistically significant, the results were consistent with the research of Quinsey and colleagues (1998) in showing that treatment actually had opposite the anticipated effect such that treated participants had higher rates of sexual and other recidivism than the controls.

Interaction Effect of Treatment Completion on Recidivism

The bivariate analyses of the association between treatment and recidivism found no overall treatment effect but it is possible that different subsets of sex offenders have better recidivism outcomes. The previous results were based on analyses of treatment as assigned, regardless of completion status. One potential explanation for the higher rates of recidivism observed among the treatment group could be that the non-completers fared worse than completers on outcomes. To test this hypothesis, sex offenders in the treatment group were disaggregated into treatment completers and non-completers and compared on their rates of recidivism. A total of 68 (70%) sex offenders completed treatment successfully and 29 did not complete treatment. Table 3 provides results for the analyses of treatment as delivered.

Table 3. Prevalence of Recidivism by Treatment Completion Status

	Treatment Group		
Recidivism Measure	**Completers (N = 68)**	**Non-Completers (N = 29)**	**Control (N = 64)**
Sex Offense Re-Arrest	20.6% (14)	17.2% (5)	12.5% (8)
Any Non-Sex Offense Re-Arrest	29.4% (20)	37.9% (11)	25.0% (16)
Any Offense Re-Arrest	38.2% (26)	41.4% (12)	35.9% (23)
Probation Violation	25.0% (17)	34.5% (10)	37.5% (24)

The results depicted in Table 3 provide partial support for the hypothesis that sex offenders who completed treatment were less likely to recidivate than sex offenders who did not complete treatment. For sex offense re-arrests and any offense re-arrests, the proportion of recidivists in the completer and non-completer group was fairly comparable and for both greater than the control group. Almost 21% of treatment completers and 17% of non-completers were arrested for a new sex offense. Similarly, 38% of completers and 41% of non-completers were arrested for any new crime after their release. On the other hand, treatment non-completers represented a greater proportion of recidivists relative to completers as measured by non-sex offenses and probation violation. Specifically 32% of the treatment group versus 25% of the control group had an arrest for any non-sex crime. This finding also revealed a 13% difference in non-sex re-offending between sex offenders who did not complete treatment and those in the control group. Finally, in the case of probation violation, the non-completers had a recidivism rate similar to the controls and substantially larger than the treatment completers. About 35% of sex offenders who did not complete treatment had a probation violation in contrast to 25% of participants who completed the program. Overall,

consistent with the report by Marques et al. (2005), these findings indicate that sex offenders who completed treatment were not less likely to recidivate than sex offenders who did not receive treatment, but had a somewhat lower likelihood of re-offending than sex offenders who did not complete treatment.

Effect of Sex Offender Typology on Recidivism

As previously noted, evidence suggests variation in the recidivism rates of different types of sex offenders (Maletzky & Steinhauser, 2002; Prentky et al., 1997; Serin et al., 2001). The study sample, although com prised primarily of child molesters, was nevertheless a mixed-group of sex offenders. The possibility therefore exists that the observed relationship between treatment and recidivism was spurious. In other words, it is possible that recidivism was related to sex offender typology regardless of treatment condition. To test this conjecture, bivariate associations between sex offender classification (i.e., child molester vs. rapist) and the different measures of recidivism were analyzed. The results are presented in Table 4.

Table 4. Prevalence of Recidivism by Sex Offender Typology

	Sex Offender Category	
Recidivism Measure	**Child Molesters (N = 123)**	**Rapists (N = 38)**
Sex Offense Re-Arrest	16.3% (20)	18.4% (7)
Non-Sex Offense Re-Arrest*	24.4% (30)	44.7% (17)
Any Offense Re-Arrest	35.0% (43)	47.4% (18)
Probation Violation	29.3% (36)	39.5% (15)

* $p < .05$

As seen in Table 4, on the whole, R were more likely to re-offend than CM. For sex offense re-arrest, the proportions between the two types of sex offenders were nearly identical; 16% of CM and 18% of R were arrested for a new sex crime. For the other measures of recidivism, the differences between the groups were relatively large with R exhibiting the higher preponderance of re-offending. The largest and only statistically significant difference concerned non-sex offenses. A significantly larger proportion of R (45%) than CM (24%) had an official re-arrest for a non-sex crime ($\chi^2 = 5.81$, $p < .05$). Similarly, over 47% of R compared to 35% of CM were arrested for any new offense during the follow-up period. Finally, R were also more likely to have at least one probation violation than CM (40% compared to 29%, respectively). Conclusive statements based on these findings cannot be definitive since the total number of re-offenders was low; nevertheless, these results are consistent with evidence that R have higher overall rates of recidivism (Prentky et al., 1997). In addition, they suggest that the nature of criminal offending (e.g., frequency, variety) may differ between R and CM.

Multivariate Analyses

Prior to conducting the multivariate analyses, correlations between the Static-99 and the control variables were assessed with the Spearman rank-order correlation coefficient (r_S) to assess multicollinearity (i.e., strong correlations among key predictor variables).[6] Particularly for small sample sizes, multicollinearity in regression models may result in lack of statistical significance of the individual independent variables while the overall model may be significant. Principally, there was a concern that items in the

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[6] The r_S is the appropriate statistic to use when the values assigned to variables reflect categories (Bachman and Paternoster, 1997).

Static-99 (i.e., criminal and relationship history indicators) measured similar constructs as some of the control variables (i.e., prior sex arrest, prior arrest, prior incarceration, marital status) and would therefore disguise the true relationships between independent and dependent variables. The results of correlational analyses indicated that a number of the independent variables were significantly correlated with Static-99. As anticipated, the Static-99 was significantly correlated with two measures of criminal history, prior sex arrest and prior arrest (which likewise correlated strongly with each other) and marital status.

Given these results, separate models with and without the factors (i.e., marital status, prior sex offense arrest, and prior arrest) were estimated for each dependent variable. The goal was to build the most parsimonious model of the effects of treatment, pre-existing risk, and relevant control variables on the different outcomes. In all cases, the results of the reduced models mirrored those of the full models in terms of the effects of the remaining independent variables and improved the overall fit of the models. Further, none of the correlated items were significantly related to any of the dependent variables in the full models. As such, the following was the final model estimated for each measure of recidivism:[7]

$$DV = \beta_1 + \beta_2 \text{ Treatment}_i + \beta_3\text{Static-99}_i + \beta_4\text{Sex Offender Type}_i + \beta_5\text{Victim Harm}_i + \beta_6\text{Prior Incarceration}_i + \beta_7\text{Substance Abuse}_i + \beta_8\text{Age}_i + \beta_9\text{Race}_i + \varepsilon_i$$

[7] Bivariate associations indicated that there were significantly more white than black CM (82 vs. 66%, respectively); conversely, there was a greater proportion of black than white R (34 vs. 19%, respectively) ($\chi^2 = 4.7$, $p < .05$). Therefore, models that included an interaction between race and sex offender type were estimated but none of the interaction terms in the regression equations were significant. This indicates that race has the same effect on recidivism outcomes for CM and R

The logistic regression results for the four measures of recidivism appear in Tables 5 through 8. For each dependent variable, two equations are presented. The first model (Model 1) examines the effect of treatment on the recidivism outcome controlling for risk score and the other predictive factors. The second equation (Model 2) adds a variable for the interaction between treatment and sex offender type to test whether treatment has the same effect for R and CM. The tables include the regression coefficient (B), standard error (SE), and odds ratio (Odds) for each variable. In addition, the Model Chi-square (χ^2) and -2 Log Likelihood (-2LL) were presented to assess the goodness of fit of the estimated models.

Before conducting significance tests for the independent variables, model diagnostics were conducted. One way to assess how well the model fits the data is to test the null hypothesis that all the coefficients in the model except for the constant are equal to zero (Bachman & Paternoster, 1997). This hypothesis is tested by subtracting the -2LL for the full model from the -2LL for the baseline model (constant only); the statistic obtained is the Model Chi-square. A significant statistic indicates that the full model provides a better fit to the data than the model with only the constant. The Model Chi-square along with the level of significance is provided in the tables. Furthermore, the Model Chi-square can be compared across the two equations for each dependent variable to determine which of the estimated models provided a better fit to the data; the higher the value, the better that model is at predicting the dependent variable. The overall goodness of fit can also be interpreted using the -2LL such that the lower the value of the -2LL, the better the fit of the model. An examination of these two statistics in Tables 5 through 8 indicates that, across the four measures of recidivism, Model 2 including the

treatment condition, risk score, control variables, and the interaction between treatment and sex offender typology provided the best fit to the data.

As previously noted, low recidivism rates among sex offenders make finding a statistically significant treatment effect difficult (Prentky et al., 1997). Generally, the failure to reject the null hypothesis (i.e., detect a significant relationship between the independent and dependent variable) is referred to as a Type II error. Type II error is increased when there are small numbers of observations in the dependent variable. In the current study of re-offending among sex offenders, a Type II error would occur if we fail to detect a relationship between treatment and recidivism based on sample statistics when, in fact, a relationship exists. The best approach to avoiding this problem is to increase the sample size; however, that is not an option in the current retrospective evaluation. A second suggested approach is to depart from conventional significance criteria and employ a more lenient level of statistical significance (Sherman & Weisburd, 1995; Weisburd, 1998). For the current study, conventional significance criteria ($p < .05$) may be too strict for assessing the effectiveness of treatment. Acceptance of the null hypothesis, if false, could lead to inappropriate modifications to the program or dismantling of the program. Accordingly, the present study will follow conventional standards in terms of significance level but will also report trends, where $p < .10$.

Turning to the main variable of interest, overall results do not support the hypothesis that participation in SORT reduced the likelihood of recidivism. The non-significant logistic regression coefficients shown in Model 2 for the three re-arrest measures of recidivism indicated that treatment participants were no less likely to be re-arrested for a sex offense, a non-sex offense, or any offense than sex offenders in the

control group. The findings do indicate that treatment participants were significantly less likely to violate the conditions of their probation than the controls. There was also little evidence to suggest that completion of treatment reduced re-offending. A more in-depth interpretation of the findings follows.

According to Table 5, the results in Model 1 suggest a trend towards treatment participants having an *increased* likelihood of re-offending sexually; however, when the interaction term for treatment and sex offender type was introduced in Model 2, the salience of the treatment coefficient decreased and was no longer significant. In addition, the non-significant interaction term suggests no differential treatment effect for R and CM. The results also indicate that sex offender type was significantly related to sex re-offending. Specifically, the negative coefficient in Model 2 of Table 5 indicates that R were significantly less likely to re-offend sexually than CM. Interpreting the results in terms of the odds ratio (i.e., the antilog of the logistic regression coefficient (Exp(b)), the odds of committing a new sex crime were approximately 89% lower for R in comparison to CM, holding all other variables constant. The reciprocal of the odds ratio (1/.113 = 8.85) suggests that the odds of a CM sexually re-offending are nearly nine times greater than the odds for R. This finding is consistent with the literature that has reported that at least certain types of CM have higher recidivism rates of sex offenses (Hanson & Harris, 2004; Maletzky & Steinhauser, 2002). Yet another way to present the findings is by looking at the effect of sex offender type on the change in probability of recidivism. To interpret the effect of an independent variable on the probability of recidivism, we use the following formula, $b (P_i) (1 - P_i)$, where b is the logistic regression coefficient and P_i is the probability of an event occurring (Allison, 1999). The most meaningful P_i value to

use is the proportion for the total sample that evidenced the event. The proportions for the different measures of recidivism were reported in Table 2. Accordingly, the probability of committing a new sex crime was .304 lower on average for R than CM.

Table 5. Logistic Regression for Sex Offense Re-Arrest

	Model 1			Model 2		
Variables	**B**	**SE**	**Odds**	**B**	**SE**	**Odds**
Treatment Condition						
Treatment	.932[a]	.582	2.54	.408	.643	1.50
Risk Assessment						
Static-99	.014	.139	1.01	.038	.144	1.04
Control Variables						
Sex Offender Type (Rapist)	-.733	.628	.48	-2.178[a]	1.215	.11
Victim Harm	1.600**	.588	4.95	1.534**	.586	4.64
Prior Incarceration	1.064*	.543	2.90	1.158*	.547	3.18
Substance Abuse	-.123	.173	.88	-.144	.177	.87
Age	-.028	.030	.97	-.033	.031	.97
Race (Black)	1.191**	.491	3.29	1.196*	.492	3.31
Treatment*Offender Type				2.133	1.371	8.44
Intercept	-2.771			-2.218		
-2 Log Likelihood	120.554			117.712		
Model Chi-square	21.104**			23.946**		

* $p \leq .05$ ** $p \leq .01$

[a] Parameter estimate significance $p < .10$

Table 5 also shows there were three other variables significantly related to sex re-offending: victim harm, prior incarceration, and race. Evidence that the victim was harmed during the commission of the sex offense increased the probability of arrest for a new sex offense on average by .214. Further, sex offenders with at least one prior incarceration were significantly more likely to sexually recidivate. A history of a prior incarceration increased the probability of a new sex offense by an average of .162.

Lastly, the probability of being arrested for a new sex crime was on average .167 higher for African-American than White offenders.

Table 6 shows that treatment in SORT was also not related to a non-sex offense re-arrest. Although not significant, when the interaction term was added to the equation, the overall fit of the model improved and the effect of sex offender type on non-sex re-offending became significant. In contrast to the findings for sex re-offending, as shown in Model 2 of Table 6, R were significantly more likely than CM to be re-arrested for a new non-sex crime. The odds of being arrested for a new non-sex offense were four and one-half times higher for R than CM, holding other variables constant. Translated into probabilities, the findings indicate that the probability of being arrested for a non-sex offense during the follow-up period was on average .314 higher for R compared to CM. The only other variables that were significantly related to a non-sex offense were substance abuse and age. A 1-unit increase in the substance abuse scale increased the probability of non-sex re-offending on average by .049. Finally, a 1-year increase in offender age decreased the probability of being arrested for a non-sex offense by .011.

Table 6. Logistic Regression for Non-Sex Offense Re-Arrest

	Model 1			Model 2		
Variables	**B**	**SE**	**Odds**	**B**	**SE**	**Odds**
Treatment Condition						
Treatment	.061	.443	1.06	.487	.563	1.63
Risk Assessment						
Static-99	.023	.116	1.02	.024	.116	1.02
Control Variables						
Sex Offender Type (Rapist)	.784[a]	.438	2.19	1.518*	.652	4.56
Victim Harm	.274	.405	1.32	.307	.410	1.36
Prior Incarceration	.076	.434	1.08	.017	.440	1.02
Substance Abuse	.227[a]	.139	1.26	.238[a]	.140	1.27
Age	-.054*	.023	.95	-.054*	.023	.95
Race (Black)	.281	.393	1.32	.320	.398	1.38
Treatment*Offender Type				-1.163	.879	.31
Intercept		-1.018			-1.439	
-2 Log Likelihood		173.117			171.338	
Model Chi-square		19.937*			21.716**	

* p ≤ .05 ** p ≤ .01

[a] Parameter estimate significance p < .10

As seen in Table 7, for the overall measure of recidivism, a new arrest for any offense, treatment participation likewise had no effect on outcomes. For this measure, the interaction term was not significant and offender type did not display a significant effect. Given that this measure was a combination of sex-related arrests and non-sex arrests, and that sex offender type had opposite effects on those two outcomes, it is likely the effects cancelled each other out in the regression equation for any offense re-arrest, producing a non-significant effect in the sex offender type variable. Similar to the results for sex offense re-arrest, victim harm and prior incarceration were significantly related to overall re-offending. The probability of re-arrest for any offense increased on average by .222 when there was indication of harm to the victim during the commission of the sex

offense. Also, a history of a prior incarceration increased the probability of a new offense by an average of .155, all else constant. Finally, age of the offender was inversely related to recidivism. With each 1-year increase in age, the probability of being arrested for any new offense decreased by .012 on average.

Table 7. Logistic Regression for Any Offense Re-Arrest

	Model 1			Model 2		
Variables	**B**	**SE**	**Odds**	**B**	**SE**	**Odds**
Treatment Condition						
Treatment	.130	.405	1.14	.160	.472	1.17
Risk Assessment						
Static-99	.083	.107	1.09	.082	.107	1.09
Control Variables						
Sex Offender Type (Rapist)	-.087	.443	.92	-.035	.613	.97
Victim Harm	.941*	.386	2.56	.945*	.387	2.57
Prior Incarceration	.661[a]	.409	1.94	.657[a]	.410	1.93
Substance Abuse	.172	.130	1.19	.173	.130	1.19
Age	-.051*	.023	.95	-.051*	.023	.95
Race (Black)	.127	.374	1.14	.129	.374	1.14
Treatment*Offender Type				-.101	.827	.90
Intercept	.164			.134		
-2 Log Likelihood	192.834			192.819		
Model Chi-square	17.922*			17.937*		

* $p \leq .05$ ** $p \leq .01$

[a] Parameter estimate significance $p < .10$

Turning to Table 8, the findings indicate that the treatment group had a reduced likelihood of a probation violation. This effect approached significance in Model 1 and became significant when the interaction term between treatment and sex offender type was added into the equation (Model 2). According to the results, participation in SORT decreased the odds of incurring at least one probation violation by approximately 71%

(odds = .286), holding all other variables constant. However, because the interaction term in Model 2 was also significant, this suggests that this treatment effect was only evident for CM. In other words, participation in treatment had a significant effect in reducing the likelihood of a probation violation among CM in the sample but not among R.

Table 8. Logistic Regression for Probation Violation

	Model 1			Model 2		
Variables	**B**	**SE**	**Odds**	**B**	**SE**	**Odds**
Treatment Condition						
Treatment	-.723[a]	.419	.49	-1.253*	.500	.29
Risk Assessment						
Static-99	.026	.114	1.03	.055	.118	1.06
Control Variables						
Sex Offender Type (Rapist)	.083	.460	1.09	-.803	.642	.45
Victim Harm	-.031	.390	.97	-.092	.395	.91
Prior Incarceration	.985*	.422	2.68	1.059*	.428	2.88
Substance Abuse	.284*	.137	1.33	.280*	.139	1.32
Age	-.055*	.024	.95	-.062*	.025	.94
Race (Black)	-.361	.395	.70	-.399	.399	.67
Treatment*Offender Type				1.751*	.860	5.76
Intercept	1.137			1.703		
-2 Log Likelihood	181.671			177.436		
Model Chi-square	17.854*			22.089**		

* $p \leq .05$ ** $p \leq .01$

[a] Parameter estimate significance $p < .10$

There were similarities in the findings for the probation violation outcome to the non-sex offense re-arrest findings. In particular, as with the non-sex offense measure, a history of substance abuse and age were significantly related to a probation violation. Further, prior incarceration had a significant effect on future probation violations. According to Table 8, Model 2, the probability of incurring a new probation violation

was increased by .271 on average for offenders with a criminal history of at least one incarceration. Further, a 1-unit increase in the substance abuse scale increased the probability of committing a probation violation on average by .061. Finally, a 1-year increase in the age of the offender decreased the probability of having a probation violation by .013.

To assess whether offenders who completed treatment had lower rates of recidivism, the treatment group was disaggregated into completers and non-completers. The same model was estimated for the four measures of recidivism, with the exception that two dummy variables representing completion status were included with the control group serving as the reference category. The logistic regression results are presented in Table 9. With regards to the results for the effect and significance of the control variables on the various indicators of recidivism, the findings were nearly identical to those reported for the total sample in Tables 5 through 8. Consequently, discussion will be limited to the effect of treatment completion on the recidivism outcomes.

Overall, treatment status did not substantially alter the effect of treatment on recidivism. According to the results in Table 9, there was a trend towards treatment completers having an *increased* likelihood of re-offending sexually in comparison to the controls. The predicted odds of committing a new sex crime were 3 times greater for treatment completers in comparison to controls, holding all other variables constant. Translated into probabilities, this indicates that the probability of being arrested for a new sex offense was .156 higher on average for treatment completers compared to controls. The non-completers did not differ significantly from the control group in sexual re-offending. Treatment completion status was not significantly related to non-sex re-

offending or the overall re-arrest measure. Completion of SORT did significantly reduce the likelihood of incurring a probation violation. The odds of having a probation violation were nearly one-half the odds for controls. Alternatively, the results indicated that the probability of violating probation conditions was .175 lower for treatment completers compared with the controls.

In sum, the findings presented in Tables 5 through 9 indicated that, generally, participation in treatment did not decrease the likelihood of recidivism during the follow-up period. Treatment was not significantly related to any of the re-arrest measures of recidivism examined. On the other hand, the findings indicated that treatment participants were significantly less likely to violate the conditions of their probation than the control group. The results were essentially the same when the treatment group was disaggregated into completers and non-completers. There was a trend towards treatment completion increasing the likelihood of sexual re-offending and decreasing the likelihood of incurring a probation violation. However, the benefits of treatment only extended to the CM in the sample. The evidence suggested that sex offender type played a role in the type of criminal behavior in which offenders subsequently engaged. Regardless of treatment condition, CM were significantly more likely to engage in sex-related re-offending, whereas R were significantly more likely to re-offend non-sexually. Taken together, these findings support the notion that the nature of offending varies between R and CM and, as such, that their treatment needs may differ substantially. This calls into question the wisdom of focusing on sexual deviance as a primary treatment target among rapists and of commingling different types of sex offenders within the same treatment environment.

Table 9. Logistic Regression for Four Measures of Recidivism on Treatment Completion Status

	Sex Offense Arrest		Non-Sex Offense Arrest		Any Offense Arrest		Probation Violation	
Variables	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Treatment Condition								
Treatment Completer	1.115[a]	.609	.016	.478	.165	.432	-.810[a]	.456
Non-Completer	.476	.754	.142	.548	.051	.528	-.552	.537
Risk Assessment								
Static 99	.026	.142	.029	.116	.085	.107	.025	.114
Control Measures								
Sex Offender Type (Rapist)	-.751[a]	.640	.776[a]	.438	-.085	.107	.074	.459
Victim Harm	1.563**	.589	.281	.406	.937*	.386	-.023	.390
Prior Incarceration	1.144*	.552	.062	.437	.673[a]	.413	.957*	.425
Substance Abuse	-.131	.175	.229[a]	.139	.172	.130	.285*	.137
Age	-.033	.031	-.055*	.023	-.052*	.023	-.054*	.024
Race (Black)	1.249*	.498	.269	.396	.136	.376	-.382	.398
Intercept	-2.609		-1.044		.184		1.099	
-2 Log Likelihood	119.554		173.055		192.780		181.418	
Model Chi-square	22.104**		19.999*		17.976*		18.107*	

* $p \leq .05$ ** $p \leq .01$

[a] Parameter estimate significance $p < .10$

Chapter 7: Discussion and Conclusions

This study was a retrospective evaluation of the SORT program, a cognitive-behavioral, prison-based sex offender program. The goal was to assess whether participation in treatment reduced the likelihood of re-offending after the sex offender was released from incarceration. In addition, the study aimed to distinguish whether treatment had differential effects for two types of sex offenders – rapists and child molesters. A risk assessment measure was incorporated into the data analysis to account for between-group differences in level of recidivism risk. Data on official reports of any new arrests and probation violations for a minimum of a 12-month follow-up period were used to measure recidivism.

Based on the findings from this study, there was no indication that sex offender treatment decreased the probability of recidivism. During the follow-up period, a small percent of the total sample (17%) was re-arrested for a new sex crime. This is consistent with recidivism rates reported in other sex offender studies (Hanson & Bussiere, 1998; Hanson et al., 2003). Treatment participants had a greater prevalence of re-arrests for sex offenses, non-sex offenses, and a composite measure for any new offense. These results are in line with those of Quinsey and colleagues (1998) who found that treatment had opposite the anticipated effect such that treated participants had higher rates of sexual and other recidivism than the controls. On the other hand, in this study, treatment participants had a lower probability of violating the conditions of their probation than controls. The results of the logistic regression results further confirmed these findings. In the multivariate equations, treatment had a significant effect on only one measure of recidivism – probation violation. Treatment significantly reduced the likelihood of being

violated on supervision during the follow-up period but, based on the significant interaction term, this was only applicable to CM.

Treatment completion did not substantially alter these findings. Generally, non-completers had larger proportions of non-sex arrests, any arrests, and probation violations. However, for the most important measure of treatment success, a new sex-related offense, the proportion of recidivists was highest for the treatment completer group. Likewise, the multivariate analyses indicated that treatment completion had little effect on recidivism. In fact, there was a trend towards treatment completers having an *increased* likelihood of re-offending sexually in comparison to the controls.

Further, on the whole, R were more likely to re-offend than CM. At the bivariate level, R and CM were similar on new sex re-arrests but had a greater prevalence of non-sex offense arrest, any offense arrest, and probation violation. The results from the multivariate models also indicated that sex offender type was significantly related to sex re-offending. Specifically, R were significantly *less likely* to re-offend sexually than CM. In contrast to these findings, R were significantly more likely than CM to be re-arrested for a new non-sex crime. These results buttress the findings of other research that suggests, overall, R and CM display disparate offending patterns (Lussier, 2005).

The most pressing question to arise from these findings is: Why didn't SORT work? The simplest and most straightforward response is that research does not support the effectiveness of institutional treatment in reducing recidivism for incarcerated sex offenders. Evaluations that have used more rigorous research designs have found no support for the efficacy of treatment to reduce sexual re-offending (Marques et al., 1995). However, this outcome evaluation was comprised of a small sample, and had low rates of

re-offending and a relatively short follow-up period. Thus, it would be imprudent to conclude from these findings that sex offender treatment does not work to reduce recidivism. The more informative issue to consider is which aspect(s) of the participants and/or the treatment program contributed to program failure.

Treatment in SORT was delivered to a mixed group of sex offenders; however, sex offender treatment programs primarily have been developed to meet the perceived needs of CM (Allam et al., 1997; Harris, 1995). Evaluations of treatment for sex offenders are primarily focused on CM and rarely have they examined differential outcomes by sex offender type. Our knowledge base about treatment for R is sparse and inconsistent (Polaschek, Ward, & Hudson, 1997). This is problematic considering EBP dictates that treatment targets should be based on needs and responsivity (Cullen and Gendreau, 2000) and the literature reveals substantial differences in the criminogenic needs and response styles of R and CM. A review of the characteristics of different types of sex offenders reveals that R differ from CM but appear to be similar to the general (and particularly the violent) offender prison population on a number of factors (Hudson & Ward, 1997). A small but expanding academic literature points to significant disparities between the two types of sex offenders on a constellation of interpersonal, affective, psychological, behavioral, and attitudinal attributes, including: antisocial orientation & attitudes, juvenile delinquency, juvenile and adult antisocial behavior, criminal associates, criminal career, non-sexual violent offending, age of onset of criminal offending, fixation with children and/or deviant sex-related behavior (e.g., paraphilias), psychopathy, cognitive distortions, aggression levels, anti-social personality disorder (ASPD), alcohol abuse/dependence, depression & anxiety, borderline disorder,

treatment completion, treatment success, level of denial, blame attribution, hostility, social alienation, self-centeredness, impulsivity, inhibition of aggression, aversion to violence, feelings of inadequacy, insecurity, and heterosexual skills (Bard et al., 1987; Beyko & Wong, 2005; Brown & Forth, 1997; Bumby, 1996; Craissati & Beech, 2004; Eher et al., 2003; Hildebrand, Foster, & Hirt, 1990; Maletzky, 1993; McGrath, 1991; Milner & Webster, 2005; Mills, Anderson, & Kroner; Olver & Wong, 2006; Panton, 1978; Porter et al., 2000; Porter et al., 2000; Prentky, Knight, Lee, & Cerce, 1995; Seto, 2004; Shechory & Ben-David, 2005; Stinson, Becker, & Tromp, 2005; Ward, Hudson, Johnston, & Marshall, 1997; Ward, Hudson, & Marshall, 1996).

Research suggests that there exist generally identifiable patterns ("schemas") in the underlying thinking of sex offenders, and that these may differ between groups of sex offenders (Milner & Webster, 2004). Most studies find that CM are distinguishable from R and other non-sex offenders on the basis of their attitudes and beliefs about sex with children (Feelgood, Cortoni, & Thompson, 2005; Hanson, Gizarelli, & Scott, 1994). Studies examining cognitive distortions indicate that CM have thoughts and fantasies related to children specifically and that they view children (relative to adults) as significantly more sexually attractive. CM are also more likely to perceive children in sexual terms, view sexual contact with children as being socially acceptable, and tend to minimize the harm they cause to children (Ward, Hudson, Johnston, & Marshall, 1997). In contrast, deviant sexual interests in R are more ambiguous and inconsistent than for CM (Craissati & Beech, 2004). The cognitive distortions commonly identified in R are distinguished from those of CM as "broader" in focus and related to aggressive behavior generally (Blumenthal, Gudjonsson & Burns, 1999; Milner & Webster; Polaschek &

Gannon, 2004). For example, R display greater hostility toward women (e.g., view women as untrustworthy, exhibit distrust and/or disrespect for women, blame-the-victim for their violent behavior) than CM, and are more likely to view women as sex objects (Bumby, 1996). Mills, Anderson, and Kroner (2004) compared different groups of sex offenders on general antisocial attitudes, not expressly related to sexual offending. They found that R were more likely to endorse general criminal antisocial attitudes (e.g., sense of entitlement, justification and minimization of violence) than CM and incest offenders. Overall, there are differences in sex-related beliefs where CM display cognitive distortions involving sexual activity with children whereas R appear indiscriminable from the general prison population and, more precisely, non-sexual violent offenders in their thought processes (Bumby, 1996).

It has been argued that, for R, sexual aggression does not result from specific deviant sexual attitudes but rather it is part of an overall negative and antisocial lifestyle (Allam et al., 1997). This is manifested in the offense motivation of sex offenders. Classification systems and taxonomies suggest that offense motivation varies between CM and R (Bickley & Beech, 2001; Hudson, Ward, & McCormack, 1999; Knight & Prentky, 1990; Ward & Hudson, 1998). CM appear to be motivated by the sexual aspects of the offense whereas R are more often motivated by violence and anger (Porter et al., 2000). The motivation behind the sex offending of R may be related to a strong aggressive nature and a need for power and control, which could be satisfied through a sexually violent assault (Groth & Birnbaum, 1979). Per Panton (1978), motivation of the R was categorized as more assaultive than sexual, whereas the motivation of the CM group was related to satisfying sexual needs at an immature level of sexual development.

Molestation of children has historically been viewed as a mental health problem rather than part of a criminal lifestyle, as evidenced by the existence of a pedophilia disorder in the DSM-IV. The clinical perspective and attendant research raise the plausibility that the sexual aggression of R is not pathological but rather one manifestation of their generally impulsive antisocial tendencies and behaviors. From this standpoint, those who sexually assault adult women are generally violent men who happen to commit a crime of sexual violence (Bard et al., 1987; Groth, Burgess, & Holmstrom, 1977). These general but distinguishable profiles suggest that R and CM do not constitute a homogeneous group of sex offenders such that categorizing them with a broad brush potentially dismisses their differing criminogenic needs.

Current CBT approaches have typically been developed for CM. The dual focus of most sex offender programs, including SORT, is on sexual deviance and cognitive distortions related to sexual thinking patterns. However, research indicates fundamentally distinct personality and behavioral traits between R and CM in these and other areas. What are the clinical implications? Do existing sex offender treatment regimes adequately address the needs of these distinct groups and/or do these differences warrant the application of divergent or modified treatment strategies? The SORT program combined R who, on average, tend to be more antisocial and aggressive and can be more accurately classified as violent offenders rather than sex offenders, with generally non-violent CM, whose sexual deviancy is often considered pathological and entrenched, and whose criminal behavior is driven by their sexual preoccupations (Bickley & Beech, 2001; Hudson, Ward, & McCormack, 1999; Knight & Prentky, 1990; Ward & Hudson, 1998). These groups display differences in levels of aggression,

motivation, desire to change, acceptance and accountability, responsibility, and stage of change. The differences between R and CM and the lack of distinctiveness when R are compared to the wider population of serious criminal offenders have implications both for research and treatment. Addressing the differing levels of need and responsivity of sexual offenders is critical when planning strategies for their management and treatment. In consideration of the findings regarding R, it is possible not that the SORT CBT perspective was ineffective generally but that the SORT program content was insufficient or irrelevant to meet the needs of at least some of the sex offenders, most notably R. A more practical and effective approach might be to tailor separate treatment programs to the specific needs of R, such as issues related to treatment engagement and completion, and psychopathy.

This is directly related to another issue that may help explain the ineffectiveness of SORT. The SORT program combined cognitive and behavioral strategies within a RP framework. According to my review of the program, a core aspect of the treatment and transition phases was a strong focus on preventing relapse to sex offending. For example, program content emphasized understanding the sex offending cycle from the RP perspective, identifying triggers for sex offending relapse, and developing skills and strategies to avoid or cope with high-risk sexual situations.

In the original RP model for addictions, the focus was on compulsive behaviors that produced immediate gratification and are followed by various negative affective consequences (Marlatt, 1985); however, RP has been criticized as an inappropriate intervention for sex offenders on a number of factors (Hanson, 1996; Kirsch & Becker, 2006; Laws, 1999; Marshall & Laws, 2003). The RP approach fails to consider situations

where individuals consciously decide to engage in deviant sexual behavior and who do not experience distress following deviant sexual behavior. Those offenders whose criminal patterns do not reflect the RP model of the sex offending process are unlikely to derive benefit from RP-focused strategies. Furthermore, not unlike most sex offender treatment programs currently in operation, the primary content in SORT was related to changing sex-related deviant attitudes, not antisocial attitudes in general. This strong focus on sexual deviance and preventing sex re-offending seems more adequate for CM but it largely excludes developing awareness and skill-sets in other areas that are predictive of general recidivism. Research indicates that CM, especially those who fixate on boys, are at highest risk to sexually re-offend. As such, these sex offenders are the group most appropriate to target for sex offender specific treatment. R have higher rates of other types of non-sex offending so they are likely better suited for broader cognitive-focused treatment.

If one primary treatment objective is, at the core, to change the thoughts, behaviors, and predispositions that lead offenders to violate society's sexual norms and expectations and that increase their likelihood of recidivism, it is necessary to understand whether the thoughts for R are similar to those of CM. In the SORT philosophy of treatment, the underlying risks related to the sexual assault of women versus that of children are seen as stemming from the same issue – sexually deviant thoughts and arousal, and sexual inadequacies. However, as previously discussed, research shows that, in most rapes, the motivation is not for sex, rather for power and control and primarily an act of aggression (Groth & Birnbaum, 1979). Therefore, if motivation for sex offending and sexual deviance differ between groups, a "one-size-fits-all" treatment approach does

not adequately address the criminogenic needs of offenders whose sexual offending does not reflect this process. Given that R are similar to other violent offenders and present with high rates of psychopathy, targeting deviant sexual arousal should be of diminished importance with R. Correctional programs should aim to treat the motivational issues of R and cognitive distortion issues related to overt aggression and hostility toward women. Sex offender programs may obtain more positive results if they treat these groups separately (Polaschek et al., 1997). R may benefit more from programs for violent offenders or for criminal offenders in general such as the Reasoning and Rehabilitation program (Ross, Fabiano, & Ewles, 1988) and Moral Reconation Therapy (Little & Robinson, 1988; Little, Robinson, & Burnette, 1994). More broadly, non-sex offender rehabilitation programs that focus on general cognitive needs, such as attitudes supportive of antisocial behavior, the influence of criminal associates, substance abuse, developing a non-criminal identity, and a wider range of social skills may increase the responsivity to treatment among R. These results underscore the importance of targeting multiple and different problems for R and CM.

Another major component of RP which has been criticized is that treatment participants must acknowledge and accept responsibility for their sexual offense, that they should consider their sexually deviant behavior a problem, and that they be willing to be treated and participate. As was evident from the review of differences between types of sex offenders, engagement in and completion of treatment is more difficult with R. If the offender is not yet committed to changing their behavior and does not view their sex offending as a problem, then the therapist is expending valuable time and resources on strategies that are based on the erroneous expectation that the offender is ready to

change. The research has shown that R are less willing to take responsibility for their behavior than CM; however, terminating an offender from the program because of his denial is in conflict with the principle of responsivity. Rather than viewing the participant as uncooperative, treatment should target responsivity-related characteristics of the offender, such as their level of motivation and their stage of change. Techniques such as motivational interviewing are particularly suited to sex offenders who are resistant to change, reluctant to participate in treatment, or in the very early stages of change (e.g., pre-contemplation). R are also more aggressive and show other attributes of ASPD. These are often the very attributes that get offenders terminated from treatment for non-compliance. Excluding offenders from treatment because of these deficits blames the offender for lack of success when it should equally be the responsibility of the treatment provider to ensure the program is appropriately tailored and delivered to address the offender's risk, needs, and responsivity (Beyko & Wong, 2005). Furthermore, it is possible that grouping different types of sex offenders together can raise the likelihood of further sexual offending because antisocial and pro-offending attitudes are likely to be reinforced. Also, the presence of unmotivated offenders may negatively affect the engagement in treatment of other, more highly motivated inmates. To improve efficacy, sex offender treatment programs need to modify programming components by e.g., treating sex offenders with aggressive traits separately or placing them in treatment programs geared towards violent offenders and/or psychopaths. Overall, the results suggest that alternative interventions from what the SORT program currently focuses on may be indicated for R specifically, and that treatment may need to be of different

content, intensity, and/or duration for primary R when compared to offenders who primarily sexually violate children.

It is very possible not that SORT was ineffective but that the community supervision component failed to provide adequate treatment and surveillance of the offenders after their release to maintain the positive effects of treatment. Sex offender's present unique challenges to community correctional agencies. Research suggests that reliance on traditional supervision practices, such as routine office visits and phone contacts, are insufficient to address the challenges and risks that sex offenders pose to the community (Gilligan & Talbot, 2000). Rather, comprehensive, intensive, and multi-systemic approaches are necessary to diminish the likelihood that sex offenders will re-offend. A strategy known as the "containment approach" is one comprehensive model for the management of adult sex offenders in the community (English, 1998).

Containment strategies are based on multi-agency collaboration to enforce consistent policies and practices. A successful sex offender containment approach includes the triangulation of three interrelated, mutually enhancing strategies: supervision, sex offender treatment, and polygraph examination. These components are delivered through an integrated case management plan that also delineates the surveillance techniques that will be employed to hold the offender accountable. In this fashion, agencies are able to exert significant control over the sex offenders' opportunities to engage in criminal offending. According to English (1998), the containment approach is evolving but the elements, based on theory and empirical data, make it a promising practice for the effective management of sex offenders in the community (see also CSOM, 2000).

While some probation and parole departments in Virginia employ a containment strategy in the management of their sex offenders, not all did or do so consistently. Furthermore, the data from probation and parole records was insufficient to assess what transpired in the community after the offender was released from prison and placed on community supervision. In the current study, there was inconsistent data to distinguish sex offenders in terms of the level and nature of post-release supervision and surveillance techniques (e.g., intensive versus regular probation, polygraph examinations, electronic monitoring, drug testing,) and the provision of community-based sex offender treatment upon release to the community. It could be that differential supervision strategies (e.g., residential restrictions, curfews, electronic monitoring, treatment type and intensity), and the length for which such community-based supervision was provided were important determinants of whether sex offenders recidivated, particularly when such supervision is provided in conjunction with community-based aftercare and/or RP.

Related, the findings may be due to the likelihood that SORT participants were monitored more intensively in the community than inmates from the control group. It is also feasible that the treatment and control groups received differential supervision approaches not only as a result of their history of institutional treatment but also because the SORT group was characterized predominantly by CM. The public outrage over sex offenders is generally directed more towards CM than R (Cole, 2000; Quinn et al., 2004); thus, from a policy perspective, it is reasonable to expect this affects the level and type of community monitoring directed at these groups. In this study, there were significantly more CM than R in the treatment group (83% vs. 67%) and more CM treatment completers than R treatment completers (47% vs. 26%). By virtue of being in the

program, SORT participants (and, more precisely, SORT completers) developed a community transition plan that included an intensive community supervision plan of monitoring and community treatment.

While probation reports are sparse on the issue, anecdotal information suggests the treatment group was more stringently monitored while on probation than the control group. Although the intensive supervision literature would suggest that more intensive monitoring should lead to higher rates of technical violations (Petersilia & Turner, 1993), in this study, participation in treatment had a significant effect in reducing the likelihood of a probation violation among CM in the sample but not among R. Conversations with community corrections administrators and officers responsible for supervising sex offenders indicate this finding is consistent with their experience supervising CM and R. In practice, community corrections practitioners report that CM are quite adept at "following the rules" and adhering to the technical conditions of their supervision requirements. CM more so than R are likely to maintain stable employment and have less problems related to substance abuse disorders (Craissati & Beech, 2004; Eher et al., 2003), two factors that influence whether an offender is abiding by the conditions of supervision (e.g., find and maintain a job; refrain from using illicit substances and/or alcohol). CM are also more solitary, reducing the salience of negative influences and criminal associates on their lives (Mills et al., 2004). From the risk factor perspective, R are more reflective of the antisocial and impulsive criminal and display more of the risk factors (e.g., substance abuse, criminal peers, family dysfunction) that increase their likelihood of violating the conditions of their probation (as well as non-sex re-offending) (Hanson & Harris, 2000).

Another issue to consider once the sex offender has returned to the community is whether treatment participants maintain the motivation to change and apply the self-management skills acquired in the program if and when confronted with high-risk situations. The RP framework of SORT incorporated a strong focus on developing skills to avoid sexual relapse and maintaining behavior change. Although the inmates may have earnestly engaged in treatment and adopted the self-control expectancies, it is possible their treatment accomplishments diminished after release, thereby explaining the no-treatment effects detected in this study. From the data provided to the author, there is no way to know if the inmates who completed treatment were truly committed to change and accepted the basic tenets of RP that encourage self control of sexual deviance and relapse avoidance. Research has shown that motivation to change sexually deviant behavior decreases for all types of sex offenders upon community release (Barrett, Wilson, & Long, 2003). RP treatment is unlikely to be successful with clients who do not accept its goals, model, and methods. Unfortunately, there was no data available to measure the participants desire to control their sexual behavior and motivation levels once in the community.

In sum, there were several aspects related to the type of inmates sampled in this study, the institutional program itself, and the community supervision component that may account for the null finding that sex offender treatment was generally ineffective at reducing recidivism. First, research is conclusive that R and CM are quite different on a host of factors, including personality, cognitions, and attitudes, that are related to their criminal offending. There are also substantial differences in the criminogenic needs and response styles of R and CM, both of which have implications for treatment. It is

surprising that program evaluations have not routinely distinguished between sex offender types in examining recidivism outcomes. Second, it is startling that the majority of correctional treatment programs currently available for sex offenders are inadequate to treat and manage sex offenders other than primary pedophiles. For a correctional intervention to be effective, it should be designed and delivered to meet the individual offender's risk, needs, and responsivity styles. The results from this study, particularly related to R, were not unanticipated given the difference in the nature of the sex offenders involved in the program and the probability that SORT was not designed to handle offenders who display antisocial and aggressive personality traits. Finally, the type and intensity of community supervision, including supervision level, surveillance techniques, polygraphs, medication and treatment, and other support services, provided to the inmates in the sample most likely differed between the treatment and control groups and between R and CM but the available data does not allow for a test of these factors on recidivism outcomes. The role of supervision as a mediating factor following institutional treatment constitutes an important avenue for future empirical inquiry.

Limitations of the Research

There were several limitations to the present research that are worth noting. Due to departmental needs and time constraints that prohibited a prospective study design, this study retrospectively constructed a comparison group. This placed restrictions on the adequacy of the sample available for study, the data collected, and the types of research questions that could be addressed. In this study, although attempts were made to produce equivalent groups, the treatment group was higher risk than the control group as

measured by the Static-99. While the multivariate analyses controlled for risk level, it is likely that it did not account for all the variance in recidivism risk between the treatment and control groups.

In addition, relevant data (e.g., psychosocial assessments, detailed victim information such as sex, age, and relationship to offender) was either not routinely collected by program administrators or was only available for treatment participants. For example, as detailed in the methodology section, pre-sentence investigation data and sentencing guidelines scores were not available in the DOC dataset as this is not the type of information that program or correctional staff gather for routine reporting purposes. It is clear, however, that these are important measures for evaluation purposes. Research has shown that, among sex offenders specifically, the probability and type of recidivism are affected by victim age, sex, and relationship to the offender, seriousness of the offense, sexual preferences, and sexual offense history (Hanson et al., 2003). Thus, such data as sentencing guideline score would be useful to measure offense seriousness; descriptive information of the offense would be useful to determine the victim demographics and victim-offender relationship and so forth. The data did not allow for the distinction between intra- vs. extra-familial child molesters, or boy-victim versus girl-victim offenders. Studies suggest extra-familial child molesters with male victims have the highest re-offense rates (Bartosh, Garby, Lewis, & Gray, 2003). Measurement of these factors is critical because it provides information regarding the potential for future sexual re-offending. This points to the need for correctional and treatment administrators to incorporate an evaluation design into the planning phase of any correctional program so that the processes of implementation and operation of the treatment program can be

monitored rigorously and appropriate data gathered consistently to establish program efficacy.

As has been acknowledged, the sample size for this study was small and, more importantly, the rates of sex re-offending were low as were the rates of other types of re-offending. Small samples and low base rates of recidivism are common in sex offender research, particularly in correctional samples, as they comprise a small percentage of the prison population. In addition, the officially recorded recidivism rate of sex offenders, while not known exactly, appears to be low relative to criminal recidivism rates in general. Recidivism rates for sex offenders range anywhere between 10-20% (Nicholaichuk et al., 2000). Recidivism rates also vary by type of sex offender, and that was detected in the present study with R having higher rates of re-offending than CM for all measures of re-offending other than sex re-arrests. Nevertheless, the size of the treatment and control groups coupled with the overall small cases evidencing the outcomes of interest compromise the statistical power necessary to detect significant group differences (Cohen, 1988) and limit the generalizability of the results.

Another major limitation of this study was the relatively short follow-up period.[8] The current study had a minimum of a 12-month follow-up period. Research has shown that sexual re-offending can occur for extended periods following release from incarceration and pedophiles in particular are more likely to persist in sex offending over the lifespan (Lussier, 2005; Seto, 2004). Further, there is evidence to indicate that CM exhibit a longer time to recidivism than R. R consistently show higher recidivism rates with short follow-up periods whereas CM rates of recidivism increase with extended

[8] While it was not possible to determine the exact length of follow-up (i.e., time from prison release date to date of first arrest) for each subject, all participants were released no later than April 2004, providing for a follow-up period of a minimum of 12 months.

follow-up time periods (Lussier, 2005). In one study, R were more likely than CM to re-offend (i.e., any type of criminal offense) within the first five years following release from prison, whereas after the 5-year period, the sexual re-offending rates of CM increased significantly over time while that of R remained steady (Prentky et al., 1997). Also, among R, criminal offending drops gradually with age, but remains steady at least through the late forties for CM (Hanson, 2002). It is possible then that the differences in recidivism detected between R and CM in the present study were a result of the short follow-up period. Sex offender treatment evaluators recommend that sex offenders be tracked for a substantial period of time after release (e.g., 10 years) to accurately assess the impact of treatment interventions (see e.g., Schweitzer & Dwyer, 2003).

Related to this is the fact that time at risk once the offender was released to the community could not be determined. It is possible the treatment and control groups differed in the length of time at risk; however, the primary reason offenders in the control group were not accepted into SORT was insufficient length of time on their sentence. This suggests controls may have been released earlier than treatment participants thus been at risk to recidivate for a longer period of time than the treatment group.

Despite these limitations, this study makes a noteworthy contribution to the field of correctional rehabilitation. The current study addressed some of the methodological concerns raised in prior sex offender evaluation studies, in particular the use of inadequate or inappropriate comparison groups, such as treatment dropouts (Lösel & Schmucker, 2005; MacKenzie, 1997). As noted previously, designs of this nature make it difficult to draw conclusions as to the effectiveness of the program. The current study overcame this limitation by (1) creating a treatment group of all SORT participants,

whether or not they completed the program, (2) creating a control group of sex offenders who met similar treatment eligibility criteria for participation in SORT but did not participate in any capacity; and, (3) accounting for between-group differences in initial level of criminal risk by including the subject's score an actuarial risk assessment instrument (i.e., Static-99). Additionally, this study addressed the concern that recidivism rates vary considerably for different types of sex offenders (Alexander, 1999; Hanson et al., 2003; Langan et al., 2003; Maletzky Sample & Bray, 2006) by examining recidivism outcomes for rapists and child molesters separately. These multiple strategies, in addition to utilizing regression techniques that controlled for several factors related to sex offender recidivism, reduced the possibly that the outcomes were due to pre-existing differences between the treatment and control groups rather than to participation in SORT.

Directions for Future Research

In addition to a number of suggestions already mentioned, this study points to several fruitful avenues for research. Currently, the SORT program has an expectation that participants will spend approximately two years in treatment (although actual time varies, treatment is typically never shorter than 18 months). While it is not clear how and why program administrators determined this time-in-treatment requirement, at present there is no research examining the effect of length of sex offender treatment on outcomes, such as recidivism. The 2-year timeframe is based on the assumption that treatment effectiveness is enhanced through more extensive treatment but, to date, this issue has not been addressed in sex offender treatment research. As previously discussed, sex offender treatment was modeled after addictions programs (Marlatt & Gordon, 1985; Marques et

al., 2005; Pithers, 1991). It is worth noting that research in the field of AOD treatment for criminal justice clients has found that length of participation in drug treatment is associated with positive treatment outcomes (e.g., reduced recidivism, longer time to relapse) up to a point after which there is a satiation effect where treatment is no longer beneficial (Condelli & Hubbard, 1994; Swartz, Lurigio and Slomka, 1996). For example, Swartz and colleagues (1996) found that re-arrest rates and time-to-rearrest improved as length of stay in a jail-based drug treatment program increased up to 150 days, after which there were no further reductions in recidivism. Overall, addictions research has found that treatment ranging from 6-9 months is generally effective in reducing recidivism. Such results beg the question "What is the optimal amount of time sex offenders should spend in treatment, both prison and community-based, to produce the greatest benefits in recidivism reduction?" This type of research is critical to determine if the current state of practice – providing lengthy, intensive programming – is necessary. If research into this subject were to find that positive recidivism outcomes could be produced with shorter treatment terms, this would warrant shortening program length thereby increasing the number of sex offenders than can obtain appropriate treatment.

Sex offender researchers have only recently begun to address dynamic risk factors in sex offenders that presumably, when changed, have the potential to reduce the risk of recidivism (Hanson & Harris, 2000). Although researchers in the field of sex offender treatment adhere to the view that interventions must target dynamic factors to produce long-term improvements, there is almost no empirical foundation for this proposition. Most evaluations of sex offender programs have focused on recidivism and ignored the potential mediating effects of changing dynamic risk factors. In fact, it is not clear that

changes in the dynamic risk factors typically targeted in sex offender treatment programs (e.g., victim empathy, motivation, anger) are related to a change in sex offending or other criminal behavior. For example, like other sex offender programs, clinicians in SORT place a strong emphasis on overcoming the offender's denial and minimization of the sex offense based on the standpoint that an offender can not make progress in treatment if he does not fully disclose the details of the crime and accept responsibility for the behavior (Marshall, Anderson, & Fernandez, 1999). Although this is a commonly accepted practice in the field of sex offender treatment, there is no empirical evidence to backup the contention that acceptance of responsibility for sexual offending is related to treatment success, as measured by recidivism. Moreover, results from meta-analyses indicate that some of the factors targeted for change in sex offender treatment, including clinical presentation variables, such as denial or low treatment motivation, bear no relationship to reductions in recidivism (Hasnon & Bussiere, 1998; Prentky et al., 1997). Empirical work is needed to identify dynamic risk factors that, if changed, significantly predict reductions in sexual re-offending.

Initial work has identified a number of dynamic factors in sex offenders that relate to recidivism, including poor social supports, attitudes tolerant of sexual assault, antisocial lifestyle, and poor self-management strategies (Hanson & Harris, 2000). These findings were based on probation file reviews of recidivists and non-recidivists, however. Prospective evaluations of sex offender programs should incorporate a design to measure dynamic factors at pre- and post-treatment to determine if significant changes in areas such as dysfunctional thinking, management of emotions, relationship and intimacy skills, deviant fantasy and sexual arousal, the offense cycle, impulsivity, victim empathy,

and responsibility subsequently reduce the risk of recidivism. One way to accomplish this is by administering the same psychometric instruments and polygraph tests at various points in time (e.g., prior to entry into treatment and at the conclusion of treatment), and then analyzing differences in score changes from one period to the next. There are many relevant indices of the utility of a program that can and should be considered in a comprehensive evaluation of treatment effectiveness (Andrews, 2000; Marshall & Williams, 2000). Furthermore, theories of offending distinguish between different types of sex offenders (e.g., incest offenders, pedophiles, male-victim vs. female-victim child molesters, rapists), yet treatment programming presumes homogeneity of sex offenders and targets the same risk factors regardless of type of sex offender. Aspects of current treatment programs are likely not appropriate for sex offenders as a whole (particularly rapists, as discussed above) such that treatment programs tailored to meet the needs of different sex offenders must be developed. Future research should focus on evaluating the effectiveness of treatment efficacy for different types of sex offenders so as to improve the type of programming currently offered.

Given the negative results of this program evaluation, one must question the wisdom of continuing to provide sex offender treatment that appears to increase recidivism. However, as noted, this study utilized a retrospective research design and, while efforts were made to produce equivalent comparison groups, the treatment group appeared to be at higher risk for recidivism than the comparison group. In other words, the present study design was not the optimal technique for determining program efficacy because the groups were not equivalent in risk and other potential, un-measured factors. Therefore, rather than advocating the elimination of this and other similar institution-

based treatment for sex offenders, these results underscore the importance of utilizing the most rigorous research design available to accurately evaluate program effectiveness, i.e., a randomized experiment (Maxfield & Babbie, 1995). In a controlled experiment, sex offenders who are eligible to participate in SORT would be randomly assigned to either the treatment or control group. This would ensure equivalency of groups, eliminating the threat that post-program differences on measures of recidivism are the result of factors other than treatment participation. Increasing public safety and protecting victims necessitates the use of randomized experimental designs to ascertain the recidivism-reduction potential of prison-based sex offender treatment.

Conclusion

In developing more effective sex offender treatment, it is important to examine variables that differentiate sex offenders who primarily violate against children from primary rapists. We can not presume that what works for one will work for all, provide less than adequate or irrelevant programming, and then hold the offender solely accountable for his failures. The evidence is quite clear that sex offenders are a very heterogeneous group in terms of sexual deviancy, rates of recidivism, and other risk dimensions. R are comparable to other types of violent offenders rather than to CM and R exhibit behavioral maladjustment similar to that of other violent offenders more than CM. R and CM also differ on relevant responsivity factors (e.g., insight and motivation). This leads to the rational conclusion that R and CM have widely varying treatment needs; yet, sex offender programming has been developed principally to meet the needs of CM (e.g., in most sex offender treatment programs the focus is on sexual deviance

particularly related to paraphilias and sexual preoccupation with children). Many sex offender programs are not adequately equipped to treat and manage offenders with high levels of aggression such as those displayed by R. The SORT program is generally a one-size fits all intervention for a hodgepodge of sex offenders. Failure to develop correctional rehabilitation programs for R, a group of offenders with considerably high rates of recidivism and violent offending, poses a great risk to public safety.

This study points to the need to move beyond the question of global treatment efficacy to what works for whom by developing programs that meet the EBP principles of risk, needs, and responsivity. To meet this objective for sexual assaulters of adults (i.e., primary rapists), it may be necessary to consider the role of psychopathy in the design and implementation of treatment strategies. For instance, it is quite plausible that psychopathic R would derive greater benefit from treatment strategies aimed at reducing impulsive lifestyles and developing behavioral controls rather than those that focus specifically on the sex offense cycle. Providing treatment programs that tailor their approaches to the needs of specific offenders may be more effective in decreasing recidivism than generic programs. This is a question for future research.

It would be inappropriate to conclude from these findings that treatment for sex offenders is a futile effort. The sample should be followed for a lengthier period of time and community supervision data should be collected to obtain a more accurate account of recidivism and the factors associated with these outcomes. What is appropriate to deduce from these findings is that certain aspects of the SORT program may be producing unintended consequences; therefore, modifications that address the differential needs and

responsivity issues of different types of sex offenders is critical if the goal of reduced offending and reduced victimization is to be achieved.

Appendix A: Static-99 Coding Form

Risk Factor	**Codes**	**Score**
Young	25 or older 18-24.99	0 1
Ever lived with	Ever lived with lover for at least 2 years? Yes No	0 1
Any index non-sex violent conviction	No Yes	0 1
Any prior non-sex violent conviction	No Yes	0 1
Prior Sex Offense Charge	None 1-2 3-5 6+	0 1 2 3
Prior Sex Offense Conviction	None 1 2-3 4+	0 1 2 3
Prior Sentencing Dates	3 or Less 4 or more	0 1
Any conviction for non-contact sex offense	No Yes	0 1
Any non-related victims	No Yes	0 1
Any stranger victims	No Yes	0 1
Any male victims	No Yes	0 1
Total Score	**Add up scores from individual risk factors**	

Score	**Risk Category**
0, 1	Low
2, 3	Moderate-Low
4, 5	Moderate-High
6 plus	High

Appendix B: Research Methodology Technical Supplement

One measure that is commonly used in the criminological literature to predict recidivism is seriousness of the instant offense (CITE). For the present study, identifying an appropriate measure of offense seriousness proved problematic with the limited data. Initially, the author intended to incorporate a measure of the seriousness of the offense using the Virginia Criminal Sentencing Commission (VCSC) sentencing guidelines sex offender risk score. The VCSC sex offender risk assessment instrument was developed and integrated into the state's sentencing guidelines system during the 2001 legislative season (VCSC, 2001). Unexpectedly, however, the database provided to the author did not contain the offense seriousness score from the sentencing record. DOC informed the author they did not maintain this information in their electronic database.

Subsequently, I contacted the director of the VCSC to determine if it was possible for me to independently calculate the offense seriousness score with the variables available in the DOC database provided me. According to the director, the VCSC calculates the score using data from the Pre-Sentence Investigation (PSI), including the description of the offense, the original charge, and other victim-offender information (R. Kern, personal communication, February 2006). The PSI is maintained electronically by the VCSC. After describing the variables available in the dataset, the director was of the opinion that I could not independently calculate the guidelines score using the data provided me. Also, for reasons of confidentiality, the VCSC could not provide me the PSI for the subjects, nor would it possible for them to do so as the database contained none of the information necessary to determine the identity of the subjects. A comparison of the items used to calculate the VCSC risk guidelines score for offenses

that fall under the broad category of rape or other sexual assault to the items used to score the Static 99 indicate many similarities across instruments. Specifically, the following items are included in scoring both instruments: offender age, offender relationship with victim (e.g., relative, stranger), prior sex offenses, primary offense, and prior incarcerations. Items used by the VCSC to calculate risk not included in the Static-99 are weapon use, victim injury, and juvenile record. To account for the weapon use and victim injury factors, a measure of victim harm was created from a combination of items available in the SORT database (details are available in the Variables section).

References

Abel, G. G., Becker, J. V., Mittelman, M., Cunningham-Rathner, J., Rouleau, J. L., & Murphy, W. D. (1987). Self-reported sex crimes of nonincarcerated paraphiliacs. *Journal of Interpersonal Violence, 2,* 3-25.

Alexander, M. A. (1999). Sexual offender treatment efficacy revisited. *Sexual Abuse: A Journal of Research and Treatment, 11,* 101-116.

Allam, J., Middleton, D., Browne, K. (1997). Different clients, different needs? Practice issues in community-based treatment for sex offenders *Criminal Behaviour and Mental Health, 7,* 69 – 84.

Allison, P. (1999). *Logistic regression using the SAS system: Theory and application*. Cary, NC: SAS Institute Inc.

American Psychiatric Association (1996). *Brief for the American Psychiatric Association as amicus curiae in support of Leroy Hendricks*. Washington, DC: Author.

Andrews, D. A. (2000). Principles of effective correctional programs. In L. L. Motiuk & R. C. Serin (Eds.), *Compendium 2000 on effective correctional programming*. Ontaria: Correctional Services of Canada.

Andrews, D. A., & Bonta, J. (1995). *LSI-R: The level of service inventory – revised.* NY: Multi-Health Systems, Inc.

Andrews, D. A., & Bonta, J. (1998). *The psychology of criminal conduct.* Cincinnati, OH: Anderson.

Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19-52.

Andrews, D. A., Zinger, I, Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology. 28*, 369-397.

Association for the Treatment of Sexual Abusers. (2004). Practice standards and guidelines for the evaluation, treatment and management of adult male sexual abusers. Beaverton, OR: ATSA.

Bachman, R., & Paternoster, R. (1997). *Statistical methods for criminology and criminal justice*. New York: McGraw-Hill.

Ball, J. C. (1990). Opening the "black box" of drug abuse treatment-measurement and evaluation of the treatment domain. *National Institute on Drug Abuse Research Monograph, 105,* 468.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Barbaree, H. E. (2005). Psychopathy, treatment behavior, and recidivism: An extended follow-up of Seto and Barbaree. *Journal of Interpersonal Violence, 20,* 1115-1131.

Barbaree, H. E., Seto, M. C., Langton, D. M., & Peacock, E. J. (2001). Evaluating the predictive accuracy of six risk assessment instruments for adult sex offenders. *Criminal Justice and Behavior, 28,* 490-521.

Bard, L. A., Carter, D. L., Cerce, D. D., Knight, R. A., Rosenberger, R., & Schneider, B. (1987). A descriptive study of rapists and child molesters: Developmental, clinical, and criminal characteristics. *Behavioral Sciences & the Law, 5,* 203-220.

Barrett, 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,* 269-283.

Bartosh, D. L., Garby, T., Lewis, D., & Gray S. (2003). Differences in the predictive validity of actuarial risk assessments in relation to sex offender type. *International Journal of Offender Therapy and Comparative Criminology, 47,* 422-438.

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.

Beck, A. T. (1993). Cognitive therapy: Past, present, and future. *Journal of Consulting and Clinical Psychology, 61,* 194-198.

Belenko, S. (1998). *Behind bars: Substance abuse and America's prison population*. New York, NY: The National Center on Addiction and Substance Abuse at Columbia University.

Beyko, M. J., & Wong, S. C. (2005). Predictors of treatment attrition as indicators for program improvement not offender shortcomings: A study of sex offender treatment attrition. *Sexual Abuse: A Journal of Research and Treatment, 17,* 375-389.

Bickley, J., & Beech, A. R. (2001). Classifying child abusers: Its relevance to theory and clinical practice. *International Journal of Offender Therapy and Comparative Criminology, 45,* 51-69.

Blumenthal, S., Gudjonsson, G., & Burns, J. (1999). Cognitive distortions and blame attribution in sex offenders against adults and children. *Child Abuse & Neglect, 23,* 129-143.

Brown, S. L., & Forth, A. E. (1997). Psychopathy and sexual assault: Static risk factors, emotional precursors, and rapist subtypes. *Journal of Consulting and Clinical Psychology, 5,* 848-857.

Bumby, K. (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.

Burdon, W. M., & Gallagher, C. A. (2002). Coercion and sex offenders: Controlling sex-offending behavior through incapacitation and treatment. *Criminal Justice and Behavior, 29,* 87-109.

Bureau of Justice Statistics. (2000). *Criminal victimization in the United States, 1995: A National Crime Victimization Survey report*. Washington, DC: Author.

Bush, J., Glick, B., & Taymans, J. (2002). *Thinking for a change: Integrated cognitive behavior change program*. Washington, DC: National Institutes of Corrections.

Carey, M. (1997). Cog probation. *Perspectives,* 27-42.

Casey, E. A., & Nurius, P. S. (2006). Trends in the prevalence and characteristics of sexual violence: A cohort analysis. *Violence and Victims, 21,* 629-644.

Cheit, R. E. (2003). What hysteria? A systematic study of newspaper coverage of accused child molesters. *Child Abuse & Neglect, 27,* 607-623.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd Ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cole, S. A. (2000). From the sexual psychopath statute to "Megan's Law": Psychiatric knowledge in the diagnosis, treatment, and adjudication of sex criminals in New Jersey, 1949-1999. *Journal of the History of Medicine, 55,* 292-314.

Condelli, W. S., & Hubbard, R. L. (1994). Relationship between time spent in treatment and client outcomes from therapeutic communities. *Journal of Substance Abuse Treatment, 1,* 25-33.

Craig, L. A., Brown, K. D., & Stringer, I. (2003). Treatment and sexual offense recidivism. *Trauma, Violence & Abuse, 4,* 70-89.

Craissati, J., & Beech, A. (2004). The characteristics of a geographical sample of convicted rapists: Sexual victimization and compliance in comparison to child molesters. *Journal of Interpersonal Violence, 19,* 371-388.

Cullen, F. T., & Gendreau, P. (2000). Assessing correctional rehabilitation: Policy, practice, and prospects. In J. Horney (Ed.), *Policies, processes, and decisions of the criminal justice system* (Criminal Justice 2000 ed., Vol. 3 pp. 109-175). Washington, DC: National Institute of Justice.

Davey, M. (2006, March 15). Iowa's residency rules drive sex offenders underground. *The New York Times*. Retried from http://www.nytimes.com.

Dempster, R. J., & Hart, S. D. (2002). The relative utility of fixed and variable risk factors in discriminating sexual recidivists and nonrecidivists. *Sexual Abuse: A Journal of Research and Treatment, 14,* 121-138.

Dixon, P. (2003). The p-value fallacy and how to avoid it. *Canadian Journal of Experimental Psychology, 57,* 189-202.

Doren, D. M. (2004a). Stability of the interpretative risk percentages for the RRASOR and Static-99. *Sexual Abuse: A Journal of Research and Treatment, 16,* 25-36.

Doren, D. M. (2004b). Toward a multidimensional model for sexual recidivism risk. *Journal of Interpersonal Violence, 19,* 835-856.

Dowden, C., Antonowicz, D., & Andrews, D. A. (2003). The effectiveness of relapse prevention with offenders: A meta-analysis. *International Journal of Offender Therapy and Comparative Criminology, 47*, 516-528.

Dryden, W. (2001). *Reason to change: A Rational Emotive Behaviour Therapy (REBT) workbook.* East Sussex, Great Britain: Brunner-Routledge.

Eher, R. Neuwirth, W., Fruehwald, S., & Frottier, P. (2003). Sexualization and lifestyle impulsivity: Clinically valid discriminators in sexual offenders. *International Journal of Offender Therapy and Comparative Criminology, 47,* 452-467.

Ellis, A. (1962). *Reason and emotion in psychotherapy*. Secaucus, NJ: Citadel Press.

Ellis, A. (1997). Extending the goals of behavior therapy and of cognitive behavior therapy. *Behavior Therapy, 28,* 333-339.

English, K. (1998). The containment approach: An aggressive strategy for the community management of adult sex offenders. *Psychology, Public Policy, and Law, 4,* 218-235.

Enright, S. J. (1997). Cognitive behaviour therapy – clinical applications. *British Medical Journal, 314,* 1811-1816.

Falk, A. J. (1999). Sex offenders, mental illness and criminal responsibility: Constitutional boundaries of civil commitment after *Kansas v. Hendricks*. *American Journal of Law & Medicine, 25,* 117-147.

Feelgood, S., Cortoni, F., & Thompson, A. (2005). Sexual coping, general coping and cognitive distortions in incarcerated rapists and child molesters. *Journal of Sexual Aggression, 11,* 157-170.

Finkelhor, D. (1994). Current information on the scope and nature of child sexual abuse.

The Future of Children, 4, 31-53.

Fischer, G. J. (1992). Sex attitudes and prior victimization as predictors of college student sex offenses. *Annals of Sex Research, 5,* 53-60.

Fitch, W. L. (2003). Sexual offender commitment in the United States: Legislative and policy concerns. *Annals of the New York Academy of Sciences, 989,* 489-501.

Fox, J. (1997). *Applied regression analysis, linear models, and related methods*. Thousand Oaks, CA: Sage Publications.

Freeman-Longo, R. (2000). *Myths and facts about sex offenders*. Silver Spring, MD: Center for Sex Offender Management.

Friendship, C., Mann, R. E., & Beech, A. R. (2003). Evaluation of a national prison-based treatment program for sexual offenders in England and Wales. *Journal of Interpersonal Violence, 18,* 744-759.

Furby, L, Weinrott, M. R., & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin, 105,* 3-30.

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 reoffending. *Corrections Management Quarterly, 3,* 19-29.

Gendreau, P., & Andrews, D. A. (1996). *Correctional program assessment inventory*. St. John, NB: University of New Brunswick.

Gendreau, P., & Goggin, C. (2000). Correctional treatment: Accomplishments and realities. In P. Van Voorhis, M. Braswell, & D. Lester (Eds.), *Correctional counseling and rehabilitation* (4th ed., pp. 289-297). Cincinnati, OH: Anderson Publishing Company.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34,* 575-607.

Gilligan, L., & Talbot, T. (2000). *Community supervision of the sex offenders: An overview of current and promising practices*. Washington, DC: Center for Sex Offender Management.

Goldkamp, J. S., White, M. D., & Robinson, J. B. (2000) Do drug courts work? Getting inside the drug court black box. *Journal of Drug Issues, 31,* 27-72.

Goodstein, L., & Wright, K. (1991). Inmate adjustment to prison. In L. Goodstein & D.L. MacKenzie (Eds.), *The American prison* (pp. 229-251). New York, NY: Plenum Press.

Gottfredson, D. M., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.

Green, F. (2005, September 23). Changes in offender registry urged. *Richmond Times-Dispatch*. Retrieved from http://www.timesdispatch.com.

Groth, A. N., & Birnbaum, A. H. (1979). *Men who rape: The psychology of the offender*. New York: Plenum.

Groth, A. N., Burgess, A. W., & Holmstrom, L. L. (1977). Rape: Power, anger, and sexuality. *American Journal of Psychiatry, 134,* 1239-1243.

Gujarati, D. M. (1995). *Basic econometrics* (3rd ed.). New York: McGraw-Hill.

Hall, G. C. (1995). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology, 63,* 802-809.

Hanson, R. K. (1996). Evaluating the contribution of relapse prevention theory to the treatment of sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 8,* 201-208.

Hanson, R. K. (2002). Recidivism and age: Follow-up data from 4,673 sexual offenders. *Journal of Interpersonal Violence, 17,* 1046-1062.

Hanson, R. K., & Bussiere, 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., Gizarelli, R., & Scott, H. (1994). The attitudes of incest offenders: Sexual entitlement and acceptance of sex with children. *Criminal Justice and Behavior, 21,* 187-202.

Hanson, R. K., Gordon, A., Harris A. J., 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.

Hanson, R. K., & Harris, A. J. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior, 27,* 6-35.

Hanson, R. K., Morton, K. E., & Harris, A. J. (2003). Sexual offender recidivism risk: What we know and what we need to know. *Annals of the New York Academy of Sciences, 989,* 154-166.

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,* 1154-1163.

Hanson, R. K., Scott, H., & Steffy, R. A. (1995). A comparison of child molesters and nonsexual criminals: Risk predictors and long-term recidivism. *Journal of Research in Crime and Delinquency, 32,* 325-337.

Hanson, R. K., & Thornton, D. (2000a). *Static-99: Improving actuarial risk assessments for sex offenders.* Ottawa, Canada: Department of the Solicitor General.

Hanson, R. K., & Thornton, D. (2000b). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24,* 119-136.

Hare, R. D., Clark, D., Grann, M., & Thornton, D. (2000). Psychopathy and the predictive validity of the PCL-R: An international perspective. *Behavioral Sciences and the Law, 18,* 623-645.

Harris, P. M. (1995). Prison-based sex offender treatment programs in the post sexual psychopath era. *Journal of Psychiatry & Law, 23,* 555-581.

Harris, Rice, & Cormier, C. A. (1991). Psychopathy and violent recidivism. *Law and Human Behavior, 15,* 625-637.

Harris, A. J., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question*. (User Report 2004-03). Ottawa, Canada: Public Safety and Emergency Preparedness, Department of the Solicitor General.

Harris, A. J., Phenix, A, Hanson, R. K., & Thornton, D. (2003). *Static-99 coding rules revised*. Ottawa, Ontario, Canada: Department of the Solicitor General.

Harris, G. T., Rice, M. E., Quinsey, V. L., Lalumiere, M. L., Boer, D., & Lang, C. (2003). A multi-site comparison of actuarial risk instruments for sex offenders. *Psychological Assessment, 15,* 413-425.

Harris, P. M. (1995). Prison-based sex offender treatment programs in the post sexual psychopath era. *Journal of Psychiatry & Law, 23,* 555-581.

Heil, P., Ahlmeyer, S., & Simons, D. (2003). Crossover sexual offenses. *Sexual Abuse: A Journal of Research and Treatment, 15,* 221-236.

Hildebrand, M., Foster, H., & Hirt, M. (1990). Rapists and child molesters: Psychometric comparisons. *Archives of Sexual Behavior, 19,* 65-71.

Hildebran, D. D., & Pithers, W. D. (1992). Relapse prevention: Application and outcome. In W. O'Donohue & J. H. Geer (Eds.), *The sexual abuse of children* (2nd Ed.). Hillsdale, NJ: Erlbaum.

Hudson, S. M., Ward, T., & McCormack, J. C. (1999). Offense pathways in sexual offenders. *Journal of Interpersonal Violence, 14,* 779-798.

Janus, E. S. (2000). Sexual predator commitment laws: Lessons for law and the behavioral sciences. *Behavioral Sciences and the Law, 18,* 5-21.

Janus, E. S. (2003). Legislative responses to sexual violence: An overview. *Annals of the New York Academy of Sciences, 989,* 247-264.

Jones, L. M., & Finkelhor, D. (2003). Putting together evidence on declining trends in sexual abuse: A complex puzzle. *Child Abuse & Neglect, 27,* 133-135.

Jones, L. M., Finkelhor, D., & Kopiec, K. (2001). Why is sexual abuse declining? A survey of state child protection administrators. *Child Abuse & Neglect, 25,* 1139-1158.

Kansas v. Hendricks, 117 S.Ct., 2072, (1997).

Kennedy, P. (1992). *A Guide to Econometrics*. 3d ed. Cambridge, MA: The MIT Press.

Kersting, K. (2003). New hope for sex offender treatment. *Monitor, 34,* 52.

Kilpatrick, D. G. (2004). What is violence against women: Defining and measuring the problem. *Journal of Interpersonal Violence, 19,* 1209-1234.

Kilpatrick, D. G., Edmunds, C. N., & Seymour, A. K. (1992). *Rape in America: A report to the Nation*. Arlington, VA: National Victim Center and Medical University of South Carolina.

Kirsch, L. G., & Becker, J. V. (2006). Sexual offending: Theory of problem, theory of change, and implications for treatment effectiveness. *Aggression and Violent Behavior, 11,* 208-224.

Koch, W. (2006, May 23). States get tougher with sex offenders. *USA Today*. Retried from http://www.usatoday.com.

Knight, R. A., & Prentky, R. A. (1990). Classifying sexual offenders: The development and corroboration of taxonomic models. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbooks of sexual assault: Issues, theories, and treatment of the offender* (pp. 23-53). New York: Plenum.

Langan, P. A., Schmitt, E. L., & Durose, M. R. (2003). *Recidivism of sex offenders released from prison in 1994*. Washington, DC: Bureau of Justice Statistics.

Langton, C. M., Barbaree, H. E., Harkins, L., & Peacock, E. J. (2006). Sex offenders' response to treatment and its association with recidivism as a function of psychopathy. *Sexual Abuse: A Journal of Research and Treatment, 18,* 99-120.

Langton, C. M., Barbaree, H. E., Seto, M. C., Peacock, E. J., Harkins, L., & Hansen, K. T. (2007). Actuarial assessment of risk for reoffense among adult sex offenders: Evaluating the predictive accuracy of the Static-2002 and five other instruments. *Criminal Justice and Behavior, 34,* 37-59.

Latessa, E. J. (2004). The challenge of change: Correctional programs and evidence-based practices. *Criminology & Public Policy, 3*, 547-560.
Latessa. E. J., Cullen, F. T. & Gendreau, P. (2002). Beyond correctional quackery: Professionalism and the possibility of effective treatment. *Federal Probation*, 66, 43–49.
Laws, D. R. (1995). Central elements in relapse prevention procedures with sex offenders. *Crime and Law, 2,* 41-53.
Laws, D. R. (1999). Relapse prevention: The state of the art. *Journal of Interpersonal Violence, 14,* 285-302.
Laws, D. R., Hudson, S. M., & Ward, T. (2000). *Remaking relapse prevention with sex offenders*. Sage Publications Inc.: Thousand Oaks, California.
Laws, D. R., & Marshall, W. L. (2003). A brief history of behavioral and cognitive behavioral approaches to sexual offenders: Part 1. Early developments. *Sexual Abuse: A Journal of Research and Treatment, 15,* 75-92.
Lieb, R., Quinsey, V., & Berliner, L. (1998). Sexual predators and social policy. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 23, pp. 43-114). Chicago, IL: University of Chicago Press.
Lipsey, M. W., Chapman, G. L., & Landenberger, N. A. (2001). Cognitive-behavioral programs for offenders. *The Annals of the American Academy of Political and Social Science, 578*, 144-157.
Lipton, D., Martinson, R., & Wilks, J. (1975). *Effectiveness of correctional treatment - a survey of treatment evaluation studies*. Westport, CT: Praegar Publishers.
Lisak, D., & Miller, P. M. (2002). Repeat rape and multiple offending among undetected rapists. *Violence and Victims, 17,* 73-84.
Little, G. L. (2000). Cognitive-behavioral treatment of offenders: A comprehensive review of MRT outcome research. *Addictive Behaviors Treatment Review, 2,* 12-21.
Little, G. L., & Robinson, K. D. (1988). Moral Reconation Therapy: A systematic, step-by-step treatment system for treatment resistant clients. *Psychological Reports, 62,* 135-151.
Little, G. L., Robinson, K. D., & Burnette, K. D. (1994). Treating offenders with cognitive-behavioral therapy: Five-year recidivism outcome data on MRT. *Cognitive-Behavioral Treatment Review, 3,* 1-3.
Long, S. (1997). *Regression models for categorical and limited dependent variables*. Thousand Oaks, CA: Sage Publications.
Longo, R. E., & Bays, L. (2000). *Why did I do it again & How can I stop?* Holyoke, MA: NEARI Press.
Lösel, F., & Schmucker, M. (2005). The effectiveness of treatment for sexual offenders: A comprehensive meta-analysis. *Journal of Experimental Criminology, 1*, 117-146.
Lowenkamp, C. T., & Latessa, E. J. (2004). Understanding the risk principle: How and why correctional interventions can harm low-risk offenders. *Topics in Community Corrections,* 3-8.
Lowenkamp, C. T., & Latessa, E. J. (2005). Increasing the effectiveness of correctional programming through the risk principle: Identifying offenders for residential placement. *Criminology & Public Policy, 4*, 501-528.

Lowenkamp, C. T., Latessa, E. J., & Holsinger. (2006). The risk principle in action: What have we learned from 13,676 offenders and 97 correctional programs? *Crime & Delinquency, 52,* 77-93.

Lussier, P. (2005). The criminal activity of sexual offenders in adulthood: Revisiting the specialization debate. *Sexual Abuse: A Journal of Research and Treatment, 17,* 269-292.

Lussier, P., LeBlanc, M., & Proulx, J. (2005). The generality of criminal behavior: A confirmatory factor analysis of the criminal activity of sex offenders in adulthood. *Journal of Criminal Justice, 33,* 1-189.

Jones, P. R. (2006). Quality matters: For program development and evaluative research. *Criminology & Public Policy, 5,* 571-574.

MacKenzie, D. L. (1997). Criminal justice and crime prevention. In L.W. Sherman, D. Gottfredson, D. L. MacKenzie, J. Eck, P. Reuter, & S. Bushway, *Preventing crime: What works, what doesn't, what's promising*. Washington, DC: A Report to the U.S. Congress prepared by National Institute of Justice.

MacKenzie, D. L. (2000). Evidence-based corrections: Identifying what works. *Crime and Delinquency, 46*, 457-471.

MacKenzie, D. L. (2000). Reducing the criminal activities of known offenders and delinquents: Crime prevention in the courts and corrections. In L. Sherman, D. Farrington & B. Welsh (Eds.), *Preventing crime 2000*. Berkshire, UK: Harwood Academic Publishers.

MacKenzie, D. L. (2001). Corrections and sentencing in the 21st Century: Evidence-based corrections and sentencing. *The Prison Journal, 81*, 299-312.

Maletzky, B. M. (1993). Factors associated with success and failure in the behavioral and cognitive treatment of sexual offenders. *Annals of sex research, 6,* 241-258.

Maletzky, B. M., & Steinhauser, C. (2002). A 25-year follow-up of cognitive/behavioral therapy with 7,275 sexual offenders. *Behavior Modification, 26,* 123-147.

Marlatt, G. A. (1985). Relapse prevention. Theoretical rationale and overview of the model. In G. A. Marlatt & J. R. Gordon (Eds.), *Relapse prevention* (pp. 3-70). New York: Guilford Press.

Marlatt, G. A., & Gordon, J. R. (Eds.) (1985). *Relapse prevention*. New York: Guilford Press.

Marques, J. K. (1999). How to answer the question "Does sex offender treatment work?". *Journal of Interpersonal Violence, 14,* 437-451.

Marques, J. K., Wiederanders, M., Day, D. M., Nelson, C., & van Ommeren, A. (2005). Effects of a relapse prevention program on sexual recidivism: Finals results from California's Sex Offender Treatment and Evaluation Project (SOTEP). *Sexual Abuse: A Journal of Research and Treatment, 17*, 79-107.

Marshall, W. L., Anderson, D., & Fernandez, Y. (1999). *Cognitive behavioural treatment of sexual offenders*. New York: John Wiley & Sons.

Marshall, W. L., & Laws, D. R. (2003). A brief history of behavioral and cognitive behavioral approaches to sexual offender treatment: Part 2. The modern era. *Sexual Abuse: A Journal of Research and Treatment, 15,* 93-120.

Marshall, W. L., & Williams, S. (2000). The assessment and treatment of sexual offenders. In L. L. Motiuk & R. C. Serin (Eds.), *Compendium 2000 on effective correctional programming*. Ontaria: Correctional Services of Canada.

Martinson, R. (1974). What works? Questions and answers about prison reform. *The Public Interest, 35,* 22-54.

Matson, S. (1999). *Sex offender registration: Policy overview and comprehensive practices*. Silver Spring, MD: Center for Sex Offender Management.

Maxfield, M. G., & Babbie, E. (1995). *Research methods for criminal justice and criminology.* Belmont, CA: Wadsworth Publishing.

McGrath, R. J. (1991). Sex-offender risk assessment and disposition planning: A review of empirical and clinical findings. *International Journal of Offender Therapy and Comparative Criminology, 35,* 328-350.

McGrath, R. J., Cumming, G., Livingston, J. A., & Hoke, S. E. (2003). Outcome of a treatment program for adult sexual offenders: From prison to community. *Journal of Interpersonal Violence, 18,* 3-17.

McGrath, R. J., Hoke, S. E., & Vojitisek, J. E. (1998). Cognitive-behavioral treatment of sex offenders. *Criminal Justice and Behavior, 25,* 203-335.

McGuire, J. (1996). *Cognitive behavioural approaches: An introductory course on theory and research.* Liverpool, UK: University of Liverpool.

Miller, H. A., Amenta, A. E., & Conroy, M. A. (2005). Sexually violent predator evaluations: Empirical evidence, strategies for professionals, and research directions. *Law and Human Behavior, 29,* 29-54.

Miller, W. R. (1993). What really drives change? *Addiction, 88,* 1479-1480.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people to change addictive behavior* (2nd ed.). New York: Guilford.

Mills, J. F., Anderson, D., & Kroner, D. G. (2004). The antisocial attitudes and associates of sex offenders. *Criminal Behaviour and Mental Health, 14,* 134-145.

Milner, R. J., & Webster, S. D. (2005). Identifying schemas in child molesters, rapists, and violent offenders. *Sexual Abuse: A Journal of Research and Treatment, 17,* 425-439.

Nicholaichuk, T. (1996). Sex offender treatment priority: An illustration of the risk/need principle. *Forum, 8,* 30-32.

Nicholaichuk, T., Gordon, A., Gu, D., & Wong, S. (2000). Outcome of an institutional sexual offender treatment program: A comparison between treated and matched untreated offenders. *Sexual Abuse: A Journal of Research and Treatment, 12,* 139-153.

Nunes, K. L., Firestone, P., Bradford, J. M., Greenberg, D. M., & Broom, I. (2002). A comparison of the Static-99 and the Sex Offender Risk Appraisal Guide (SORAG). *Sexual Abuse: A Journal of Research and Treatment, 14,* 253-269.

Olver, M., & Wong, S. (2006). Psychopathy, sexual deviance, and recidivism among sex offenders. *Sexual Abuse: Journal of Research and Treatment, 18,* 65-82.

Palermo, G. B. (2005). Prisonization and sexual offenders: A compounded problem. *International Journal of Offender Therapy and Comparative Criminology, 49,* 611-613.

Palermo, G. B., & Farkas, M. A. (2001). *The dilemma of the sexual offender*. Springfield, IL: C. C Thomas.

Palmer, T. (1975). Martison revisited. *Journal of Research in Crime and Delinquency, 12,* 133-152.

Panton, J. H. (1978). Personality differences appearing between rapists of adults, rapists of children and non-violent sexual molesters of female children. *Research Communications in Psychology, Psychiatry & Behavior, 3,* 385-393.

Peake, T. H., Borduin, C. M., & Archer, R. P. (1988). *Brief psychotherapies: Changing frames of mind*. Thousand Oaks, CA: Sage Publications.

Pearson, F. S., Lipton, D. S., Cleland, C. M., & Yee, D. S. (2002). The effects of behavioral/cognitive-behavioral programs on recidivism. *Crime & Delinquency, 48,* 476-496.

Petersilia, J., & Turner, S. (1993). Intensive probation and parole. In M. Tonry (Ed.), *Crime and justice: A review of research* (pp. 281-335). Chicago, IL: University of Chicago Press.

Pfaffenroth, P. C. (2003). The need for coherence: States' civil commitment of sex offenders in the wake of *Kansas v. Crane*. *Stanford Law Review, 55,* 2229-2267.

Pithers, W. D. (1991). Relapse prevention with sexual aggressors. *Forum on Corrections Research, 3,* 20-23.

Pithers, W. D., Marques, J. K., Gibat, C. C., & Marlatt, G. A. (1983). Relapse prevention with sexual aggressors: A self-control model of treatment and maintenance of change. In J. G. Greer & I. R. Stuart (Eds.), *The sexual aggressor: Current perspectives on treatment* (pp 214-239). New York: Van Nostrand Reinhold.

Polaschek, D. L. L, & Gannon, T. A. (2004). The implicit theories of rapists: What convicted offenders tell us. *Sexual Abuse: A Journal of Research and Treatment, 16,* 299-314.

Polaschek, D. L. L., Ward, T., & Hudson, S. M. (1997). Rape and rapists: Theory and treatment. *Clinical Psychology Review, 17,* 117-144.

Polizzi, D. L.; MacKenzie, D. L., and Hickman, L. (1999). What works in adult sex offender treatment?: A review of prison and non-prison-based treatment programs. *International Journal of Offender Therapy and Comparative Criminology.43,* 357-374.

Porter, S., Fairweather, D., Drugge, J., Hervé, H., Birt, A., Boer, D. P. (2000). Profiles of psychopathy in incarcerated sexual offenders. *Criminal Justice and Behavior, 27,* 216-233.

Pratt, J. (1998). The rise and fall of homophobia and sexual psychopath legislation in postwar society. *Psychology, Public Policy, and Law,* 25-49.

Prentky, R. A., Knight, R. A., & Lee A. F. (1997). Risk factors associated with recidivism among extrafamilial child molesters. *Journal of Consulting and Clinical Psychology, 65,* 141-149.

Prentky, R. A., Knight, R. A., Lee, A. F., & Cerce, D. D. (1995). Predictive validity of lifestyle impulsivity for rapists. *Criminal Justice and Behavior, 22,* 106-128.

Prentky, R. A., Lee, A. F., Knight, R. A., Cerce, D. D. (1997). Recidivism rates among child molesters and rapists: A methodological analysis. *Law and Human Behavior, 21,* 635-659.

Prochaska, J.O., & DiClemente, C.C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice, 19*, 276-287.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*, 1102-1114.

Prochaska, J.O., Norcross, J.C., & DiClemente, C.C. (1994). *Changing for good*. New York, NY: William Morrow.

Quinn, J. F., Forsyth, C. J., & Mullen-Quinn, C. (2004). Societal reaction to sex offenders: A review of the origins and results of the myths surrounding their crime and treatment amenability. *Deviant Behavior, 25,* 215-232.

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.

Quinsey, V. L., Khanna, A., & Malcolm, P. B. (1998). A retrospective evaluation of the regional treatment centre sex offender treatment program. *Journal of Interpersonal Violence, 13,* 621-644.

Quinsey, V. L., Rice, M. E., & Harris, G. T. (1995). Actuarial prediction of sexual recidivism. *Journal of Interpersonal Violence, 10,* 85-105.

Rice, M. E., & Harris, G. T. (2003). The size and sign of treatment effects in sex offender therapy. *Annals of the New York Academy of Sciences, 989,* 428-440.

Robinson, L. O. (2003). Sex offender management: The public policy challenges. *Annals of the New York Academy of Sciences, 989,* 1-7.

Ross, R. R., Fabiano, E. A., & Ewles, C. D. (1988). Reasoning and Rehabilitation. *International Journal of Offender Therapy and Comparative Criminology, 32,* 29-35.

Sample, L. L., & Bray, T. M. Are sex offenders different? An examination of rearrest patterns. *Criminal Justice Policy Review, 17,* 83-102.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press.

Scalora, M. J., & Garbin, C. (2003). A multivariate analysis of sex offender recidivism. *International Journal of Offender Therapy and Comparative Criminology, 47,* 309-323.

Schechory, M., & Ben-David, S. (2005). Aggression and anxiety in rapists and child molesters. *International Journal of Offender Therapy and Comparative Criminology, 49,* 652-660.

Schwartz, B. K., & Canfield, G. M. (1996). *Facing the shadow: A guided workbook for understanding and controlling sexual deviance*. Kingston, NJ: Civic Research Institute.

Schwaebe, C. (2005). Learning to pass: Sex offenders' strategies for establishing a viable identity in the prison general population. *International Journal of Offender Therapy and Comparative Criminology, 49,* 614-625.

Schweitzer, R., & Dwyer, J. (2003). Sex crime recidivism: Evaluation of a sexual offender treatment program. *Journal of Interpersonal Violence, 18,* 1292-1310.

Seager, J. A., Jellicoe, D., & Dhaliwal, G. K. (2004). Refusers, dropouts, and completers: Measuring sex offender treatment efficacy. *International Journal of Offender Therapy and Comparative Criminology, 48,* 600-612.

SEARCH. (1998). *National conference on sex offender registries: Proceedings of a BJS/SEARCH conference*. Washington, DC: Bureau of Justice Statistics.

Sechrest, L., White, S. O., & Brown, E. D. (Eds.) (1979). *The rehabilitation of criminal offenders: Problems and prospects*. Washington, DC: National Academy of Sciences.

Serin, R. C., Mailloux, D. L., & Malcolm, P. B. (2001). Psychopathy, deviant sexual arousal, and recidivism among sexual offenders. *Journal of Interpersonal Violence, 16,* 234-246.

Serin, R. C., Malcolm, P. B., Khanna, A., & Barbaree, H. E. (1994). Psychopathy and deviant sexual arousal in incarcerated sexual offenders. *Journal of Interpersonal Violence, 9,* 3-11.

Seto, M. (2004). Pedophilia and sexual offenses against children. *Annual Review of Sex Research, 15,* 321-361.

Sherman, L.W., Gottfredson, D. C., MacKenzie, D. L., Eck, J., Reuter, P., & Bushway, S. (1997) *Preventing crime: What works, what doesn't, what's promising*. Washington, DC: A Report to the U.S. Congress prepared by National Institute of Justice.

Sherman, L. W., & Weisburd, D. (1995). General deterrent effects of police patrol in crime 'hot spots': A randomized study. *Justice Quarterly, 12,* 625-648.

Simon, J. (1998). Managing the monstrous: Sex offenders and the new penology. *Psychology, Public Policy, and Law, 4,* 452-467.

Stinson, J. D., Becker, J. V., & Tromp, S. (2005). A preliminary study on findings of psychopathy and affective disorders in adult sex offenders. *International Journal of Law and Psychiatry, 28,* 637-649.

Studer, L., Clelland, S., Aylwin, A., Reddon, J., & Monro, A. (2000). Rethinking risk assessment for incest offenders. *International Journal of Law and Psychiatry, 23,* 15-22.

Swartz, J. A., Lurigio, A. J., & Slomka, S. A. (1996). The impact of IMPACT: An assessment of the effectiveness of a jail-based treatment program. *Crime & Delinquency, 42,* 553-573.

Sykes, G.E., & Messinger, S. (1960). The inmate social system. In R. Cloward (Ed.), *Theoretical studies in social organization of the prison* (pp. 5-19). New York, NY: Social Science Research Council.

Terry, K. J., & Mitchell, E. W. (2001). Motivation and sex offender treatment efficacy: Leading a horse to water and making it drink? *International Journal of Offender Therapy and Comparative Criminology, 45,* 663-672.

Trivits, L. C., & Reppucci, N. D. (2002). Application of Megan's Law to juveniles. *American Psychologist, 57*, 690-704.

Van Voorhis, P., Spruance, L. M., Ritchey, P. N., Listwan, S. j., & Seabrook, R. (2004). The Georgia cognitive skills experiment: A replication of Reasoning and Rehabilitation. *Criminal Justice and Behavior, 31,* 282-305.

Virginia Criminal Sentencing Commission. (2001). *Assessing risk among sex offenders in Virginia*. Richmond, VA: Virginia Criminal Sentencing Commission.

Virginia Criminal Sentencing Commission. (2003). *Virginia Criminal Sentencing Commission 2003 Annual Report*. Retrieved March 7, 2007 from http://www.vcsc.state.va.us/2003Annualreport_pdf.

Ward, T., & Hudson, S. M. (1998). A model of the relapse process in sexual offenders. *Journal of Interpersonal Violence, 13,* 700-725.

Ward, T., Hudson, S. M., Johnston, L., & Marshall W. L. (1997). Cognitive distortions in sex offenders: An integrative review. *Clinical Psychology Review, 17,* 479-507.

Ward, T., Hudson, S. M., & Marshall, W. L. (1996). Attachment style in sex offenders: A preliminary study. *Journal of Sex Research, 33,* 17-26.

Ward, T., Hudson, S. M., & Siegert, R. J. (1995). A critical comment on Pithers' relapse prevention model. *Sexual Abuse: A Journal of Research and Treatment, 7,* 167-175.

Ward, T., Louden, K., Hudson, S. M., & Marshall, W. L. (1995). A descriptive model of the offense chain for child molesters. *Journal of Interpersonal Violence, 10,* 342-472.

Weinrott, M. R., & Saylor, M. (1991). Self-report of crimes committed by sex offenders. *Journal of Interpersonal Violence, 6,* 286-300.

Weisburd, D. (1998). *Statistics in criminal justice*. Belmont, CA: Wadsworth Publishing Company.

Wilson, D. B., Bouffard, L. A., & MacKenzie, D. L. (2005) A quantitative review of structured, group-oriented, cognitive-behavioral programs for offenders. *Criminal Justice and Behavior 32,* 172-204.

Winick, B. J., & LaFond, J. Q. (Eds.). (2003). *Protecting society from sexually dangerous offenders: Law, justice, and therapy*. Washington, DC: American Psychological Association.

Wood, R. M., Grossman, L. S., & Fichtner, C. G. (2000). Psychological assessment, treatment, and outcome with sex offenders. *Behavioral Sciences and the Law, 18,* 23-41.