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Juvenile Male Sex Offenders: The Impact Of Family Involvement In Treatment

Irene Arande Guya-Allen

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JUVENILE MALE SEX OFFENDERS: THE IMPACT OF FAMILY
INVOLVEMENT IN TREATMENT

by

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Submitted to the Graduate Faculty

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This Dissertation, submitted by Irene Arande Guya-Allen in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

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Irene Arande Guya-Allen

June 1, 2012

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ABSTRACT

Factors that relate to the recidivism of adolescents who commit sexual crimes have received minimal attention in the literature. This study examined the impact of family involvement in treatment variables for adolescent male sex offenders as well as the relationships between family involvement and other treatment variables. The independent variables included a) family environment b) family status c) socioeconomic status d) living status e) levels of offense f) criminal records and g) family involvement in treatment. The dependent measure was recidivism. Data was collected from archival records provided by Hennepin County Home School in Minnetonka, Minnesota. The results indicated that only age at admission made a significant prediction of recidivism. Family participation variables were not found to be related.

CHAPTER I

INTRODUCTION

Juveniles who commit sexual crimes have historically received minimal attention in research literature (Becker & Kaplan, 1992). Past research on sexual offending crimes has, for the most part, focused on adult male perpetrators. Due to various reports of increases in sexual crimes in the United States, legislation regarding juvenile sex offenders (JSOs) is often based on the assumption that JSOs are no different than adult perpetrators. With the heightened public awareness regarding sex crimes and perceptions that JSOs are similar to adult perpetrators, many laws enacted impact the treatment and social consequences for JSOs. Two such legislations include the Jacob Wetterling Act and Megan's Law.

The Jacob Wetterling Crimes against Children and Sexually Violent Offender Registration Act was enacted in response to the Federal Violent Crime Control and Law Enforcement Act of 1994. Under this law, states were required to execute a sex offender registry for those crimes committed against children (US CODE: Title 42, 1407; Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, 1994). Megan's law, an amendment to the Jacob Wetterling Act, was enacted after Jesse Timmendequas, a 33-year old adult male, brutally raped and murdered his seven-year-old neighbor, Megan Kanka, in 1994 (Trivits & Reppucci, 2002). Megan's Law was designed to offer information and notification to communities

when potentially dangerous sex offenders moved into any particular neighborhood. This public-access and notification, of anyone convicted of a sexual offense, requirement makes Megan's Law the most far-reaching legislation passed with regards to sex offenders (Trivits & Reppucci, 2002). It is important to note that the wide net covered by the enactment of Megan's Law also applies to juvenile sex offenders who may later be exposed to devastating effects accompanying this legislative action.

The two cases mentioned in the preceding paragraph represent extreme instances of sexual crimes on which statutes relating to juvenile sex offenders are based. Nonetheless, there is little scientific data outlining the effectiveness of applying laws and policies based on adult sex crimes to juvenile sex offenders (Levenson, & D'Amora, 2007). The application of laws and statutes originally intended for adult sex offenders to juvenile sex offenders is highly controversial and goes against juvenile courts' long established purpose of non-punitive interventions (Garfinkle, 2003). This sparsity in literature on JSOs, along with the enactment of statutes such as Megan's Law, tend to endorse the general public's conviction that recidivism rates for JSOs are extremely high (Trivits and Reppucci, 2002). With an increasing recognition of juvenile sex offenders, there have been increasing attempts on the part of researchers to try to understand: 1) predictors of juvenile sexual offending behaviors, 2) risk factors associated with these youth, and 3) effective treatment modalities to be applied to this population.

Several treatment modalities have been examined in the literature for sexually abusive juveniles including cognitive-behavioral techniques, relapse-prevention models and group, individual and family therapy models (Becker & Hunter, 1997; Hunter &

Figueredo, 1999; Veneziano & Veneziano, 2002). With increasing research efforts, the general consensus is that a better understanding of the family influences on juvenile sex offenders (JSOs) may lead to both identifying possible causes of juvenile sexual offending and identifying more effective treatment options for this population.

Undoubtedly, sexual violence is a grave social predicament that needs to be addressed. However, despite an increase in research interest, knowledge of juvenile sex offender populations remains sparse. Empirically supported evidence, on specifically combating juvenile sex offending, needs to be further explored in order to best serve this particular population in terms of treatment and community management. Grove and Meehl (1996) argue that failure to apply research evidence in decision making with regards to sex offender populations may have serious negative effects for both the individuals and communities concerned. The authors assert that if social policies and legal statutes are to be enacted to inform practice and prevent instances of sexual violence, the use of empirical methods would be considered not only efficient but ethical.

CHAPTER II

A REVIEW OF THE LITERATURE

According to the Center for Sex Offender management (CSOM, 1999), research on factors that could help increase the understanding of the etiology of sexual offending behaviors has primarily focused on adult male offenders. Furthermore, in their review of literature on juvenile sex offenders, Becker and Hunter (1997) found that the blame for sexually abusive and assaultive behavior had historically been placed on adult male perpetrators. Similarly, Burton and Smith-Darden (2001) noted that the majority of available juvenile sex offender treatment programs utilized traditional adult sex offender models, adding support to the notion that, for the most part, focus on sexual offending has been on adult populations.

Relapse-prevention, addressing the sexual abuse cycle, anger management, sex education, interpersonal training, assertiveness training, journaling, and cognitive restructuring are a few common interventions that the literature has identified as being utilized for both adult and juvenile sex offender populations (Freeman-Longo et al., 1995; Becker & Hunter, 1997; Hunter, 1999; Burton, Smith-Darden, Levins, Fiske, & Freeman-Longo, 2000; Burton & Smith-Darden, 2001). While research has found support for the effectiveness of these interventions with adult sex offender populations, the utility and suitability of treatment traditionally modeled for adults to juvenile sex offenders has been questioned (Hunter & Longo, 2004; Prescott, 2002). There is

currently limited scientific evidence supporting the effectiveness of juvenile sex offender treatment. Therefore, a case can be made for developing and testing juvenile-specific treatment interventions that would efficiently disrupt the course of sexual offending from adolescence to adulthood.

Incidences of Juvenile Sexual Offenses

For the past two decades, incidents of juvenile sexual crimes have led to concerted efforts on the part of researchers and professionals to recognize and understand sexual offending behaviors in youth (Longo, 2003; Longo & Blanchard, 2002, Freeman-Longo, 1998; Freeman-Longo & Blanchard, 1998; Klein & Tabachnick, 2002). This has largely been attributed to the growing concern that sexually abusive crimes are raising in American society. However, to date there are conflicting reports in the literature with regards to rates of juvenile sexually abusive behaviors. A study by Ageton (1983) estimated that adolescent males have committed two to four percent of all reported sexually abusive behaviors. Another study by Snyder and Sickmund (1999), reported that juvenile sex offenders account for 20% of all reported forcible rape and child molestation cases in America. Finally, the Federal Bureau of Investigation (FBI), the Uniform Crime Report, indicated that in 2000, individuals under the age of 18 accounted for 16.4% of all forcible rapes and 18.6% of other sexual offenses (FBI, 2001).

Reports from the American Academy for Child and Adolescent Psychiatry (AACAP), revealed evidence that an estimated 70,000 boys and 111,000 girls were victims of sexual offenses perpetrated by adolescents (AACAP, 1999). Despite the varying evidence, research has shown that over the past ten years, both rates of juvenile

crime and juvenile sex offenses have decreased substantially (Dodge, 2008). Moreover, although the popular belief is that there is an epidemic of juvenile-perpetrated sexual aggression, Letourneau and Miner (2005) point out that the rates of known sexual re-offenses are much lower than the public opinion of these rates are believed to be. Awareness and incidences of sexual crimes, by both adults and juveniles, amplify the need for the enactment of laws promoting community safety. However, there is still a question regarding the validity of the current criminal justice responses that are intended to reduce the instances of sexual offending behaviors (Edwards & Hensley, 2001; Levenson, 2003; Levenson & Cotter, 2005a; Levenson & Cotter, 2005b; Petersilla, 2003; Redlich, 2001; Tewksbury, 2002; 2005; Welchans, 2005).

Based on the legislative and public attention that sex offenders have received over the past decade or so, it is not surprising that there is an assumption that juvenile sexual offenders pose a significant risk of persistent sexual violence (Caldwell, 2002). Similarly, there have been assumptions that in general, these youth are significantly different from other juvenile delinquents or teens (Caldwell, 2002). Unfortunately, this supposed difference exposes juvenile sex offenders to public policies that tend to be grounded on erroneous and dubious assumptions about the risk of juvenile sexual recidivism (Letourneau & Miner, 2005; Zimring, 2004). For instance, at least thirty three states require the inclusion of juveniles in sex offender registries following adjudication of a sexual crime in criminal court (Garfinkle, 2003). Critics of this registration policy, point out the lack of individualized assessment of the juveniles' risk to sexually re-offend and existing data is sparse in providing information on recidivism (Caldwell, 2002). As communities, practitioners, and anyone involved with this

population in any capacity are still deciding on the best practices procedures for juvenile sex offender management, the juveniles impacted are forced to deal with the significant effects of such policies and laws on their lives.

In the past twenty years, researchers have acknowledged sexual recidivism as an essential consideration in assessing juvenile sex offender risk to re-offend sexually (Borum, 1996; Doren, 1998; Epperson, Kaul, & Huot, 1995; Letourneau & Miner, 2005; Monahan, & Steadman, 1994). Studies of juvenile sexual recidivism, although inconsistent, generally report low rates due to a number of factors including, but not limited to, varying prediction techniques, differing juvenile samples and varying research methodologies (Caldwell, 2002). The ongoing dearth of empirical support in the field of juvenile sex offending promotes misconceptions about juvenile sex offenders as a population and poses a continuing challenge for mental health practitioners, policy-makers and researchers.

Numerous studies in the literature reveal extremely low recidivism rates for juveniles who have been adjudicated with sexual crimes. A report from the Office of Juvenile Justice and Delinquency Prevention (OJJDP) revealed findings from multiple studies indicating that juvenile sex offenders were less likely to re-offend sexually after an initial adjudication of a sexual crime (Righthand & Welch, 2001). Moreover, the authors of the OJJDP report presented multiple findings in their review indicating that adjudication and treatment of first-time juvenile sex offenders prevented these youth from re-offending sexually as young adults. Similarly, in their recidivism studies, Worling and Curwen (2000) detailed that only five to 14% of juvenile sex offenders re-offend sexually compared to eight to 58% re-offense rates for other delinquent

behaviors. These findings add on to efforts to debunk the misconception that juvenile sex offenders are more likely to grow up to become adult perpetrators.

A separate report from the Association for the Treatment of Sexual Offenders (ATSO) found significantly lower frequencies of sexual aggression, compulsivity and fantasy among juvenile sexual offenders in treatment compared to adult sex offenders (ATSO 2001). In a 1999 evaluation of 58 adolescent sex offenders participating in at least 12 months of specialized treatment at the SAFE-T (Sexual Abuse: Family Education & Treatment) Program in Ontario, Canada, Worling and Curwen found recidivism rates for juveniles in the treatment group to be significantly low at 5.17% for sexual crimes, 18.9% for violent non-sexual crimes, and 20.7% for non-violent offenses. The authors' comparison group consisted of 90 adolescents who received only an assessment ($n = 46$), refused treatment ($n = 17$), or dropped out before 12 months ($n = 27$). Findings indicated that the comparison group had significantly higher rates of sexual (17.8%), violent nonsexual (32.2%), and nonviolent (50%) recidivism, and suggest that juveniles have better chances of improving if afforded treatment.

Characteristics of Juvenile Male Sex Offenders

It is evident that the lack of awareness of both juvenile sex offending and recidivism rates has made it necessary to increase efforts to educate the public and to clear some misconceptions regarding these two concepts. Past literature on juvenile sex offenders suggests that these adolescents are a heterogeneous group (Bourke and Donohue, 1996; Knight and Prentky, 1993), thus making it difficult for researchers to identify a definite profile for these youth. Knight and Prentky, (1993); Weinrott, (1996) acknowledged that JSOs are different in how they chose their victims and in terms of

their crime features. Additionally, the authors identified other variables including type of offending behaviors, cognitive functioning, various mental health issues and histories of child abuse, that differ among this population. This section further explores literature on the characteristics of juvenile male sex offenders.

There has been an increase in efforts and attempts of researchers to develop a scientific picture of traits and behaviors that are specific to juvenile sex offenders (Boyd, Hagan and Cho, 2000). However, based on the limited instances of sexual offending behaviors within the research study camps, researchers report that it is difficult to discriminate between features of sexual offending and non-sexual offending juveniles (Camp, Salazar, DiClemente, & Wingood, 2005). This is compounded by the fact that there are very few studies in the research field that have done comparison studies of JSOs and other juvenile delinquents.

Furthermore, Becker and Hunter (1997) note that there is no clear way to distinguish between actual and potential juvenile sex offenders. Despite being able to identify different characteristics of numerous juvenile sex offenders, not all juvenile sex offenders possess any or all of these characteristics, which is in support of the argument that JSOs are a heterogeneous group. It has been argued that the lack of social skills and assertiveness could possibly lead to the rejection that juvenile sex offenders experience and this could cause them to isolate themselves from their peers (Becker & Abel, 1985). In a 1977 study of 26 adolescent males convicted of rape or child sexual assault, Groth found that adolescent sexual offenders tend to have high rates of emotional problems. The author also made a case that juvenile sex offenders have problems launching and preserving close friendships with their peers.

In their clinical assessment of 29 male adolescent child molesters, Fehrenbach, Smith, Monastersky, and Deisher (1986), illustrated a number of features that seemed to place juvenile sex offenders apart from their peers. The authors found that many of the adolescent child molesters were socially secluded, had persistent learning problems, and had been maladjusted before they sexually offended. Moreover, the authors pointed out that these youth were found to be characteristically lonely and socially isolated from their peers. Finally, these authors made a case that juvenile sex offenders frequently came from disturbed families, typically preferred the company of younger children and were naïve in their knowledge about sex (Fehrenbach et al., 1986). In a follow-up study, Kahn and Lafond (1988) had similar findings to the Fehrenbach et al. (1986) study when they found, in their examination of juvenile male sex offenders, that these youth were on average lonely and socially isolated from peers and they preferred the company of younger children.

In an examination of juvenile sex offenders, Bengis (1989) described these youth as possessing an array of mental and emotional problems, which could not be defined using a homogenous concept. Bengis identified a continuum that juvenile sex offenders fall into, varying from what the author labeled as naïve experimenters to sadistic rapists, with some juveniles falling somewhere in the middle of this continuum. Davis and Leitenberg (1987) commented on the scarcity of empirical research on juvenile sex offender characteristics, but outlined several factors in their description of this population including low self-esteem, poor social skills, social isolation, increased likelihood of engaging in criminal behavior, witnessing violence in their families, harboring anger towards women and exposure to adult models of aggression.

Based on their research, the Center for Sex Offender Management (CSOM) (1999), listed a number of characteristics attributed to juvenile sex offenders. It was reported that these youth typically fell between the ages of 12 and 17, were mostly male perpetrators, had difficulties with impulse control and judgment, up to 80% of JSO's had diagnosable psychiatric disorders, and 30%-60% showed signs of learning disabilities or academic dysfunction. Additionally, CSOM (1999) reports indicated that 20%-50% of JSO's had been portrayed as having had histories of physical abuse. Finally, the reports indicated that 40%-80% of these youth had histories of sexual abuse.

The Center for Sex Offender Management (CSOM) in their effort to describe characteristics of JSOs, cited variables including exposure to family or domestic violence, physical and sexual maltreatment, child abandonment (CSOM, 1999). In a review of juvenile sex offenders, Lewis, Shankok and Pincus (1979) pointed out several factors including neuropsychiatric problems, prior violent acts and early deviant childhood behavior characterizing their sample. Furthermore, Lewis et al. (1979) found behavioral problems to be frequently present in the histories of juvenile sex offenders. Finally, these authors reported 79% of their juvenile sex offender sample had witnessed intrafamilial violence compared to 20% of juveniles who did not offend sexually. In a follow-up study, Weinrott (1996) identified social competence, cultural values, attachment bonds, personal victimization, intelligence, substance abuse and presence of a conduct disorder as other factors thought to be relevant to sexual violent behavior in youth. In summary, research suggests that the characteristics of juvenile male sex offenders are a heterogeneous group with varied characteristics and treatment needs

(Becker, Kaplan & Tenke, 1992; Hunter & Becker, 1994; Veneziano, Veneziano & Legrand, 2000).

For many years, it has been reported that juvenile sex offenders' family environments are problematic. In a literature review, Monastersky and Smith (1985) found unanimous support that juvenile sex offenders' families have a significant impact on the juvenile offending behavior. However, the authors noted that despite the unanimous agreement of the importance of JSO's family by researchers, it is still not clear how families affect sexual offending behavior, as most conclusions authors have made in the past were based solely on clinical experiences (Monastersky & Smith, 1985). Therefore, it seems imperative to consider the impact a juvenile's family has on his sexual offending behavior in an effort to better understand treatment needs and adjust policies impacting this population. The next section of this paper reviews research on family dynamics and family involvement in treatment of juvenile male sex offenders.

Family Dynamics and Involvement in Treatment

“The importance of family influences in the life of the adolescent sex offender cannot be underestimated as it is often the barometer of what can or cannot happen in treatment (p.59).” (Stevenson and Wimberley, 1990).

A juvenile's beliefs, attitudes, prejudices, behavior, learning and development of attitudes are thought to be largely influenced by his or her family (Dahlberg & Potter, 2001). Institutions such as juvenile detention centers, juvenile correctional facilities and entities involved with juveniles in any capacity, are increasingly incorporating the family in developing effective treatment interventions for this

population (Abram, Teplin, McClelland & Dulcan, 2000). Hsu and Starzynski's, (1990) investigation of 32 juvenile sex offender families characterized them as extremely troubled and impaired. Additionally, the authors linked alcoholism, criminal histories, child neglect and abuse, depression and child care agency placement, on the part of the parents or caregivers, as familial concerns experiences by JSOs.

Various studies comparing juvenile sex offenders to other juvenile delinquents have found parallels in the families of these youth. Van Ness (1944) found juvenile sex offenders and other juvenile delinquents have characteristically low socioeconomic family backgrounds. Other studies that have identified parental disabilities, absent fathers and intrafamilial violence as characteristic parallels between juvenile sex offenders and juvenile delinquents' families (Hsu & Starzynski, 1990; Rosen, 1969; Davis & Leitenberg, 1987; Van Ness, 1984). However, Van Ness (1984) noted that despite the similarities identified in the literature, juvenile sex offenders observed more family violence than juveniles who committed nonsexual offenses. In addition, it was found that juvenile sex offenders experienced more physical and sexual abuse in comparison to other juvenile offenders (Davis & Leitenberg, 1987).

A report based on limited clinical impressions was completed on an unspecified number of juvenile sex offender families (Knopp, 1982). This report identified family characteristics such as enmeshment, rigidity, chaotic and familial immense role confusion in the families of JSOs. Additional empirical research suggests that factors such as family instability, child maltreatment, family disorganization and violence have been noted in the familial backgrounds of juveniles who engaged in sexually abusive behaviors (Bagley & Shewchuk-Dann, 1991; Miner, Siekert & Ackland, 1997; Morenz

& Becker, 1995). Literature also suggests that juvenile sex offenders share similar dysfunctional family backgrounds as other juvenile delinquents (Becker, 1998; Graves, Openshaw, Ascione & Ericksen, 1996; Worling, 1998).

Family composition is a factor that is considered to be associated with juvenile criminal behavior as shown by Thornberry, Smith, Rivera, Huizinga and Stouthamer-Loeber (1999). Wells & Rankin, (1991) report that juveniles whose families have been disrupted by either separation or divorce tend to show more signs of emotional and behavioral problems than juveniles coming from what is considered an intact family structure, such as two-parent households. These juveniles also tend to display more delinquency related behaviors including sexual offending. Thornberry, et al. (1999) found support in the literature that suggested juveniles were at higher risk to offend sexually if they witnessed marital discord or came from disrupted families. The authors suggested that the likelihood of delinquency was lessened for juveniles from two-parent households or those who had not witnessed marital conflict in their families.

In the same way, improving parents' or caregivers' abilities to provide restrictions, structure and discipline to juveniles who engage in sexual offending behaviors, may be a crucial element in terms of treatment consideration for this population. Additionally, as alluded to earlier, it has been suggested that youth who experience familial conflict or familial instability tend to be at higher risk for engaging in delinquent behaviors including sexual offending behaviors. Therefore, involving families of these youth may be instrumental in directing them away from delinquency (Immarigeon, 1996). Individual, group and family therapies, psycho-educational groups for both families and juveniles are a few typical programming and treatment

combinations offered to juvenile sex offenders. Griffin, William, Hawkes and Vizard (1997) and Shaw (1999) indicated that family therapy is another component that is typically found to be helpful in the treatment process of juvenile sex offenders. It is the contention of these authors that some juvenile sex offenders may better understand gender roles, relationships with others as well as aggression in the context of their families (Griffin et al. 1997; Shaw, 1999).

As much as family is an important factor in reducing recidivism rates for juvenile sex offenders, it is often difficult to get families of young sex offenders to be involved in their treatment and subsequent rehabilitation once they are released from treatment. Despite the limited research and literature on family involvement in treatment, research findings generated have found that the most effective treatment programs have a heavy emphasis on family involvement whenever possible (Worling & Curwen, 2000). It has even been implied that family involvement in treatment may be just as crucial as the typical focus that treatment programs give most attention to, which is relapse prevention for JSOs (Worling & Curwen, 2000). Involvement by the juvenile sex offender's family is considered to be a critical component in treatment despite the role the family may play in perpetuating the juvenile sex offender's crime (Godbey & Brown, 2005).

Family involvement in treatment of juvenile sex offenders entails more than increasing parent/caregiver knowledge of the sexual offending behavior. It encompasses providing parenting skills training or even providing parent/caregiver training on relapse prevention for the juvenile sex offenders (Ryan, 1988). As such, family involvement in treatment acts as a preparation tool for families of the juvenile

sex offenders' transition into community and back into the families they came from. Pithers, Busconi and Houchens (1999) identified understanding parental attachment levels, parental training, social-relational skills, trauma resolution and processing loss of an 'ideal' child or family as factors that could be addressed if a family was involved in a juvenile's sex offender treatment.

Ryan (1988) argued that for any assessment or treatment program involving juvenile sex offenders, the family members are a fundamental part of the treatment process because of the wealth of information the family can provide to treatment providers and the support element that a family can provide to the juvenile. By acting as a primary source of support during the whole treatment process, the family can become a critical component in reducing a juvenile's risk of sexually re-offending. Finally, the author suggested that parents/caregivers possessed information that could aid treatment providers in explaining the etiology of a juvenile's sexual offending behavior, hence assisting in the development of a treatment plan.

Some studies have addressed the types of communication that occurs in a JSOs family. The absence of or limited supportive communication (Borduin, Blaske, Henggeler, & Mann, 1990) and negative communication styles, including but not limited to interruptions and aggressive statements are frequently observed in JSO families (Borduin, Mann, Cone, Henggeler, Fucci, Blaske & Williams, 1995). Other research has suggested that in terms of opening the lines of communication, family therapy should be considered if the goal is establishing a support network and helping a family understand sex offending pattern (Shaw, 1999). Moreover, Shaw (1999) argued that family therapy had the added benefit of helping the family address issues of incest

particularly if the juvenile was to go back to the family home after treatment. Borduin, Henggeler, Blaske and Stein, (1990), argue that the lack of positive communication techniques that would facilitate dialogue in a family, lends to the research evidence that points to lack of adequate supervision and support for JSOs. Although no link has officially been identified, it is possible that the lack of family support and supervision may lead to some of the difficulties identified for these youth including, social isolation, inadequate social skills and social incompetence.

Based on the literature, researchers seem to agree that based on their heterogenic nature, juvenile sex offenders need a variety of treatment interventions including group-based, cognitive-behavioral interventions, individual therapy, addressing criminogenic and personality factors. There is also agreement in the literature that there is no one size that fits all type of treatment for these youth. In other words, some juvenile sex offenders pose greater risk than others and therefore may have more treatment needs than other juvenile sex offenders. Additionally, it is possible that some juvenile sex offenders may be more amenable to treatment than others and have more supportive family members/backgrounds than other juvenile sex offenders. Findings by Araj (1997) support the idea of promoting safe and stable relationships among family members in an effort to help sexually aggressive juveniles.

In summary, treatment programs for juvenile sex offenders are more likely to be effective if they involve families as part of their treatment agendas (Rasmussen, 1999). The family is a crucial aspect to be considered in the treatment of juvenile sex offenders. However, there is a scarcity of research that specifically addresses family involvement in treatment in an attempt to better understand treatment needs for this

population. For that reason, additional research is required to address involvement of juvenile sex offenders' families in treatment. Programs accounting for the involvement of family in the treatment of juvenile sex offenders are worthy of recognition, support and encouragement from administrators responsible for enacting juvenile sex offender policies and providing funding opportunities.

To date, there is still no single profile that accurately describes juveniles who commit sexual offenses. It is, therefore, essential to make use of appropriate assessment tools that can be employed to develop and put into practice individualized treatment plans for these youth (Ryan, Lane, Davis & Isaac, 1987). Risk assessment tools are also essential in identifying and decreasing the threat of juvenile sexual recidivism (Ryan, et al., 1987). The next section briefly discusses the utility of clinical risk assessment tools in the treatment and management of juvenile sex offenders.

Clinical Risk Assessment

Acknowledging the importance and necessity of clinical assessment of juvenile sex offenders is a crucial element of intervention with these youth. A very basic explanation for clinical risk assessment is that they are based on judgments by one or more mental health experts with regards to the risk a specific person, in this case a juvenile sex offender, poses. Clinical assessment aids in the evaluation and assessment of risk of sexual offending and re-offending. Kraemer, Spielman and Salisbury (1995) indicated that based on the heterogeneous nature of juvenile sex offenders, clinical risk assessment of these youth should be comprehensive enough to cover six critical parts: personality and psychopathological aspects; social and behavioral aspects; history of victimization; substance usage; sexual, intellectual and neuropsychological aspects.

Dougher (1995) argued for the need for a broad clinical risk assessment of juvenile sex offenders by stating that the prelude to effective treatment of these youth is an in-depth assessment. Furthermore, the author referenced literature emphasizing the diverse and multifaceted nature of sexual offending behaviors, therefore, necessitating an understanding of the psychological characteristics of a sex offender as well as an understanding of the precise aspects related to an individual's offense. Over the years, there have been several risk assessment tools developed principally for use with juvenile sex offender populations, however, there is no standardized assessment instrument being utilized with this particular population, and this tends to negatively influence the juvenile sex offender's treatment. Policy makers, practitioners and professionals working with these youth are also faced with numerous challenges brought about by the lack of standardized risk protocols.

Some of these traditional risk protocols being utilized with juvenile sex offender populations include the Juvenile Risk Assessment Tool (JRAT) developed by the Stetson School (2007), Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR) developed by Worling and Curwen, (2001) and the Juvenile Sex Offender Assessment Protocol (J-SOAP) developed by Prentky, Harris, Frizzell and Righthand (2000). This study will focus on the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), which is one of the main risk assessment tools utilized at Hennepin County Home School's Juvenile Sex Offender Program. The psychometric properties of this instrument are discussed in the methods section.

It is evident that for a better understanding of any risk that a juvenile poses to other individuals in terms of sexual re-offending, a key consideration is

engage these youth in clinical risk assessment in order to determine what factors may increase or decrease the juvenile's risk to re-offend sexually. As such, a number of theories have been proposed in an effort to explain juvenile sexual offending behaviors. The next section addresses some relevant theories of juvenile sex offending particularly, social learning theory, which is the most acknowledged theory to date (Ryan & Lane, 1997).

Relevant Theories of Juvenile Sexual Offending Behavior

Understanding why individuals commit sexual offenses is a complex task for researchers working with the sex offender population. There are a number of theories that hypothesize how a juvenile becomes a sex offender; however, few of these theories have been methodologically researched. There is a need for more comprehensive information regarding theories of juvenile sexual offending in order to assist with early detection, risk identification and to provision of adequate services prior to the occurrence of more serious sexual offenses. It has also been suggested that there is a need for more comprehensive theoretical explanations of sexual offending behavior that incorporate both psychological and sociological criminology perspectives (Cleary, 2004; Lussier, 2005; Parkinson, Shrimpton, Oates, Swanston, & O'Toole, 2004; Simon, 2000), because sex offending theory construction has for the most part, occurred outside of traditional sociologically oriented criminology (Harris, Mazerolle & Knight, 2009). This section will briefly reference some of the relevant theories of juvenile sexual offending and focus on social learning theory, which as mentioned before, is the most widely accepted theory that has been used in an effort to understand the etiology of juvenile sexual offending behaviors.

There have been numerous attempts by researchers to identify or explain the root of juvenile sexual offenses (Boyd, Hagan & Cho, 2000). Some researchers have identified biological theories of sexual crime which focus mainly on testosterone and brain anomalies in their effort to explain sexual offending behaviors. Langevin, (1990); Raine, (1993); and Miller, Cummings, McIntyre and Grode, (1986), have provided evidence that supports a link between frontal lobe damage and sexually assaultive behaviors. Furthermore, these authors have suggested that dysfunction in the temporal lobe might be more directly associated to genuine sexual deviance. In the same way, high levels of testosterone, which are associated with increased sexual drive and aggression, have been linked to sexually abusive behaviors (Booth & Osgood, 1993). Other researchers like Becker, Stinson and Sales (2008), have acknowledged psychological (psychoanalytic) theories of sexual offending, which are founded on Freud's work. According to these authors, psychological theories attribute sexual offending behaviors to unresolved sexual problems in childhood. Additionally, Becker et. al (2008) identified cognitive, behavioral, personality, social learning, evolutionary theories and theories that integrate two or more of the aforementioned theories in their attempts to explain why juveniles commit sexual offenses.

Social learning theory offers one of the most prevalent perspectives on sexual aggression by juveniles (Burton, Nesmith & Badten, 1997; Hudson & Ward, 2000; Hunter & Figueredo, 2000). Briefly stated, social learning theory purports that exposure to social models, experiences of punishment, and reinforcement explain much of an individual's behavior. In its application to juvenile sex offenders, this theory takes into account the high percentage of juvenile sex offenders who have themselves been

victims of sexual exploitation (Burton et al. 1997). A supposition could be made that a developing child may engage in violent sexual behavior or hold certain attitudes and beliefs with regard to sexual offending through observance and modeling of a significant role model's mistreatment of others (Ryan, 1989). For instance, a child may learn to imitate aggressive behaviors exhibited by an adult model, such as a parent/caregiver, teacher, celebrity, or pastor, and view these behaviors as suitable means of accomplishing certain goals (Wright & Wright, 1994). The child may then become sexually abusive or aggressive based on this modeling since according to this theory, the model(s) influence the type of behaviors that children choose to engage in or avoid.

Social learning theory is founded on the assumption that observational learning begins when an individual views/witnesses/observes a behavior (Burton & Meezan, 2005). Furthermore, Burton and Meezan (2005) suggest that social learning theory assumes that once a behavior is observed, it is imprinted into memory and modeled by an individual, in this case a juvenile sex offender. According to Bandura (1986), patterns of verbalized thoughts and expressed emotions of the individual modeling the behavior are also incorporated into the process of modeling. Bandura argued that for observational learning to be successful, four processes have to be outlined including: attentional processes (how much significance is placed on both modeled event and person modeling behavior), retention processes (taking in information learned from the modeled event and amassing it into memory), production processes (re-enacting a witnessed and retained event) and motivational processes (incentive an individual receives from their behavior) (Burton & Meezan, 2005).

Hunter and Figueredo (2000) reported that when compared to non-perpetrating youth, juvenile sex offenders demonstrated lack of independence, self-confidence, self-satisfaction and assertiveness. Hudson and Ward (2000) focused on interpersonal competency as a variable in examining the utility of social learning theory. These authors suggested that cognitive distortions played a significant role in aiding juvenile sexual offenses and maintained that deficits in social competencies are instrumental to the causes and maintenance of sexually aggressive behavior.

Additional support for the application of social learning theory to juvenile sex offenders was provided by Ryan (1989), who proposed a link between a juvenile's past experience of sexual victimization and sexually aggressive behaviors. The author suggested learning of sexually aggressive behaviors was reinforced for a child who had been sexually victimized. According to the author, the child/adolescent became fixated on the traumatic event and then attempted to recreate the experience in what the author referred to as 'ritualistic patterns' (Ryan, 1989).

It therefore, makes sense that if a child's victimization was particularly severe and repeated with great frequency, this experience could lead to learned sexual offending behavior. Yet another study exploring theories of juvenile sexual offending reported findings that suggested non-abused children were at significantly lower risk of becoming delinquents or violent criminals compared to children who had experienced neglect and abuse (Widom,1989). In other words, a child may learn that inappropriate sexual behaviors are appropriate or normal, if these inappropriate behaviors are paired with positive reinforcements (Burton et al., 2000). Furthermore, these authors asserted that the perceived rewards may be psychological, social or physiological.

Throughout the literature, the role and function of family has been thought to be essential in understanding the influences on observational learning of juvenile sexual offenders and impact of treatment for these youth. Groth and Freeman-Longo (1979) proposed that a juvenile's family had a role in the sexual identity development and the development of a juvenile's understanding of sexually appropriate behavior. Some of the literature on juvenile sex offenders seemed to suggest that family violence was a predictor of juvenile sexual offending behaviors.

In spite of these findings, a study by Caputo, Frick, and Brodsky (1999) did not find empirical support that family violence is linked to juvenile sexual offending behaviors. It can therefore not be assumed that if a juvenile experiences problems ranging from witnessing domestic violence to sexual victimization at home, these problems could promote or lead that juvenile to commit sexual offenses. With this regard, it is essential to include information about a juvenile sex offender's family in the treatment process and in conceptualization of the behavior. It is also essential to note the need for additional research to find out what family risk factors are specifically linked to juvenile sexual offending.

Barbaree & Langton, (2006) conclude that a juvenile's chances of committing sexually aggressive behavior increase if that juvenile has experienced or observed sexual abuse. In fact, some researchers have argued for the incorporation of social learning theory into treatment interventions applied to juvenile sex offender populations based on the theory's ability to provide an explanation for sexual offending behaviors (Burton et al. 1997). For example, a treatment strategy incorporating social learning theory may include helping juveniles understand the behavioral processes that lead to

their sexual offending, thus aiding them in diverting or choosing substitute behaviors, or eliminating these behaviors altogether.

Weinrott (1996) reported that for each juvenile sex offender, there are great disparities in victim features, level of force, chronicity, range of sexual outlets (i.e., other paraphilias), arousal profiles and incentive. Other variables that increase the risk of juvenile sexual re-offending include incompleteness of sex offender treatment, a problematic parent-child relationship and attitudes in support of sexual offending (Righthand & Welch, 2005). In addition, factors such as family attitudes towards juvenile sex offenders, recidivism rates, levels of deviant behavior and lack of parental involvement or appropriate family interaction, have been found to be contributors of juvenile sexual re-offending behavior (CSOM, 2001). The next section reviews literature on juvenile sex offender recidivism rates.

Recidivism

In the same way that research on sex offender populations has been primarily focused on adult male perpetrators, past research on recidivism has also focused on adult male sex offenders. Most recidivism data available is collected from former prisoners and individuals in prison-based treatment programs (Barbaree, Seto, Langston & Peacock, 2001 ; Beech, Friendship, Erikson & Hanson, 2002; Dempster & Hart, 2002; Dobson & Konicek, 1998; Escarela, Francis & Soothill, 2000; Nunes, Firestone, Bradford, Greenbert & Broom, 2002; Prentky, Lee, Knight & Cerce, 1997). It has been noted in the literature that a major benefit of studying juvenile sex offender recidivism is to aid in informing intervention strategies relating to this population (CSOM, 2001). However, the literature has also noted that there are a variety of ways recidivism has

been measured in past research, lending to a striking variety of recidivism study results. These varied results impact treatment application as well as management of these youth.

Despite the variations in recidivism definitions employed by researchers, a common consensus is that recidivism constitutes a new conviction or a new adjudication in the case of juveniles (CSOM, 2001). It should be noted that recidivism measured through successive arrests yields higher recidivism rates for this population since the new charges are used as a criterion even though new charges do not necessarily mean a new conviction will be made. In past research, sex offender recidivism has been linked to predictors such as paraphilias, criminogenic factors such as, age at first offense and degree of violence in adult perpetrators (Hendriks & Bijleveld, 2008). Other studies have also found adult sexual offending to be linked to an early onset of sex offending behavior (Hanson & Bussiere, 1998). An unanswered question is whether the same factors that have been identified to influence adult sexual offending behaviors are similar for juvenile sex offenders (Hendriks & Bijleveld, 2008).

To date, there is minimal knowledge of the factors that are most predictive of recidivism rates for juvenile sex offenders. In general, researchers have examined: history of sexual abuse, history of violence, criminal history in the family and family variables (Burton et al., 2000). Moreover, some researchers have found support for family interactions as a large influence of adolescent criminal behaviors (Akers, 1973; Bandura & Walters, 1963; Sutherland & Cressey, 1974). All these influences are thought to have an impact on juvenile sex offender recidivism rates. Although there is

limited data on both juvenile and adult sexual recidivism rates, there is research that has found support for significantly low frequencies of sexual re-offenses. This goes against the popular notion that sex offenders, juvenile or adult, always recidivate sexually. In fact, research on this population has consistently revealed that sex offender recidivism rates are relatively low (Hanson & Morton-Bourgon, 2004).

For example, a review of 79 recidivism studies by Alexander (1999) showed support for the low rates of both juvenile and adult sexual offenses. The author noted that even while taking into consideration the rates of sexual crimes that go unreported, recidivism rates for adult sex offenders were 20.1% for treated adult rapists, 14.4% for adults identified as child molesters, and 7.1% (even lower than adult rates) for juveniles identified as sexual offenders. Compared to the recidivism rates for non-sexual offenders, these rates were considered to be significantly low (Alexander, 1999). Righthand and Welch (2001) noted that such findings provide a strong argument for the potential that juvenile sex offenders present in terms of receiving sex offender-specific treatment.

In line with literature supporting treatment of juvenile sex offenders, Hunter and Figueredo (1999) reported that adolescents going through treatment had lower levels of sexual maladjustment than juvenile sex offenders who dropped out of treatment programs. In other words, the authors were suggesting that the long-term sexual recidivism risk rates for juveniles who dropped out of sex offender treatment were higher than for those juveniles who successfully completed treatment. In a study that looked at juvenile sex offender data across, Ontario, Canada, Worling, (2001) found that within six years, only five percent of juveniles who went through sex offender

treatment were charged with a new sexual crime. The author reported that within those same six years, 18% of juvenile sex offenders who were not undergoing treatment were charged with subsequent sexual crimes.

In yet another study, Caldwell (2002) used reconviction as a recidivism measure and reported findings from a meta-analysis of 12 recidivism studies of juvenile sex offenders. The author found that recidivism rates ranged from 1.7% to 19.6%, with an overall percentage of juveniles who committed another sexual offense being 11% in a follow-up period of 24-120 months. Alexander's (1999) findings support Caldwell's report by indicating that no recidivism study has ever found recidivism rates higher than 40%. While there are increasing developments in juvenile sex offender research in terms of recidivism, there is still a dearth in the body of research as to which factors are most predictive of juvenile sex offender sexual recidivism. Furthermore, there is minimal research available with regards to juvenile sex offender recidivism rates after residential treatment at secure facilities (Miranda & Corcoran, 2000).

Further research is needed in the effort to effectively manage these youth both in treatment and in the community after termination from treatment at secure facilities. Moreover, it seems logical to follow-up termination with interventions such as outpatient treatment, specialized foster care or group homes among other programming that would ensure continuity of services provided to these juveniles, which in turn might go towards maintaining a stable environment and reduce chances of recidivism.

CHAPTER III

METHODOLOGY

This study made use of existing data on juvenile sex offenders who had been discharged from the juvenile sex offender program (JSOP) at Hennepin county home School in Minnetonka, Minnesota. The current chapter outlines the sampling strategy, data and the variables incorporated into the study including age, length of stay in the program, degree of offense, ERASOR risk assignment, past criminal offenses, number of adjudicated sexual charges at admission as well as information about discharge from JSOP. This research employed a logistic regression analysis to test three research predictions which will be outlined later in this chapter. In particular, the predictive capacity of family involvement in treatment and its impact on juvenile sex offender recidivism rates was examined. Additionally, information on each juvenile's family was collected including, the family environment, family status and family involvement in treatment.

Subjects

Data for the current study was obtained from a cluster of closed juvenile sex offender case files at Hennepin County Home School (HCHS) in Minnetonka, Minnesota, with dates of birth ranging from 1987 to 1995. Hennepin County Home School is a state-licensed residential treatment center for adolescent male and female sex offenders ages 13 through 19 who are committed by the Minnesota juvenile court

(HCHS, 2009). All subjects included in the sample were graduates of the Juvenile Sex Offender Program (JSOP) at HCHS, which is a state-certified sex offender-specific program targeting the behavior of boys who have been adjudicated for displaying inappropriate sexual behaviors and have adjudicated of committing sexual offenses (HCHS, 2009). Along with the sex offender-specific treatment, the juveniles also receive assessment services and treatment for all anti-social behaviors presented at admission (HCHS, 2009).

Procedure

Data was collected from Hennepin County Home School mostly by the primary investigator in this study with additional help from two research assistant volunteers from the Counseling and Community Services Department at the University of North Dakota. The principal investigator provided training on information or data to be collected from each individual case file, coding procedures, and data entry into the SPSS database. The coding procedure utilized involved assignment of non-identifying numbers to each subject case file. With regards to inter-rater reliability, the principal investigator and the research assistant mainly involved in the data collection process, collected data from five same case files and typed the data into the SPSS database. There were no discrepancies identified after this initial process.

Approval for the research proposal was granted by Hennepin County's Department of Community Corrections and Rehabilitation (DOCCR) and University of North Dakota's Institutional Review Board (IRB). There were approximately 130 closed case files available for review for this research, however, 53 of the closed case files lacked ERASOR risk scores, which was a key variable in the project. The files

pulled for data collection were arranged in boxes/sections by HCHS staff by year of birth, ranging from 1987-1995. In an effort to represent the key elements of this particular population, individual case files were randomly selected from each birth year section. Subjects included in the study were selected from files of adolescents who had 1) completed the JSOP and 2) had follow-up information (transition) until the end of the youth's juvenile probation period or the end of an extended juvenile jurisdiction (EJJ). Information gathered from the closed case files included the following:

- Subjects' year of birth
- Age at admission and age at discharge from JSOP
- Ethnicity
- Length of stay in JSOP
- Family environment
- Family and Living Status
- Subjective income information
- Information on family involvement (staffing and family therapy)
- ERASOR risk levels assigned at admission and at release from JSOP
- Risk Change
- Past non-sexual crimes and Current number of adjudicated sexual crimes
- Degree of offense at time of admission to HCHS
- Discharge information
- Information on recidivism

Recidivism was initially considered as any subsequent adjudication for a new sexual offense. However, based on the sample size and extremely low data on sexual

recidivism from this particular sample, recidivism was generalized to include both subsequent sexual re-offenses and new non-sexual criminal offenses. Recidivism information was obtained from records maintained by Hennepin County JSOP director and staff as well as from Hennepin County Juvenile Sex Offender Probation officers. The JSOP director was provided with a list of all case files and she collected information from counseling staff at the JSOP program and from probation officers and provided that information to the principal investigator.

Data management and analysis was performed using SPSS 18.0 (2011). The data collection process was carried out over the course of four months from December of 2010 to April of 2011.

Age

The age of each subject was measured in years. For each subject, information was collected on the subject's age at admission and age at discharge from the Juvenile Sex Offender Program (JSOP) at Hennepin County School (HCHS).

Ethnicity

Ethnicity of the subjects was divided into six categories and coded as one through six. The six categories included *African American (1)*, *Caucasian (2)*, *Native American (3)*, *Latino/Hispanic (4)*, *Mixed Race (5)* and *Asian (6)*.

Length of Stay in the Juvenile Sex Offender Program (JSOP)

Length of Stay (LOS) was defined as the amount of time each subject spent in the JSOP. The LOS was measured in months. In order to establish each subject's length of stay in the JSOP, the subject's date of admission was subtracted from the date they were released from the JSO program.

Family Environment

Family Environment was operationalized as either *high risk*, which was coded as 1 or *low risk*, which was coded as 2. These two levels of family environment were assigned by HCHS treatment staff at the time of a subject's admission to the juvenile sex offender program. *High risk* family environment designation was based on staff determination of the levels of family disruption recorded in each subject's court documents including but not limited to the following; parental/caregiver criminal history (gang involvement, prostitution, theft/burglary etc.), parental or caregiver history of substance abuse, history of family involvement with Child Protective Services (CPS) for a number of concerns, ranging from child neglect to loss of child custody, and lack of family involvement in juvenile's sex offender treatment. *Low risk* family environment designation was based on the opposite of the factors presented above as well as records of family history of involvement in treatment for each subject provided in court documents and previous treatment placement histories.

Family Status

Family Status was categorized into six groups including: *two-parent family homes*, which was coded as 1; *2-one-parent family homes*, which was assigned the number 2; *two-parent foster home*, which was coded as 3; *one-parent foster home*, coded as 4; *ward of state and other*, which were coded as 5 and 6 respectively. The last category, *other*, included the following subjects: those who were homeless at the time of admission to HCHS, those living on their own or those being raised by extended family members not necessarily their legal guardians, and those with deceased parent/caregiver figures.

Living Status

Living Status was recorded into five categories including (1) *Family Home*; (2) *Foster Home*; (3) *Group*; (4) *Detention Center*; (5) *Out of Home Placement*. The last category, '*Out of Home Placement*' included subjects who were listed as homeless or had no known place of residence at the time of their admission to HCHS.

Income Variable

Information on each subject's family income was retroactively removed from the archived case files. Therefore, information on family income was subjectively assessed as either *low income* or *other*, which was coded as *1* and *0* respectively. In families where the parental or caregiver figures were unemployed or receiving state subsidies; including but not limited to social security income benefits, food support or assistance, cash assistance, childcare assistance, medical assistance and other welfare benefits; were categorized under *low income* group. According to Minnesota definitions of low income, individuals who qualify to receive these welfare or state benefits would more than likely fall below the poverty line or in the low income bracket. Families without any income information were categorized in the '*other*' category; therefore, any results generated from this variable should not be taken as a true representation of the sample from HCHS or this population in general. The results should also be considered with caution.

Family Involvement in Treatment (Family Therapy)

At HCHS, there were three main opportunities provided for families or caregivers to be involved in a juvenile sex offender's treatment progress; 1) family staffing, which occurred once every quarter (every three months), 2) family therapy

sessions, which a family could attend on a bi-weekly basis and 3) family visitations, which a family could attend every week or more than once a week in a number of cases.

For the purpose of this study, information was collected on both family staffing and family therapy sessions, however only information on family therapy sessions was utilized to represent the family involvement variable. *Family Involvement* was therefore recorded as a percentage. This percentage was calculated as the total number of family therapy sessions a juvenile's parents/caregivers participated in over the total number of possible family therapy sessions the families/ caregivers could have attended while the juvenile was housed at JSOP. This number was then multiplied by a hundred and converted into a percentage.

The Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), RISK Assignment (Initial and at release) Scores and Risk Change

The Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), which was developed by Worling and Curwen (2001), is an empirically guided scale which estimates the risk of a sexual re-offense only for individuals aged 12-18 who have previously committed a sexual assault. There are five domains both static (unalterable factors such as age, criminal history or substance use and abuse) and dynamic (factors that can be changed such as access to victims or sexual fixation) that assess an individual's risk that are covered by the ERASOR (Worling & Curwen, 2001). The five scales include: (1) sexual interest, attitudes and behaviors, (2) historical sexual assaults, (3) psychosocial functioning, (4) family/environment functioning, and (5) treatment (Worling & Curwen, 2001). Additionally, there is

another category that, according to the authors, is used to assess short term risk and this was categorized as “other”.

In the Juvenile Sex Offender Program (JSOP), any subject admitted to Hennepin County Home School (HCHS) after the year 2000, when the ERASOR risk assessment instrument was developed, was administered the ERASOR at six month intervals, and their progress in the treatment program was recorded based on their scores. For this study, risk assessment scores on each subject were collected at admission and discharge from the JSOP. After ERASOR administration, which are categorized risk into three categories, *low, medium or high*, HCHS clinicians assigned their own risk levels based on ERASOR scores but grouped these into five categories. This was in an effort to capture additional risk information that they were privy to due to their detailed working relationships with the subjects. The clinician assigned categories included: (1) *Low*, (2) *Low to Moderate*, (3) *Moderate*, (4) *Moderate to High* and (5) *High*. For this study, clinician assigned ERASOR risk scores were utilized.

Finally, risk change scores, which were measured by subtracting clinician assigned ERASOR risk scores at the time of discharge from the initial ERASOR risk scores recorded at intake/ time of admission to the Juvenile Sex Offender Program (JSOP), were collected.

Past Non-Sexual Criminal Record and Current Number of Sexual Offenses

In each subject case file, there were court records containing information on criminal history including information on past adjudications for non-sexual crimes and in some instances, past sexual crimes. Data was collected on only those crimes that a subject was adjudicated for and was included as part of his criminal history. This was

recorded as numbers of past crime in the file. Court records also included the current sexual offense charges brought up against each subject. For the study, only the actual number of adjudicated sexual offenses was recorded for each subject.

Degree of Offense

Degree of offense for juveniles is defined in Minnesota as consisting of criminal sexual conduct (CSC) 1st degree=proof of sexual penetration, CSC 2nd degree= proof of sexual contact with elements the same as 1st degree, CSC 3rd degree=similar to criminal sexual contact 1 but lesser severity, CSC 4th degree= proof of sexual contact with elements the same as CSC 3rd degree and CSC 5th degree=proof of non-consensual sexual contact (Minnesota Statutes 609.341 – 609.3452). According to these categories, CSC 1 through CSC 4 are considered to be felony offenses under the Minnesota Statutes 609.341 to 609.3452, while CSC 5 is considered, under Minnesota statutes or law, to be a gross misdemeanor for the first conviction (Minnesota Statutes 609.341 – 609.3452).

Degree of offense information was collected at the time of admission to HCHS for each subject. The degree assignment was based on which crime a subject was adjudicated for in juvenile court. Note that while the data about the actual sexual offense was available in each subject's file, the adjudicating offense may have been the result of a negotiated plea bargain during the juvenile's sentencing at juvenile court. The subjects were assigned a degree or level of offense by the juvenile court and those records were forwarded to HCHS at the time of their admission.

Discharge

At the completion of treatment, each subject's progress was assessed and classified by HCHS clinicians and staff as either *successful*, which was coded as 1, or *unsuccessful*, which was coded as 2. These designations were based on the completion or incompleteness of all JSOP programming requirements. This categorization was adapted by this study to measure the discharge variable.

Recidivism

For this study recidivism was measured as two groups, subjects with no recidivism, sexual or non-sexual, and subjects with recidivism as well as the particular adjudicated crime committed. These were grouped into ten categories where (0) designated *no recidivism at all*, (1) *Sexual re-offense*, (2) *domestic assault*, (3) *Terroristic Threats*, (4) *Theft/burglary/swindling*, (5) *Failure to Report*, (6) *Dangerous Weapon/Firearm/Aggravated Robbery*, (7) *Aiding and Abetting*, (8) *Drug /substance related charges* and (9) *subjects who have re-offended with more than one non-sexual crimes*.

Research Predictions

Research has indicated that a juvenile's family plays a significant role in influencing the youth's beliefs, attitudes, prejudices, behavior, learning and development of attitudes (Dahlberg & Potter, 2001). With the family playing such a key role in the learning and developmental processes of a juvenile, and especially in the wake of increasing reports of juvenile-perpetrated sexual offenses as well as increasing efforts to provide insights into other factors that may contribute to juvenile sexual offending behaviors, it seems logical to address the impact of family involvement

variables on recidivism rates for youth in a sex-offender specific treatment program.

While there is limited knowledge of juvenile sex offender family involvement in treatment at secure facilities such as Hennepin County Home School, this dissertation has provided data on family involvement variables in an attempt to rectify the gap in the literature.

The current study explored the following predictions: 1) there would be a significant relationship between family involvement and recidivism 2) there would be a significant relationship between the five risk factors including; past criminal history, ERASOR risk level, degree of offense, family status, age and sexual re-offending and 3) higher family involvement in treatment would predict lower recidivism rates after completion of treatment.

CHAPTER IV

RESULTS

The purpose of this study is to contribute to the growing body of knowledge about juvenile male sex offenders, and to further understand the factors that contribute to juvenile sexual offending behaviors. Data analysis for individual variables is presented followed by the results of the three research predictions.

Ethnicity

An equal number of the participants in this sample were African American and White with percentages of 40.3% (n=31) and 40.3% (n=31) respectively. Other ethnicities included Hispanic/ Latino; 6.5% (n=5), Native Americans; 5.2% (n=4), Mixed Race; 5.2% (n=4), and Asian; 2.6% (n=2). Ethnic breakdown of the sample is summarized in *table 1* below:

Table 1. Ethnicity.

<i>JSO Ethnicities</i>	<i>n</i>	<i>%</i>
Caucasian/White	31	40.3%
African American	31	40.3%
Latino/Hispanic	5	6.5%
Native American	4	5.2%
Mixed Race	4	5.2%
Asian	2	2.6%

Note. Ethnicity was divided into six categories listed in the table above.

Length of Stay (LOS)

An initial analysis determined that the range of the length of stay (LOS) for the sample was zero to 34 months, with an average length of stay of 15.4 months (n=77). The longest LOS was identified for 15 and 16-year age groups; 1-30 months (15-year olds) and 1-34 months (16-year olds) with average LOS of 17.7 and 27.6 months respectively for these two age groups.

ERASOR Risk Level

ERASOR risk levels for each participant were recorded at the time of admission/intake and at release. Additionally, risk change was recorded for each participant in the sample. At the time of admission, one juvenile had no ERASOR risk levels recorded; no juveniles fell in the *low* risk category; 3.9% (n=3) of the juveniles fell into the *low to moderate* risk category; 15.6% (n=12) of the juveniles fell into the *moderate risk* category; 18.2% (n=14) of the juveniles fell into the *moderate to high* risk category and 61% (n=47) of the juveniles were identified as being in the *high* risk category. Subsequently, ERASOR risk levels at the time of release were recorded with the following outcomes; 22.1% (n=17) of the juveniles fell in the *low* risk category; 16.9% (n=13) juveniles fell in the *low to moderate* risk category; 18.2% (n=14) fell in the *moderate* risk category; 7.8% (n=6) fell in the *moderate to high* risk category; and 33.8% (n=26) juveniles fell in the *high* risk category.

Risk Change

In terms of risk change, 53.3% (n=41) of the subjects had either no risk change or had one point of reduction in risk scores from the time of admission to the time of

release, while 44.2% (n=34) of the subjects had risk change points ranging from two to four points of change.

Table 2 below presents the data on risk change.

Table 2. Risk Change (n = 77).

Reduction in risk rating from admission to discharge	<i>n</i>	Percentage of total
0	28	36.4%
1	13	16.9%
2	23	29.9%
3	6	7.8%
4	5	6.5%
Negative risk change	2	2.5%

Note. Risk Change was calculated as initial ERASOR risk scores minus the ERASOR risk scores at the time of release.

Table 3 provides a summary of the ranges and averages of the Length of Stay (LOS), as well as data on average ERASOR risk level for each age groups for the subjects included in the analysis.

Table 3. Length of Stay and ERASOR Risk Level Averages (n = 77).

Age at Admission	<i>n</i>	Range of Length of Stay	Average Length of Stay	Average Risk Level
12	3	2-13	8	3.7
13	8	9-23	14.1	3.75
14	11	5-23	15.4	3.09
15	19	1-30	17.7	2.47
16	19	5-34	17.6	3.05
17	6	10-19	15.8	3.5
18	10	6-19	10.1	3.6
19	1	14		

Note: LOS=Length of Stay (Measured in Months), RSKLVL=ERASOR Risk Level clinician assigned at release.

Family Environment, Family Status and Living Status

Of the 77 juvenile case files reviewed, 87% (n=67) of adjudicated juveniles came from high risk family environments and 13% (n=10) from low risk family environments. A total of 29.9% (n=23) of juveniles came from two parent households, 35.1 % (n=27) from one parent households, and 32.5 % (n=27) from other types of households (two parent foster, one parent foster, wards of state, other).

At the time of admission to HCHS, 66.2 % (n=51) of juveniles were living in their family homes; 7.8 % (n=6) were living in foster homes; 2.6% (n=2) of the juveniles were living in group homes; 3.9% (n=3) were being housed in other detention centers; 15.6% (n=12) were classified as being in out- of -home placements that were not listed as detention centers or group homes and 3.9% (n=3) were missing living status information.

Past Non-Sexual Criminal Record and Current Adjudicated Sexual Offenses

Past adjudicated criminal non sexual offenses for the juveniles in the juvenile sex offender program at HCHS ranged from zero to seven offenses (n=77). Of the 77 subjects' case files analyzed, 44.1% (n=34) had no past adjudicated criminal offenses, while 54.5% (n=42) had been adjudicated of one (11.7%; n=9), two (14.3%; n=11), three (12.9%; n=10), four (7.8%; n=6), five (3.9%; n=3), six (1.3%; n=1) and seven (2.6%; n=2) non-sexual criminal offenses respectively.

Data recorded reflected that the range of current adjudicated juvenile sex offenses ranged from one to five with most juveniles coming in with only one adjudicated sexual offense. Out of 77 case files, the current number of adjudicated

sexual offenses recorded were as follows: 76.6% (n=59) juveniles were admitted with one adjudicated sexual offense; 16.9% (n=13) were admitted with two adjudicated sexual offenses; 3.9% (n=3) were admitted with three adjudicated sexual offenses; 1.3% (n=1) was admitted with four adjudicated sexual offenses; and 1.3% (n=1) was admitted with five adjudicated sexual offenses.

Degree of Offense

The results showed that at the time of admission to the JSOP, 35.1% (n=27) of the total sample were adjudicated of criminal sexual conduct one (CSC1); 27.3% (n=21) were adjudicated of CSC2; 7.8% (n=6) were adjudicated of CSC3; 12.9% (n=10) were adjudicated of CSC4 and 16.9% (n=13) were adjudicated of CSC5.

Discharge

Data analysis done revealed that subjects who had successfully completed the juvenile sex offender treatment program (JSOP) made up 54.5% (n=42) of the total sample. Subjects who were unsuccessful in treatment or discharged before completing treatment in the JSOP made up 45.5% (n=35) of the total sample.

Recidivism

An analysis of recidivism rates for the juveniles who had been discharged, either successfully or unsuccessfully, from the JSOP was completed. This was done to determine the likelihood that a specific juvenile offender would commit subsequent sexual crimes. Of the 77 subjects analyzed, only 1.3% (n=1) was identified as having been adjudicated of a subsequent sexual offense after release from HCHS. Based on these findings, data on general recidivism (non-sexual re-offenses) was collected in addition to the sexual recidivism data.

The recidivism range was zero to nine, with 77.9% (n=60) of the juveniles in the sample having no subsequent re-offenses (sexual or non-sexual) after release. In terms of general rates of non-sexual recidivism, 5.2% (n=4) of the sample were adjudicated of domestic assault; 3.9% (n=3) were adjudicated of terroristic threats; 2.6% (n=2) were adjudicated of either theft/burglary/swindling; 3.9% (n=3) were adjudicated of failure to report; and 5.2% (n=4) were adjudicated of more than one non-sexual re-offense.

In conclusion, the following profile emerged about the juvenile male sex offenders at Hennepin County Home School. In general, the juveniles in this sample were either Caucasian or African American, in their mid-teens (15 to 16 years old). The results indicate that these juveniles most likely lived with a single biological parent in their family homes. The subjects were also more likely to be in the JSO program for a length of stay of 15.4 months and a criminal sexual conduct (CSC) one (35.1%; n=27) at the time of admission. The juveniles who participated in the JSO treatment program were more likely to have a high risk ERASOR score (61%; n=47), with at least one adjudicated sexual offense at the time of admission. Moreover, the subjects in this sample were most likely to have at least one prior adjudicated non-sexual criminal offenses on their record (54.5%; n=42). Finally, in terms of recidivism, the juvenile was unlikely to re-offend sexually after termination or completion of treatment from the JSO program at HCHS.

The three predictions explored in this study included: 1) there would be a significant relationship between family involvement and recidivism 2) there would be a significant relationship between the five risk factors consisting of past criminal

history, ERASOR risk level, degree of offense, family status, age and sexual re-offending, and 3) higher family involvement in treatment would predict lower recidivism rates after completion of treatment.

Analysis

Data collected from 77 study participants are summarized, with central tendency and variability indices, in Table 4 (See below): independent variables *family environment*, *past criminal record*, *degree of offense*, *family involvement in therapy*, *ERASOR risk at discharge*, *successful discharge*, and *recidivism* are ordinal data, and *age at admission* is interval/ratio data (though of a small range). All data analyses were conducted with SPSS (Chicago IL) Version 18 software. Skewness and kurtosis ratios (> 2 or < -2) indicated that family environment, past criminal record, family involvement in therapy, risk at discharge, risk at discharge, and recidivism variable data were not normally distributed.

Linear relationships among the variables are represented with Spearman *rho* rank correlations in Table 5's correlation matrix (*see table below*). Only three of the linear relationships were statistically significant: family involvement in therapy with risk at discharge, $rho = -.256$, $p=.025$, $rho^2=.065$; family involvement in therapy with successful discharge, $rho = -.384$, $p=.001$, $rho^2=.147$; and risk at discharge with risk at discharge, $rho = .670$, $p<.001$, $rho^2=.448$. None of the potential predictor variables were significantly linearly related to the prediction variable, recidivism.

Table 4. Summary of Results for the Predictor and Prediction Variables, n=77, with Central Tendency and Variability Indices: Mean and Standard Deviation for One Interval/Ration Data Variable and Modes and Mode Percentages for Ordinal Data Variables.

	Central Tendency, Variability	Min	Max	Skewness	Standard Error	Ratio	Kurtosis	Standard Error	Ratio
Age at Admission	15.3, 1.65 ^A	12	19	0.17	.274	.6	-.509	.541	-.9
Family Environment	1, 87% ^B	1	2	2.24	.274	8.1	3.125	.541	5.7
Past Criminal Record	0, 45% ^B	0	7	1.096	.274	4	.53	.541	.9
Degree of Offense	1, 35% ^B	1	5	.588	.274	2.1	-1.157	.541	-2.1
Family Involve in Tx/Therapy	0, 22% ^B	0	60	1.059	.274	3.8	1.345	.541	2.4
Risk at Discharge	5, 33% ^B	0	5	-.077	.274	-.2	-1.494	.541	-2.7
Successful Discharge	1, 54% ^B	1	2	.186	.274	.6	-2.018	.541	-3.7
Recidivism	0, 76% ^B	0	2	.550	.274	9.3	5.926	.541	10.9

^A mean, standard deviation

^B mode, mode frequency percent

Involve. denotes Involvement and Tx. denotes Treatment

Table 5. Linear Relationships among Predictor and Prediction Variables, n = 77, represented with Spearman rank correlations (first line) and probability (p) values (second line).

Variable							
1 Is age at admission							
	1 ^A	2	3	4	5	6	7
2 Family Environment	-.047 .685	--					
3 Past Criminal Record	.147 .202	-.116 .313	--				
4 Degree of Offense	-.038 .743	.153 .183	.084 .470	--			
5 Family Involve in Tx/Therapy	-.007 .949	.177 .124	-.152 .188	-.128 .266	--		
6 Risk at Discharge	.010 .930	-.056 .631	.144 .211	.039 .733	-.256 .025	--	
7 Successful Discharge	.005 .967	-.120 .299	.127 .272	.037 .753	-.384 .001	.670 .001	--
8 Recidivism	-.142 .217	-.037 .749	.103 .375	.094 .417	-.084 .467	.029 .804	.053 .645

^A age at admission

Tx denotes Treatment; Involve denotes Involvement

Discriminant Function Analysis

Initially, it was indicated on the dissertation proposal for this study that a discriminant function analysis was proposed; using the independent variables to predict *recidivism*. However, while predictor variables were independent of the prediction variable, *recidivism*, the distributions of the data for those variables did not pass

normality tests and did not meet the assumptions required for conducting a discriminant function analysis (without normality, variable variances were not tested for equality). Therefore, that strategy was modified in order to use another prediction analysis more suited for recidivism prediction.

Bi-nomial (Recidivism) Logistic Regression

Logistic regression analysis, which does not require the same assumptions be met, is a more robust alternative to discriminant function analysis (Mertler & Vannatta, 2010) and was determined an appropriate analysis to meet the objectives of this study. Since any prediction analysis could be biased by data outliers, a Mahalanobis distance analysis was used to identify significant outliers in the data set. Chi-square criteria value for the seven predictor variables was $X^2 = 24.322$ at $p < .001$. The highest Mahalanobis distance for this variable set was $X^2 = 19.68499$; thus, with no Mahalanobis distance X^2 values higher than the chi-square cut off value, no cases were eliminated from the prediction analysis.

For the first logistic regression analysis, the recidivism variable was made bi-variate, no recidivism versus all-types recidivism (sexual offense, domestic assault, theft/burglary/swindling, failure to report & more than one offense reported). Forward logistic regression, with settings to optimize the entry of predictor variables, was conducted to determine which predictor variables (age at admission, family environment, past non-sexual criminal record, degree of offense, family involvement in treatment, and successful/unsuccessful discharge) together predict the likelihood of either no recidivism or all-types recidivism for juvenile male sex offenders.

The regression procedure derived an intercept only model to predict recidivism and a final model that maximized the log likelihood of recidivism seen in the data. The ratio of -2 times the log likelihood of the intercept only model to -2 times the log likelihood of the full model was tested with chi-square to evaluate the predictive value of the full model. Regression results indicated that an overall model of six predictors was statistically reliable in predicting recidivism ($-2 \text{ Log Likelihood} = 78.016, X^2 (2) = 27.343, p < .0001$). The model correctly classified recidivism for 77.6% of the subjects; this prediction percentage was the same as the percentage of subjects that did not recidivate. Therefore, the model did not predict better than a guess that all subjects would not recidivate. Regression coefficients (B) for the bi-nomial logistic regression are presented in Table 6 below.

Table 6. Regression Coefficients for Last (sixth) Step of a Forward Bi-nomial Logistic Regression to Predict Recidivism.

Predictor variable	B	$Wald$	df	p	odds ratio
Age at Admission	-.102	2.247	1	.134	.903
Family Environment	.108	.017	1	.897	1.114
Past Non-Sexual Criminal Record	.133	.788	1	.375	1.142
Degree of Offense	.089	.219	1	.640	1.094
Family Involvement in Tx/Therapy	-.011	.175	1	.676	.989
Successful Discharge	-.215	.124	1	.724	.807

Note: The ‘risk at discharge’ variable did not meet the regression entry criteria; Tx. denotes treatment.

Wald chi-square test statistics, were utilized to test the null hypothesis that a regression coefficient estimate equals 0, (all $p > .1$; .1 as recommended by Mertler and Vannatta, (2010), who suggest that the Wald statistic is fairly conservative), indicated that none of the variables significantly predict recidivism. Odds ratios < 1 indicated that as the variable increases the probability of predicting recidivism decreases, whereas odds ratios > 1 indicated that as the variable increases the probability of predicting recidivism increases. For this study, the odds ratios between .8 and 1.2 indicate little change in the prediction of recidivism.

Multi-nomial (Recidivism) Logistic Regression

For this second logistic regression analysis, the recidivism variable was considered as a seven category variable (no recidivism and sexual offense, domestic assault, terroristic threats, theft/burglary/swindle, failure to register, or more than one offense recidivism). Forward logistic regression, with settings to optimize the entry of predictor variables, was conducted to determine which predictor variables (age at admission, family environment, past non-sexual criminal record, degree of offense, family involvement in treatment, risk level at discharge, and successful discharge) together predict the likelihood of no recidivism or any of the six categories of recidivism for juvenile male sex offenders.

The regression results indicated that an overall model of six predictors was statistically reliable in predicting all levels of recidivism ($-2 \text{ Log Likelihood} = 65.585$, $X^2(42) = 73.903$, $p < .002$) – i.e., at least one predictor regression coefficient is statistically different than 0. The model correctly classified recidivism for 85.7% of the subjects (*See Appendix C*). This prediction percentage was higher than the 77.6% of

subjects that did not recidivate. Regression coefficients (*B*) for the multi-nomial logistic regressions for each level of recidivism (except ‘more than one offense’ which served as the model’s reference category) are presented in Table 7 (*See Appendix A*). Wald statistics (all $p > .1$; .1 because the Wald statistic is fairly conservative) indicated that none of the variables in any of the models significantly predict recidivism.

Odds ratios < 1 indicated that as the variable increases, the probability of predicting failure to register increases with respect to the recidivism category of the odds ratio, whereas odds ratios > 1 indicated that as the variable increases, the probability of predicting the recidivism category increases with respect to failure to register. In this study, the odds ratios alone (not all between .8 and 1.2) showed promise for predicting recidivism but when considered with Wald statistics, they showed too much variability for meaningful prediction.

Multi-nomial (Recidivism) Logistic Regression with ‘No Recidivism’ as Reference Category

For this logistic regression analysis, the recidivism variable was considered as a seven category variable (no recidivism and sexual offense, domestic assault, terroristic threats, theft/burglary/swindle, failure to register, or more than one offense recidivism) and the level of no recidivism was designated as the reference category. Forward logistic regression, with settings to optimize the entry of predictor variables, was conducted to determine which predictor variables (age at admission, family environment, past non-sexual criminal record, degree of offense, family involvement in treatment, risk level at discharge, and successful discharge) together predict the likelihood of no recidivism or any of the six categories of recidivism for juvenile male sex offenders.

The regression results indicated that the best overall model (three predictors: past non-sexual criminal record, family involvement in treatment, and degree of offense) was not statistically reliable in predicting all levels of recidivism ($-2 \text{ Log Likelihood} = 115.675$, $X^2(18) = 23.813$, $p = .161$) and was not more reliable than the intercept only model which correctly classifies 77.9% of participants that did not recidivate. Regression coefficients (B) for the three variable multi-nomial logistic regressions for each level of recidivism (except 'no recidivism' which served as the model's reference category) are presented in Table 8 (*See Appendix B*). Wald statistics (most $p > .1$) indicated that none of the variables in any of the models significantly predicted recidivism; without an overall model statistical level of significance, past non-sexual criminal record to predict theft/burglary/swindle and family involvement in therapy to predict failure to register were only noted.

Odds ratios < 1 indicated that as the variable increased the probability of predicting no recidivism increased with respect to the recidivism category of the odds ratio, whereas, odds ratios > 1 indicated that as the variable increased the probability of predicting no recidivism increased with respect to the recidivism category of the odds ratio. Results showed that odds ratios alone (not all between .8 and 1.2) showed promise for predicting recidivism but when considered with Wald statistics showed too much variability for meaningful prediction.

CHAPTER V

DISCUSSION

This study examined the impact of several family variables on the rate of recidivism in juvenile male sex offenders in a secure facility. The predictions explored included: 1) relationships between family involvement and recidivism, 2) relationships between the five risk factors including past criminal history, ERASOR risk level, degree of offense, family status, age and sexual re-offending and 3) higher family involvement treatment variables predicting lower recidivism rates after completion of treatment.

Prediction I. There would be a significant relationship between family involvement and recidivism.

The result findings indicated that no significant relationship was found between family involvement in treatment and recidivism. An explanation for this finding could be that of the 77 subject case files analyzed at Hennepin County Home School (HCHS), there was only one (1.3%) subject identified as a sexual recidivist, since sexual recidivism was the original focus of this study. This sexual recidivism rate was much lower when compared to the current national norms which are at about four to five percent. These results go hand-in hand with the discovery in the literature review that in general, researchers report low recidivism rates for this population.

This outcome should be taken into consideration with caution because it is still not clear what leads to the low rates of sexual recidivism at HCHS. Until those factors are identified, we have to assume that there could be a number of factors impacting the results revealed.

Prediction II. There would be a significant relationship between the five risk factors including past criminal history, ERASOR risk level, degree of offense, family status, age and sexual re-offending.

Of the five risk factors included in the study, age at admission was the only variable found to have a significant relationship with juvenile sexual offending. Additionally, no family variables were found to significantly impact sexual recidivism. While we know that age is a predictor, we are at this time uncertain as to whether it is younger adolescents who enter treatment who end up recidivating after completion of treatment, or whether it is older adolescents who enter treatment who end up recidivating after completion of treatment. It should be noted that we are exploring the data and the results of those findings will be presented at the defense meeting.

Prediction III. Higher family involvement in treatment would predict lower recidivism rates after completion of treatment.

There was no significant relationship found in either direction of this prediction even though there is an acknowledgement in the literature that family involvement in treatment is an important factor in the treatment efforts for juvenile sex offenders. Based on the fact that past research has suggested that a juvenile's family has a significant impact on a juvenile's behaviors and attitudes, it would seem rational that family variables such as family status, living status, family involvement in treatment

and family environment would have a significant impact on juvenile sexual re-offense risk. However, this was not supported by the findings. These results may have been influenced by the problems with determining family involvement and the limitation of utilizing only therapy records at HCHS.

Hennepin County Home School provides two additional family involvement opportunities, family staffing and family visitations; however, records regarding these two events, in the subjects' files were incomplete and at times unavailable thus limiting the study to records of family therapy. These findings lend support to the research findings referencing the difficulty of involving families of juvenile sex offenders in treatment. Additional research is needed to identify exactly what aspects of family involvement found at HCHS affect recidivism in support of the idea that juvenile sex offenders can be successfully treated.

Population Characteristics

Ethnicity

An interesting finding was that of the 77 case files reviewed, there were equal numbers of African American (40.3%) and Caucasian (40.3%) subjects represented in this sample. There have been limited studies on ethnic breakdown in juvenile sex offenders. However, researchers generally agree that although African American youth are over-represented in the criminal justice system, Caucasian youth make up a larger percentage of juvenile sex offenders (Ryan & Lane 1997). While we know that subjects from these two groups were equally represented in the findings, it is not clear whether African American youth recidivate more than Caucasian youth or vice versa.

Risk Change

A considerable percentage (44.2%; n=34) of the subjects in this study had risk change ranging from one point to four points, suggesting that HCHS juvenile sex offender treatment program has some promising effects. Interestingly, there were two outliers in the data set that had negative risk change scores indicating that these two juveniles left the treatment program with higher risk scores than what they had initially entered treatment with.

Recidivism

Finally, the findings in this study revealed significantly low rates sexual recidivism (1.3%) and generally low rates of non-sexual recidivism (20.7%). This means that 77.9% of the total sample did not have any subsequent re-offenses (sexual or non-sexual) after release from treatment at HCHS. Once again, these findings appear to be very promising about the treatment aspects provided at HCHS, but still make it difficult to draw any firm conclusions on risk for re-offending for this population because there is no certainty about which variables significantly impact recidivism.

Study Limitations and Recommendations for Future Research

As evidenced by the small number of studies included in the juvenile sex offender evidence base, one limitation of this research study is the fact that data was obtained exclusively from an existing archival pool of records at a single secure treatment facility that accommodates juvenile sex offenders. Therefore, the generalizability of these findings to other juvenile offenders is limited. Furthermore, the use of existing data limited the information that could be collected from the data

files because of a number of factors including but not limited to incomplete files and partial information recorded in the subject files. For instance, in the case of the *family involvement* variable, information on *family visitations* and *staffing* meetings attended by juvenile's family or guardians had to be excluded because of insufficient, and/ or incomplete records.

The fact that the archival data applied in this study was retrieved from a single secure facility, HCHS, working with juvenile male sex offenders, posed yet another limitation. This is because there may have been factors that affected sexual recidivism rates, within the HCHS program, that may or may not be present at other treatment facilities catering to a similar population. Therefore, it may be beneficial for future studies to consider collecting data from other facilities similar to HCHS in the attempt to pinpoint factors that impact recidivism for juvenile male sex offenders. Moreover, while there are distinct advantages to utilizing archival data in research, archival records are subject to inaccuracies and changes in record-keeping procedures and this could be seen as a limitation to using this type of data.

These findings are also influenced by the lack of sufficient income or socioeconomic information for the subjects included in the study. In the literature, low socioeconomic (SES) status has historically been utilized as a determinant of offending behaviors in other adjudicated populations. However, SES information made available to this investigator was very minimal (SES was recorded as income estimation based on records of parent/caregiver receipt of State-funded subsidies including but not limited to welfare and social security income (SSI), and based on subjective judgment), thus limiting utility of these findings in relation to income. For

future research, collecting objective information on socioeconomic status may be helpful in determining what impact income/SES has on recidivism rates for juvenile sex offenders.

The utility of only one risk assessment instrument, the ERASOR, to assess risk for sexual re-offending, is likely to underestimate the instances of juvenile sexual re-offending behaviors recorded for the subjects in this dissertation. While the ERASOR was able to provide important information relevant to this population, there was limited information on general recidivism that did not involve sexual offenses since the ERASOR exclusively addresses risk for sexual offending. HCHS makes use of other risk assessment tools such as the JSOAP (sexual risk) and the YLSI (general delinquency). These assessment tools such as these could have been instrumental in providing additional information that could be important in determining factors impacting recidivism, sexual or non-sexual.

For the purpose of this study, data on juveniles from different counties, outside of Hennepin County and immediate surrounding counties was excluded even though their records were part of the original archival pool. Delimiting these juveniles from the data pool posed a limitation related to the overall treatment information collected from HCHS. In the future, it would be helpful to find a way to include the juveniles delimited from the study because these subjects may add to the knowledge base needed to identify risk factors for the whole JSO population. In addition to the delimited juveniles from other counties, subjects included in this study were all male sex offenders even though there is a female sex offender population and female sex offender treatment program at HCHS. To date, there are few studies that attend to

juvenile female sexual offenders as a population. Female sex offenders obviously have different treatment needs and their exclusion from the study could prove to be a disservice to the female clients and the HCHS sex offender treatment program as a whole. In the future, it may be useful to do gender comparisons with regards to treatment needs as a way to better provide for the different groups of juveniles receiving treatment at the HCHS facility.

Finally, there was no set timeline applied while collecting recidivism information for subjects at HCHS. After release, juveniles from HCHS were monitored for a transition period of 45-60 days. After that transition period, the juveniles' probation workers kept records of any additional instances of probation violations or new sexual crimes committed by these youth. For this study, recidivism information collected ranged from the time of release from HCHS to the time the juvenile reached age of majority (no longer considered a juvenile). Recidivism information, therefore, varied considerably for each of the study subjects depending on a number of factors including; age, offense type, and length of sentence among other variables. Thus, recidivism information for the JSO's in this dissertation may not accurately represent or address all instances of juvenile male sexual recidivism. Despite these weaknesses that may complicate the interpretation of these findings, there are several significant implications for juvenile sex offender research, treatment and management.

Policy Implications

The purpose of this dissertation project was to report on the impact of family involvement variables on juvenile sex offender recidivism rates. Literature findings

suggest that juvenile sex offenders discontinue their sexual offending once they reach adulthood (Righthand & Welch, 2001). As a result, the utility of labeling juveniles as sexual predators is questionable as the number juvenile sexual recidivists reported is very limited, at least in this particular setting. There are also reports in the literature that seem to suggest that juvenile sex offenders are significantly different from other juvenile delinquents and, therefore, pose more risk to re-offend as adults. While this research study did not explore recidivism rates into adulthood, the reported juvenile recidivism rates, both sexual and non-sexual, were significantly low. These findings go hand in hand with literature findings that rates for recidivism for juvenile sex offenders are generally low (Caldwell, 2002; Letourneau, & Miner, 2005; Zimring, 2004).

Further research is still needed in the effort to effectively manage these youth both in treatment and in the community after termination from treatment at secure facilities. Moreover, it seems logical to follow-up termination with interventions such as outpatient treatment, specialized foster care or group homes among other programming that would ensure continuity of services provided to these juveniles, which in turn might go towards maintaining a stable environment and reduce chances of recidivism. Ultimately, the idea is that policy-makers, practitioners and those involved with juvenile sexual offenders will be able to create policies that are more sensitive to the treatment needs for these youth, as well as become more aware of other numerous variables affecting this population.

Additionally, these findings suggest that intervention for juveniles, in this case, specific sex offender treatment, has some potential benefits possibly because of the

developmental stages that the juveniles are in that make them more amenable to treatment than adult sex offenders. According to Cauffman & Steinberg, 2000; Halpern, Udry, Campbell, & Suchindran, (1993); Levesque, (2000); Sisk & Foster, (2004); Sisk, (2006); Udry, (1988), cognitive changes in brain development, hormonal changes (puberty), peer relations and impulse control play important roles in an adolescent's decision making processes. The authors, therefore, suggested employing developmentally-sensitive treatment protocols to juvenile sex offenders to reduce or eliminate their risk to re-offend.

This study contributes to the growing body of research on the impact of family involvement variables on juvenile sex offender recidivism rates. Additionally, this study also adds to the growing body of knowledge aimed at conveying awareness about juvenile sex offenders as a population, as well as understanding what factors specifically contribute to risk of sexually offending. As mentioned earlier, better identification of variables contributing to juvenile sex offender risk of sexually re-offending may be instrumental in informing public policy and laws that impact this population. While it is evident that juvenile sex offenders have low sexual recidivism rates, it is less clear what factors are key to those findings. Further study into other variables impacting recidivism is imperative.

APPENDICES

APPENDIX A
REGRESSION COEFFICIENTS FOR EACH CATEGORY OF RECIDIVISM –
MORE THAN ONE OFFENSE

Table 7. Regression Coefficients for each Category of Recidivism (except for ‘more than one offense’ which served as the model’s reference category) from a Forward Multi-Nomial Logistic Regression to Predict Recidivism.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
No Recidivism	age at admission	.149	.157	1	.691	1.161
	family environment	11.66	.002	1	.969	1.1E5
	past non-sexual criminal record	-.184	.328	1	.567	.832
	degree of offense	-.414	1.083	1	.298	.661
	family involve in therapy	-.001	.000	1	.988	.999
	risk level at discharge	.599	1.336	1	.248	1.820
	successful discharge	-.118	.004	1	.947	.889
Sexual Offense	age at admission	2.897	.003	1	.958	18
	family environment	14.544	.001	1	.973	2.0E6

Table 7. cont.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Sexual Offense	Past non-sexual criminal record	-.983	.000	1	.995	.374
	Degree of offense	-14.806	.010	1	.922	.000
	Family involve in tx/therapy	-.246	.004	1	.953	.782
	Risk level at discharge	-8.639	.019	1	.892	.000
	Successful discharge	-30.442	.018	1	.894	.000
Domestic Assault	Age at admission	.103	.041	1	.839	1.109
	Family environment	12.433	.002	1	.967	2.5E5
	Past non-sexual criminal record	.300	.391	1	.532	1.350
	Degree of offense	-.194	.121	1	.728	.824
	Family involve in therapy	.069	.788	1	.375	1.072
	Risk level at discharge	-.086	.017	1	.897	.917
	Successful discharge	-3.753	2.090	1	.148	.023
Terroristic Threats	Age at admission	-.021	.002	1	.969	.979

Table 7. cont.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Terroristic Threats	Family environment	13.468	.002	1	.964	7.0E5
	Criminal record	-.282	.248	1	.619	.755
	Degree of offense	-.984	1.537	1	.215	.374
	Family involve in therapy	-.015	.022	1	.882	.985
	Risk level at discharge	6.653		1		775
	Successful discharge	.962	.170	1	.681	2.616
Theft/Burglary/Swindle	Age at admission	-25.227	.063	1	.801	.000
	Family environment	-159.070	.017	1	.896	.000
	Past non-sexual criminal record	7.634	.569	1	.451	2066
	Degree of offense	16.936	.008	1	.929	2.2E7
	Family involvement in tx/therapy	-6.223	.010	1	.922	.002
	Risk level at discharge	-10.702	.002	1	.966	.000
	Successful discharge	126.992	.004	1	.953	1.4E55
Failure to Register	Age at admission	-60.137	1.960	1	.162	.000

Table 7. cont.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Failure to Register	Family environment	37.252	.002	1	.969	1.5E16
	Past non-sexual criminal record	-108.841	1.947	1	.163	.000
	Degree of offense	-65.184	1.952	1	.162	.000
	Family involve in therapy	-24.126	1.923	1	.165	.000
	Risk level at discharge	3.535	.891	1	.345	34.3
	Successful discharge	-135.79	.230	1	.880	.000

Note: The 'more than one offense' level of recidivism served as the model's reference category.

Involve denotes Involvement

Tx denotes Treatment

APPENDIX B

REGRESSION COEFFICIENTS FOR EACH CATEGORY OF RECIDIVISM – NO RECIDIVISM

Table 8. Regression Coefficients for each Category of Recidivism (except for ‘no recidivism’ which served as the model’s reference category) from a Forward Multi-Nomial Logistic Regression to Predict Recidivism.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Sexual Offense	Past non-sexual criminal record	-14.257	.	1	.	6.4 E-7
	Degree of offense	-14.515	.	1	.	4.9 E-7
	Family involve in therapy	-.509	.869	1	.351	.601
Domestic Assault	Past non-sexual criminal record	.388	1.961	1	.161	1.475
	Degree of offense	.333	.904	1	.342	1.396
	Family involve in therapy	.025	.438	1	.508	1.026
Terroristic Threats	Past non-sexual criminal record	-.031	.007	1	.934	.969
	Degree of offense	-.490	.733	1	.392	.631
	Family involve in therapy	-.010	.031	1	.860	.990

Table 8. cont.

Prediction Variable	Predictor Variable	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Theft/Burglary/ Swindle	Past non-sexual criminal record	.911	3.601	1	.058	2.488
	Degree of offense	.140	.060	1	.807	1.150
	Family involve in therapy	.033	.182	1	.669	1.033
Failure to Register	Past non-sexual criminal record	-1.000	1.265	1	.261	.368
	Degree of offense	-.176	.151	1	.698	.839
	Family involve in therapy	-.246	2.706	1	.100	.782
More than One Offense Reported	Past non-sexual criminal record	.106	.130	1	.718	1.112
	Degree of offense	.237	.499	1	.480	1.268
	Family involve in therapy	.011	.074	1	.785	1.011

Note: The 'no recidivism' level of recidivism served as the model's reference category.

APPENDIX C
CLASSIFICATION

Table with Percentage of Subjects Classified as Recidivists.

Classification

Observed	Predicted							Percent Correct
	NO	Sexual Offense	Domestic Assault	Terroristic Threats	Theft/ Burglary/Swindle	Failure to Register (FTR)	More than one offense reported	
NO	60	0	0	0	0	0	0	100.0%
Sexual Offense	0	1	0	0	0	0	0	100.0%
Domestic Assault	4	0	0	0	0	0	0	.0%
Terroristic Threats	3	0	0	0	0	0	0	.0%
Theft/ Burglary/Swindle	0	0	0	0	2	0	0	100.0%
Failure to Register (FTR)	0	0	0	0	0	3	0	100.0%
More than one offense reported	4	0	0	0	0	0	0	.0%
Overall Percentage	92.2%	1.3%	.0%	.0%	2.6%	3.9%	.0%	85.7%

APPENDIX D
IRB APPROVAL

UNIVERSITY OF  NORTH DAKOTA

INSTITUTIONAL REVIEW BOARD
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August 27, 2010

Irene Guya-Allen
506 North 48th Street, Apt. 201
Grand Forks, ND 58203

Dear Ms. Guya-Allen:

We are pleased to inform you that your project titled, "The Impact of Family Involvement in Treatment on Recidivism Rates in Juvenile Male Sex Offenders" (IRB-201008-038) has been reviewed and approved by the University of North Dakota Institutional Review Board (IRB). The expiration date of this approval is December 15, 2011.

As principal investigator for a study involving human participants, you assume certain responsibilities to the University of North Dakota and the UND IRB. Specifically, any adverse events or departures from the protocol that occur must be reported to the IRB immediately. It is your obligation to inform the IRB in writing if you would like to change aspects of your approved project, prior to implementing such changes.

When your research, including data analysis, is completed, you must submit a Research Project Termination form to the IRB office so your file can be closed. A Termination form has been enclosed and is also available on the IRB website.

If you have any questions or concerns, please feel free to call me at (701) 777-4079 or e-mail michellebowles@mail.und.edu.

Sincerely,



Michelle L. Bowles, M.P.A.
IRB Coordinator

MLB/jje

Enclosures

REFERENCES

- Abram, K. M., Teplin, L. A., McClelland, G. M., & Dulcan, M. K. (2003). Co-morbid psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry*, *60*, 1097–1108.
- Ageton, S. S. (1983). *Sexual assault among adolescents*. Lexington, MA: Lexington Books.
- Alexander, M. (1999). Sexual offender treatment efficacy revisited. *Sexual Abuse: A Journal of Research and Treatment*, *11*, 101–116.
- Alexander, J., Barton, C., Gordon, D., Grotmeter, J., Hansson, K., Harrison, R., Mears, S., Mihalic, S., Parsons, B., Pugh, C., Schulman, S., Waldron, H., & Sexton, T. (1998). Functional family therapy: Blueprints for violence prevention, book three. In D. S. Elliott (Ed.), *Blueprints for Violence Prevention Series*. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.
- American Academy of Child & Adolescent Psychiatry (AACAP). (1999). *Practice Parameters for the Assessment and Treatment of Children and Adolescents Who Are Sexually Abusive of Others*, *38* (12), 55-76.
- Araji, S. (1997). *Sexually Aggressive Children: Coming to Understand Them*. Thousand Oaks, California: Sage Publications.

- Bagley, C., and Shewchuk-Dann, D. 1991. Characteristics of 60 children and adolescents who have a history of sexual assault against others: Evidence from a controlled study. *Journal of Child and Youth Care* (Fall Special Issue):43-52.
- Barbaree, H., Hudson, S., & Seto, M. (1993). *The juvenile sex offender*. New York, NY: Guilford.
- Barbaree, H., Marshall, W., & Hudson, S. (Eds.). (1993). *The juvenile sex offender*. New York, NY: Guilford.
- Barbaree, H. and Langton, C. (2006). 'The Effects of Child Sexual Abuse and Family Environment', in Barbaree, H. and Marshall, L. (eds) *The Juvenile Sex Offender, second edition*. London: The Guilford Press: 58 – 76.
- Becker, J. V. (1998). What we know about the characteristics and treatment of adolescents who have committed sexual offenses. *Child Maltreatment* 3, 317-329.
- Becker, J., & Abel, G. (1985). Methodological and ethical issues in evaluating and treating adolescent sex offenders. In E. M. Otey and G.D. Ryan (Eds.), *Adolescent sex offenders: Issues in Research and Treatment* (pp. 109-129), Department of Health and Human Services Publication, No. (ADM), 85-1396.
- Becker, J., Harris, C. & Sales, B. (1993). Juveniles who commit sex offenses: A critical review of research in sexual aggression in G.C.N. Hall R. Hirschman & J. Graham et al. (Eds.). *Issues in etiology and assessment, treatment and policy*. Washington, DC: Taylor & Francis.

- Becker, J. & Hunter, J. (1997). Understanding and treating child and adolescent sexual offenders. In T.H. Ollendick and R.J. Prinz (Eds.), *Advances in Clinical Child Psychology* 19. New York: Plenum Press.
- Becker J. V., Kaplan M. S. (1992). Research on adolescent sex offenders. In A. Burgess, (ed.), *Child trauma I: Issues and Research*. pp, 383-405. Garland Publishing, Inc., New York.
- Becker, J. V., Kaplan, M. S., & Tenke, C. E. (1992). The relationship of abuse history, Denial, and erectile response profiles of adolescent sexual perpetrators. *Behavior Therapy*, 23, 87-89.
- Becker, J.V., Stinson, JD., & Sales, B.D. (2008). Sex offending: Causal theories to inform research, prevention, and treatment. The law and public policy: Psychology and the social sciences (pp. 3-12). Washington, DC, US: American Psychological Association, xi, 278 pp.
- Bengis, (1989). The vicious circle: Working with the juvenile sexual offender. *Caring*, 5(4), 10.
- Bischof, G., Stith, S., & Whitney, M. L. (1995). Family environments of adolescent sex offenders and other juvenile delinquents. *Adolescence*, 30, 117
- Borduin, C. M., Henggeler, S. W., Blaske, D. M., & Stein, R. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34, 105-114.

- Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63, 569-578.
- Borum, R. (1996). Improving the clinical practice of violence risk assessment: Technology, guidelines and training. *American Psychologist*, 51(9), 945 - 956.
- Bourke, M., & Donohue, B. (1996). Assessment and treatment of juvenile sex offenders: An empirical review. *Journal of Child Sexual Abuse* 5, 47-70.
- Boyd, N.J., Hagan, M. and Cho, M.E. (2000). *Characteristics of Adolescent Sex Offenders: A review of the research. Journal of Aggression and Violent Behavior*, 5(2), 137-146.
- Burton, D.L., Nesmith, A.A., & Badten, L. (1997). Clinician's views on sexually aggressive children and their families: a theoretical explanation. *Child Abuse & Neglect*, 21, (2), 157-170.
- Burton, D.L., Smith-Darden, J.P., Levins, J., Fiske, J.A. & Freeman-Longo, R.E., (2000). *1996 Nationwide survey: a survey of treatment programs & models serving children with sexual behavior problems, adolescent sex offenders, and adult sex offenders*. Brandon, VT: Safer Society Press.
- Burton, D. & Smith-Darden, J. (2001). North American survey of sexual abuser treatment and models summary data. Brandon, VT: Safer Society Foundation, Inc.

- Burton, D. and Meezan, W. (2005) 'Revisiting Recent Research on Social Learning Theory as an Etiological Proposition for Sexually Abusive Male Adolescents', in Calder, M. (eds) *Children and Young People who Sexually Abuse - New Theory, Research and Practice*. Developments. Dorset: Russell House Publishing Ltd: 74 – 84
- Caldwell, M.F. (2002). What we do not know about juvenile sexual re-offense risk. *Child Maltreatment*, 7, 291-302.
- Caldwell, M. (2007) Sexual offense adjudication and recidivism among juvenile offenders. *Sexual Abuse: A Journal of Research and Treatment*, 19, 107 - 113.
- Camp, C.M., Salazar, L.F., DiClemente, R.J., & Wingwood, G.M. (2005). Adolescent sex offenders. In T.P. Gullotta & G.R. Adams (Eds.) *Handbook of adolescent behavioral problems: Evidence-based approaches to prevention and treatment* (pp. 487-502). New York: Springer Science & Business Media.
- Cauffman, E. & Steinberg, L.,(2000). (Im) maturity of Judgment in Adolescence: Why Adolescents may be less culpable than adults, 18 Behav. Sci. & L. 741.
- Center for Sex Offender Management (CSOM). (1999). Understanding Juvenile Sexual Offending Behavior: Emerging Research, Treatment Approaches and Management Practices. A Project of the Cities of Justice Programs, U.S. Department of Justice. (Online). Available: <http://www.csom.org/pubs/juvbrf10.pdf>. (August 2005).
- Center for Sex Offender Management (CSOM). (2001). *Community notification and education*. Silver Spring, MD: Author.

- Cleary, S. (2004). *Sex offenders and self-control: Explaining sexual violence*. New York: LFB Scholarly Publishing LLC.
- Dahlberg, L.L. & Potter, L.B. (2001). Youth Violence: Developmental Pathways and Prevention Challenges. *American Journal of Preventive Medicine*, 20 (1S), 3-14.
- Davis, G., & Leitenberg, H. (1987). Adolescent sex offenders. *Psychological Bulletin*, 101(3), 417-427.
- Dodge, K.A. (2008). Framing public policy and prevention of violence in American youths. *American Psychologist*, 573-590.
- Doren, D. M. (1998). Recidivism base rates, predictions of sex offender recidivism, and the 'sexual predator' commitment laws. *Behavioral Sciences & the Law*, 16(1), 97 - 114.
- Dougher, M.J. 1995. Clinical assessment of sex offenders. In *The Sex Offender: Vol. 1. Corrections, Treatment and Legal Practice*, edited by B.K. Schwartz and H.R. Cellini. Kingston, NJ: Civic Research Institute, pp. 11.2-11.13.
- Edwards, W., & Hensley, C. (2001). Contextualizing sex offender management legislation and policy: Evaluating the problem of latent consequences in community notification laws. *International Journal of Offender Therapy and Comparative Criminology*, 45(1), 83-101.
- Epperson, D., Kaul, J., & Huot, D. (1995). *Minnesota Sex Offender Screening Tool - Revised (MnSOST-R): Development, Performance, and Recommended Risk Level Cut Scores*. St. Paul, MN: Minnesota Department of Corrections.

- Fehrenbach, P., Smith, W., Monastersky, C., & Deisher, R. (1986). Adolescent sexual offenders: Offender and offense characteristics. *American Journal of Orthopsychiatry* 56, 225-233.
- Freeman-Longo, R.E., Bird, S. Stevenson, W.F. & Fiske, J.A. (1995). 1994 Nationwide survey of treatment programs & models: Serving abuse reactive children and adolescent & adult sexual offenders. Brandon, VT: Safer Society Press.
- Freeman-Longo, R.E. (1998). A Public Health Model for Sexual Abuse. In Whitman, C., Zimmerman, J., & Miller, T. (eds.) *Frontiers of Justice: Volume 2: Coddling or Common Cause*. Biddle Publishing Co. Brunswick, ME 04011.
- Freeman-Longo, R.E. & Blanchard, G.T. (1998). *Sexual Abuse in America: Epidemic of the 21st Century*. Brandon, VT: Safer Society Press.
- Freeman-Longo, R. E. (2002). *Myths and Facts About Sex Offenders*. Center For Sex Offender Management. Silver Spring, MD.
- Frierson, R., Dwyer, G., Bell, C. & Williamson, J. (2008). The mandatory registration of juvenile sex offenders and commitment of juveniles as sexually violent predators: Controversies and recommendations
- Furby, L., Weinrott, M. & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin*, 105, 3-30.
- Garfinkle, E. (2003). Coming of age in America: The misapplication of sex offender registration and community notification laws to juveniles. *California Law Review* 91, 163.

- Graves, R. B., Openshaw, D. K., Ascione, F. R. & Ericksen, S. C. (1996).
Demographic and parental characteristics of youthful sexual offenders.
International Journal of Offender Therapy and Comparative Criminology, 40,
300-317.
- Griffin, S., Williams, M., Hawkes, C., & Vizard, E. (1997). The Professional Carers'
Group: supporting group work for young sexual abusers. *Child Abuse and
Neglect*, 21, 681-690.
- Groth, A. (1977). The adolescent sexual offender and his prey. *International Journal
of Offender Therapy and Comparative Criminology*, 21, 249-254.
- Groth, A., & Longo, R. (1981). Juvenile Sex Offenders: Guidelines for assessment,
International Journal of Offender Therapy and Comparative Criminology 2 6,
235-24.
- Groth, A., Longo, R. & McFadin, B. (1982). Undetected recidivism among rapists and
child molesters. *Crime and Delinquency*, 28, 450-458.
- Grove, W. M., & Meehl, P. E. (1996). Comparative efficiency of informal
(subjective, impressionistic) and formal (mechanical, algorithmic) prediction
procedures: The clinical–statistical controversy. *Psychology, Public Policy,
and Law*, 2, 293–323.
- Hanson, R. K. and Bussiere, M.T. 1998. Predicting relapse: a meta-analysis of sexual
offender recidivism studies. *Journal of Consulting and Clinical Psychology*
66:348-62.

- Hanson, R. K. and Harris, A.J.R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior* 27:6-35.
- Hanson, R. K. and Harris, A.J.R. (2001). "A structured approach to evaluating change among sexual offenders," *Sexual Abuse: A Journal of Research and Treatment* 13 : 105-122.
- Hanson, R.K. & Harris, A.J.R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior*, 27, 6-35.
- Hanson, R.K. & Morton-Bourgon, K. (2004). *Predictors of Sexual Recidivism: An Updated Meta-Analysis (User Report No. 2004-02)*. Ottawa, Canada: Department of the Solicitor General of Canada.
- Harris, D.A., Mazerolle, P. & Knight, R. A. (2009). *Understanding Male Sexual Offending: A Comparison of General and Specialist Theories*, *Criminal Justice and Behavior*, Volume 36, Number 10, October 2009, 1051-1069.
- Halpern, C., Udry, R., Campbell, B., & Suchindran, C. (1993). Testosterone and pubertal development as predictors of sexual activity: A panel analysis of adolescent males. *Psychosomatic Medicine* 55, 436 – 447.
- Hendriks, J. & Bijleveld, C. (2008). Recidivism Among Juvenile Sex Offenders After Residential Treatment. *Journal of Sexual Aggression*, 14, 19-32.
- Hudson, S.M., & Ward, T. (2000). Interpersonal competency in sex offenders. *Behavior Modification*, 24, (4), 494-527.

- Hunter, J.A., & Figueredo, A.J. (2000). The influence of personality and history of sexual victimization in the prediction of juvenile perpetrated child molestation. *Behavior Modification*, 24, (2), 241-263.
- Hunter, J. A., & Becker, J. V. (1994). The role of deviant sexual arousal in juvenile sexual offending. *Criminal Justice and Behavior*, 21, 132-149.
- Hunter, J.A. (1999). Adolescent Sex Offenders (pp. 117-130). In V.B. Van Hasselt & M. Hersen, *Handbook of Psychological Approaches with Violent Offenders*. Plenum: New York.
- Hunter, J. A., & Figueredo, A. J. (1999). Factors associated with treatment compliance in a population of juvenile sexual offenders. *Sexual Abuse: A Journal of Research & Treatment*, 11, 49-67.
- Hunter, J. (2000). Understanding juvenile sex offenders: research findings & guidelines for effective management & treatment. *Juvenile Justice Fact Sheet*. Charlottesville, VA: Institute of Law, Psychiatry, & Public Policy, UVA.
- Hunter, J. & Longo, R.E. (2004). Relapse Prevention with Juvenile Sexual Abusers: A Holistic/Integrated Approach. In G. O'Reilly & W. Marshall, A. Carr, & R. Beckett (Eds.), *Brunner-Routledge*.
- Hsu, L.K.G. and Starzynski, J., (1990). Adolescent rapists and adolescent child sexual assaulters. *International Journal of Offender Therapy and Comparative Criminology* 34, pp. 23–31.
- Immarigeon, Russ. (1996). "Families know best." *State Government News*. 39: 22-4.

- Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act 42 USC Sec. 1407, 1994 Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act 42 USC Sec. 1407 (1994).
- Kahn, T. J., & Lafond, M. A. (1988). Treatment of the adolescent sexual offender. *Child and Adolescent Social Work, 5*, 135-148.
- Klein, A. & Tabachnick, J (2002). Finding ways to effectively prevent sexual abuse by youth. *The Prevention Researcher*. Vol. # (No 4. pp. 8-10.
- Knight, R., & Prentky, R. (1990). Classifying sexual offenders: The development and corroboration of taxonomic models. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault* (pp. 23-52). New York: Plenum Press.
- Knight, R.A., and Prentky, R.A. (1993). Exploring characteristics for classifying juvenile sex offenders. In *The Juvenile Sex Offender*, edited by H.E. Barbaree, W.L. Marshall, and S.M. Hudson. New York, NY: Guilford Press, pp. 45-83.
- Knopp, F. H. (1982). Remedial intervention in adolescent sex offenses: Nine program descriptions. Orwell, VT: Safer Society Press.
- Kraemer, B. D., Spielman, C. R., & Salisbury, S. B. (1995). Juvenile sex offending psychometric assessment. In B. K. Schwartz & H. T. Cellini (Eds.). *The sex offender: Vol. 1. Corrections, treatment and legal practice* (pp. 11.1-11.13). Kingston, NJ: Civic Research Institute.
- Langan, P.A. & Levin, D.J. (2002). *Recidivism of prisoners released in 1994*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

- Langevin, R. (1990). 'Sexual anomalies and the brain' in W. Marshall, D. R. Laws and H. R. Barbaree (eds) *Handbook of Sexual Assault: Issues, Theories and Treatment of the Offender*, New York: Plenum
- Laws, D. R., & Marshall, W. L. (1990). A conditioning theory of the etiology and maintenance of deviant sexual preference and behavior. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offender* (pp. 209-229). New York: Plenum Press.
- Lewis, D. O.; Shankok, S. S.; Pincus, J. H. (1979). Juvenile male sexual assaulters. *The American Journal of Psychiatry*, 136(9), Sep, 1979. pp. 1194-1196.
- Levenson, J. S. (2003). Community notification and civil commitment of sex offenders: A review of policies designed to combat sexual violence. *Journal of Child Sexual Abuse*, 12(3/4), 17 - 52.
- Levenson, J., & Cotter, L. (2005a). The impact of sex offender residence restrictions: 1,000 feet from danger or one step from absurd? *International Journal of Offender Therapy and Comparative Criminology*, 49(2), 168 - 178.
- Characteristics of Juvenile Sexual Recidivism 26
- Levenson, J. S., & Cotter, L. (2005b). The impact of Megan's Law on sex offender reintegration. *Journal of Contemporary Criminal Justice*, 21(1), 49 - 66.
- Levenson, J., Brannon, Y., Fortney, T. & Baker, J. (2007). Public perceptions about sex offenders and community protection policies. *Analyses of Social Issues and Public Policy*, 7, 1-25.

- Levenson, J.S, D'Amora, D., & Hern, A. (2007). Megan's Law and its Impact on Community Re-entry for Sex Offenders. *Behavioral Sciences and the Law* (25), 587-602.
- Letourneau, E.J., & Miner, M.H. (2005). Juvenile Sex Offenders: A Case Against the Legal and Clinical Status Quo. *Sexual Abuse: A Journal of Research and Treatment*, 17, 293-312.
- Lewis, D., Shankok, S. & Pincus, J., (1979). Juvenile sexual assaulters. *American Journal of Psychiatry* 136, 1194–1196.
- Longo, R.E. (2003). Emerging Issues, Policy Changes, and the Future of Treating Children with Sexual Behavior Problems. In R.A. Prentky, E.S. Janus, & M.C. Seto (eds.) *Sexually coercive behavior: understanding and management*. Annals of the New York Academy of Sciences. Vol. 989.
- Longo, R.E. & Blanchard, G.T. (2002). Prevention of sexual offending by among adolescents. *The Prevention Researcher*. Vol. 9, No 4. pp. 5-8.
- Lussier, P. (2005). The criminal activity of sexual offenders in adulthood: Revisiting the specialization debate. *Sexual Abuse: A Journal of Research and Treatment*, 17, 269-292
- Megan's Law 42 USC Sec. 13701, 1996 Megan's Law 42 USC Sec. 13701 (1996).
- Miller, B. L., Cummings, J. L., McIntyre, H., Ebers, G., & Grode, M. (1986). Hypersexuality or altered sexual preference following brain injury. *Journal of Neurology, Neurosurgery and Psychiatry*, 49, 867-873.

- Miner, M.H., Siekert, G.P., and Ackland, M.A. (1997). *Evaluation: Juvenile Sex Offender Treatment Program, Minnesota Correctional Facility—Sauk Centre*. Final report Biennium 1995-1997. Minneapolis, MN: University of Minnesota, Department of Family Practice and Community Health, Program in Human Sexuality.
- Miner, M.H. (2002). Factors associated with recidivism in juveniles: An analysis of serious juvenile sex offenders, *Journal of Research in Crime and Delinquency*, 39, 421-436
- Minnesota Statutes (2002). Sections 609.341 through section 609.352
- Miranda, A. O. & Corcoran, C. L. (2000). Comparison of perpetration characteristics between male juvenile and adult sexual offenders: Preliminary results. *Sexual Abuse: Journal of Research and treatment*, 12 (3), 179-188.
- Monahan, J., & Steadman, H. (1994). *Violence and Mental Disorders: Developments in Risk Assessment*. Chicago, IL: University of Chicago Press.
- Monastersky, C., & Smith, W. (1985). Juvenile sexual offenders: A family systems paradigm. In E. M. Otey, & G. D. Ryan (Eds.), *Adolescent sex offenders: Issues in research and treatment* (pp. 164-175). Rockville, MD: USDHHS.
- Morenz, B., and Becker, J.V. 1995. The treatment of youthful sexual offenders. *Applied and Preventive Psychology* 4(4):247-256.
- National Center on Sexual Behavior of Youth (July 2003). *What Research Shows About Adolescent Sex Offenders*. NCSBY Fact Sheet No. 1.
- National Center on Sexual Behavior of Youth NCSBY (July 2003). *Adolescent Sex Offenders: Common Misconceptions vs. Current Evidence*. Fact Sheet No. 3.

- Parkinson, P., Shrimpton, S., Oates, R., Swanston, H., & O'Toole, B. (2004). Nonsex offences committed by child molesters: Findings from a longitudinal study. *International Journal of Offender Therapy and Comparative Criminology*, 48, 28-39.
- Petersilla, J. (2003). *When prisoners come home: Parole and prisoner re-entry*. New York: Oxford University Press.
- Pithers, G. A., Busconi, W. D., & Houchens, A. P. (1999). Developmental and etiological characteristics of children with sexual behavior problems: *Treatment implications. Child Abuse and Neglect*, 23 (6), 601-621.
- Prentky, R.A., Lee, A., Knight, R., & Cerce, D. (1997). Recidivism rates among child molesters and rapists: A methodological analysis. *Law and Human Behavior* 21 :635-659.
- Prentky, R., Harris, B., Frizzell, K., and Righthand, S. 2000. An actuarial procedure for assessing risk in juvenile sex offenders. *Sexual Abuse: A Journal of Research and Treatment* 12(2):71-93.
- Raine, A. (1993). The psychopathology of crime. *Criminal Behavior as a Clinical Disorder*. New York: Academic Press
- Rasmussen, L. (1999). Factors related to recidivism among juvenile sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 11, (1), 69-85.
- Redlich, A. D. (2001). Community notification: Perceptions of its effectiveness in preventing child sexual abuse. *Journal of Child Sexual Abuse*, 10, 91-116.
- Righthand, S. (2004). Characteristics of youth who sexually offend. *Journal of child sexual abuse*, 13, 1532.

- Righthand, S., & Welch, C. (2001). *Juveniles who have sexually offended*.
Washington, DC: Office of Juvenile Justice & Delinquency Prevention.
- Righthand, S. & Welch, C. (2005). Characteristics of youth who sexually offend.
Journal of Child Sexual Abuse, 13, 15-32.
- Rosen, L., 1969. Matriarchy and lower class Negro male delinquency. *Social Problems 17*, 175–189.
- Ryan, G. (1988). The juvenile sexual offender: A question of diagnosis. Uniform DataCollection System, Data on 1000 Juvenile Offenders, presented April 1988: NationalSymposium on Child Victimization, Anaheim, California. Cited in Ryan, G. D. & Lane, S. L., Eds. (1991), *Juvenile Sexual Offending*. Lexington, MA: Lexington Books.
- Ryan, G. (1989). Victim to victimizer: Rethinking victim treatment. *Journal of Interpersonal Violence, 4*, 325–341
- Ryan, G. & Lane. (1997). *Juvenile sexual offending: Cause, consequences, and correction*. San Francisco: Jossey-Bass.
- Ryan, G., Lane, S., Davis, J. & Isaac, C. (1987). Adolescent Sex Offenders. *Child Abuse and Neglect: The International Journal*.
- Salter, A. (2003). *Predators, Pedophiles, Rapists, and Other Sex Offenders: Who They Are, How They Operate, and How We Can Protect Ourselves and Our Children*. New York: Basic Books.
- Shaw, J.A. (1999). Practice parameters for the assessment and treatment of children and adolescents who are sexually abusive of others. *Journal of American Academy of Child and Adolescent Psychiatry, 38*, (12), (Suppl.), 55S-76S.

- Simon, L. (2000). An examination of the assumptions of specialization, mental disorder, and dangerousness in sex offenders. *Behavioral Sciences and the Law, 18*, 275-308
- Sisk, C. L., & Foster, D. L. (2004). The neural basis of puberty and adolescence. *Nature Neuroscience, 7*, 1040-1047.
- Sisk, C.L. (2006). New insights into the neurobiology of sexual maturation. *Sex and Relationship Therapy, 21*, 5-14
- Snyder, H.M., & Sickmund, M. (1999). *Juvenile offenders and victims: 1999 national report*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention. Mich. Comp. Law 712 A.2 (a) (1).
- Stevenson, H.C., and Wimberley, R. (1990). Assessment of treatment impact of sexually aggressive youth. *Journal of Offender Counseling, Services and Rehabilitation* 15 (2):55-68.
- Stetson School (2007). Juvenile Risk Assessment Tool for Re-Offending.
- Tewksbury, R. (2002). Validity and utility of the Kentucky sex offender registry. *Federal Probation, 66*(1), 21-26.
- Tewksbury, R. (2005). Collateral consequences of sex offender registration. *Journal of Contemporary Criminal Justice, 21*(1), 67-82.
- Thornberry, T. P., Smith, C., Rivera, C., Huizinga, D. and Stouthamer-Loeber, M. (1999). "Family Disruption and Delinquency." *Juvenile Justice Bulletin*. 1-7.
- Trivits, L. & Reppucci, D. (2002). Application of Megan's Law to Juveniles. *American Psychologist, 57*, 690-704.

- Udry, R. (1988). Biological predispositions and social control in adolescent sexual behavior. *American Sociological Review*, 53, 709 – 722.
- Van Ness, S. R. (1984). Rape as instrumental violence: A study of youth offenders. *Journal of Counseling, Services and Rehabilitation*, 9, 161–170.
- Veneziano, C., Veneziano, L., & Legrand, S. (2000). The relationship between adolescent sex offender behaviors and victim characteristics with prior victimization. *Journal of Interpersonal Violence*, 15, 363-374.
- Vitacco, M., Caldwell, M., Ryba, N., Malesky, A. & Kurus, S. (2009). Assessing risk in adolescent sexual offenders: recommendations for clinical practice. *Journal of Behavioral Sciences and the Law*, 27, 929-940. John Wiley & Sons, Ltd. United States
- Weinrott, M. (1996). *Juvenile Sexual Aggression: A Critical Review*. Center for the Study and Prevention of Violence, Institute of Behavioral Science. University of Colorado, Boulder
- Welchans, S. (2005). Megan's Law: Evaluations of sexual offender registries. *Criminal Justice Policy Review*, 16(2), 123-140.
- Wells, L.E., and Rankin, J.H. (1991). Families and delinquency: A meta-analysis of the impact of broken homes. *Social Problems* 38(1):71–83.
- Widom, C. (1989). Does violence beget violence? A critical examination of the literature *Psychological Bulletin*, 106, 3–28.

- Worling, J. R. (1998). Adolescent sexual offender treatment at the SAFE-T Program. In W. L. Marshall, Y. M. Fernandez, S. M. Hudson, & T. Ward (Eds.), *Sourcebook of treatment programs for sexual offenders* (pp. 353–365). New York: Plenum Press.
- Worling, J. R. and Curwen, T. (1998). Adolescent Sexual Offender recidivism: success of specialized treatment and implication for risk prediction. *Journal of Child abuse and neglect*, 24 (7), 965-982.
- Worling, J. R. & Curwen, T. (2000). Adolescent sexual offender recidivism: Success of specialized treatment and implications for risk prediction. *Child Abuse and Neglect*, 24, 965-982.
- Wright, K., N. & Wright, K. E. (1994). *Family Life, Delinquency, and Crime: A Policymakers Guide*. Research Summary. Washington DC: OJJDP. 4-21.
- Zimring, F. E. (2004). *An American Tragedy: Legal Responses to Adolescent Sexual Offending*. Chicago: University of Chicago Press.