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The Relationship Between Cognitive Distortions and Risk to Sexually Re-offend in Adolescents: Comparing Three Levels of Treatment

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THE RELATIONSHIP BETWEEN COGNITIVE DISTORTIONS AND RISK TO SEXUALLY RE-OFFEND IN ADOLESCENTS: COMPARING THREE LEVELS OF TREATMENT

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Dissertation Approval

This is to certify that the thesis presented to us by Christina D. Haldaman on the 23 day of July, 2012, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Abstract

This study examined the relationship between cognitive distortions, risk to sexually re-offend, and length of time in treatment, and psychopathy. This study investigated differential treatment effects across three different treatment modalities to gain a better understanding of cognitive distortions in the treatment of adolescent sexual offenders. Literature has theorized that a fundamental aspect of sex offender treatment is addressing these cognitive distortions. Archival data from an existing database were collected from 99 adolescent males between the ages of 12 and 18. Of these adolescents, 51.5% were Caucasian; 28.3% were Latino; 10% were African American; 8.1% were Bi-racial, and 2% were Asian. At Time One, adolescents were administered the PCL: YV, ICD, and the JSOAP-II. At Time Two, three months following the first administration of the ICD, adolescents were re-administered the ICD and the dynamic factors on the JSOAP-II. Correlational analyses examined the relationship between cognitive distortions, psychopathy and risk to sexually re-offend; it also examined the relationship between change in levels of cognitive distortions, change in level of risk to re-offend sexually, and length of time in treatment. Analyses revealed a strong positive correlation between psychopathy and risk to re-offend sexually, and a strong positive correlation between change in levels of endorsed cognitive distortions and length of time in treatment. An analysis of covariance examined differential treatment effects on cognitive distortions based on treatment modality. When the variance accounted for by length of time in treatment and initial endorsements of cognitive distortions was removed and controlled, there were no differential treatment effects on cognitive distortions based on treatment modality. It is a matter of critical importance to gain a better understanding of the

function of cognitive distortions in sex offending behavior. Research targeting their roles can pave the way for developing better measures of assessment and standardized treatment protocols.

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Chapter One

Statement of the Problem

A significant number of sex crimes each year are perpetrated by adolescents (Bonner, Marx, Thompson, & Michaelson, 1998). According to the U.S. Department of Justice (1997) and the FBI (2005), approximately 20-30% of those arrested for sexual offenses are adolescents, and additional data suggest that as much as 50% of child molestations are perpetrated by adolescents (Davis & Leitenberg, 1987). Once arrested, these adolescents are then mandated to a certain level of treatment deemed appropriate by the judicial system, depending on level of risk. This level of treatment could range from specialized foster care treatment, or outpatient treatment, to a more secure facility such as specialized residential care or a detention facility. All of the aforementioned facilities are responsible for psychological services aimed at lowering the adolescent's risk of recidivism. One of the differences between levels of treatment intensity lies in the dosage of treatment. The more intense the levels of treatment, the higher are the dosages of treatment. Unfortunately, there are no studies conducted relative to which level of treatment is most effective, or how to determine the most appropriate level of treatment for adolescent sexual offenders.

The majority of sex offender treatments are founded on the tenet that sexually inappropriate behavior patterns are associated with cognitive distortions such as justification, denial, minimization and rationalization (Eastman, 2004). According to Eastman, an individual's cognitive distortions play a key role in the patterns and facilitation of sexually abusive behaviors. Research further indicates that utilizing techniques designed to challenge these self-serving distortions is thought to be crucial in

sex offender management and treatment (Center for Sex Offender Management, 2000). Because cognitive behavioral therapy focuses on the distorted thinking that influences a person's mood and behavior, this form of treatment may be particularly effective in treating adolescents who engage in sexually offending behaviors. Across all levels of treatment, from outpatient to detention facilities, an empirically supported treatment for adolescent sex offenders that addresses and reduces cognitive distortions may be critical for both the adolescent as well as for the community at large. However, there is a lack of consistency in the field regarding how to effectively measure cognitive distortions in this population, and no studies have investigated whether or not cognitive distortions are affected by sex offender- specific treatment.

Furthermore, throughout the assessment process of adolescent sexual offenders, it is important to assess risk in order to best address their behaviors and meet the needs of the community (CSOM, n.d.). Unfortunately, research concerning the methods for identifying and screening out individuals with a higher risk of sexually reoffending is minimal. The Juvenile Sex Offender Protocol-II (JSOAP-II) is considered one of only two valid and reliable sexual risk assessments for adolescent sexual offenders (Righthand, Prentky, Knight, Carpernter, Hecker, & Nangle, 2005). Researchers, however, have developed scales designed to assess the risk of psychopathy and general antisocial behaviors. These psychopathy scales may be useful in assessing risk for sexual re-offending, but no studies have investigated the relationship between psychopathy scores and sexual risk to re-offend, as measured by scores on the JSOAP-II (Prentky & Righthand, 2003).

Relevance.

Because reducing recidivism rates is a key component in determining treatment effectiveness, it is essential to ensure that treatment attends to components that have been shown to facilitate and to maintain sexually offending behaviors. Research suggests that cognitive distortions play an integral role in the sexually offending behaviors of adolescents (Ward, Hudson, Johnston, & Marshall, 1997; Eastman, 2004 McCrady, Kaufman, Vasey, Barriga, Devlin, & Gibbs, 2008). These distortions which justify the offender's actions facilitate engagement in the sex offending behavior. The distortions allow an individual to surpass his own internal inhibitions, as well as societal external inhibitors. Should these distortions be challenged, it will be more difficult for an individual to surpass internal and external inhibitors that are necessary in order to offend.

It is proposed that one may ultimately lower an individual's risk of recidivism by determining which levels of treatment most effectively reduce cognitive distortions. When comparing recidivism rates across types of treatment, it becomes vital to assess levels of cognitive distortions in order to determine the most efficacious type of treatment. However, there is limited research on how different levels of treatment may be more or less effective in reducing those distortions and in reducing recidivism. A meta-analysis conducted on nine studies, which included 2,986 individuals, assessed the effectiveness of sex offender treatment for adolescents (Reitzel & Carbonell, 2006). Researchers found a 12.53% sexual recidivism rate on an average 59 month follow-up. Unfortunately, none of the reviewed studies included information regarding the level of treatment intensity, nor did any differentiate between modality of treatment. This limitation brings to question both content and dosage of treatment throughout the

programs (Reitzel & Carbonell, 2006). Becker (1990) provided data on 52 individuals who were treated on an outpatient basis, and found that at a one year follow-up interview, five (approximately 9.6%) of the adolescents had sexually reoffended, as determined by self-report and referral sources. Bremer (1992) reported sexual recidivism on adolescents treated within a residential facility and found a six percent recidivism rate. Although the difference is small, research suggests that inpatient treatment demonstrates stronger effects on recidivism than outpatient treatment (Becker, 1990; Bremer, 1992).

Purpose of the Study.

Due to the increased number of adolescents engaging in sexually inappropriate behaviors, there is a need for a better understanding of the most efficacious level of treatment for adolescents adjudicated for sexual crimes. In order to begin to determine the most efficacious level of treatment, one must examine the treatment literature. Literature asserts that cognitive distortions, which are false beliefs and attitudes that support sexually offending behaviors, are among the most important aspects to address in the treatment of adolescent sex offenders (Marshall, Anderson, & Fernandez, 1999). It is theorized that these adolescents engage in distorted thinking in order to overcome their inhibitions to offend, yet there is little research on how different levels of treatment impact these adolescents' thinking. In addition, although several studies found that psychopathy was the best predictor of non-sexual, general recidivism rather than sexual recidivism, Worling (2001) found that the adolescent offender characterized as antisocial/impulsive were more likely to recidivate both sexually and nonsexually. A review of the literature indicated that previous criminality is predictive of nonsexual recidivism; however, it also noted that previous offending and antisocial behavior may

increase risk of re-offending sexually (Caldwell, 2002; Gerhold, Browne, & Beckett, 2007).

The purpose of this study is to 1) explore the relationship between cognitive distortions and level of risk in adolescent sexual offenders; 2) compare change in these variables across three different levels of sexual offender treatment, and 3) examine whether or not psychopathy is correlated with risk to re-offend sexually. This study will utilize the Inventory of Cognitive Distortions (ICD; Yurica, 2002) to assess the frequency of endorsed cognitive distortions, Hare's Psychopathy Checklist Revised: Youth Version (PCL-YV; Forth, Kosson, & Hare, 2003) to assess psychopathy, and the Juvenile Sexual Offender Assessment Protocol-II to assess risk to sexually re-offend (JSOAP-II; Prentky & Righthand, 2003). Three levels of treatment (specialized foster care, outpatient therapy, and a juvenile detention facility) will be compared across two time points during treatment to determine which treatment condition demonstrates greater reductions in cognitive distortions. This type of knowledge may not only lead to the protection of the community at large, but also has the potential to increase the future well-being of the adolescent sexual offenders.

Chapter Two

Introduction

Adolescent sexual offenders have been a societal concern only since the 1980s (Letourneau & Miner, 2005). Prior to that time, society considered child molestation and sexual crimes inappropriate adult behaviors committed by malicious adult sexual offenders. Adolescents who acted out sexually received very little attention, and their inappropriate sexual behaviors were often considered inconsequential experimentation. Within the past twenty years, however, society has had a dramatic shift in beliefs potentially related to a growing awareness of the prevalence of sexual abuse at the hands of adolescents. In 2000, the sexual assault victimization rate for youths 12 to 17 was 2.3 times higher than for adults (U.S. Dept. of Justice, Bureau of Justice Statistics, 2000). Additionally, approximately 50 to 80 percent of adult sexual offenders committed their first sexual offenses as adolescents (Fehrenback, Smith, Monastery & Deisher, 1986; Davis & Leitenberg, 1987). According to the U.S. Department of Justice (1997) and the FBI (2005), approximately 20-30% of arrests for sexual offenses are adolescents, and additional data suggest that as much as 50% of child molestations are also perpetrated by adolescents (Davis & Leitenberg, 1987). Furthermore, adolescents under the age of 18 make up approximately 40% of the offenders who victimized children under six (U.S. Dept. of Justice, Bureau of Justice Statistics, 2000; NCSBY, n.d.). Annually, an approximate 2,200 arrests for adolescents are for forcible rape, and approximately 9,200 arrests are for other types of sexual offences (Hanson & Morton-Bourgan, 2005).

Not only are these rates alarming, but also the consequences on sexual abuse victims are severe. Moreover, victims of sexual abuse are significantly more likely to

perpetrate sexual abuse than individuals who were not victimized (Jespersen, Lalumiere, & Seto, 2009). A comprehensive systematic review and meta-analysis of 37 comparative studies was conducted that included 3,162,318 victims of sexual abuse. Through this literature review, researchers found an association between history of sexual abuse and a lifetime diagnosis of depression, anxiety, PTSD, sleep disorders, eating disorders, and suicide attempts (Chen et al., 2010). However, it should be noted that these results are contrary to an earlier meta-analysis conducted in 1998. This meta-analysis examined 59 studies reviewing the effects of child sexual abuse in a college sample (Rind, Tromovitch, & Bauserman, 1998). The findings of this review did not support the hypothesis that child sexual abuse will 1) cause harm; 2) affect most children who experience it; 3) be severe or intense, and 4) have a negative impact on males and females equally (Rind, Tromovitch, & Bauserman, 1998).

Finklehor and Brown (1985) proposed a four factor model describing the effects of sexual abuse on children. This model conceptualizes the experience of sexual abuse in terms of what authors identify as traumagenic factors. This conceptualization enables clinicians and researchers to organize and theorize about many of the observable outcomes of sexual abuse. Moreover, part of this model suggests that as a result of a sense of powerlessness, some victims of childhood sexual abuse attempt to dominate others and may, in turn, go on to offend against others. Researchers suggest that this domination may provide some relief from the lack of control they experienced during their own victimization (Finklehor & Brown, 1985).

When recognizing these outcomes of sexual victimization as a societal concern, it becomes additionally important that researchers and treatment providers understand

correlates of sexual offending behaviors in order to reduce sexual recidivism and ensure community safety. The etiology of adolescent sexual offenders, the correlates of adolescent sex offenders, including psychopathy, and the underlying dynamics and risk factors that enable adolescent sex offenders to overcome barriers to act out sexually can be critical in reducing sexual recidivism. Furthermore, effectively utilizing sexual behavior risk assessments to gain insight into the level of risk an adolescent poses to the community can be vital in ensuring an effective level of treatment that can range from community based settings to residential or detention facilities. Decisions based on these risk assessments can have an enormous effect on the protection of society and potential life-changing consequences for these adolescents (Prentky & Righthand, 2003).

Although research is limited at this time, some evidence suggests that cognitive behavioral interventions have been effective in treating adolescents with sexually offending behaviors (Kirsch & Becker, 2006). Currently, in North America, cognitive behavior therapy (CBT) programs appear to represent the future of sex offender treatment. Although each program varies in specific content, almost all CBT programs for offenders include the treatment of cognitive distortions, empathy and social skills training, and the implementation of emotion management and relapse prevention (Monster et al., 2008).

At this time, one of the most widely used models of sexual abuse prevention is David Finklehor's Four Preconditions Model of Sexual Abuse (1989). This model is based on four basic components including motivation to offend, overcoming internal and external inhibitors, and overcoming the child's resistance. Overcoming the internal

inhibitors, in particular, relates directly to an individual's cognitive distortions that can be challenged utilizing CBT techniques.

Because sex offender treatment is founded on the tenet that sexually inappropriate behavior patterns are associated with cognitive distortions, utilizing techniques that are designed to confront self-serving distortions is thought to be crucial (Gibbs, 1995; Marshall, Anderson, & Fernandez, 1999; Center for Sex Offender Management, 2000). Unfortunately, the limited amount of empirical data on the efficacy of treatment for adolescent sexual offenders has left professionals making decisions on treatment and program effectiveness a subject for debate (Eastman, 2004). Although theory indicates that challenging these self-serving distortions is crucial in the treatment of adolescent sex offenders (Gibbs, 1995), there continues to be paucity of research addressing how to measure these cognitive distortions effectively, and what level of treatment is most effective in reducing them. Additionally, research has not yet addressed the differential characteristics that may influence cognitive distortions that lead to these offending behaviors, and the number of studies examining the effectiveness of treatment with these adolescents remains small.

Sexual Abuse and the Observable Effects on Victims

Although there is no universal definition of sexual abuse, the essential characteristic of abuse includes one individual in the dominant position, enabling him or her to force or coerce a child into sexual activity (APA, 2001). According to the Center for Sex Offender Management (CSOM, 2006), sexual abuse is 1) unwanted sexual contact between two or more adults or minors; 2) any sexual contact between a minor and an adult; 3) unwanted sexual contact between a youth towards an adult, or 4) sexual

abuse between two minors when there is a significant age gap between them (CSOM, 2006). The American Psychological Association (APA, 2001) further asserts that sexual abuse can include: fondling, masturbation, digital penetration, vaginal intercourse, oral-genital contact, and anal intercourse. Sexual abuse can occur at the hands of both adults and peers and is not solely restricted to physical contact. Examples of no physical contact abuse include internet crimes, child pornography, and exposure (CSOM, 2006; APA, 2001).

According to the American Academy of Child & Adolescent Psychiatry (2004), sexual abuse is reported almost 90,000 times a year; however, the numbers of unreported abuse are much higher because 1) children are afraid to tell anyone what has happened, and 2) the legal procedure for validating the sexual abuse is complicated. It is further estimated that 1 in 4 girls and 1 in 6 boys will have been a victim of sexual abuse while younger than 18 years of age. This estimation means there are greater than 42 million adult survivors of child sexual abuse in the United States (Centers for Disease Control and Prevention, 2006). Additionally, it is estimated that one in six adult women and one in 33 adult men have experienced an attempted or completed sexual assault (Tjaden & Thoennes, 2006).

Most child victims are abused by someone they know and trust; however, boys are more likely than girls to be abused by someone outside the family (American Medical Association, 1992). In addition, a study conducted in three states found that 96% of reported rape survivors under age 12 knew their attackers. Four percent of the perpetrators were strangers; 20 percent were the victim's fathers; 16 percent were relatives of the victim, and 60 percent were acquaintances or friends of the sexual abuse

victim (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 1994).

Although not all sexual abuse victims go on to become perpetrators of sexual abuse, the most frequently discussed factor in explaining sexual offending is sexual abuse history (Jespersen, Lalumiere, & Seto, 2009; Seto & Lalumiere, 2010). The sexually abused-sexual abuser hypothesis suggests that male children who have had a history of sexual abuse are more likely to become sexual abusers later in life. This hypothesis predicts an association between sexual abuse history and future sexual offending behaviors, indicating that an adolescent sexual offender is more likely to have experienced sexual abuse than a non-offender (Seto & Lalumiere, 2010). A meta-analysis conducted by Seto and Lalumiere (2010) investigated 31 studies which examined history of sexual abuse in sex offenders. Of the 31 studies, 29 studies indicated that adolescent sexual offenders had a more frequent history of sexual abuse than non-offenders. In further examining the studies, researchers found that, on average, 46% of adolescent offenders reported experiencing childhood sexual abuse, as compared with 16% of non-offenders (Seto & Lalumiere, 2010). The implications of this research suggest that preventing sexual abuse against children may eventually reduce the number of future sexual offenders (Jespersen, Lalumiere, & Seto, 2010).

In addition to the sexually abused, sexual abuser hypothesis, recent research is beginning to examine whether or not sexualization of children and sexual content/sexual violence in the media are influencing sexually problematic behaviors and sexual violence (Brown & Cantor, 2000; Fanti, 2009). Gil (1993) asserts that problematic sexual behavior is often the result of a child's premature involvement in sexual activity initiated by an

older child or an adult or early exposure to sexual behavior or explicit sexual material. Recent research has shown that the media influences the sexual development of children and adolescents (Horner, 2004). Durham (2008) asserts that teenagers get their sexual education from the media, and sexualization of young girls has become part of main stream culture. As a result of this media influence, girls are beginning to feel pressured to provide sexual pleasure to boys, and this has led to 1 in 5 teenage girls being sexually and/or physically abused by their boyfriends (Durham, 2008). The creation of sexual violence of women in mainstream films reinforces the idea that it is acceptable (Fanti, 2009). Although research has shown that exposure to media violence causes desensitization and leads to more people acting out violently (Fanti, 2009), few studies of the potential effects of the media on children and adolescents have gone beyond asserting that effects on adolescent sexuality exist (Brown & Witherspoon, 2002). Due to the paucity of research available, researchers in this field assert that a considerable amount remains to be learned about the effects of sexual content in the media on children and adolescents (Brown & Cantor, 2000; Chapin, 2000).

Four factor model.

The literature on child sexual abuse is saturated with clinical observations regarding the effects associated with being abused. Finkelhor and Brown's (1985) model conceptualizes the experience of sexual abuse in terms of four traumagenic dynamics. Conceptualizing traumagenic dynamics is a way to organize and theorize about many of the observable outcomes of sexual abuse. Most of the outcomes can be categorized into one or two of the following dynamics: 1) traumatic sexualization, 2) betrayal, 3) powerlessness, or 4) stigmatization (Finkelhor & Browne, 1985). The authors postulate

that the combination of these four dynamics in one situation is what makes child sexual abuse unique in comparison with other types of childhood trauma. Finkelhor and Brown (1985) assert that these traumagenic dynamics change a child's cognitive and emotional orientation to the world, and create trauma by altering the child's world view, self-concept and affective capabilities. An abused child's attempt to cope with his or her environment may result in behavioral problems and can lead to engagement in sexual offending behaviors.

Four traumagenic dynamics.

Traumatic sexualization refers to a process that occurs as a result of sexual abuse during which a child's sexuality is shaped in a developmentally inappropriate and interpersonally dysfunctional manner (Finkelhor & Browne, 1985). This process can happen in many ways, and sexual abuse experiences can vary in terms of the traumatic sexualization they provoke. Traumatic sexualization can occur when a child is exposed to sexual behavior that is not appropriate for his or her developmental age, or through exchange of things, emotionally or physically, in return for sexual behavior. It can also come about when a child's body parts are given distorted importance or meaning, or through misconceptions and confusion about sexual behavior or morality conveyed from the offender to the child. Finally, traumatic sexualization can become apparent when scary memories and events become associated with sexual activity in the child's mind.

Betrayal refers to the dynamic that takes place when a child realizes that someone upon whom he or she was dependent has caused that child harm (Finkelhor and Browne, 1985). This can happen in many ways. Further, sexual abuse experiences that are committed by family members, or by other trusted figures, involve greater potential for

betrayal than sexual abuse that occurs at the hands of a stranger. Nevertheless, no matter who the offender is, the child can be affected by betrayal.

Powerlessness refers to the process by which the child's will, sense of efficacy, and desires are infringed upon (Finkelhor and Browne, 1985). Authors suggest that the powerlessness that occurs when a child becomes a sexual abuse victim results from the child's personal and bodily space being repeatedly violated against the child's will (Finkelhor and Brown, 1985). This sense of powerlessness is further exacerbated by the coercion and manipulation the offender imposes upon the child throughout the abuse process. It is then reinforced when a child learns that his or her attempts to stop the abuse are unsuccessful. This powerlessness is also increased when a child is fearful, is not able to make adults understand or believe the abuse is occurring, or realizes that their dependency upon the abuser has trapped them into the abuse situation.

Stigmatization refers to the negative associations that are conveyed to the child surrounding the sexual abuse experiences. These connotations are then incorporated into the child's self-image (Finkelhor and Browne, 1985). Stigmatization can occur in a variety of degrees throughout diverse abusive experiences. For example, some children may be too young to understand societal attitudes and prejudice and may not experience much stigmatization; however, other children may have to deal with cultural and religious taboos in addition to societal stigma.

Observed effects of traumagenic factors.

It is important to note that effects related to the concepts of the four traumagenic factors have been found to be significantly related to future sex offending behaviors in studies comparing the history of sex offenders and non-sex offenders. Jespersen,

Lalumiere, & Seto (2009) assert that sexual abuse may have an impact on psychosexual development, thereby increasing the risk of sexually offending during adolescents. In a meta-analysis, Seto & Lalumiere (2010) found that adolescent sex offenders, when compared with non sex offenders, had earlier exposure to sex and pornography. Researchers additionally found that interpersonal problems, such as social isolation, were observed in studies comparing sex offenders and non-sex offenders on measure of social functioning.

According to Finkelhor and Browne (1985), the observed effects of the traumagenic factors in children who suffered from sexual abuse are abundant. These effects seem readily connected to traumatic sexualization, stigmatization, betrayal, and powerlessness. However, the effects of each dynamic are unique. In attending to the aforementioned sexually abused-sexual abuser hypothesis, it is important to attend to each child's experience of sexual abuse because this may be related to problems later in life (Jespersen, Lalumiere, & Seto, 2009).

Traumatic sexualization has often been seen in child victims of sexual abuse (Finklehor & Brown, 1985). Some of the observable behaviors that clinicians have noted include sexual preoccupations, repetitive sexual play, children having knowledge and interests inappropriate for his or her level of development, or children becoming sexually aggressive with their peers (Adams-Tucker, 1981; Finch, 1967). As a result of sexual abuse, children have a heightened level of awareness regarding sexual issues. Part of this preoccupation with sexual issues is a function of the confusion stemming from the abuse regarding self and interpersonal relations. This confusion is particularly evident surrounding issues of sexual identity in male victims of a male perpetrator. Girls, on the

other hand, may experience a form of internalized stigma, wondering whether or not they are sexually desirable to others (Finkelhor & Browne, 1985).

Stigmatization occurs as a result of an individual perceiving that he or she is different from everyone else based on the belief that no others have gone through the experience that he or she has undergone. The stigmatization can result in child victims feeling isolated, which further leads them to gravitate toward other stigmatized individuals (Finkelhor & Brown, 1985). Furthermore, this stigmatization can result in lowered self-esteem based on negative attitudes toward abused victims (Courtois, 1979).

A number of effects have also been noted as a result of a child victim's feeling of betrayal. Betrayal is associated with grief and depression regarding the loss of the trusted individual (Adams-Tucker, 1981). These child victims experience disillusionment, which may result in a strong desire to regain trust and security. This desire, especially in child victims, tends to manifest itself in dependency (Lustig, Dresser, & Spellman, 1966). The opposite reaction to betrayal, however, is sometimes seen in the form of hostility or anger, particularly among female victims. Such anger may be a defense mechanism that a child employs in an effort to protect him or herself from future betrayals (Coutrois, 1979; Finkelhor & Brown, 1985).

Furthermore, a reaction to powerlessness, which reflects an inability to control events or circumstances, can be observed through fear and anxious responses. Many of the initial reactions children have as a result of sexual victimization are connected to fear and anxiety. This fear and anxiety can be observed through nightmares, phobias, hyper vigilance, clinging behavior or somatic complaints (Adams-Tucker, 1981). Furthermore, individuals tend to experience an impaired sense of self-efficacy and coping skills as a

result of sexual abuse. This perceived inability to cope can be associated with depression and even suicidal behavior among sexual abuse victims. It may additionally manifest itself in behaviors such as learning difficulties and running away (Adams-Tucker, 1981).

Generally, each traumagenic factor presents with its own unique manifestation; however, some effects may plausibly be connected to two or three traumagenic dynamics. There is no set correspondence between one dynamic and one observable behavior, because all dynamics are connected to many different, common patterns of reactions (Finkelhor & Browne, 1985). Depression related to stigmatization, for example, may manifest itself in a way completely different from depression stemming from betrayal (Finkelhor & Browne, 1985). As a result, it is crucial for clinicians to be aware that each child responds in a unique way in order to provide each child with the most efficacious treatment and ensure that this pattern of sexually abusive behavior does not become a cycle of sexual abuse.

Models of Sexual Abuse Prevention

Traditionally, programs aimed at preventing child sexual abuse have utilized methods of prevention by developing programs directed toward children (Krivacska, 1989). However, alternative approaches aimed at the maintaining factors of sexual abuse must also be discussed. Programs directing their focus to the etiology of sexual abuse typically focus on education about normal development, increasing inhibitions against sexual abuse for potential abusers, and interventions for individuals sexually aroused by children (Krivacska, 1989). One of the most widely used and discussed models of sexual abuse prevention is David Finklehor's Four Preconditions Model of Sexual Abuse (Krivacska, 1989).

Four preconditions.

David Finklehor (1984) claims that sexual abuse is a result of a perpetrator's ability to overcome four obstacles to the sexual abuse. In order for a sexual abuse act to occur, four preconditions must be met: 1) the potential sexual offender must be motivated to have sex with the child; 2) the potential offender must overcome the internal inhibitions associated with the sexually abusive act; 3) the potential offender must overcome the external inhibitors associated with the sexual abuse (e.g., opportunity); and 4) the potential offender must overcome the child's resistance. If all four obstacles are not overcome, Finklehor (1984) asserts that the sexual abuse will not occur.

The first precondition that must be met in order for the sexual abuse of a child to occur is the motivation factor. The potential offender must have motivation to, and interest in, having sexual contact with a child. Motivation can be discussed in terms of three components: 1) emotional congruence; 2) sexual arousal; and 3) blockage (Finklehor, 1984). Emotional congruence relates to the sexual contact with the child primarily satisfying an emotional need rather than sexual interest. Sexual arousal relates to the offender having a physiological sexual response in the presence of a child or children. Blockage refers to a time when an individual is faced with a situation in which other potential sources of sexual gratification are not available, or are not satisfying to the individual (Finklehor, 1984). For example, some individuals may be having issues within their marriages, or are socially inept at developing an age appropriate sexual relationships.

The second precondition that must be met in order for sexual abuse to occur relates to overcoming internal inhibitors (Finkelhor, 1984). Many adults are sexually

attracted to children but are aware that it is inappropriate and therefore do not act upon the desires (Children's Law Office, 1997). The adult is able to stop the unacceptable act or feeling. In cases in which sexual abuse does occur, the adult must first overcome these inhibitions. These inhibitions can be lowered as a result of stress, alcohol or drug use or a mental illness such as an impulse control disorder (Finklehor, 1984).

The third precondition that must be met in order for sexual abuse to occur refers to the potential offender's ability to overcome external inhibitions. These external inhibitions relate to environmental factors that would ordinarily be expected to prevent the sexual abuse. If an offender is going to sexually abuse a child, he or she must have the opportunity to do so. Physical separation of the child from other people is typically necessary for the abuse to occur. Nevertheless, emotional or social isolation can also play a crucial role in giving the potential offender access to the child. In general, the type of access to the child typically determines the type of abuse that can occur (Finklehor, 1984).

The fourth and final precondition that must be met in order for sexual abuse to occur refers to overcoming the resistance of the child. The potential offender must be able to overcome any resistance the child may attempt. Force can be used to overcome such resistance, but typically, it is more common for children to be tricked or coerced into the sexual act. Some children are aware that sexual abuse is wrong; however, other children may sense something is wrong but accept the explanation of the potential offender's explanations because he or she has more knowledge or authority. Other older children may know that the abuse is wrong, but do not know how to deal with the situation. Additionally, a potential offender may take advantage of the child's need for

attention or love to overcome the resistance, or he or she may find ways to overcome the resistance through physical force or through instilling fear in the child (Finklehor, 1984).

Overall, this model asserts that sexual abuse is a dynamic process with a multitude of variables that must be overcome in order for an individual to offend. These variables begin within the individual, starting with a desire or motivation to engage in sex with children. It is within this initial stage that an individual's thinking begins to become distorted. Without this motivation, an individual will not go through the next three stages. However, once motivation is established, the potential offender must go on to develop additional distorted cognitions that support and maintain this desire to engage in sex with children. After an individual has begun utilizing these cognitive distortions that support the offending behavior, it is only a matter of time before the potential offender learns how to overcome the external inhibitors and the child's resistance. If an individual's cognitions are challenged prior to the offending behavior, one can propose that the individual will not have the distorted cognitions maintaining his desire to overcome the subsequent steps to offending, and sexual abuse will not occur.

The Adolescent Sex Offender

Although it is important for research to address sexual abuse and its effects on victims, it is equally important to examine the offenders in order to understand and address these dangerous behaviors and reduce recidivism. Throughout history, shifts in schema regarding adolescents who sexually offend have gone from one extreme to another. Initially society believed that adolescent boys were simply engaging in harmless experimentation. However, as society began to recognize the consequences of sexual victimization, and also that much of the abuse was occurring at the hands of adolescents,

society's schema shifted. Society began to describe these adolescent boys as compulsive sex offenders that could not be cured. Society's schema regarding the adolescent sex offender was incorporated into their previously known schema of the adult sexual offender. Initially this may have seemed appropriate; however, recent evidence indicates that although the effects of sexual victimization are similar, the adolescent sexual offender is more closely comparable to other juvenile delinquents, and quite distinct from the adult sexual offender (Letourneau & Miner, 2005).

Although the adolescent offender does have traits and characteristics similar to an adult offender, (e.g., basic, inadequate personality traits, negative self-image, nonassertive personality, poor or no interpersonal relations), it must be accepted that additional, distinctive traits apply only to the adolescent. These traits include an intense need to be accepted by peers, serious empathy deficits, damaged self-worth and self-image, and little or no religious/moral value system (Prendergast, 2004). Furthermore, contrary to the adult offender, the adolescents' sexually offending behaviors are typically more impulsive in nature. The nature of adolescence in itself (e.g., hormones and the need for peer acceptance) makes the adolescent sex offender much more complicated (Prendergast, 2004).

Unfortunately, although the adolescent sexual offender is distinct from the adult offender, and is more comparable with other juvenile delinquents, questions remain regarding the differential characteristics of an adolescent sexual offender when compared with non-sexual offenders or normative population. Furthermore, although there are models of sexual abuse that explain how sexual abuse can occur, a crucial problem in developing treatment programs for these adolescent sex offenders is the lack of insight

into the specific characteristics of these offenders. No socioeconomic or demographic factors have been identified as predictors of engagement in sexually abusive behaviors. Instead, psychosocial correlates have been investigated. Ultimately, studies of the psychosocial correlates of the adolescent sexual offender are concerned with the reason that certain adolescent engaged in sexual offending behaviors and others do not. Although some of these adolescent sex offenders begin acting out at a young age, others may begin at the onset of puberty. The age of onset for sexually acting out behaviors varies for each individual adolescent (Van Wijk et al., 2006). Additionally, the age and sex of their victims also vary, as does their type of offense. Offending behaviors can range from exhibitionism to forcible rape. With this type of heterogeneous group, it becomes more difficult to target their specific treatment needs. Although differential characteristics of these adolescents compared with non-sex offending adolescents continue to be somewhat of a mystery, psychosocial correlates have been investigated in regard to the role they play in the maintenance of adolescents' sexual behaviors.

Historically, clinicians have suggested feelings of inadequacy, low self-esteem, anger toward women, fear of rejection, poor social skills, a previous history of sexual abuse, and deviant sexual fantasies as precursors to sexual offending behavior (Davis & Leitenberg, 1987). Theory and previous research have also suggested that adolescent sexual aggression is associated with past sexual victimization, cognitions that justify sexual aggression (Malamuth, 1986), and social skills deficits that impair heterosexual relationships (Lipton, McDonel, & McFall, 1987; Spaccarelli, Bowden, Coatsworth, & Kim, 1997). Additionally, several studies have examined correlates, including social

competence and isolation (Fehrenback, Smith, Monastersky, & Deisher, 1986), and childhood exposure to physical and sexual abuse (Ford & Linney, 1995).

More recently, research has identified the fact that academic and behavioral problems at school, lack of social skills, decreased empathy for others, a history of severe family problems and instability, and prior sexual victimization are linked to sexually offending behaviors (Letourneau & Miner, 2005). Prentky, Harris, Frizell, & Righthand (2000) also related poor impulse control and poor judgment in adolescent sex offenders. Commonly, throughout theory and research, family environment, previous sexual victimization, and social skills deficits appear to be stable correlates linked to future sexual abuse behaviors.

In regard to witnessing or experiencing abuse, research indicates that sexual aggression is associated with exposure to both serious physical abuse, and to serious domestic violence involving weapons (Spaccarelli et al., 1997). Families of adolescent sexual offenders have been found to be dysfunctional and disturbed, with the offenders having witnessed intrafamily violence (Hsu & Starzynski, 1990; Davis & Leitenberg, 1987), or having been the recipients of physical abuse and neglect (Davis & Leitenberg, 1987, Van Ness, 1984). Furthermore, research comparing incarcerated sexual and nonsexual offenders has found that 79% of incarcerated adolescents who were sexual offenders witnessed intrafamily violence, in comparison with 20% of nonsexual offenders (Lewis, Shankok, and Pincus, 1979). Additionally, in a study conducted by Van Ness (1984), adolescent sexual offenders were found to have been witness to greater family violence than nonsexual offenders. This researcher found that 41% of adolescent

sexual offenders reported a history of physical abuse or neglect in comparison with only 15% of nonsexual offenders.

Additionally, through disclosures or discoveries during treatment, it was found that nearly 40% of the adolescent sexual offenders had been sexually abused themselves, and approximately 25-50% of adolescents who sexually abuse have been physically abused as children (Veneziano & Veneziano, 2002). One controlled study found evidence of greater exposure to sexual abuse among adolescent child molesters, in comparison with rapists and nonsexual violent offenders (Ford & Linney, 1995). In this study, youths who met the criterion for one of four groups were identified: 1) adolescents who sexually assaulted same aged peers or older; 2) adolescents who sexually assaulted a child five or more years younger than themselves; 3) adolescents charged with assault and battery with an aggravated nature, assault and battery with intent to kill or with a concealed weapon, armed robbery, or involuntary manslaughter; and 4) adolescents charged with truancy or running away, with no other offences. Results from this study indicated that approximately 17% of adolescent rapists and nonsexual violent offenders had experienced sexual abuse, in comparison with approximately 50% of adolescent child molesters. Furthermore, Spaccarelli et al. (1997) found that attitudes relating to acceptance of physical and sexual aggression were reported more frequently by sexually aggressive youths in comparison with the control group. Sexually aggressive adolescents were more likely to endorse beliefs rationalizing and minimizing the victims' suffering (Spaccarelli et al., 1997). Findings also indicated that victimization by men may be related to a more chronic, risky pattern of offending likely to result in arrest.

Finally, research has shown that another common characteristic in the adolescent sexual offender relates to the adolescent's deficits in social skills and social competence, leading to social isolation. When examining etiological frameworks of the typical adolescent offender, all frameworks suggest that the typical sexual offender is sexually preoccupied, socially inept and isolated, and has limited skills in regard to close relationships. As a result, social incompetence, specifically regarding close relationships, is viewed as a central component to sexual offending behaviors (Hudson, & Ward, 2000).

In a study exploring attitudinal differences among sexual offenders, juvenile delinquents, and non-delinquents, Miner & Munns (2005) found that adolescent sexual offenders showed a greater sense of peer normlessness, and perceived themselves as being more isolated than other youths. More specifically, the adolescent sex offenders reported perceived social isolation in all three domains: peer groups, families, and school environment. The greater overall perception appeared to be unique to sexual offenders in comparison with juvenile delinquent youth and non-delinquent youth. Although other youth have some sense of social connectedness in one area or more, the adolescent sex offenders lacked a sense of connectedness in all three areas.

This research suggests that adolescent offenders have a general sense of social isolation, and lack the self-confidence to achieve the intimacy that Marshall (1989) suggested leads an adolescent to turn to sexual offending behaviors. It is theorized that social incompetence prevents an individual from adequately fulfilling a fundamental human desire for intimacy, closeness and belonging (Marshall, 1989). It is further hypothesized that this social isolation leads to an adolescent turning to sexual offending behavior to meet his intimacy needs.

Cognitive-Behavioral Therapy Approach

Although research is limited at the present time, some evidence suggests that a cognitive behavioral approach to treatment may be effective in addressing the psychosocial characteristics of adolescent sexual offenders, and in successfully treating adolescents with sexually offending behaviors. According to researchers in the field, cognitive-behavioral therapy (CBT) has been empirically supported as an effective treatment for many mental health problems, and should be considered a best practice for sexual offenders (Becker & Hunter, 1997; Center for Sex Offender Management, 2000; Gibbs, 1995; Marshall, 1999; Moster, Wnuk, & Jeglic, 2008). Cognitive behavioral therapy is based on the premise that distorted thinking influences a person's mood and behavior. In turn, an individual must first change his or her thoughts and beliefs in order to change behavior (Beck, 1995).

Currently in North America, CBT programs appear to represent the future of sexual offender treatment; however, each program varies in specific content (Marshall, 1999). Although varied in content, in working with adolescents who sexually offend, the primary goal of CBT is to reduce recidivism. Most of the sex offender treatment programs in the United States and Canada now use a cognitive-behavioral approach to treatment in combination with relapse prevention, which is designed to help sex offenders maintain behavioral changes. Many of the treatment programs also involve group and/or individual therapy and focus on topics such as victimization awareness, empathy training, and cognitive restructuring (Center for Sex Offender Management, 2000). These interventions utilize a comprehensive approach to treat the offender and protect the community.

Becker and Hunter (1997) reported that most programs utilize psycho-education, CBT, family therapy, and relapse prevention; however, Marshall (1999) noted that most programs typically provide information related to relapse prevention as the overall treatment framework, with common aspects of treatment emphasizing empathy, cognitive distortions and deviant sexual preferences. Included in almost all CBT based treatments for offenders is the treatment of cognitive distortions, the teaching of empathy and social skills, and the implementation of emotion management and relapse prevention (Monster et al., 2008). More specifically, CBT treatments attempt to 1) reduce denial; 2) increase accountability; 3) increase empathy for their victim; 4) provide insight into triggering events; 5) address the adolescent's own victimization, if necessary; 6) provide sex education; 7) alter deviant arousal patterns; 8) modify cognitive distortions related to inappropriate sexual behaviors; and 9) strengthen social skills and anger control (Bourduin & Schaeffer, 2001). It is additionally recommended that the treatment plan in all sexual offender programs become individualized for the adolescent and his family (Becker & Hunter, 1997).

Throughout the treatment process, it is critical for adolescent sexual offenders to develop an ability to understand how their feelings influence their actions in both appropriate and inappropriate ways. Feelings which are consistently seen in therapy have included depression, anxiety, shame, guilt, loneliness and anger. During treatment the adolescents may be asked to re-experience the emotional states that occurred during their offending behavior. Once they are able to recognize these emotions, they are then able to recognize emotions that may place them at risk for re-offending in the future (Moster et al., 2008).

Because distorted thinking directly influences mood and because distorted thoughts are prevalent among adolescent sexual offenders, it seems natural also to utilize CBT interventions for emotion management when working with this population. To learn emotion management, the adolescents must be able to recognize and identify their feelings. Emotion management typically focuses on negative affect, which is quite prevalent in the adolescent sex offender. The inability to experience and manage positive emotions can lead to sexually offending behaviors in many of these adolescents (Moster et al., 2008). Some examples of this include offending while in a state of excitement, while casting away inhibitions, or while experiencing a sense of entitlement.

Gibbs (1995) further emphasized treatment techniques in confronting self-serving distortions, and stated that treatment programs that correct thought disorders through cognitive behavioral techniques are important in the treatment of adolescent sexual offenders. The utilization of cognitive restructuring, for example, can be effective when attempting to challenge the cognitive distortions that facilitate engagement in sexually offending behaviors. Some of the cognitive restructuring methods include helping adolescents recognize inappropriate thoughts, teaching them healthy and appropriate thoughts, and teaching them how to challenge inappropriate thoughts when these are recognized. The beginning stages of treatment focus on talking about the sexual offense in detail, describing the thoughts and feelings that occurred before the offending behavior. It is within this stage that perpetrators exhibit numerous, prevalent cognitive distortions. Throughout the entire treatment period, the adolescents continue to talk about the offending behaviors and the cognitive distortions related to those behaviors are challenged, eventually leading to a final stage of relapse prevention (Moster et al., 2008).

Cognitive Distortions in Sexual Offending

Sex offender treatment is founded on the tenet that sexually inappropriate behavior patterns are associated with cognitive distortions. In this context, cognitive distortions are false beliefs and attitudes that support sexually offending behaviors (Marshall, Anderson, & Fernandez, 1999). Clinicians have long noted that distorted beliefs and maladaptive thinking play a vital role in the enabling, facilitating, justifying and perpetuating sexually abusive behaviors (McCrady, Kaufman, Vasey, Barriga, Devlin, & Gibbs, 2008; Eastman, 2004; Ward, Hudson, Johnston, & Marshall, 1997). Sex offenders use these cognitive distortions in order to justify and minimize their offending behaviors, thus allowing them to overcome their internal inhibitions regarding the sexual offense (Blumenthal, Gudjonsson, & Burns, 1999; Finklehor, 1984).

Abel and his colleagues were the first researchers to introduce the term cognitive distortions into the sexual offending literature (Abel, Becker, & Cunningham-Rathner, 1984; Abel, Gore, Holland, Camp, Becker, & Rathner, 1989). It was argued that cognitive distortions are internal processes used by the offender in order to rationalize the offending behavior (Abel et al, 1989). Additionally, they maintained that cognitive distortions serve to justify the continuation of the offending behaviors without feeling shame or guilt by recognizing that the offender is violating social norms. In 2000, Ward argued that cognitive distortions in sexual offenders stem from underlying schemas about the nature of their victims. He claimed that an offender's implicit theories are used to explain other people's actions and make predictions about the world, and that they are coherent and established through a number of interwoven beliefs. He further argued that these underlying schemas unconsciously influence the way in which a person views

oneself, the world, and others. It is theorized that understanding the cognitive processes that facilitate the initiation, maintenance, and justification of sexually offending behaviors is essential in the development of successful treatment programs (Ward, Hudson, Johnston, & Marshall, 1997).

Some examples of cognitive distortions used during sexual offenses are *blaming the victim* and *denial*. *Blaming the victim* is utilized in order for an offender to convince himself that the victim seduced him into acting sexually inappropriately. On the other hand, *denial* is simply not accepting explanations of accountability (Ward, Hudson, & Marshall, 1995). Ward, Hudson, & Marshall (1995) associated cognitive distortions, such as *blaming the victim*, with increased rates of sexual offending. Additionally, as the offending continues, these beliefs appear to increase (Abel, Becker, & Cunningham-Rathner, 1984). This increase in distorted thinking can be understood through social learning theory. Initially, a child may become aroused by fantasizing about inappropriate experiences. Should these experiences be fantasized about repeatedly, orgasm and sexual pleasure will become associated with the inappropriate fantasies. If there are no negative consequences for using these fantasies, there is nothing to inhibit that negative arousal pattern and the pattern continues (Abel, Becker, & Cunningham-Rathner, 1984). It has been argued that these self-fulfilling cognitive distortions legitimize an individual's actions and function to maintain the behavior. A major issue with all distorted thinking is that the offender does not attempt to validate his beliefs with other individuals, such as parents, psychologists, or priests. A failure to examine these cognitions suggests that the individual is not interested in feedback from others (Abel, Becker, & Cunningham-Rathner, 1984).

Another key cognitive distortion addressed in almost all sex offender treatment programs is denial. It was hypothesized by Lund (2000) that the relationship between denial and recidivism may interact with risk. Although many treatment programs focus on addressing a sex offender's level of denial, research has produced mixed results about its relationship to recidivism. Lund suggested that among lower risk offenders, denial may influence recidivism; however, in higher risk offenders, denial may be obscured by other risk factors resulting in an absence of a relationship. In a more recent study conducted by Nunes, Hanson, Firestone, Moulden, Greenberg, and Bradford (2007), it was hypothesized that denial would be associated with recidivism in higher risk offenders, but not in lower risk offenders, contrary to Lund's proposal. Overall, results indicated that in low risk offenders, there was an interaction between denial and recidivism. Specifically, it was found that low risk offenders who denied their sexual offences re-offended at higher rates than those who did not deny their offences. Furthermore, among incest offenders, individuals who denied their offences re-offended at higher rates that those who admitted their offences. However, in non-incest offenders, offenders who denied their offences re-offended at lower rates than those who admitted their offences. Yates (2009) conducted a literature review examining denial among sexual offenders and its impact on sexual recidivism. Overall, the author concluded that lower risk offenders who admitted their offences were less likely to re-offend than lower risk offenders who denied their offences, but higher risk offenders who admitted their offences recidivated at higher rates than higher risk offenders that denied their offences.

Although denial has not been found to be consistently related to recidivism in sexual offenders, some evidence does suggest that it may be a risk factor in lower risk

offenders, and especially in low risk incest offenders. Furthermore, through the investigation of denial and its relationship to recidivism, it has been found that denial is negatively correlated with treatment progress and with treatment engagement (Schneider and Wright, 2001; Levenson & Macgowan, 2004). As a result, the cognitive distortion of denial is still regarded as a risk factor for re-offending, and is considered a barrier to treatment progress (ATSA, 2005).

In addition to denial, McCrady et al. (2008) conducted a study investigating the scope of cognitive distortions in adolescent sex offenders and their relationship to empathy. Researchers administered a self-report measure that assessed the construct of empathy, including both generic and sex-specific, self-report measures of cognitive distortions, to 175 adolescent sexual offenders between the ages of 12-20 who were incarcerated in a state correctional facility. Results suggested that whether the cognitive distortions are sex-specific or generic, their self-serving function is inversely related to empathy, and the mean of generic self-serving distortions in adolescent sex offenders was significantly higher than a normative sample mean. Researchers additionally found that both generic and sex-specific cognitive distortions in adolescent sex offenders were negatively related to concern for others (McCrady et al., 2008).

The role of cognitive distortions.

Although significant attention has been devoted to examining the content of cognitive distortions in sexual offenders, few researchers have attempted to understand their underlying role. To date, it is uncertain whether or not these distortions stem primarily from maladaptive underlying schema, or are the result of dysfunctional cognitive processes, or both (Ward, 2000). It has been argued that the role of cognitive

distortions is causal in nature and is best understood in terms of implicit theories (Ward, 2000). Ward suggests that cognitive distortions in sexual offenders stem from underlying causal theories about the nature of the victims, rather than from independent beliefs. He further asserts that the content of these implicit theories are maladaptive and developed during early childhood, possibly as a result of sexual abuse, sexual exposure or sexual behavior (Ward, 2000). Ward explains that a sex offender's implicit theories draw upon everyday assumptions about an individual's functioning and his beliefs about the motives, desires and beliefs of women and children. These theories help the offender form a conceptualization of the victim, and facilitate the interpretation and explanation of the actions of the victim and the offender. Within these implicit theories, several cognitive distortions coexist and function to explain, and account for, the actions of the offender and the victim (Ward, 2000). He further asserts that these cognitive distortions utilized by sexual offenders fall into two categories: "Those that reflect the content of beliefs and desires, and those that are associated with mechanisms responsible for the rejection and revision of evidence, for example, denial and minimization" (Ward, 2000, p. 498).

Assessing cognitive distortions in sexual offenders.

Sex offender treatment is based in the belief that sex offending behaviors are associated with cognitive distortions, and therefore, it seems crucial for a treatment program to raise awareness of these cognitive distortions within the sexual offender, challenge these distorted beliefs, and reduce the level of cognitive distortions over time. Additionally, in order to ensure that treatment is effective in reducing these distortions, one would need to assess, continually, the levels of cognitive distortions throughout the

treatment process. Unfortunately, cognitive distortions are repeatedly referred to in the sexual offender literature, but there continues to be a scarcity of empirical research in this area (Geer, Estupinan, & Manguno-Mire, 2000). Moreover, within the current research that is available, researchers often discuss cognitive distortions in a myriad of ways. This lack of consistency in operationally defining cognitive distortions is likely to have a negative impact on the accurate measurement of the construct (Arkowitz & Vess, 2003). The inability to measure the construct effectively poses threats to the validity of the self-report measures of cognitive distortions currently existing.

Furthermore, in evaluating self-report measures of cognitive distortions and empathy, the transparency of items and the secondary influence of social desirability on responding have been identified as a major problem with measures used in the assessment of sexual offenders (Tierney & McCabe, 2001). This raises questions about whether or not the responses actually reflect the sexual offenders true beliefs and attitudes, or if it is representation of their desires to present themselves in a positive manner. Arkowitz & Vess (2003) further stated that, specific to sexual offenders, an effective measure of cognitive distortions does not yet appear to exist because a relationship between sexual offending and cognitive distortions cannot be determined until the construct of cognitive distortions is consistently defined and reliably measured.

Nevertheless, several measures and methods designed to assess cognitive distortions of sexual offenders have been developed. Of these instruments, the most commonly implemented instruments are self-report inventories (Arkowitz & Vess, 2003). Bumby (1996) developed the RAPE and MOLEST scales to measure cognitive distortions in men who sexually abuse children and women. The MOLEST scales are

composed of 38 items, and the RAPE scales are composed of 36 items. All items are scored on a 4-point Likert scale, ranging from strongly agree to strongly disagree. The Abel and Becker Cognitions Scale is a 29 item self-report inventory designed to assess cognitive distortions in adults who sexually molest children (Abel et al., 1989). All items are scored on a 5 point Likert scale, ranging from strongly agree to strongly disagree. The lower the scores, the greater is the endorsement of cognitive distortions. The Multiphasic Sex Inventory (Nichols & Molinder, 1984) is designed to assess distorted thinking patterns in sex offenders through two subscales: 1) The Cognitive Distortions and Immaturity subscale, and 2) The Justification subscale. Unfortunately, despite their frequent use, there are many important limitations inherent in self-report measures when utilized with a population such as sexual offenders, who are involved in the criminal justice system (Edens, Hart, Johnson, Johnson, & Oliver, 2000).One such limitation is evaluating honesty.

Evaluating mandated individuals requires a completely different treatment approach in comparison with generalized outpatient therapy. In forensic settings, for example, it is important to recognize that an individual's motivation is most likely a desire to present him or herself in a positive manner. Bumby (1996), for example, found a significant decrease in reported cognitive distortions on the RAPE and MOLEST scales when re-administered at a 3 and 6 month follow-up; however, researchers reported that the findings should be taken with caution because they may be a result of socially desirable responses secondary to the face validity of the measure (Arkowitz & Vess, 2003). In a study conducted on 126 rapists and child molesters incarcerated in Atascadero State Hospital, Arkowitz & Vess (2003) evaluated the Bumby (1996) RAPE and

MOLEST scales as a measure of cognitive distortions. If the RAPE and MOLEST scales are measures to distinguish the cognitive distortions of rapists and child molesters, it would be expected that the rapists obtain higher scores on the RAPE scales, and the child molesters obtain higher scores on the MOLEST scales. However, results indicated that child molesters, in comparison with rapists, did not obtain higher scores on the MOLEST scales (Arkowitz & Vess, 2003). Additionally, when correlating the RAPE and MOLEST scales with the K scale on the MMPI, researchers found that rapists demonstrated a significant inverse correlation between scores on the RAPE scale and the K scale on the MMPI, and child molesters demonstrated a significant inverse correlation between both the RAPE and MOLEST scales and scores on the K scale of the MMPI. Because the K scale is designed to detect defensiveness or an individual's attempt at presenting oneself in an excessively positive light, this may provide further evidence on the transparency of Bumby's (1996) RAPE and MOLEST scales. As a result of this transparency, in combination with an individual's motivation, the typical scales utilized to measure cognitive distortions are likely manipulated in a socially desirable manner (Arkowitz & Vess, 2003).

An additional study utilizing Bumby's (1996) RAPE and MOLEST scales attempted to evaluate whether or not extrafamilial child molesters underreported their offense supporting cognitive distortions (Gannon, Keown, & Polascheck, 2007). This study utilized a bogus pipeline approach. Participants were given the self-report measure on two separate occasions. During time one, all participants were administered the self-report questionnaire. During time two, participants were randomly assigned to a control condition or to a bogus pipeline (BP) condition. In the bogus pipeline condition,

participants were hooked up to a false lie detector, but the control condition participants completed the questionnaire under the same conditions that they experienced at time one. In order to ensure that the participants in the BP condition believed in the lie detector's ability to detect lies, researchers performed a manipulation check prior to examining any post manipulation shifts for cognitive distortions. The results of the manipulation check indicated that the participants in the BP condition held a high belief in the bogus pipeline's ability to detect honesty. Results of this experiment showed that the individuals in the bogus pipeline condition significantly increased their cognitive distortions at time two, compared with their endorsements at time one, and compared to the endorsements in the control condition. These results raise question regarding honesty in responding, face validity of the measure, and provides evidence that child molesters consciously minimize their cognitive distortions on self-report measures (Gannon, Keown, & Polascheck, 2007).

Because of the potential to manipulate self-report measures to reflect oneself in an excessively positive light, in combination with the individualized nature of cognitive distortions related with sexual offending behaviors, there are limitations to utilizing standardized psychometric measures such as the Bumby (1996) RAPE and MOLEST scales (Arkowitz & Vess, 2003). In an additional study examining psychometric properties of standardized self-report measures, Tierney & McCabe (2001) found mixed results with the Abel and Becker Cognitions Scale when comparing 36 child molesters and 31 offenders against adults with a control group. Researchers found that only 15 of the 29 items on the Abel and Becker Cognitions scale differentiated child molesters from the control group. Results also indicate that among the items that displayed a statistically

significant difference, the difference was not due to the direction of agreement or disagreement; it was due rather to the extent of agreement or disagreement. This brings about questions regarding the clinical relevance of the items (Tierney & McCabe, 2001). Langevin (1991) found that in a sample of 45 sex offenders referred for a pre-trial assessment, 81% of the participants did not endorse the items on the cognitive distortions scale. Furthermore, of the provided responses, only 7.2% of these were: 1 (strongly agree); 2 (agree); or 3 (neutral), but over 75%, on average, strongly disagreed with all items. These findings are suggestive of a significant response bias (Langevin, 1991).

Moreover, research suggests that one should interpret the scores with careful consideration when utilizing the Multiphasic Sex Inventory (MSI) to assess sexual offenders. When examining the psychometric properties of the MSI, researchers found substantial correlations between the MMPI and the MSI, indicating that increased reporting of sexually inappropriate behaviors corresponded with low scores on the K scale of the MMPI (Kalichman, Henderson, Shealy, & Dwyer, 1992). Nevertheless, when examining the Marlowe-Crown Social Desirability Scale and the MSI, researchers found negative correlations indicating potential effects of response bias. These correlational patterns suggest the possibility of response bias with the MSI, indicating that the face validity of the scales (including a scale assessing cognitive distortions) allow room for denial and feigning sexual deviance (Kalichman, Henderson, Shealy, & Dwyer, 1992).

An additional dilemma in locating and assessing cognitive distortions in child sex offender treatment is the ambiguity of the current definitions and conceptualizations of cognitive distortions (Navathe, Ward, & Gannon, 2008). Cognitive distortions have been described differently by many researchers in the field. For example, Abel et al. (1989)

described cognitive distortions as justifications, but Bumby (1996) described them as assumptions and beliefs held by the offender. This ambiguity has proved to be a problem in theoretical, clinical and empirical work in the field of sexual offending. In order to deal with this variety and ambiguity, more recent research has sought to conceptualize cognitive distortions under an overarching framework including implicit theories and schema-based framework (Navathe, Ward, & Gannon, 2008). Utilizing these approaches provides the ability to treat the divergent phenomena of cognitive distortions under a collective theoretical framework. This framework may allow researchers to utilize a more holistic approach and to examine a common underlying basis for cognitive distortions (Navathe, Ward, & Gannon, 2008).

Overall, a result of these limitations, in combination with the need to view cognitive distortions from a more holistic perspective, may prove beneficial to utilize a more generalized cognitive distortions scale, as opposed to a sex specific cognitive distortions scale, when attempting to measure the actual level of endorsed cognitive distortions in the sex offending population. A generalized scale may help: 1) identify major forms of distorted thinking, 2) understand the role that cognitive distortions play in maintaining dysfunctional thoughts, feelings and behaviors, and 3) measure change in an individual's distorted thinking patterns when utilized as a pre-post tool (Yurica & DiTomasso, 2005). Utilizing a more generalized scale may offset the limitations found with the utilization of a more face valid, sex specific, cognitive distortions scale.

Risk Assessment

Given that cognitive distortions are a crucial aspect in the treatment of adolescent sexual offenders, it seems imperative that a treatment program reduce a sexual offender's

level of cognitive distortions over time in order to reduce recidivism. This process begins with the assessment of cognitive distortions ; assessment of these distortions should remain a continual process throughout treatment. Throughout the assessment process, the goal is to determine the needs and risks of the individual in order to best address their behaviors and to meet their needs and the needs of the community (CSOM, n.d.). Because risk status is both static, meaning risk is associated with unchangeable features related to a person's history, and dynamic, meaning it encompasses potentially changeable factors, such as negative peer associations and social support, assessment should be comprehensive (Canadian Public Safety, 2010). Prentky, Harris, Frizzell, & Righthand (2000) further proposed that risk status can change at any time as a result of the dynamic factors; therefore, individuals' should, at minimum, be re-evaluated every six months.

However, the research surrounding the methods for identifying and screening out individuals with a higher risk of sexually reoffending is also minimal, at best (Righthand, Prentky, Knight, Carpernter, Hecker, & Nangle, 2005). Researchers have been more highly focused on developing scales designed to assess the risk of psychopathy and general antisocial behaviors, for example, Hare's (2003) Psychopathy Checklist: Youth Version. Unfortunately, none of the general psychopathy scales has been designed specifically for assessing the risk of sexual offending among adolescents. To date, the only empirical efforts to develop scales assessing adolescents' risk of repeated sexual offending have been limited to Prentky and Righthand's development of the Juvenile Sex Offender Protocol (JSOAP: Prentky, Harris, Frizzell, & Righthand, 2000), and Worling's development of the Estimated Risk of Adolescent Sexual Offender Recidivism

(ERASOR: Worling, 2004). However, both of these empirically based risk assessments have yet to be cross-validated (Beech, Fisher, & Thorton, 2003).

Based upon both adult and juvenile recidivism data, approximately 6.4% of individuals who initially engaged in sexual offending behaviors reoffend sexually, but 30.1% reoffend nonsexually (Parks & Bard, 2006). As a result, utilizing both generalized risk assessment in addition to sex offender risk assessment may be beneficial in finding significant predictors of reoffending. In a study conducted by Parks & Bard (2006), the Impulsive/Antisocial Behavior scale of the JSOAP-II and the Interpersonal and Antisocial factors on the PCL: YV were found to be significant predictors of sexual recidivism. Furthermore, Parks & Bard (2006) found that the Behavioral and Antisocial factors of the PCL: YV were significant predictors of nonsexual recidivism. Targeting specific risk factors through the utilization of both the PCL: YV and the JSOAP can lead to improved treatment for those individuals at a higher risk for reoffending (Parks & Bard, 2006).

Juvenile sexual offender risk assessment.

A great burden of responsibility is associated with assessing the risks of these adolescents. Furthermore, when assessing risk with adolescent sex offenders, the concerns are often very high. These risks do not only concern the adolescents' future, but also the community as a whole. Decisions based on these risk assessments can have enormous consequences on the protection of society and potential life-changing consequences for these adolescents (Prentky & Righthand, 2003). In order to uphold community safety, **and** minimize potentially harmful interventions for adolescents, appropriate risk assessments with satisfactory reliability and validity are essential

(Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005). Unfortunately, gathering data on a large enough sample of adolescents to ensure a group of recidivists is difficult, and continues to plague research in this area. Although this is a limitation, several researchers have attempted to develop and validate a reliable sexual risk assessment for adolescents. Currently, the Juvenile Sex Offender Protocol (JSOAP) is considered one of two valid and reliable sexual risk assessments for adolescent sexual offenders (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005).

The JSOAP (Prentky & Righthand, 2003) is a 26-item checklist designed to assist in reviewing the risk factors that have been shown in the literature to be associated with adolescent criminal and sexual reoffending (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005). It has been designed for use with adolescent males between the ages of 12 and 18 who have engaged in sexual offending and sexually coercive behaviors. The JSOAP is composed of four scales: 1) Sexual Drive/Preoccupation; 2) Impulsive, Antisocial Behavior; 3) Clinical Intervention; and 4) Community Stability. Scales 1 and 2 assess static risk, and Scales 3 and 4 assess dynamic risk (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005).

In determining validity of the JSOAP, a series of studies have provided reasonable support (e.g. Cooke & Mitchie, 2001; Martinez, Flores, & Rosenfeld, 2007; Righthand & Prentky, 2003; Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005). A study examining the psychometric properties of the JSOAP utilized a sample of 153 male juvenile offenders; the inter-rater reliability ranged from good to excellent, and the reliability of scales 2, 3, and 4 was good to excellent; however scale 1 had only moderate reliability (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005).

Additionally, in the sample of 153 adolescents, researchers examined discriminant validity of the JSOAP by comparing 45 juveniles in residential placement with 89 juveniles in the community. Results indicated that, on average, the adolescents in the community scored significantly lower than the adolescents in the residential facility, providing evidence of discriminant validity (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005). In a sample of 60 urban minority youth, Martinez, Flores, & Rosenfeld (2007) found that the JSOAP-II total score was significantly correlated with three outcome variables: general re-offense, sexual re-offense, and treatment compliance.

Like any scale that is designed to assess risk, the original JSOAP required ongoing validation; thus, revisions were made, and the Juvenile Sex Offender Assessment Protocol-II (JSOAP-II) was further developed. The JSOAP-II is the most recently validated version of the Prentky & Righthand's (2003) sex offender assessment. Because the revised JSOAP is also a new scale, and the collection of predictive validity data is just beginning, users are not provided with cut-off scores for categories of risk at this point. As a result, when assessing risk, scores from JSOAP-II should not be used in isolation. This further supports the use of the JSOAP-II in combination with other scales that measure similar concepts, such as the PCL: YV.

Treatment response with psychopathy.

As stated previously, risk status is a combination of static and dynamic factors, and risk assessment should be a comprehensive process throughout an individual's treatment program. Because there is such a paucity of research surrounding sexual recidivism, investigating a sex offenders' response to treatment in terms of risk factors should also consider psychopathy (Langton, Barbaree, Harkins, & Peacock, 2006).

Theoretically, psychopathy is a multifaceted concept involving interpersonal, affective and behavioral characteristics. Interpersonally, individuals with psychopathic tendencies are manipulative, egocentric and forceful. Affectively, they are shallow and non-empathetic, experiencing no sense of guilt or remorse. Behaviorally, they tend to be impulsive and sensation seeking (Hare, 1991). One can infer that psychopathy functions as a moderator between the effects of psychological treatment and recidivism (Hare, 2003). Although studies have shown psychopathy is a predictor of non-sexual recidivism rather than sexual recidivism (Langstrom, 2002; Langstrom & Grann, 2000), it should be noted that previous offending and anti-social behaviors may increase the risk of re-offending sexually (Gerhold, Browne, & Beckett, 2007). Additionally, a meta-analysis of 82 recidivism studies also found that antisocial orientation and deviant sexual preferences were major predictors of sexual recidivism in both adult and adolescent sexual offenders (Hanson & Morton-Bourgon, 2005).

In assessing the constructs of psychopathy, the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) has been successful in predicting recidivism; this has attracted attention regarding its implications for treatment (Hare, 2003). The Hare Psychopathy Checklist: Youth Version (PCL:YV), which was adapted from the Hare Psychopathy Checklist-Revised (PLC-R), is utilized in order to measure interpersonal, affective, and behavioral features related to the traditional concept of psychopathy in offenders between the ages of 12 and 18. In order to effectively assess levels of psychopathy, one must first define the traits that are critical in contributing to psychopathy.

Hare (2003) examined psychopathy in adolescents by assessing twenty different psychopathic traits. These traits include: impression management, a grandiose sense of

self-worth, stimulation seeking, pathological lying, a tendency to manipulate for personal gain, lack of remorse, shallow affect, a lack of empathy, possessing a parasitic orientation, having poor anger management, engaging in impersonal sexual behavior, exhibiting early behavior problems, lacking in goals, impulsivity, irresponsibility, a failure to accept personal responsibility, having unstable interpersonal relationships, engaging in serious criminal behavior, and serious violations of conditional release (PCL:YV; Hare, 2003). All of these items are considered psychopathic traits which, in combination, increase an individual's level of psychopathy. The greater number of traits an individual possesses, the higher the individual's level of psychopathy.

Because psychopathy has been characterized as a clinical condition comprising chronic interpersonal, affective and behavioral features, identifying youth with psychopathic traits is crucial to understanding the factors that contribute to the development of psychopathy in adults (Caldwell, Skeem, Salekin, & Van Rybroek, 2006). If individuals with pronounced psychopathic traits manifest no significant benefit from treatment, then management and behavioral control are the best options for these individuals, regardless of age. However, if adolescents with pronounced psychopathy features do, in fact, make treatment gains, then inferring that youth are untreatable in the juvenile justice system is inappropriate (Caldwell, Skeem, Salekin, & Van Rybroek, 2006).

Langton, Barbaree, Harkins, & Peacock (2006) found correlations between psychopathic traits, as evidenced by PCL-R scores, and response to treatment, and a significant difference in levels of psychopathy between completers of treatment in comparison with non-completers. Researchers additionally found that those individuals

with higher PCL-R scores who were rated as responding poorly to treatment recidivated at a higher and faster rate than nonpsychopathic offenders who responded similarly to treatment (Langton, Barbaree, Harkins, & Peacock, 2006). Spain, Douglas, Polythress, & Epstein (2004) demonstrated that measures of psychopathic features in adolescents were correlated with institutional rule violations, but were not consistent with progress in treatment. O'Neill, Lidz, & Heilbrun (2003) found that psychopathic features, as assessed by the PCL: YV were inversely related to the process of treatment (e.g., participation and clinical improvement) and positively related to the number of arrests in the first year following the completion of treatment. These studies indicate that psychopathic features are associated with negative behaviors in treatment.

Caldwell, Skeem, Salekin, & Van Rybroek's (2006) investigated the impact of an intensive treatment program on recidivism in adolescent boys presenting with pronounced psychopathy features. This study compared rates of recidivism between a group of adolescents who participated in an intensive treatment program and a group of adolescents who received treatment as usual. Individuals in the intensive treatment program were given access to greater resources than the individuals in a typical juvenile correctional facility. In the intensive program, the units were less than half the size of a typical unit; the staff to resident ratio was doubled, and mental health professionals were assigned to each youth. Researchers found that adolescents with psychopathy features who received an intensive treatment program had significantly lower rates of recidivism and more time in the community prior to a violent recidivism when compared to adolescents receiving treatment as usual. According to researchers, violent recidivism was defined as any engagement in community violence. Additionally, they found that

only one fifth of the adolescents treated with the intensive program were involved in community or institutional violence two years following their release, compared with 49% of those adolescents who received treatment as usual (Caldwell et al., 2006). Furthermore, this study indicated that the adolescents who received the intensive treatment program were 2.7 times less likely to become violent than the comparison group.

In conclusion, when assessing risk status in sexual offenders, utilizing a comprehensive approach including the assessment of cognitive distortions, the assessment of sexual risk, and the assessment of psychopathy might allow for a better understanding of an individual's treatment needs. In theory, psychopathy may augment our overall understanding of the adolescent and his potential risk to re-offend sexually, but additional empirical research supporting this hypothesis is required. Once more, in order to maintain safety in the community, and minimize potentially harmful interventions for adolescents, appropriate risk assessments with satisfactory reliability and validity are essential (Righthand, Prentky, Knight, Carpernter, Hecker, & Nangle, 2005). Comprehensive risk assessments can be a crucial element not only in the treatment and safety of both the offender and the community, but also in determining the most efficacious level of care for adolescent sexual offenders.

Types of Treatment

Current theory surrounding treatment interventions with correctional populations asserts that in order to be most effective, the intensity level of an offender's treatment should correspond with the level of risk of the offender (Andrews & Bonta, 2007). The more intensive treatment interventions should be utilized for the higher risk offenders,

and the lower intensity treatment should be utilized for lower risk offenders. At the present time, treatment in North America is provided both in prison settings and in community-based settings in an attempt to provide a structure that maximizes the benefits to the clients, as well as the protection of the community (Marshall, 1999).

In determining an appropriate level of care for an adolescent, the specific type of sexual offense must also be taken into consideration. Currently, offenses are categorized into three different types of sexual offenses (Bourke & Donohue, 1996). The first type of offense is a hands-off offense including behaviors such as exhibitionism and voyeurism. The second type of offense is a hands-on offense involving a degree of force, coercion or aggression such as fondling and rape. The third, and final, type of sexual offense is a pedophiliac offense in which the victim is four or more years younger than the perpetrator (Bourke & Donohue, 1996). The specific type of offense is relevant when deciding level of care and treatment setting. It should be noted, however, that although there are three broad classes of sexual offenses, there is growing evidence suggesting that a number of adolescents offend across different categories. Moreover, although many adolescents offend against children or peers, this may occur because they lack the means to offend against an adult, or because there are more opportunities to offend against children (Becker, 1994).

A number of treatment modalities including individual, group, and family therapy are utilized in sexual offender, specific treatment of adolescents in both inpatient and outpatient treatment settings (Becker & Hunter, 1997). Unfortunately, little research has been conducted in determining the most efficacious level of treatment for adolescent sexual offenders, and most research that has been conducted has focused on recidivism.

Letourneau & Miner (2005) suggested that a small percentage of juvenile sex offenders require treatment away from their homes, but the majority might benefit from being treated within their natural environments. However, Becker (1990) provided data on 52 individuals who were treated on an outpatient basis, and found that at a one year follow-up interview, approximately 9.6 percent of the adolescents had sexually reoffended, as determined by self -report and referral sources. Bremer (1992) reported sexual recidivism on adolescents treated within a residential facility and found only a six percent recidivism rate. This is especially notable because it includes all released residents, not only those individuals who completed the program. In a meta-analysis reviewing 79 sex offender treatment programs, encompassing 10,988 adolescents, Alexander (1999) found that less than 11% of treated sexual offenders reoffended. This data suggest that most of the adolescent offenders may not need permanent incarceration provided they abide by the conditions tailored to them. It further suggests that once an adolescent offender has been treated, he is then able to be monitored in the community as opposed potentially to spending significant time in prison.

In considering whether or not an adolescent adjudicated for a sexual offense should remain in the community or be placed in a residential setting, the first consideration should be the protection of the community (Ertl & McNamara, 1997). Although these adolescents are entitled to the least restrictive setting possible, it is also important to ensure that there is minimal risk of an additional offense. Ertl & McNamara stated that in making these determinations, it is essential for the clinician to conduct a thorough assessment, including the nature and history of the sexually offending behaviors, in order to make the best decision possible regarding an appropriate treatment

setting for the adolescent. According to Bourke & Donohue (1996), an inpatient level of care is typically recommended when: 1) there is more than one offense or more than one victim; 2) aggression was used during the sexual offense; 3) severe emotional and behavioral problems are evident; 4) the individual demonstrates an antisocial attitude; 5) the individual has poor motivation toward treatment; 6) the individual endorses suicidal or homicidal ideation; 7) the safety of the individual is at risk due to a volatile home environment; 8) there is a victim present in the home of the adolescent who has sexually offended. Additionally, the greater the number of prior arrests, the more likely it is that residential treatment is required.

For those individuals who do not meet the criteria for an inpatient level of care, and who are subsequently deemed appropriate for outpatient care, it is crucial that adequate supervision be available and be utilized. In situations in which an individual does not meet the criteria for an inpatient level of care, but does have a victim in the home, the offender would then be recommended to a specialized foster care community placement with appropriate supervision. Becker and Hunter (1997) stated that when assessing an adolescent adjudicated for a sexual crime, the clinician must be cognizant of community safety in determining whether or not an individual can receive outpatient treatment, or whether or not residential treatment is recommended. The authors further state that should an adolescent be recommended for outpatient treatment, it is critical that the adolescent has individuals who can provide support and supervision.

In situations in which adequate supervision is not available, not implemented effectively, or for those adolescents determined to be a great risk to community safety, residential care is utilized. Once the decision has been made to place an adolescent into

residential care, further determination must be made in order to ensure that the individual's needs are in alignment with the case history. Additionally, it is thought that adolescent offenders should, whenever possible, be placed in a facility only with other adolescent sexual offenders, and aggressive offenders should not be placed with individuals who are at a higher risk of vulnerability (Ertl & McNamara, 1997).

Conclusion

Sex offending is a significant societal problem that inevitably impacts victims, families, and the community as a whole (Yates, 2009). Although sex offender treatment programs are growing, public funding for sex offender research and treatment has been declining (Alexander, 1999). This lack of research continues to hinder our understanding of the effectiveness of various treatment programs and/or interventions, perhaps as a result of an overwhelming belief that treatment is not effective. This pessimistic cultural perspective regarding the efficacy of sexual offender treatment can be traced to three different circumstances. First, the field of sexual offender work as an individual clinical specialty has just recently emerged. Second, treatment providers often have limited resources to collect, analyze or publish their data. Third, sex offender treatment research is often criticized by individuals claiming it is unethical to withhold treatment in order to achieve a balanced design, or for imperfect designs than cannot be generalized (Alexander, 1999).

It is important to monitor response to treatment, identify mechanisms of change, and identify adolescents who are at risk for re-offending. Because a reduction in rates of recidivism is a key component in determining treatment effectiveness, it is also essential to pay close attention to the components that have been shown to effect such change.

Commonly, throughout theory and research, family environment, previous sexual victimization, and social skills deficits appear to be stable correlates linked to future sexual abuse. Additionally, because psychopathy has been linked to general delinquent recidivism, it is important to include level of psychopathy as an overall correlate of sexual recidivism. Research further suggests that cognitive distortions play an integral role in the sexually acting out behaviors of adolescents (Ward, Hudson, Johnston, & Marshall, 1997; Eastman, 2004 McCrady, Kaufman, Vasey, Barriga, Devlin, & Gibbs, 2008). These distortions allow an individual to surpass his own internal inhibitions, as well as societal external inhibitors. Should these distortions be challenged, it should become more difficult for an individual to surpass internal and external inhibitors that are necessary in order to offend.

It is proposed that one may lower an individual's risk of recidivism by determining which treatment setting is most efficacious in reducing cognitive distortions. Current theory surrounding treatment interventions with correctional populations further asserts that in order to be the most effective, the intensity level of an offender's treatment should correspond with the level of risk of the offender (Andrews & Bonta, 2007). Decisions based on these risk assessments can have potential life-changing consequences for these adolescents and an enormous impact on the protection of society (Prentky & Righthand, 2003).

Because of the potential consequences associated with these assessments, it is important to attend to their inherent limitations. In particular, sex specific, self-report measures of cognitive distortions have been shown to have limitations, such as problems with face validity and evaluating honesty (Edens, Hart, Johnson, Johnson, & Oliver,

2000; Arkowitz & Vess, 2003; Gannon, Keown, & Polascheck, 2007). These limitations, in combination with the ambiguity of current definitions and conceptualizations of cognitive distortions in current research, pose an additional problem in evaluating honesty in responding. In an attempt to overcome the problem with ambiguity, researchers are attempting to conceptualize cognitive distortions under an overarching framework attending to the underlying basis for cognitive distortions (Navathe, Ward, & Gannon, 2008). This overall approach lends itself well to the utilization of a more generalized cognitive distortions scale. A more generalize scale may help to overcome the current limitations of face validity, and in turn may help to identify major forms of distorted thinking in sex offenders.

Chapter Three

Research Hypotheses

The following research hypotheses were proposed:

In a sample of 150 adolescents receiving treatment at Reading Specialists.

1. At Time One, a significant, positive correlation will be found between the levels of endorsed levels cognitive distortions (ICD), levels of psychopathy (PCL:YV), and the level of risk to sexually re-offend (JSOAP-II).

In a sample of 150 adolescents receiving treatment at Reading Specialists.

2. Reductions in endorsed cognitive distortions as evidenced by residual change scores on the Inventory of Cognitive Distortions will be significantly and positively correlated with reductions in the level of risk on the dynamic factors of sexual risk to re-offend, as evidenced by residual change scores on the Juvenile Sex Offender Protocol-II, and length of time in treatment.

In a sample of 60 randomly selected adolescents, 20 from each level of treatment at Reading Specialists.

3. Adjudicated adolescent sexual offenders mandated to treatment by the Juvenile Justice system will display differences in the reduction of endorsed cognitive distortions at Time Two as determined by the Inventory of Cognitive Distortions based on their levels of treatment : 1) outpatient adolescent services provided in either the Reading or Bethlehem locations; 2) Northampton County Juvenile Justice Center, located in Easton, Pa., or 3) “SafeGuards” foster care program designed to assist adolescents and sexually reactive children who cannot return to their home environments. The

reduction of endorsed cognitive distortions at Time Two will be higher in the Northampton County Juvenile Justice Center, followed by “SafeGuards” and finally, by the adolescents in outpatient treatment.

Chapter 4

Method

Design.

A retrospective, repeated measures, quasi-experimental design was used to explore the relationship between the reduction in cognitive distortions and level of risk, as well as to assess differences in change across three different levels of sex offender specific treatment: 1) outpatient adolescent services 2) Northampton County Juvenile Justice Center, and 3) "SafeGuards" foster care program.

Treatment.

Prior to engagement in treatment services, the adolescents in this study had been accused of crimes surrounding sexually abusive behaviors against others. Once accused of sexual misconduct, these adolescents were referred to Reading Specialists to undergo a sexuality evaluation in order to determine if the adolescent has committed the sexual offense. These evaluations are typically conducted as a part of a pre-sentencing investigation, or at the request of an attorney, Probation Department, Children and Youth Services, or District Attorney's office. Following the evaluation, Reading Specialists made recommendations for treatment and disposition (RSOTS, n.d.). Upon completed of the sexuality evaluation, the court made the final determination regarding treatment and disposition. Adolescents charged with sexual misconduct were referred to one of the three treatment modalities within Reading Specialists: 1) outpatient adolescent services; 2) Northampton County Juvenile Justice Center; or 3) "SafeGuards" foster care program.

Outpatient services.

Individuals treated within the adolescent outpatient adolescent services receive weekly cognitive behavioral group therapy based on the premise that inappropriate sexual behaviors are learned through social conditioning and sustained through aberrant cognitive processes and self-reinforcing behaviors. The approach is respectfully confrontational, particularly with individuals who are resistant to change and/or do not comply with treatment. These adolescents remain within their home throughout treatment and attend public school (RSOTS, n.d.).

"SafeGuards" foster care.

"SafeGuards" foster care program is designed to assist sexually reactive children and adolescents who cannot return to, or remain with, their legalfamilies. The "SafeGuards" program provides effective treatment in a secure, highly supervised environment. The "SafeGuards" program further provides comprehensive training and support to both the host and to the legal family. Individuals treated within this program receive weekly cognitive behavioral group therapy based on the premise that inappropriate sexual behaviors are learned through social conditioning and are sustained through aberrant cognitive processes and self-reinforcing behaviors. Additionally, these adolescents receive weekly individual cognitive behavioral therapy surrounding their sexually offending behaviors, as well as case management services. Family therapy is also provided when possible (RSOTS, n.d.).

Northampton county juvenile justice center.

Individuals receiving specialized treatment within this detention center were placed on the specialized treatment unit following a thirty day diagnostic evaluation

conducted in the diagnostic unit. Once on the specialized treatment unit, the adolescent received individual and group therapy, vicarious sensitization and family counseling. Psychiatric services are provided as necessary. Individuals in the detention center receive cognitive behavioral group therapy based on the premise that inappropriate sexual behaviors are learned through social conditioning, and are sustained through aberrant cognitive processes and self-reinforcing behaviors (RSOTS, n.d.). These adolescents additionally receive cognitive behavioral group therapy surrounding general behavioral issues. Individuals within this program attend an on-campus school, receive weekly cognitive behavioral individual therapy surrounding their sexual offending behaviors, and attend multiple cognitive behavioral groups surrounding sexual offending behaviors weekly. The facility provides 24 hour supervision, and the adolescents receive intensive milieu management.

Participants.

This study examined the archival records of 99 adolescent males adjudicated for sexual crimes. The participants were between the ages of 12 and 18 (M = 16.30, SD = 1.55) and were mandated via court order to attend a sex offender treatment program at Reading Specialists between 2008 and 2012. Of these participants, 51.5% were Caucasian; 28.3% were Latino; 10.1% were African American; 8.1% were Bi-racial, and 2% were Asian. Reading Specialists offers sex offender treatment programs, serving clients from 13 counties in Pennsylvania: Berks, Bucks, Carbon, Chester, Cumberland, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, and Schuylkill. From the sample of 99 individuals, a subsample of adolescents were selected, based on available data, in order to examine treatment effects from each of the following

programs: 1) outpatient adolescent services provided in either the Reading or Bethlehem locations (N=16); 2) Northampton County Juvenile Justice Center, located in Easton, Pa. (N=7), and 3) "SafeGuards" foster care program designed to assist adolescents and sexually reactive children who cannot return to their home environments (N=59).

Inclusion and Exclusion Criteria.

The adolescent offender was between the ages of 12 and 18 and was mandated to attend a sex offender specific treatment program at Reading Specialists by the Juvenile Justice system between 2008 and 2012. An additional criterion was documentation indicating that the adolescent had passed a clinical polygraph, supporting his honesty surrounding the presenting sexual crime. Excluded from the study were adolescents treated at Reading Specialists who were experiencing symptoms of psychosis, individuals with a diagnosis of Major Depressive Disorder, and individuals with a diagnosis of Mental Retardation.

Measures.

The Inventory of Cognitive Distortions (ICD) was used to identify the presence of distorted thinking (Yurica & Di Tomasso, 2002). The ICD is a 69-item self -report inventory composed of short sentences mirroring cognitive distortions. Items are scored on a 5-point Likert scale ranging from 1 to 5 (1=Never and 5=Always). Scores on the ICD can range from 69 to 345. The higher the scores, the more frequent are the cognitive distortions. Yurica and Di Tomasso's (2002) development and validation of the ICD was conducted with a group of mental health patients and a comparative group of normal individuals. Research findings proved the ICD to have good psychometric properties. The test-retest reliability of the total ICD score is excellent with the test-retest reliability

coefficient demonstrated at .998 (n = 28, P < .001) during the initial validation study. Additionally, Yurica and DiTomasso's (Yurica, 2002) research also demonstrated that the total ICD scores have excellent criterion validity during the initial validation study. Total ICD scores differentiated clinical outpatients from non-patient controls (F = 15.2, df= 169, P <.0001).

The Juvenile Sexual Offender Assessment Protocol-II (JSOAP-II) was used to assess potential factors associated with sexual recidivism. The JSOAP-II is composed of four scales used to measure level of risk in adolescent boys between the ages of 12 and 18 who have engaged in sexually inappropriate behaviors (Prentky & Righthand, 2003). The overall interrater reliabilities for the four scales ranged from good to excellent: Scale 1: Sexual Drive/Preoccupation Items (*r* = .90), Scale 2: Impulsive/Antisocial Behavior Items (*r* = .91), Scale 3: Intervention Items (*r* = .80), and Scale 4: Community Stability/Adjustment Items (*r* = .83). When investigating the internal consistency of the JSOAP, Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle (2005) found that the reliability of Scales 2, 3, and 4 were good to excellent, but Scale 1 was found to be only moderate. Item-total correlations were ≥.5 for 69% of the items and ≥.40 for 85% of the items.

The Hare Psychopathy Checklist: Youth Version (PCL:YV), which was adapted from the Hare Psychopathy Checklist-Revised (PLC-R), was used in order to measure interpersonal, affective, and behavioral features related to the traditional concept of psychopathy. The PCL: YV consists of a 20-item symptom rating scale for the assessment of psychopathic traits in male and female adolescent offenders aged 12 to 18. The PCL:YV is a clinician-rated instrument that outlines questions for a structured

interview. The clinician rates items on a scale of 0 to 2 (Yes, No, and Maybe) indicating whether or not the statement is true of the individual. Although the PCL-R is typically used to diagnose adults in prison and forensic psychiatric hospitals, recent data suggests that it can also be an effective tool in diagnosing adolescent sex offenders ("Without Conscience": Robert Hare's Website Devoted to the Study of Psychopathy, n.d.; Hare Psychopathy Checklist, n.d.). Forth et al. (1990) reported the psychometric properties of the PCL:YV to be remarkably consistent with those of the PCL-R. A more recent study suggest that the PCL:YV has adequate levels of internal consistency (average across settings = .83; average inter-item r = .22), inter-rater reliability for total scores (average intraclass r = .93), and convergent validity (Edens, Skeem, Cruise, & Cauffman, 2001).

Procedure.

Permission to access and evaluate existing database was obtained from Reading Specialists in writing. Staff from Reading Specialists took a subset of data from an existing database that did not include identifiers and provided it to the researcher. Data entered into the database by Reading Specialists were then evaluated using an SPSS computer analysis program. The subset of data included the following variables: age, race, treatment program, admission date, length of time in treatment, initial ICD score, date of initial ICD score, initial total JSOAP-II score, initial dynamic JSOAP-II score, initial JSOAP-II administration date, post ICD score, post dynamic JSOAP-II score, PCL:YV score, date of PCL:YV administration, previous treatment history, IQ score, MR diagnosis, MDD diagnosis, and diagnosis of psychosis. No personal identifying information (e.g., patient names, addresses, or patient identification numbers) was included. The original data were collected in the following manner. Within two weeks of

admission to Reading Specialists, intake assessments were performed. During the intake assessments, the adolescents were administered a battery of tests including the PCL: YV, and the JSOAP-II. Post July 2011, all intake assessments also included the ICD. For those adolescents admitted prior to July 2011, the ICD was administered in July 2011. Three months following the first administration of the ICD, adolescents were re-administered the ICD and the dynamic factors on the JSOAP-II. The ICD was administered by case managers at Reading Specialists, and the PCL:YV and the JSOAP-II were administered by post bachelor's level personnel; including psychologists, doctoral interns, and master's level clinicians.

Reading Specialist's personnel selected case records of 99 adolescents receiving treatment between 2008 and 2012. This data were collected as a part of on-going program evaluation and client care protocols at Reading Specialists. All participants were court ordered to participate in one of three levels of specialized sex offender treatment: 1) outpatient adolescent services provided in either the Reading or Bethlehem locations; 2) Northampton County Juvenile Justice Center, located in Easton, Pa.; or 3) "SafeGuards" foster care program designed to assist adolescents and sexually reactive children who cannot return to their home environments.

Chapter 5

Results

Statistical Data Analysis.

Descriptive analysis of the sample.

Means and standard deviations for age are displayed in Table 1.

Table 1

Means and Standard Deviations for age

Source	M	SD	N
Overall Sample			
Age	16.30	1.55	99
Foster Care			
Age	16.23	1.59	69
Outpatient			
Age	16.85	1.35	20
JJC			
Age	15.7	1.49	10

Note. Foster Care = "SafeGuards" Foster care program; Outpatient = Specialized Outpatient treatment; JJC = Juvenile Justice Center; Age = Age in years.

Characteristics of participants.

Frequencies for race are displayed in Table 2.

Table 2

Frequencies for race (N = 99)

Source	n	%
Overall Sample		
Caucasian	51	51.5%
African American	10	10.0%
Latino	28	28.3%
Bi-racial	8	8.1%
Asian	2	2.0%
Foster Care		
Caucasian	37	53.6%
African American	10	14.5%
Latino	15	21.7%
Bi-racial	7	10.1%
Asian	0	0%
Outpatient		
Caucasian	11	55%
African American	0	0%
Latino	8	40%
Bi-racial	1	5%
Asian	0	0%

Frequencies for race (N = 99) con't

Source	n	%
JJC		
Caucasian	3	30%
African American	0	0%
Latino	2	20%
Bi-racial	0	0%
Asian	2	20%

Note. Foster Care = "SafeGuards" Foster care program; Outpatient = Specialized Outpatient treatment; JJC = Juvenile Justice Center

Descriptive analysis of all dependent variables.

Means and standard deviations for all dependent variables are displayed in Table 3.

Table 3

Means and Standard Deviations for all dependent variables at Time 1 and Time 2

Source	Time 1			Time 2		
	M	SD	n	M	SD	n
Overall Sample						
ICD	177.05	33.65	99	177.92	39.47	82
JSOAP-II (total)	51.06	15.75	97			
JSOAP-II (dyn)	55.43	16.66	89	31.48	19.07	88
PCL: YV	21.28	7.80	98			
Time in tx	14.20	13.44	99			

Means and Standard Deviations for all dependent variables at Time 1 and Time 2 con't

Source	Time 1			Time 2		
	M	SD	n	M	SD	n
Foster Care						
ICD	177.34	37.49	69	181.08	42.99	59
JSOAP-II (total)	51.38	14.52	69			
JSOAP-II (dyn)	54.50	14.73	62	34.30	19.12	60
PCL: YV	22.21	7.15	68			
Time in tx	12.77	12.05	69			
Outpatient						
ICD	184.30	17.91	20	176.62	25.98	16
JSOAP-II (total)	48.61	18.04	20			
JSOAP-II (dyn)	59.65	20.42	19	28.93	18.71	18
PCL: YV	17.5	8.81	20			
Time in tx	21.21	18.19	20			
JJC						
ICD	160.5	24.71	10	154.28	26.84	7
JSOAP-II (total)	54.39	20.95	8			
JSOAP-II (dyn)	52.61	21.47	8	19.17	14.85	10
PCL: YV	22.50	8.50	10			
Time in tx	9.98	5.36	10			

Note. Foster Care = "SafeGuards" Foster care program; Outpatient = Specialized Outpatient treatment; JJC = Juvenile Justice Center; ICD = Inventory of Cognitive Distortions; PCL:YV =Hare Psychopathy Checklist: Youth Version; JSOAP-II (total) = Total score of the Juvenile Sex Offender Protocol-II; JSOAP-II (dyn) = Dynamic score of the Juvenile Sex Offender Protocol-II; Time in treatment = length of time in treatment measured in months.

Correlational analysis between cognitive distortions, psychopathy, risk to sexually re-offend .

Intercorrelations, means and standard deviations for cognitive distortions, psychopathy, and level of risk to re-offend sexually are displayed in Table 4. A Pearson product-moment correlation was conducted at Time One in order to examine the relationship between cognitive distortions, as evidenced by scores on the ICD, psychopathy, as evidenced by scores on the PCL:YV, and level of risk to re-offend sexually, as evidenced by scores on the JSOAP-II. A one-tailed test was conducted, and $P < 0.01$ was considered statistically significant. Initial correlational analyses revealed a strong and significant positive correlation between the JSOAP-II and the PCL:YV (r= .551, p= .000) indicating that the higher the risk to sexually re-offend, the higher was the levels of psychopathy. However, a significant correlation was not found between the ICD and JSOAP-II (r = .074, p = .237), nor did the results indicate significance between the ICD and the PCL:YV (r= .075, p= .231).

Table 4

Intercorrelations, Means, and Standard Deviations for scores on the ICD, PCL:YV and JSOAP-II

Measure	ICD	PCL:YV	JSOAP-II	M	SD
ICD		.075	.074	177.05	33.65
PCL:YV			.551*	21.28	7.80
JSOAP-II				51.06	16.66

Note. All correlations are significant at $p < .01$. ICD = Inventory of Cognitive Distortions; PCL:YV =Hare Psychopathy Checklist: Youth Version; JSOAP-II = Juvenile Sex Offender Protocol-II.

Correlational analysis between length of time in treatment, residual change scores on the Inventory of Cognitive Distortions and the dynamic factors of the Juvenile Sex Offender Protocol-II.

Intercorrelations, means and standard deviations for length of time in treatment, residual change scores on the ICD, and residual change scores on the dynamic factors of the JSOAP-II are displayed in Table 5. Residual change scores were calculated by subtracting the Time Two scores on the ICD and the dynamic factors of the JSOAP-II from the Time One scores on the ICD and the dynamic factors of the JSOAP-II for each adolescent. Once these change scores were calculated, a Pearson product-moment correlation was conducted in order to examine the relationship between cognitive distortions, as evidenced by residual change in scores on the ICD, level of risk to sexually re-offend, as evidenced by residual change on the dynamic factors of the JSOAP-II, and

length of time in treatment. Initial correlational analyses revealed a strong and significant positive correlation between the ICD change scores and length of time in treatment ($r = .217$, $p = .025$), indicating that the longer an adolescent remained in treatment, the more change was seen on the ICD. A significant correlation was not found between the ICD change scores and JSOAP-II change scores ($r = -.007$, $p = .475$), nor did the results indicate significance between the JSOAP-II change scores and length of time in treatment ($r = .180$, $p = .055$).

Table 5

Intercorrelations, Means, and Standard Deviations for scores on the ICD change scores, and JSOAP-II change scores

Measure	ICD change	JSOAP-II change	Time in tx	M	SD
ICD change scores		-.007	.217*	77.91	32.08
JSOAP-II change scores			.180	44.05	22.70
Time in tx				14.19	13.44

Note. All correlations are significant at $p < .05$. ICD change scores = Inventory of Cognitive Distortions change scores; JSOAP-II change scores = Juvenile Sex Offender Protocol II change scores; Time in tx = Length of time in treatment as measured in months.

Analysis of variance between three treatment programs: 1) outpatient adolescent services; 2) Northampton County Juvenile Justice Center; and 3) "SafeGuards" foster care program.

Means and standard deviations for the time two scores on the ICD between the three treatment programs: 1) outpatient adolescent services, 2) Northampton County

Juvenile Justice Center, and 3) "SafeGuards" foster care program are displayed in Table 6. A one-way analysis of covariance (ANCOVA) was performed, with $p < 0.05$ considered statistically significant. The independent variable consisted of treatment program (Outpatient adolescent services, Juvenile Justice Center, and "SafeGuards" foster care program). The dependent variable was the time two ICD scores, and the covariates were length of time in treatment and the time one ICD scores. Due to the low N in the Northampton County Juvenile Justice Center, the ANCOVA was performed on a sample of 82, because randomly selecting 20 adolescents from each level of treatment was not feasible.

Results of evaluation of the assumptions of independent observations, normal distribution of the dependent variable, homogeneity of variances, and linearity between the covariates and the dependent variable were satisfactory. The ANCOVA was not significant F (2, 77) = .657, p = .521, indicating that there were no differential treatment effects on cognitive distortions based on treatment modality (see Table 7).

Table 6

Means and Standard Deviations for the time 2 ICD scores between three treatment programs

Source	M	SD	N
Foster Care	181.08	42.98	59
Outpatient	176.63	25.98	16
JJC	177.93	39.47	7

Note. Foster Care = "SafeGuards" Foster care program; Outpatient = Specialized Outpatient treatment; JJC = Juvenile Justice Center.

Table 7

Analysis of Covariance of Time 2 ICD Scores as a Function of Treatment Modality, With Length of Time in Treatment and Time 1 ICD Scores as Covariates.

Source	df	SS	MS	F	Sig.
Intercept	1	6651.80	6651.80	7.60	.007
Time in tx	1	2551.95	2551.95	2.92	.092
Time 1 ICD	1	51296.05	51296.05	58.59	.000
Treatment Program	2	1150.76	575.38	.657	.521
Error	77	67418.96	875.57		
Total	81	126161.56			

Note. Time in tx = Length of time in treatment as measured in months; Time 1 ICD = Scores on the Inventory of Cognitive Distortions at Time 1; Treatment Program = "SafeGuards" Foster care program, Specialized Outpatient treatment, and Juvenile Justice Center.

Chapter 6

Discussion

This study examined cognitive distortions in the treatment of adolescent sexual offenders. The main goals of this study were to 1) explore the relationship between cognitive distortions and level of risk in adolescent sexual offenders; 2) compare change in these variables across three different levels of sexual offender treatment (outpatient adolescent services, Northampton County Juvenile Justice Center, and "SafeGuards" foster care program), and 3) examine whether or not psychopathy is correlated with risk to re-offend sexually. It was anticipated that there would be a significant relationship between endorsed levels of cognitive distortions, levels of psychopathy, and the level of risk to re-offend sexually. It was additionally anticipated that there would be a significant relationship between reductions in endorsed cognitive distortions, reductions in level of risk to sexually re-offend, and length of time in treatment. Last, it was anticipated that adolescent sexual offenders would display differences in the reductions of endorsed cognitive distortions, based on their levels of treatment.

The results of the statistical analysis did not support the hypothesis that there was a significant relationship between cognitive distortions and psychopathy, nor was there a significant relationship between cognitive distortions and risk to sexually re-offend. However, statistical analysis did reveal a strong and significant relationship between psychopathy and risk to re-offend sexually. Further, the results of the statistical analysis did not support a significant relationship between change in endorsed cognitive distortions and change in risk to sexually re-offend. However, there was a strong and positive relationship between change in endorsed cognitive distortions and length of time

in treatment. Additionally, change in level of risk to re-offend sexually and length of time in treatment approached significance. When the variance accounted for by length of time in treatment and initial endorsements of cognitive distortions was removed and controlled, there were no differential treatment effects on cognitive distortions based on treatment modality.

Within the sex offender treatment field, it is theorized that, in order to justify and minimize their offending behaviors, sex offenders utilize cognitive distortions (Blumenthal, Gudjonsson, & Burns, 1999; Marshall, Anderson, & Fernandez, 1999; Finklehor, 1984). Although results of this study did not provide support for a relationship between cognitive distortions and risk to sexually re-offend, it did provide support for a relationship between length of time in treatment and a reduction in endorsed cognitive distortions. The nature of this relationship remains unclear because one cannot determine whether or not this reduction was due to treatment programming, outside factors, or the passage of time. It should also be noted that the Inventory of Cognitive Distortions is a measure that conceptualizes distorted thinking in a more generalized manner, as opposed to a sex specific measure of distortions. As a result, this reduction in general distorted thinking may or may not be related to sex offense specific thinking. Additionally, the lack of relationship between cognitive distortions and risk to re-offend could potentially be related to an insufficient length of time between pre and post-test measurement. Cognitive distortions stem from underlying core beliefs which help one conceptualize the world around him or her. These underlying beliefs are developed during childhood when children interact with others and encounter a series of situations (Beck, 1995). These beliefs are long standing, and may require extended time to challenge and restructure.

This need for extended time to challenge and restructure the underlying core beliefs supports the relationship between length of time in treatment and reduction in cognitive distortions. It also provides rationale for the lack of relationship between a reduction of endorsed cognitive distortions and sexual offense risk at post-test. In examining the relationship between cognitive distortions and risk to sexually re-offend in the future, it may be beneficial to increase the length of time between pre and post-test measurement.

Furthermore, as the relationship between sexual offense risk and length of time in treatment also approached significance, it is possible that the lack of a stronger relationship in the present study could be related to study limitations (e.g., small sample size). This study aimed to utilize a sample of 150 participants. Due to attrition, to missing data, and to a lack of referrals, the total sample size was limited to 99 participants. Furthermore, of those 99 participants, only 80 participants had the data needed to calculate change scores on the JSOAP-II. This low number decreases statistical power and limits the study's ability to find a significant relationship between sexual offense risk and length of time in treatment. Additionally, the percentage of individuals who were in the early stages in treatment versus those who were in later stages in treatment is unknown. In calculating change scores on the JSOAP-II, the present study did not account for the variation in treatment stages in the overall sample. Individuals in the first three months of treatment may not display as much change in level of risk over time, as compared with individuals in later stages in treatment. It is also possible that adolescents with a higher risk to sexually re-offend at the onset of treatment would have an increased length of stay simply attributed to the initial level of risk. Future studies examining the relationship between length of time in treatment and sexual offense risk should account

for the variation in treatment stages in order to increase the study's ability to find significant relationships.

Interestingly, when examining the scores on the ICD at Time Two across programs, an eight point decrease in endorsed cognitive distortions was seen in the outpatient program and a six point decrease was seen in the Juvenile Justice Center, and a four point increase in cognitive distortions was seen in the foster care program. In an attempt to understand the unexpected increase in distortions in the foster care program, differences in structure across programs were examined as a possible explanation. It is hypothesized that this unexpected increase in cognitive distortions endorsed by the foster care adolescents could potentially be related to a lack of consistency and stability in the home and school environments in that program. In both the outpatient program as well as the detention center, caregivers and school authority figures remain consistent. In the outpatient program, the adolescents remained in their own homes and attended the same schools. In the detention center, although the adolescents were away from home, the environment was extremely well structured with consistent staff in the pod, and consistent teaching staff in the school. Contrarily, in the foster care program, there are potentials for changes within the home environment as well as in the school environment. Changes in the home environment can include: 1) moving into the program as a new foster care adolescent; 2) moving back home toward the end of treatment; 3) moving from one foster home to another due to behavioral issues, or 4) a new foster care adolescent entering or leaving the household. Additionally, should the adolescent change homes, he will also have to change schools. In examining this instability and lack of consistency, one might propose that these variables act as stressors in the foster care

adolescents' lives. Researchers have hypothesized that differences in levels of stress and stress-moderating variables may account for differences in the severity of psychological distress exhibited by early adolescents (Robinson, Graber, & Hilsman, 1995; Windle, 1992). This hypothesis supports the notion that the increase in cognitive distortions over time in the "SafeGuards" program could potentially be related to the increase in stressful variables experienced within that program.

With the overarching goal of reducing recidivism in adolescent sex offenders, various studies are beginning to examine whether or not psychopathy plays a role in future recidivism (e.g. Langstrom, 2002; Langstrom & Grann, 2000). Although psychopathy seems to be identified as a risk factor for recidivism in adult offenders, examining psychopathy as a predictor of recidivism in adolescent sex offenders is still relatively new. Nevertheless, results of a meta-analysis conducted on 82 recidivism studies indicated that antisocial orientation was a major predictor of sexual recidivism in both adult and adolescent sexual offenders (Hanson & Morton-Bourgon, 2005). Gerhold, Browne, & Beckett (2007) also found that anti-social behaviors may increase the risk of re-offending sexually. Interestingly, studies have begun to examine psychopathy as a factor; however, no studies, to date, have examined whether or not there was a direct relationship between psychopathy and sexual re-offense risk, as evidenced by sex offender risk assessments at the onset of treatment. The current study provides additional empirical support for the established relationship between psychopathy and risk to recidivate; it also provides further evidence for a relationship between psychopathy and risk to re-offend sexually, as evidenced by scores on the JSOAP-II at the onset of treatment. These results appear to be consistent with current theory and research

indicating that the higher the levels of psychopathy, the higher are the risks to re-offend. It should be noted, however, that although there is a relationship between psychopathy and risk to recidivate, psychopathy does not equal recidivism. Nevertheless, examining this information at the onset of sex offender treatment may aid the juvenile justice system, as well as the clinical provider, in providing the most effective treatment and treatment modality individualized for each adolescent. Future research focusing on developing a treatment protocol that not only targets the sex offender treatment needs, but additionally targets the psychopathic traits in adolescents could prove to be beneficial. Additionally, comparing such a program to a sex offender group receiving treatment as usual could provide promising results. Examining the effects of each program over time, specifically targeting recidivism rates across programs, may provide insight into a way to reduce future recidivism in sex offending adolescents presenting with higher levels of psychopathy.

Although various studies have examined whether or not sex offender specific treatment is more effective than non-sex offender specific treatment (e.g., Olver, Wong, & Nicholaichuk, 2009; Zgoba & Simon, 2005; Hanson et al., 2002; Losel & Schumacker, 2005), no studies, to date, have compared whether or not different treatment modalities within sex offender treatment produce differential treatment effects on treatment outcome measures. In accordance with the previously mentioned tenet, the current study aimed to examine whether or not differential treatment effects would be seen on levels of endorsed cognitive distortions, based on treatment modality. Although no differential treatment effects were found, there are several factors that may have contributed to this finding.

In evaluating current self-report measures in the assessment of sex offenders, the transparency of items and the secondary influence of social desirability on responding have been identified as major problems (Tierney & McCabe, 2001). Furthermore, researchers often discuss cognitive distortions in a myriad of ways. This lack of consistency in operationally defining cognitive distortions is likely to have a negative impact on the accurate measurement of the construct (Arkowitz & Vess, 2003). In order to deal with the ambiguity in the current definitions and conceptualizations of cognitive distortions within sex offender treatment, more recent research has sought to conceptualize cognitive distortions through a more holistic approach (Navathe, Ward, & Gannon, 2008). Consistent with this approach, the present study attempted to compensate for the transparency in current sex offender specific cognitive distortions scales by utilizing a more generalized measure. Because more recent research has sought to conceptualize cognitive distortions under an overarching framework including implicit theories and schema-based framework (Navathe, Ward, & Gannon, 2008), it was theorized that a more generalized scale, such as the Inventory of Cognitive Distortions (ICD; Yurica, 2002), could potentially target the underlying basis for cognitive distortions within this population. Additionally, it was hypothesized that a more generalized scale may help to overcome the problems of transparency with the existing sex specific measures of cognitive distortions. Authors of the ICD theorize that such a generalized cognitive distortions scale could: 1) identify major forms of distorted thinking, 2) understand the role that cognitive distortions play in maintaining dysfunctional thoughts, feelings and behaviors, and 3) measure change in an individual's distorted thinking patterns when utilized as a pre-post tool (Yurica & DiTomasso, 2005).

Nevertheless, because the ICD was not validated on this population, limitations exist when utilizing this measure within the sex offender population. Additionally, because there continues to be ambiguity in conceptualizing cognitive distortions in sex offender treatment, the ICD is merely one attempt at targeting the distortions through a more generalized, holistic approach. At most, the present study supports only the notion that specific to sexual offenders, an effective measure of cognitive distortions does not yet appear to exist. Until the construct of cognitive distortions is consistently defined and reliably measured, a relationship between sexual offending and cognitive distortions cannot be determined (Arkowitz & Vess, 2003). It should be noted, however, that although the ICD was not found to be the most accurate way of identifying cognitive distortions in adolescent sex offenders, it did overcome the problem with transparency found in current sex specific measures of cognitive distortions. In examining the mean scores in our overall sample in comparison to the control group and psychiatric group used to validate the ICD, it was found that the current overall sample was more similar to the psychiatric group than the control group (Current Overall Sample: M = 177.92, SD = 39.47; Control Group: M = 138.43, SD = 32.72; Psychiatric Group: M = 182.68; SD = 38.69). This finding provides evidence to support the notion that adolescents in the overall sample were accurately reporting their distorted thinking, and the transparency of items was not a limitation with the ICD.

Limitations.

There were several limitations inherent in the present study. The first limitation pertains to data collection. Because this study was retrospective, it is difficult to control for biases and confounds due to a lack of randomization. Possible confounding factors are

potential inaccuracies in written records, self-report bias on the ICD, variations in treatment, and the possibility of outcomes assessed by multiple individuals in a nonstandard manner. Additionally, with the collection of retrospective data, it is difficult to establish cause and effect, and results are, at best, hypothesis generating. Future research should focus on longitudinal, prospective studies. Using information from both file and interview data may provide important information about whether or not predictions can be made regarding the effectiveness of different levels of treatment on a variety of treatment outcomes (e.g., cognitive distortions).

The second limitation relates to the size of the sample. The current study included a total of 99 participants which was a number lower than anticipated. More specifically, when attempting to examine differential treatment effects across levels of treatment, it was not possible to utilize a random sub-sample of the overall sample due to the limit number between groups: 1) outpatient adolescent services (N=16); 2) Northampton County Juvenile Justice Center (N=7); and 3) "SafeGuards" foster care program (N=59). This limitation may have directly influenced the ability to examine differential treatment effects between groups. Future studies should focus on achieving a larger overall sample size in order to establish a larger, equal number of participants between groups. In order to achieve a larger sample size, it may be beneficial to allow for a more extended period of time while ensuring adequate data collection by implementing integrity checks to minimize missing data.

The third limitation lies within the method of measuring cognitive distortions. In order to measure cognitive distortions, this study utilized the Inventory of Cognitive Distortions (ICD; Yurica & DiTomasso, 2005). Not only is there a potential self-report

bias with the ICD, but the ICD is a more generalized measure of cognitive distortions as opposed to a measure designed specifically to assess cognitive distortions in individuals who sexually rape and molest. In future research, developing a measure that has the ability to target sex specific cognitive distortions (e.g., blaming the victim) in a non sexualized context may help to overcome the problems with face validity in current sex offender specific scales.

The fourth limitation lies within the makeup of the current sample. Due to the available sample, this study did not include female sexual offenders. As a result, all findings are limited to the adolescent male sex offender population. Although there is limited research focusing on the female sex offender population, future research should also target this population. Investigating females within the sex offender population may provide insight into sex offender treatment and enhance the current literature.

The final limitation concerns the standardization of treatment. In the current study, there was no standardized protocol utilized across all levels of treatment. Because of this lack of standardization, it is difficult to ascertain whether or not the lack of treatment effects was due to treatment modality or implementation of treatment procedures. In order to control for type of treatment, and to better understand how level of treatment impacts the cognitive distortions in sex offending adolescents, it is important for future research to focus on utilizing a standardized treatment protocol for the adolescent sex offender. However, it is also important to note that although non-standardized treatment is a limitation, this study does reflect the nature of current treatment provided in real-world clinical settings to the majority of adolescent sex offenders.

Conclusion and future direction.

The primary goal of this study was to gain a better understanding of cognitive distortions in the treatment of adolescent sexual offenders. The current study did not support a relationship between cognitive distortions and psychopathy or risk to sexually offend, nor did the findings support a difference in the reduction of cognitive distortions across treatment groups. Literature in the field of sexual offending has theorized that cognitive distortions play an integral role in sexually offending behaviors, and further asserts that a fundamental aspect of sex offender treatment is to address these cognitive distortions throughout treatment. Nevertheless, there is a paucity of research examining treatment effects on these cognitive distortions, especially in adolescents. Accurately assessing cognitive distortions in sex offenders remains a dilemma in the field due to the lack of clarity in current definitions and conceptualizations (Navathe, Ward, & Gannon, 2008; Arkowitz & Vess, 2003). The current study was merely one attempt at examining treatment effects on cognitive distortions; future research attending to the current study's limitations could aid in developing an effective way to examine cognitive distortions within this population.

Given that current treatment models assume that cognitive distortions play an integral role in sex offending behavior, future research attempting to accurately assess and target these distortions is critical. Rather than focusing on assessing cognitive distortions in a more holistic manner, it may be beneficial for researchers to develop and validate a more accurate measure of cognitive distortions for this population. In order to develop a more accurate measure, one must understand the role that cognitive distortions play in sex offending behaviors. However, few researchers have attempted to understand

this underlying role. It has been argued that the role of cognitive distortions is causal in nature and is best understood in terms of implicit theories (Ward, 2000). Future research examining the function of cognitive distortions in sex offending behaviors may help treatment providers better understand the actions of the offender and may aid in the development of a more accurate measure of cognitive distortions (Ward, 2000).

Furthermore, due to the lack of clarity in the definition of cognitive distortions, more recent research is attempting to analyze current treatment approaches to reducing cognitive distortions, and to determine whether or not all cognitive distortions in sex offenders are in need of treatment. Although cognitive distortions are crucial in the treatment of sexual offenders, experts (e.g., Marshall, Marshall, & Kingston, 2011) question whether or not all cognitive distortions are criminogenic. These researchers recently developed an innovative three phase program that differs significantly from current treatment models. Current treatment models emphasize confronting self-serving distortions as an important component in the treatment of adolescent sexual offenders. This program, counter to most endorsed models, places a stronger emphasis on developing trust and rapport, and a lower emphasis on challenging distorted thinking. Researchers assert that it is the therapeutic relationship that functions as the mechanism of change in reducing cognitive distortions, and that directly challenging these distortions is not therapeutically necessary (Marshall, Marshall, & Kingston, 2011).

In phase one of the program by Marshall et al., the aim is to develop trust and rapport while ignoring the prevalent cognitive distortions; in phase two, the aim is to target criminogenic features; and in phase three, the aim is to integrate the first two phases, encouraging clients to continue treatment by continually adapting and developing

self-management strategies. Marshall et al. (2011) claimed to have observed reductions in cognitive distortions through the use of this program with child molesters. Researchers suggest that this reduction in cognitive distortions, occurring in the absence of direct challenges to the distortions, provides evidence that the distortions in phase one of treatment are due to a lack of trust in the therapist (Marshall, Marshall, & Kingston, 2011). There is a lack of data supporting this new model at the time; however, it raises questions regarding the lens through which we currently understand cognitive distortions. This innovative model may provide insight into the function of cognitive distortions and their role in sex offender behavior and treatment. Future research similar to this three phase program may help us better understand the function of these distortions and determine the best possible interventions.

Regardless of the treatment approach, gaining a better understanding of the function of cognitive distortions in sex offending behavior and management of this behavior remains critical. Research targeting the role cognitive distortions play in sex offending behavior will not only enhance our understanding of how to best implement treatment, it can also pave the way for developing better measures of assessment and standardized treatment protocols. A better understanding of both assessment and treatment has the potential to increase the future well-being of adolescents and reduce future sexual abuse.

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