Differentiating Two Types of Juvenile Sex Offenders: Generalists versus Specialists

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Differentiating Two Types of Juvenile Sex Offenders: Generalists versus Specialists

By

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I would like to dedicate this work to my family and friends who have supported me throughout my educational and career endeavors. I want to especially thank Dr. Nancy Wonder for her mentorship and guidance throughout my graduate career. Additionally, I would like to extend my gratitude to my dear friends Abede, Desaree, Brooke, Samara, and Joel for their continual support and assistance throughout this process. Lastly, none of this would have been possible without my parents who have always supported me in pursuing my goals.
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TABLE OF CONTENTS

List of Tables vii
Abstract viii

1. INTRODUCTION 1

The Statement of the Problem 1
Theoretical Background 3
Purpose of Study 4
Research Questions and Hypotheses 5
Definition of Terms 7

2. LITERATURE REVIEW 8

Juvenile Delinquency 8
Juvenile Sexual Offending 9
General Delinquency Risk Factors 12
Risk Factors for Sexual Recidivism 13
Protective Factors 16
Risk Assessment of Juvenile Sexual Offenders 16
Characteristics of Juvenile Sexual Offenders 17
Personality Studies of Juvenile Sexual Offenders 21
Solving the Problem of Heterogeneity 24
Etiological Theories of Sexual Offending 29
Summary of Literature 36

3. METHODOLOGY 40

Participants 40
Procedures 41
Instruments and Scoring 45
Limitations 47

4. RESULTS 48

Descriptive Statistics 48
Screening for Potential Covariates 51
Research Question 1 55
Research Question 2 58

5. SUMMARY AND DISCUSSION 60

Summary of Findings 60
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1:</td>
<td>Descriptive Statistics for Participants by Group</td>
<td>50</td>
</tr>
<tr>
<td>Table 2:</td>
<td>Means and Standard Deviations of Age by Group</td>
<td>52</td>
</tr>
<tr>
<td>Table 3:</td>
<td>Independent Samples T-test by CD Criteria</td>
<td>52</td>
</tr>
<tr>
<td>Table 4:</td>
<td>Observed and Expected Frequencies for ADHD by CD Criteria</td>
<td>53</td>
</tr>
<tr>
<td>Table 5:</td>
<td>Observed and Expected Frequencies for Held Back/Failed by CD Criteria</td>
<td>54</td>
</tr>
<tr>
<td>Table 6:</td>
<td>Observed and Expected Frequencies for ESE/SLD by CD Criteria</td>
<td>54</td>
</tr>
<tr>
<td>Table 7:</td>
<td>Chi-Square for CD Analysis</td>
<td>54</td>
</tr>
<tr>
<td>Table 8:</td>
<td>Tolerance and Variance Inflation Factors</td>
<td>56</td>
</tr>
<tr>
<td>Table 9:</td>
<td>Classification Table for Model 1 (Covariates Only)</td>
<td>57</td>
</tr>
<tr>
<td>Table 10:</td>
<td>Classification Table for Model 2 (Full Model)</td>
<td>57</td>
</tr>
<tr>
<td>Table 11:</td>
<td>Regression Coefficients for Research Question 2</td>
<td>59</td>
</tr>
</tbody>
</table>
ABSTRACT

The purpose of the present study is to explore various risk factors which may potentially be used to predict and distinguish two subtypes of juvenile sexual offenders (JSOs): (1) juvenile sexual offenders with a history of antisocial behavior (JSO-generalists) and (2) juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). The overall goal of this study was to fill a gap in the research by providing empirical support for two different developmental pathways that may lead to juvenile sexual problem behaviors. Although several theories have been proposed, the etiology and developmental pathways of sexual offending behavior in juveniles remains unclear (Parks & Bard, 2006). Consequently, predictive factors and differences among subgroups of juvenile sexual offenders remain inconclusive.

Logistic Regression was used to examine the relationship between the categorical dependent variable of history of antisocial behavior (present or absent) and several risk factors associated with sexual recidivism. Potential covariates were screened and entered into the model, if significant. Descriptive statistics were also used to describe background characteristics. The developmental model of sexual aggression proposed by Seto and Barbaree (1997) describes at least two types of sex offenders; the first type described as persistently antisocial with the second type being described as less antisocial, but more likely to demonstrate deviant sexual interests. In addition to providing empirical support for different developmental pathways of sexual aggression, identifying different risk factors among these two types of offenders will provide significant implications for the treatment and assessment of juvenile sexual offenders.

The current study sought to answer the following research questions:

1) Is there an overall relationship between the outcome variable--group membership based on history of antisocial behavior (JSO-specialist vs. JSO-generalist) and the predictor variables: single-parent home, use of physical force or threats, child victim, male victim, sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse, after controlling for history of ADHD, failed/held back status, and ESE/SLD class enrollment?

2) Which predictor variable(s) predict group membership based on history of antisocial behavior? If significant, how does the predictor variable(s) affect group membership?
Based on a review of the literature, it was predicted the risk factors: use of threats or force during the offense, lack of empathy, lack of remorse, exposure or experience of domestic violence, and single-parent home would be significant predictors of JSO-generalist group membership. Where as, it was predicted that the risk factors of sexual victimization history, having a male victim, and having a child victim, would be significant predictors of JSO-specialist group membership. History of ADHD (Attention Deficit Hyperactivity Disorder), held back/failed status, and enrollment in ESE or SLD classes were screened as potential confounds based on prior research linking ADHD and academic difficulties with antisocial behavior (e.g., Lahey & Loeber, 1997). In addition, it was suspected that group differences in intellectual ability could potentially impact the variables of lack of empathy and lack of remorse due to differences in stages of moral development (refer to: Kohlberg, 1981; Piaget, 1983).

The omnibus model was a significant predictor of group membership (JSO-specialist vs. JSO-generalist), $\chi^2(11) = 37.03$, $R^2 = .51$, $p < .01$. However, there was not a significant increase in $R^2$ from model 1 to model 2, $\chi^2(8) = 12.01$, $\Delta R^2 = .14$, $p > .05$. In other words, the predictors were unable to significantly increase the prediction beyond what was already accounted for by the covariates. Looking at the individual impact of each of the predictors, the coefficients indicate that lack of empathy was a significant positive predictor of history of antisocial behavior after controlling for ADHD, ever held back/failed status and enrollment in ESE/SLD classes, $\beta = 2.02$, $p < .05$. 


CHAPTER 1:
INTRODUCTION

Statement of the Problem

Social Problem

Adolescent sexual offending is a serious and widespread problem. Statistics provided by the U.S. Department of Justice indicated that in 2003, juveniles committed 4,240 forcible rapes and 18,300 sex offenses (not including rape and prostitution) (Snyder & Sickmund, 2006). Overall, 23% of sexual assault offenders were under the age of 18 (Snyder & Sickmund, 2006). In a survey of high school students, nearly half (48%) of the females reported experiencing sexual aggression, and one-third (34%) of males admitted to committing this type of offending (Maxwell, Robinson & Post, 2003). In a panel study of about 77,000 people age 12 and older from a nationally representative sample, 14-year-olds accounted for the greatest proportion of both sexual assault victims and offenders (Snyder & Sickmund, 1999).

In a review of research on sexual offenders, it was found that about half of the adult sex offenders reported initiating their sexually abusive behavior during adolescence (Righthand & Welch, 2001). Similarly, Abel, Osborn, & Twigg (1993) reported that between 50% and 62% of adult male sexual offenders reported that they first acted out sexually while in their teens. By intervening at a young age, youth who are developing sexually deviant behavior can be treated to deter further victimization of children and adults (Corcoran, et. al., 1997).

Sadly, the majority of sexual crimes are committed against children. In fact, statistics indicate that 67% of all victims of sexual assault reported to law enforcement agencies were under the age of 18 (Snyder 2006). Bourke & Donohue (1996) indicated that nearly 60% of all sexual offenses against children under the age of 12 are committed by juveniles. More recently, data provided from the National Incident-Based Reporting System (NIBRS) found that juvenile offenders account for 40 percent of sexual victimizations against children under the age of six (Snyder, 2006). An understanding of juveniles who sexually offend is therefore vital in attempting to alleviate the emotional and interpersonal costs placed on the victims of sexual offenses as well as preventing further victimization.

Professional Problem

Juvenile sexual offending places significant time and financial costs on the criminal justice system, which must investigate, arrest, and adjudicate these offenders (Gretton, et al.,
Despite the overwhelming evidence that supports the need for interventions targeted towards juvenile sexual offenders, the assessment and treatment of juveniles who sexually offend has been largely neglected in the research literature until recently (Bourke & Donohue, 1996). For example, in a review of the literature in 1993, only 73 articles were found; 59% described characteristics of JSOs and 81.5% discussed treatment issues (Becker, Harris, and Sales, 1993) (as cited in Becker, J., 1998). It was not until the late 1970’s that sex crimes committed by adolescents were considered to be a significant social problem warranting empirical investigation (Groth, 1977). In fact, policymakers and prevention programs have derived most of their knowledge and understanding of sexual assault victims and offenders from research conducted on adults (Righthand & Welch, 2001). This is problematic considering the fact that recent research suggests juvenile sexual offenders differ from their adult counterparts (e.g., Medoff, 2004; Miner, 2002; Rasmussen, 1999; Worling & Curwen, 2000). Moreover, there is a significant need to further our understanding of developmental pathways and risk factors that contribute to juvenile sexual offending in order to appropriately classify, assess, and treat juvenile sex offenders.

**Problem of Heterogeneity**

Despite the recent efforts to develop a better understanding of juvenile sexual offenders, the only definitive conclusion that has been reached is that juvenile sexual offenders are a heterogeneous population (Weinrott, 1996; Zondek, Abel, Nothery, & Jordan, 2001). Consequently, heterogeneity impedes identification of the etiology and developmental pathway(s) of sexual offending, hindering the development of empirically driven theoretical models to guide interventions and an empirically validated method of risk assessment (Becker, 1998). Factors including research methodology and design have been found to contribute to chronic heterogeneity within juvenile sexual offender research (Weinrott, 1996; Widom, 1989). One way to address the problem of heterogeneity is to distinguish subgroups within the juvenile sexual offender population.

**Theoretical Background**

In response to the problem of heterogeneity, researchers have attempted to classify sex offenders based on type of sex crime (e.g., Ford & Linney, 1995) and victim characteristics (e.g.
More recently, attempts have been made to distinguish between juvenile sexual offenders with a history of criminality and juvenile sexual offenders without a history of criminality (e.g., Butler & Seto, 2002). Although tentative, the results of Butler and Seto’s study (2002) provide some evidence in support of the developmental model of sexual aggression that has been proposed by Seto and Barbaree (1997), which describes at least two types of sex offenders; the first type described as persistently antisocial with the second type being described as less antisocial, but more likely to demonstrate deviant sexual interests.

Different theories among both the juvenile sexual offender literature and the adult sexual offender literature suggest a developmental model of sexual offending, which distinguishes between sex offenders with a history of general antisocial behavior and those without a history of general antisocial behavior. Becker (1988), for example, hypothesized that adolescent sexual offenders could be divided into those with deviant sexual interests and those for whom sexual aggression was part of a broader antisocial repertoire. In the adult literature, Prolix (2000) delineates two pathways to sexual offending—(1) sexual deviance, which combines positive affect, deviant sexual fantasies, and victimization of boys and (2) antisocial criminality which combines negative affect, coercion with female victims, and perceptions of victims as objects. In short, research on both adult sexual offenders and adolescent sexual offenders provides implications for a developmental model that distinguishes between two types of sexual offenders: those whose sex offenses occur as part of a general antisocial repertoire and those whose sex offenses are driven more specifically by sexual deviance.

**Developmental Theories**

Developmental theories such as Social Learning Theory (SLT) (Bandura, 1986) and Ecological Systems Theory (EST) (Bronfenbrenner, 1979) may be used to explain how certain environmental influences could lead to the different pathways of sexual offending that have been proposed by Seto and Barbaree (1997). Different learning events that have been proposed to lead to sexual aggression among youth include sexual abuse, pornography, family history of criminality, chaotic home environment, delinquent peers, and witnessing or experiencing physical victimization (Burton & Meezan, 2004). It is likely that different environmental factors contribute to the two different pathways of juvenile sexual aggression proposed by Seto & Barbaree (1997). Furthermore, it is worth investigating how JSO (specialists) and JSO
(generalists) differ in terms of risk factors related to their early childhood environments in order to develop a better understanding of the etiology of these two groups.

Like social learning theory, Bronfenbrenner’s Ecological Systems Theory (EST) (Bronfenbrenner, 1979) can be used to explain the development of various behavioral problems such as juvenile sexual offending. Where as social learning theory places more emphasis on the direct influences that affect a person’s development, EST describes multiple, overarching ecological systems that influence and interact with one another, impacting the individual’s development. These developmental theories can be used as a conceptual framework to better understand the role of environmental influences in the development of juvenile sexual offending. A better understanding of the etiology of juvenile sexual offending behavior has important implications for both treatment and assessment.

In terms of intervention, the sexual offenses of JSO-generalists appear to occur in the context of a broader propensity to violate the rights of others and engage in antisocial behavior. As a result, JSO-generalists appear to be at higher risk for general reoffending than are JSO-specialists and may be more likely to benefit from treatment targeting general delinquency risk factors. On the other hand, general antisocial behaviors appear to be less of a concern for JSO-specialists. Moreover, the focus of treatment should be on their sexual interests and behavior or perhaps their own history of childhood sexual victimization. Treatment programs that focus on personal and situational factors that increase the likelihood of sexual offending may be more relevant for JSO-specialists. The differences in level of antisociality between JSO-specialists and JSO-generalists suggest that combining these adolescents in treatment is contraindicated because of the potential harmful effects of exposing less delinquent youths to more delinquent youths (Dishion et al., 1999).

**Purpose of Study**

The purpose of the present study was to explore various risk factors which may potentially be used to predict and distinguish two subtypes of juvenile sexual offenders (JSOs): (1) juvenile sexual offenders with a history of antisocial behavior (JSO-generalists) and (2) juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). A risk factor is defined as a characteristic, event, or experience that precedes the onset of the outcome of interest (e.g., sexual offending behavior) and that is associated with an increase in the probability (risk) of a particular outcome if present (Kazdin, Kraemer, Kessler, Kupfer, & Offord, 1997, p.
Risk factors can be categorized as either dynamic or static. Dynamic risk factors have the potential of changing and when changed are associated with corresponding increases or decreases in recidivism. In contrast, static risk factors are historical factors (i.e., age of victim) which can not be changed and are associated with increased risk of recidivism.

Risk factors examined in this study will include static factors such as (1) environmental variables (i.e., history of childhood sexual victimization, experience and/or exposure to domestic violence, single-caregiver home), and (2) victim and offense characteristics (i.e., male victim, child victim, use of physical force or threats), as well as, dynamic factors such as lack of empathy and lack of remorse. The overall goal of this study was to fill a gap in the research by providing empirical support for two different developmental pathways that may lead to juvenile sexual offending. Although several theories have been proposed, the etiology and developmental pathways of sexual offending behavior in juveniles remains unclear (Parks & Bard, 2006). Consequently, predictive factors and differences among subgroups of JSOs remain inconclusive.

In addition to providing empirical support for different developmental pathways of sexual aggression, identifying different predictor variables among these two types of offenders will provide significant implications for the treatment and assessment of juvenile sexual offenders. It is anticipated that the findings from this study will assist clinicians and the criminal justice system by distinguishing between two types of juvenile sexual offenders, thereby providing implications for more appropriate treatment and assessment strategies tailored to the unique characteristics of these two types of offenders.

**Research Questions and Hypotheses**

The current study sought to address the following research questions:

1) Is there an overall relationship between the outcome variable--group membership (JSO-specialist vs. JSO-generalist) based on history of antisocial behavior and the predictor variables: single-parent home, use of physical force or threats, child victim, male victim, sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse, after controlling for the variables of ADHD, failed/held back status, and enrollment in ESE/SLD classes?

2) Which predictor variables significantly predict group membership? For each predictor variable that is significant, how does the predictor variable affect group membership (e.g., increase or decrease the likelihood of the outcome variable)?
Based on a review of the literature, it is predicted the risk factors of: use of threats or force during the offense, lack of empathy, lack of remorse, exposure or experience of domestic violence, and single-parent home will be significant predictors of JSO-generalist group membership. Whereas, it is predicted that the risk factors of childhood sexual victimization, having a male victim, and having a child victim, will be significant predictors of JSO-specialists group membership.
Definition of Terms

**Juvenile**: juvenile is a legal term referring to individuals under the age of 18 (Snyder and Sickmund, 2006).

**Juvenile Sexual Offending Behavior**: includes any forced or coercive sexual contact, substantial threats of such contact, any sexual contact with a much younger child, or any nonconsensual sexual behavior that violates conventional standards.

**Juvenile Sex Offender (Specialist)**: a juvenile sex offender who has minimal or no history of antisocial behavior.

**Juvenile Sex Offender (Generalist)**: a juvenile sex offender who has a history of antisocial behavior.

**Dynamic Risk Factors**: risk factors that have the potential of changing and when changed are associated with corresponding increases or decreases in recidivism.

**Static Risk Factors**: historical factors (i.e., age of victim) which can not be changed and are associated with increased risk of recidivism.

**ERASOR**: Estimate of Risk of Adolescent Sexual Offense Recidivism

**J-SOAP**: Juvenile Sex Offender Assessment Protocol.

**JSO**: Juvenile Sex Offender.
CHAPTER 2:
REVIEW OF THE LITERATURE

Juvenile Delinquency

The number of 13 to 16-year olds arrested for offenses against other people increased by 109% from 1987 to 1997 (Shumaker & Prinz, 2000) and juveniles have been responsible for one-quarter of serious violent victimizations, on average, over the last 25 years (Snyder & Sickmund, 1999). Serious violent crimes include incidents involving rape and other sexual assaults, robbery, and aggravated assault (Snyder and Sickmund, 1999). The impact of violent crimes produces a considerable emotional toll on targeted victims and their families as well as financial costs for society. It has been shown that a minority of offenders commits the majority of offenses with the most persistent 5-6% of offenders being responsible for committing 50-60% of known crimes (Farrington, Ohlin, & Wilson, 1986)(as cited in Lynam, 1996). Various studies have aimed to classify and describe individuals at greatest risk for reoffending (Moffit, 1993, 2006; Loeber, 1982; Patterson, 1992).

Moffit (1993) proposed a developmental taxonomy of antisocial behavior that proposes two primary hypothetical prototypes: life-course persistent versus adolescence-limited offenders. The adolescence-limited group represents those youth whose antisocial behavior is confined to adolescence; whereas, the life-course persistent group of adolescents begin criminal behavior earlier and continue in antisocial behavior throughout adulthood. Moffit (1993) suggests that life-course-persistent antisocial behavior originates early in life, when the difficult behavior of a high-risk young child is exacerbated by a high-risk social environment. In contrast, the adolescence-limited antisocial behavior emerges alongside puberty. These individuals may experience dissatisfaction with their dependent status as a child and desire to partake in the privileges reserved for adulthood (i.e., alcohol consumption, sexual activity). They may engage in delinquent behaviors as a way to assert their autonomy and gain peer approval (Moffit, 1993).

Variations of this taxonomy of adolescent-limited and life-course-persistent antisocial behavior have been proposed by other researchers as well (e.g., Loeber, 1982; Patterson, 1992). More recently, Seto & Barbaree (1997) have developed a model of sexual aggression that distinguishes between two types of juvenile sexual offenders based on the model proposed by Moffit (1993). Drawing from Moffit’s (1993) distinction between life-course persistent and adolescent-limited offenders, Seto and Barbaree suggest the first type of juvenile sex offender
can be characterized as persistently antisocial, with a history of early, chronic and extensive conduct problems (Seto & Barbaree, 1997). In contrast, they propose the second type of sex offender does not demonstrate early onset, chronicity, or extensive antisocial behavior and tends to be more similar to nonoffending youth than the first type. Furthermore, in order to acquire a comprehensive understanding of the broad spectrum of juvenile sexual offenders (those with a history of general antisocial behavior and those without), factors involved in general recidivism risk among this population will also be explored when examining the literature on juvenile sexual offending.

**Juvenile Sexual Offending**

Juvenile sexual offending is a special type of juvenile delinquency that is especially concerning. Statistics provided by the U.S. Department of Justice indicated that 23% of sexual assault offenders were under the age of 18 (Snyder, 2006). In 2003, juveniles committed 4,240 forcible rapes and 18,300 sex offenses (not including rape and prostitution) (Snyder and Sickmund, 2006). In general, the single age with the highest frequency of offenders was age 14 (Snyder, 2006). Even more concerning is the fact that most sexual offenses committed by juveniles are committed against children (Snyder, 2006). In fact, juvenile offenders are responsible for 40% of sexual assaults against victims under the age of 6 (Snyder, 2006). Overall, younger juvenile victims tended to have a greater proportion of juvenile offenders than did older juvenile victims (Snyder, 2006). Juvenile offenders also appear to be responsible for the majority of sexual offenses against male children. For example, Johnson et al. (2001) cite a study conducted by Showers, Farber, Joseph, Oshins, & Johnson (1983) which indicated that 56% of molested boys are victims of an adolescent. An understanding of juveniles who sexually offend is therefore vital in attempting to alleviate the emotional and interpersonal costs placed on victims of sexual offenses as well as preventing further victimization.

Despite the overwhelming evidence that supports the need for interventions targeted towards minors, the assessment and treatment of juveniles who sexually offend has been largely neglected in the research literature (Bourke & Donohue, 1996). For this reason, policymakers and prevention programs have derived most of their knowledge and understanding of sexual assault victims and offenders from research conducted on adults (Righthand & Welch, 2001). Moreover, there is a significant need to further our understanding of juvenile sexual offenders to assist with the assessment and treatment of this serious group of offenders.
In this review of the literature, differences between juvenile sex offenders and other types of offenders (i.e., adult sex offenders and juvenile non-sex offenders) will be briefly described. In addition, risk factors for recidivism and methods of risk assessment will be discussed. Lastly, this review will present characteristics of juvenile sex offenders, personality and classification studies on this population, and the etiological theories that have been proposed to explain the origins of sexual offending behavior. From this review, research questions and hypotheses will be proposed in light of the current research on juvenile sexual offenders.

Differences between Juvenile Sexual Offenders and Adult Sexual Offenders

Medoff (2004) noted that there are significant differences in recidivism rates, victim selection, and amenability to treatment between juvenile sexual offenders and their adult counterparts. These differences may be attributed to developmental differences. Some developmental differences that exist between adolescents and adults include: limited experience, cognitive and emotional immaturity, amenability to change, and decision-making competency (Medoff, 2004). Consequently, research indicates that juveniles have significant limitations in their abilities to consider broader long-term consequences of decision making and behavior (Grisso, 1997, 2000) (as cited in Medoff, 2004). Motivational factors among adolescents are also thought to be related to developmental variables in young juvenile offenders. These motivational factors seem to vary amongst juvenile sexual offenders and include: naïve exploration; revenge; the exercise of power, control, and authority; erotic arousal; and the absence of family affection (Medoff, 2004).

In addition to developmental factors, adolescent sexual offenders also differ from adult sexual offenders in terms of risk for recidivism and personality profiles (e.g., Worling and Curwen, 2000; Smith & Monastersky, 1986; Smith et al., 1987). For example, in a personality study conducted by Smith et al. (1987), adolescent sexual offenders represented less pathological profiles than those of adult sexual offenders. In addition, differences in risk factors have also been found between these two groups, with adult sexual offenders reoffending at a higher rate (Letourneau & Miner, 2005). These differences will be described in further detail in later sections.

Juvenile Sexual Offenders and General Delinquency

Previous research indicates very few adolescent sexual offenders reoffend sexually and are more likely to commit nonsexual offenses. In a sample of 221 juvenile sexual offenders, 7%
were convicted of a new sexual offense within 210 months of their discharge from treatment, compared to 37% who were convicted of a new nonsexual offense (Kahn & Chambers, 1991). Similarly, Schram and colleagues (1991) found that 10% of their sample of 194 juvenile sexual offenders reoffended sexually versus 48% that reoffended nonsexually during a mean 6-year observation period following treatment (as cited in Prentky et al., 2000). Research on recidivism reveals that risk factors for general recidivism are different than those that predict sexual recidivism (Worling & Curwen, 2000). This indicates that juvenile sexual offenders who reoffend non-sexually may be more similar to general offenders than juvenile sexual offenders who only reoffend sexually or not at all. In a meta-analysis of juvenile sexual offender recidivism, low self-report of delinquency was related to a higher risk of sexual reoffending; whereas, non-sexual recidivism was related to factors commonly predictive of general delinquency (Worling & Curwen, 2000).

From this research, it can be hypothesized that the offense pattern of some juvenile sexual offenders may be more specific and these youth might benefit most from treatment programs which target sexual deviance patterns. On the other hand, the offense patterns of other juvenile sexual offenders may occur under a broader spectrum of antisocial behaviors and may benefit more from treatment programs that emphasize general recidivism factors. Furthermore, it is believed that there are several commonalities between some juvenile sexual offenders and other non-sexual offenders. At the same time, it can be hypothesized that juvenile sexual offenders who continue to sexually offend may have different characteristics than those of juvenile sexual offenders who reoffend non-sexually or not at all. In a review of the literature, Becker (1998) suggested researchers should attempt to classify subtypes and to distinguish between those youth who have exclusively committed sex offenses and those who commit sex offenses as one part of a larger pattern of both sexual and nonsexual delinquent behaviors.

**Child vs. Peer Victim**

Some studies indicate that JSOs who offend against peers or adults may be more likely to engage in nonsexual delinquent acts (Hunter et al., 2000) and appear to exhibit lower levels of sexual preoccupation (Parks & Bard, 2006) than those who offend against children. In a study by Ford & Linney (1995), they divided a subgroup of juvenile sexual offenders into those who committed sexual offenses against children and those who committed offenses against peers or adults. More than 60% of the juvenile sexual offenders who offended against a child did not have
any prior offenses. In contrast, sixty-seven percent of the juvenile sexual offenders who had sexually offended against a peer or adult had 3 or more prior offenses, usually status or property offenses. These findings imply that there may be different risk factors at play for different types of JSOs.

**General Delinquency Risk Factors**

Several factors have been identified as risk factors for general delinquency. Since juvenile sexual offending is a relatively new area of research as compared with general delinquency (Miner & Crimmins, 1997), the research on risk factors for delinquency will be discussed to further contribute to our understanding of risk for juvenile sexual offending. In addition, understanding risk factors for general recidivism may aid in attempts to distinguish between the developmental pathways of JSO-generalists and JSO-specialists.

*Poverty.* Research has often found a connection between poverty and self-reported delinquency. For example, Farrington (1989) revealed that low family income predicted self-reported violence and conviction rates for violent offenses. At the same time, research indicates that the correlation between poverty and juvenile crime may be indirect. For example, Sampson (1987) found that poverty exerts much influence on family disruption (i.e., marital separation and divorce), which in turn has a direct influence on juvenile delinquency. The poverty influence on crime may explain the racial disparity among juvenile delinquents. In 2002, black juveniles and Hispanic juveniles were more than 3 times as likely to live in poverty as non-Hispanic white juveniles. Also, almost one-third of black juveniles lived in poverty, and one-fifth of black children under age 5 lived in extreme poverty in 2002 (Snyder & Sickmund, 2006).

*Family Structure.* In addition to poverty, family structure has also been found to be related to juvenile delinquency. In the last half of the 20th century, the proportion of juveniles living in single-parent homes has increased (Snyder & Sickmund, 2006). McCurley and Snyder (forthcoming) (as cited by Snyder & Sickmund, 2006), found that youth ages 12-17 who lived with both biological parents were less likely than youth in other family types to report a variety of problem behaviors. In fact, this study found that family structure was a better predictor of problem behaviors (i.e., running away, sexual activity, major theft, assault) than race or ethnicity. The family structure effect emerged among youth living in both neighborhoods described as “well kept” and those living in neighborhoods described as “fairly well kept” and “poorly kept”. It is important to note that the conditions which are often linked with single-parent homes may
be the primary cause of problem behavior rather than family structure in and of itself (Synder & Sickmund, 2006). For example, family structure is also related to poverty as evidenced by the fact that children in single-parent families are more likely to live in poverty (Snyder & Sickmund, 2006). Of all races, Black children were the least likely to live with both parents (U.S. Census Bureau, 2003)(as cited by Snyder & Sickmund, 2006). Furthermore, patterns that indicate racial differences in self-reported behavior may in actuality be reflective of the differences in family structure.

**Additional Factors.** Other factors associated with delinquency include a caregiver-child relationship characterized by hostility, lack of affection, lack of involvement, and lack of supervision; overly harsh and authoritarian methods of discipline; a high degree of family conflict and disorganization; a parent with a personality disturbance and a criminal history of her/his own; impoverished living conditions; lack of involvement in school and/or work; lack of positive adult role models; and exposure to neighborhood environments in which violence, crime, and delinquent behavior are prevalent (Dishion et al., 1995; Romig et al., 1989; Sarafinot & Armstrong, 1986 as cited in Seifert et. al., 2000).

**Risk Factors for Sexual Recidivism**

More recently researchers have attempted to identify factors that contribute to sexual recidivism in order to improve the accuracy of placement and intervention decisions regarding juvenile sexual offenders. Recidivism is remarkably less understood for juvenile sexual offenders than it is for adult sexual offenders (Miner, 2002). In addition, the very low base rates for sexual recidivism among adolescents requires extremely large sample sizes to find statistically significant differences. Consequently, studies that have attempted to identify recidivism risk factors have failed to yield statistical significance due to inadequate sample sizes (e.g., Prentky et al., 2000).

Not surprisingly, most research regarding the prediction of sexual recidivism is based on retrospective studies of adult male sexual offenders. Hunter and Lexier (1998) recently noted that clinicians making risk predictions regarding adolescent sexual offenders must rely on “unproved theoretical assumptions about factors that increase risk of dangerousness”. In fact, the majority of assessment and intervention methods utilized with juvenile sex offenders have been based on research with adult sex offenders, even though recent empirical investigations suggest many
clinical issues are not shared between these populations (e.g., Worling & Curwen, 2000; Rasmussen, 1999).

Based on the adult literature, factors that are most strongly related to violent and sexual recidivism include having the characteristics of psychopathy as defined by a high PCL-R score (Hare, 1991; Rice, 1997), a history of criminal behavior, and being young (Hanson & Bussiere, 1998)(as cited in Harris et al., 2003). Rice and Harris (1997) report that the combination of psychopathy as measured by the PCL-R and sexual deviancy based on phallicometric test results, resulted in the highest recidivism rate in their sample of sex offenders (as cited in Harris et al., 2003). A number of studies report large effect sizes in the prediction of violent and sexual recidivism for adult sex offenders (Harris et al, 2003). Some measures that have been successfully used among adult sex offenders in predicting future risk to commit violent and/or sexual offenses are the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993), the Sex Offender Risk Appraisal Guide (SORAG; Quinsey, Harris, et al., 1998), the Rapid Risk Assessment for Sex Offender Recidivism (RRASOR; Hanson, 1997), and the Static-99 (Hanson & Thornton, 2000)(as cited in Harris et al., 2003).

Hanson & Bussiere’s meta-analysis of 61 studies (1998) found that sexual recidivism in adults is best predicted by a different set of factors than those that predict general or nonsexual violent recidivism. Offenders who sexually assaulted children were less likely to commit subsequent nonsexual offenses. Although general criminological variables (i.e., young age and prior offenses) showed some relationship with sexual recidivism, the strongest predictors were variables that were related to sexual deviance. In contrast, sexual deviance was poorly related to general recidivism. A negative relationship with mother was a risk factor for both general and sexual recidivism. Some factors that were thought to be related to sexual offense recidivism such as denial of the sex offense, lack of empathy for victims, a history of being sexually abused as a child, and general psychological problems were not found to predict sexual offense recidivism (Hanson & Bussiere, 1998).

Recently, Worling and Curwen (2000) conducted a meta-analysis examining recidivism risk factors among adolescents that had sexually offended. This study found that a low degree of self-reported delinquent behavior was a significant predictor of sexual recidivism; where as, a high level of delinquency was predictive of subsequent nonsexual charges. Similarly, this same study found that nonsexual recidivism was related to factors commonly predictive of general
delinquency (i.e., history of previous arrests, low self-esteem, antisocial personality, economic disadvantage, interpersonal aggression, and negative parent-child relationships). Rasmussen (1999) found that juvenile sexual offenders who were more likely to commit new nonsexual offenses had a history of nonsexual offenses, molested an older victim, and were more likely to have parents who were divorced or separated. This same study found that juvenile sexual offenders were more likely to commit additional sexual offenses if they had molested multiple female victims than if they had molested a single female or multiple male victims. This is contrary to the research findings of Smith and Monastersky (1986) that indicated higher recidivism rates for juvenile sexual offenders who molested multiple male victims. Rasmussen’s (1999) findings also differ from the adult literature that indicates the presence of male victims increase sexual recidivism risk (Hanson & Bussiere, 1998). Taken as a whole, these findings suggest that sexual recidivism is explained by unique factors that are unrelated to non-sexual recidivism.

In a more recent study of sexual recidivism among adolescents that had committed a sexual offense, the following variables were found to be predictive of sexual recidivism: the number of sexual offense adjudications, the number of sex offense victims, committing a sex offense while under supervision or probation, duration of sex offender history, number of times the offender was a victim of hands-on sex offenses, special education classification, use of deception or grooming in sex offense, number of offense locations, and failure to complete treatment (Epperson & Ralston, 2004).

A comparison of Hanson & Bussiere’s meta-analysis (1998) on adults with Worling & Curwen’s meta-analysis (2000) on adolescent sex offenders reveals that juvenile sexual offenders differ from their adult counterparts. Nonetheless, there are some similarities that exist between these two groups. For example, socio-economic status, history of childhood sexual victimization, personal distress (i.e., depression, anger, low self-esteem), and family relationship difficulties were not related to sexual recidivism in both adult and adolescent sexual offenders (Worling & Curwen, 2000; Hanson & Bussiere, 1998). These findings are contradictory to previous etiological theories of sexual offending that suggest childhood victimization, negative emotions, and negative parent-child relationships contribute to sexual offending. In both groups, sexual interest in children was a significant predictor of subsequent sexual recidivism. Additionally, both adult and adolescent sexual offenders who sexually assaulted a child were less
likely to commit subsequent nonssexual offenses. Unlike research with adult sexual offenders, victim-preferences (i.e., age, gender, or relationship) did not appear to contribute to recidivism risk among adolescent sexual offenders (Worling & Curwen, 2000; Kahn & Chambers, 1991; Smith & Mosastersky, 1986).

**Protective Factors**

Unlike the research on risk factors, few studies have investigated protective factors. Nonetheless, Friedrich & Lucke (1988) suggest that good social skills, the ability to inhibit and modulate behavior, and cognitive capabilities to allow school to be a positive source of support may deter sexually aggressive behavior. Ryan (1988) hypothesized that adolescent sexual abusers display deficits in communication skills, empathy, and accountability. Ryan (1988) further emphasized that empathy or the ability to perceive another person’s point of view is one of the strongest deterrents of sexually abusive behavior.

**Risk Assessment of Juvenile Sexual Offenders**

Risk assessment has played a crucial role in determining level of placement/supervision and treatment needs. Types of risk assessment include clinical assessment, empirically-guided, and actuarial. Clinical assessment is based on clinical judgment and tends to be the least reliable. Empirically-guided assessments are more accurate than clinical judgment by attending to relevant factors or variables that are empirically-associated with risk; however, no rules for weighting these variables or thresholds are provided. On the other hand, actuarial measures use empirically-determined scoring rules for weighting variables associated with risk and utilize empirically-determined thresholds for decision making. This method is the most reliable (as cited in Epperson, et al., 2004). A number of actuarial measures have been developed for adult sex offenders; however, there are currently no actuarial measures available for assessing juvenile sexual offenders (Epperson, et al., 2004).

Two types of risk factors utilized in risk assessment include static and dynamic. Static factors include fixed variables such as offense characteristics, age, gender, and race which are not subject to intervention efforts (Bonta, 1996). Moreover, static factors do not provide information regarding what should and can be changed to reduce recidivism. In contrast, dynamic factors are variables that can be altered (i.e., association with delinquent peers, substance use) that directly influence criminal behavior. If modified, dynamic factors identified as criminogenic (contribute to crime) may lead to a reduction in criminal behavior (Andrews &
Bonta, 1998) (as cited in Benda et al., 2001). In addition to predicting continuation of criminal behavior, dynamic factors also serve as targets for interventions to reduce crime. Risk measures that have been recently developed for juvenile sexual offenders have included dynamic risk factors such as denial, lack of empathy, lack of remorse and guilt, and association with delinquent peers (Worling & Curwen, 2001; Prentky & Righthand, 2001).

Until recently, the vast majority of assessment and intervention methods utilized with juvenile sex offenders were based on research with adult sex offenders (Epperson & Ralston, 2004). However, recent empirical investigations suggest many clinical issues are not shared between these populations, and thus necessitate separate analyses (Harnett and Misch, 1993). Moreover, what we know about adult sex offenders is not necessarily generalizable to adolescent sexual offenders. Furthermore, separate measures are needed to assess sexual recidivism risk in adolescents.

The use of actuarial assessment tools used in combination with structured clinical interviews is becoming the standard of practice for risk assessment procedures of adult male sex offenders (Hanson, 2000). Consequently, several actuarial tools have been developed for the assessment of risk in adults (i.e., RRASOR; Hanson, 1997; VRAG; Harris, Rice, & Guinsey, 1993; Static-99; Hanson & Thornton, 2000)(as cited in Harris et al., 2003). In contrast, no actuarial measures are currently available for juvenile sexual offenders, although some are under development (JSORRAT; Epperson, 2004; JSOAP; Prentky et al., 2000; ERASOR; Worling & Curwen, 2001). A major difficulty in generating and validating actuarial risk assessments for adolescent sexual offenders has been the low base rates of sexual recidivism. In a recent study of the J SOAP, of 96 subjects, only 3% recidivated (sexually) making it impossible to validate the instrument (Prentky, Harris, Frizzel, & Righthand, 2000). The lack of non-standardized risk measures and criteria for sexual dangerousness among juvenile sexual offenders contribute to low predictive accuracy and high false positive rates. Furthermore, the dilemma of assessing these individuals will continue until more precise measures and criteria for identifying at-risk juvenile sexual offenders are developed.

**Characteristics of Juveniles Who Sexually Offend**

Juveniles who commit sexual offenses represent a heterogeneous group (Bourke and Donohue, 1996). They differ on a wide range of variables including victim and offense characteristics, types of offending behavior, histories of child maltreatment, cognitive
functioning, and mental health diagnoses (Knight & Prentky, 1993). Nonetheless, several characteristics of juvenile sexual offenders have been identified in the research literature. These characteristics include academic difficulties, a history of sexual abuse and maltreatment, interpersonal difficulties, delinquency, exposure to aggressive models, exposure to pornographic materials, and hyperactivity. Some of these characteristics appear to be unique to juvenile sexual offenders when compared with other offenders and nonoffenders, while other characteristics are similar to those of nonsexual offenders. While several characteristics have been identified, it should be noted that not all juvenile sexual offenders demonstrate these characteristics. Thus, there is no single profile that appears to distinguish adolescents who sexually offend.

**Academic Achievement:** Fehrenbach et al. (1986) found that only 57% of their sample of adolescent sexual offenders was placed in the appropriate grade level, and 30% had behavior problems. In another study, it was found that academic problems were present among 49% of juvenile sexual offenders and 38% had been placed in special classes (Pierce & Pierce, 1987). On the other hand, Tarter, Hegedus, Alterman, and Katz-Garris (1983), found no difference in reading, math, or spelling achievement between adolescent sex offenders and comparison groups of juveniles who had committed nonsexual offenses (as cited in Davis & Leitenberg, 1987). They also found no difference between sex offenders and other delinquents on verbal performance or full-scale IQ. Moreover, although adolescents appear to experience academic difficulties, they do not appear to differ from offenders of nonsexual offenses. Awad & Saunders (1989) reported that 83% of their sample of juvenile sexual offenders had serious learning problems, with 48% diagnosed as having learning disabilities.

**Exposure to Pornography:** Few studies have examined the role of pornography in juvenile sexual offending. A study by Becker and Stein (as cited in Righthand & Welch, 2001) found that 89% of the juvenile sexual offenders examined reported use of sexually explicit materials. Another study by Ford and Linney (as cited in Righthand & Welch, 2001) found that 42% of juvenile sexual offenders had been exposed to hardcore, sexually explicit magazines, compared with 29% of juvenile violent offenders (whose offenses were nonsexual) and status offenders.

**Prior Sex Abuse:** Although discrepancies exist, research indicates that sexual offenders are disproportionately likely to have been sexually victimized as children as compared to other offenders (Weeks & Widom, 1998) as well as to nonoffenders (Romano & De Luca, 1997) (as cited in Starzyk & Marshall, 2003). At the same time, research supports that sexual abuse does
not ensure a future of sexual perpetration (Widom, 1996). In a more recent study, sexual abuse was not a useful predictor of juvenile sexual offending (Rasmussen, 1999). Other research suggests that the effects of childhood sexual abuse appear to be related to the nature of the offense. For example, Friedrich et al. (1986) found that younger children more recently abused by a parent or by multiple perpetrators, and whose abuse was frequent and long term, were more likely to behave in a sexualized manner (as cited in Friedrich & Lueck, 1988). Relatedly, in a study of sexual recidivism among adolescent sexual offenders, the frequency of experiencing hands-on sexual abuse was related to committing a new sex offense, with offenders that had been victimized 5 or more times being almost twice as likely to reoffend when compared to offenders that had been abused 1 to 4 times (Epperson & Ralston, 2004). In summary, juvenile sexual offenders appear to have higher prevalence rates of having been sexually victimized when compared to non-sexual offenders and normal groups. However, having a history of childhood sexual victimization does not ensure a future of sexual offending (Widom, 1996).

Childhood Maltreatment: A retrospective study (Benoit & Kennedy, 1992) of maltreatment history among delinquent youths (N=100) found no difference in the prevalence of such history across offender types. When compared with a comparison group of non-sexual offending delinquents, sexual or physical abuse was more common than neglect among sexual offenders with fewer than three prior maltreatment reports (Johnson Reid, & Way, 2001). Other research has shown that both maltreatment and psychopathology are related to youthful offending in general (Forth, 1995; Weiler & Widom, 1996). Another study found non-abused adolescent sexual offenders had higher rates of prior nonsexual arrests than abused offenders (Cooper et al., 1996). Unlike physical and sexual abuse, less is known about the relationship of neglect to sexual offending. In summary, research concerning childhood maltreatment among juvenile sexual offenders is inconsistent with some studies indicating a higher prevalence rate of physical abuse among juvenile sexual offenders than general offenders; while other studies indicate the reverse is true.

Interpersonal difficulties: Blaske, Borduin, Henggeler, and Mann (1989) found that sexual offenders, as compared to other offenders and nonoffenders, experienced more interpersonal difficulties during childhood (as cited in Starzyk & Marshall, 2003). Kahn and Lafond (1988) found juvenile sexual offenders were socially isolated, and deficient in their interpersonal skills, and Fehrenbach et al. (1986) found nearly two-thirds of juvenile sexual offenders showed
evidence of social isolation, with 32% reporting no friends at all (as cited in Bourke and Donohue, 1996). Consequently, Groth (1977) argued that adolescent sex offenders have little skill in establishing and maintaining close friendships. Likewise, Becker & Abel (1985) noted that sex-offending youths lack assertive and other social skills that might cause them to fear rejection and isolate them from their peers. Not surprisingly, Shoor et al. (1996) reported that nearly their entire sample of adolescents who had molested younger children was socially isolated (as cited in Davis & Leitenberg, 1987). Moreover, social skills deficits appear to be a consistent characteristic among juvenile sexual offenders.

**History of Delinquency:** Juvenile sexual offenders are also likely to engage in other criminal behaviors. For example, Amir (1971) found that 41% of adolescents charged with forcible rape had a previous arrest record (as cited in Davis & Leitenberg, 1987). Fehrenbach et al. (1986) reported that prior to the time of evaluation for their sexual offense, 44% of adolescent sex offenders had committed at least one prior nonsexual offense.

**Exposure to Aggressive Models:** According to previous research, violence, abuse, and having another sexual offender in the home appear to contribute to sexual deviance (Fagan & Wexler, 1988; Smith, 1988). Jaffe et al. (1992) suggest that paternal modeling of violence against women increases the likelihood that children, especially male children, will acquire the belief that violence is an appropriate way to gain control over women (as cited in Starzyk & Marshall, 2003).

**Hyperactivity and Impulsivity:** Early signs of hyperactivity and impulsivity in combination with antisocial behavior have been related to various types of disruptive behavior during adolescence and adulthood (Loeber, 1987) and to later adult sexual offending (Knight & Prentky, 1993).

**Parent-Child Attachments:** Some researchers propose that the origins of sexual offending lie in the offender’s experience of poor quality childhood relationships with their parents (Marshall & Marshall, 2000). In a study by Smallbone and Dadds (1998) it was found that children who formed inadequate paternal bonds were more likely to be sexually coercive later in life. Similarly, poor maternal-relations was also predictive of antisocial behavior in general. Moreover, poor paternal relationships appear to be related to both sexual offending and non-sexual offending behavior.

In summary, several characteristics of juvenile sexual offenders have been identified in the research literature. Nonetheless, several of these characteristics have also been identified in
delinquent youths that have not sexually offended. To further complicate matters, several of these research findings are inconsistent. Lastly, much of the research regarding juvenile sexual offenders is descriptive in nature and lacks empirical design (Bourke & Donohue, 1996). Moreover, further research is needed to produce a more consistent and precise profile of juvenile sexual offenders.

One way to develop a clearer understanding of juvenile sexual offenders is to discern what personality traits and characteristics distinguish juvenile sexual offenders from other populations. This next section will explore differences that have been found regarding personality characteristics and developmental variables when comparing juvenile sexual offenders with adolescent general offending and non-offending groups.

**Personality Studies of Juvenile Sexual Offenders**

The MMPI is the most widely used personality assessment used with the juvenile sexual offender (JSO) population (Hunter & Becker, 1994). It has been used with this population to gain insight into personality and identify possible psychopathology. Despite its widespread use, previous research suggests there is no discernible profile which characterizes the JSO, or which differentiates the JSO from juvenile offenders of nonsexual crimes or mentally ill youth (Murphy & Peters, 1992; Smith, Monastersky, & Deishner, 1987; Hunter & Becker, 1994).

The Behavior Assessment System for Children (BASC) Self-report of Personality has also been used to identify personality traits among young sexual offenders. In an archival search for common personality traits among child sexual offenders, Dalton (1996) found that young boys accused of sexual offenses scored very close to the mean scores provided in the manual (as cited in Dalton, et al., 2003). In a more recent study by Dalton et al. (2003) archival data was obtained from 106 patients referred for sexual offender treatment who were given the BASC Self-report of Personality as a part of a test battery. Results indicated that youths accused of sexual offending did not differ significantly from their non-offending peers.

One attempt to compare personality characteristics between sexual offenders and other delinquents using the Jesness Inventory (a personality measure used to assess delinquent attitudes and beliefs) was conducted by Oliver, Hall, & Neuhaus (1993). They compared the personality differences between adolescent sex offenders and nonsexually offending adolescents using the social maladjustment subscale of the Jesness Inventory (JI) as well as the JI classification level. Subjects were 50 adolescent males charged with a sexual offense, 50
adolescent males charged with nonviolent offenses, and 50 adolescent males charged with violent offenses. JI social maladjustment scores, JI classification levels, and relevant demographic data were recorded for all three groups. ANOVAs and Chi-square analysis were conducted on social maladjustment scores, classification level, and demographic data to test for potential differences among groups. Post hoc comparisons found that sex offenders had significantly lower social maladjustment scores than both violent and nonviolent non-sex offenders. When sexual offenders were further divided into those charged with rape and those charged with gross sexual imposition (a lesser offense), no significant differences in social maladjustment scores were found between these two groups. When compared with both violent and nonviolent offenders, the adolescent sex offender group generally displayed the least deviant personality and historical characteristics among the groups examined.

One limitation of this study was the disproportionate racial distribution across groups. Moreover, the social maladjustment scale may have reflected racial differences. Another significant limitation of this study was the fact that the sample of sex offenders was taken from an outpatient treatment program. The literature (Awad et al, 1984; Kavoussi et al, 1988; Smith et al., 1987)(as cited in Oliver et al., 1993) suggests that outpatient adolescent sex offenders might present with less deviant background characteristics and might exhibit fewer elevations on JI profiles than adolescent nonsexual offenders. Furthermore, this sample may have represented a less pathological group of sex offenders, since it did not include adolescent sex offenders from residential settings. In addition, this study examined personality differences among groups using only one of the JI subscales (social maladjustment scale).

In addition to the aforementioned studies, other studies have attempted to identify personality traits that are unique to juvenile sexual offenders. Unfortunately, these studies lacked adequate sample sizes, making generalizability of results futile. Nonetheless, these studies will be described to provide implications for the current study.

Valliant and Bergeron (1997) examined differences in general intelligence, personality and criminal attitudes among juvenile sexual offenders, general offenders, and nonoffenders using psychometric tests. Subjects were administered a battery of psychometric tests. To assess personality, the Minnesota Multiphasic Personality Inventory (MMPI) Form 168 was selected to provide clinical and validity scales. Each participant also completed the Carlson Psychological Survey (Carlson, 1982), the Busse-Durkee Hostility Inventory (Buss & Durkee, 1957), and the
Coopersmith Self-Esteem Inventory (Coopersmith, 1981)(as cited in Valliant & Bergeron, 1997). A series of one-way analyses of variance compared all three groups on the various psychometric tests. These comparisons showed significant differences for scores on the MMPI subtests. Tukey post hoc comparisons showed adolescent general offenders and adolescent sexual offenders scored higher on this measure than the nonoffenders. No significant mean differences emerged for scores on the Buss-Durkee Hostility Inventory, Test of Nonverbal Intelligence, and the Coopersmith Self-esteem Inventory scales. Three subsequent stepwise discriminant function analyses were computed to identify the cluster of variables which would best differentiate the three groups. Sex offenders in comparison to general offenders scored higher on Assault and Social Introversion and scored lower on Indirect Hostility and Thought Disturbances. When nonoffenders were compared with the adolescent sex offenders, sex offenders typically generated higher scores on Psychopathic Deviancy, Schizophrenia, and Negativism but lower scores on Indirect Hostility than the nonoffenders. There were no significant differences in general intelligence among the groups; however, the sex offenders were found to be more socially isolated, more assaultive, and more resentful than the general offenders (Valliant & Bergeron, 1997). Major limitations of this study include: use of extremely small samples: juvenile sexual offenders (n=16), general offenders (n=13), and nonoffenders (n=13), no report of the effect size (practical significance), and failure to utilize an omnibus test to protect against inflation of Type I error.

Moody (1994) compared the personality characteristics of adolescent sexual offenders with oppositional defiant adolescents using the Cattell’s High School Personality Questionnaire (HSPQ: Cattell, Catell, & Johns, 1984)(as cited in Moody, 1994). Participants in this study ranged from 12 to 18 years-old. There were 21 sexual offenders and 17 oppositional defiant adolescents. All of the sexual offenders and oppositional defiant adolescents were residing in a residential treatment center. Sex offenders had a mean of 3.1 victims. A Multivariate Analysis of Variance (MANOVA) was used to examine differences on factor scores. There were no significant differences found between the sexual offenders and oppositional defiant adolescents. When background differences were examined, sexual offenders were more often sexually abused than were the oppositional defiant adolescents. Sexual offenders also experienced more learning and behavioral problems in school than the oppositional defiant group. It should be noted that the sexual offenders in this study appear to represent a moderate to high risk group.
Losada-Paisey (1998) investigated the relationship between offender type and personality in 21 juvenile males adjudicated for sexual offenses and 30 juvenile non sexual offenders. Subjects were aged 13 to 17 years-old and were administered the Minnesota Multiphasic Personality Inventory- Adolescent (MMPI-A) which was developed for use with youths ages 14 to 18 years-old (Butcher et al., 1992). Scores on Psychopathic Deviate and Schizophrenia scales contributed most to the juveniles being classified as sex offenders. In contrast, scores on Hysteria and Psychasthenia contributed mainly to participants being classified as non-sex offenders.

A more recent study comparing personality characteristics of juvenile sexual offenders (n=18) and non-sex offending delinquent peers (n=18) using the MMPI-A revealed some differences in the mean scores on Scale 4 (Psychopathic Deviance) with non-sex offending delinquent peers scoring higher on this scale (Freeman et al., 2005). However, the difference between the mean scores of these two groups was not statistically significant.

Solving the Problem of Heterogeneity

Despite the recent efforts to develop a better understanding of juvenile sexual offenders, the only definitive conclusion that has been reached is that juvenile sexual offenders are a heterogeneous population (Weinrott, 1996; Zondek, Abel, Northey, & Jordan, 2001). Consequently, heterogeneity impedes identification of the etiology and developmental pathway(s) of sexual offending, hindering the development of empirically driven theoretical models to guide interventions and an empirically validated method of risk assessment (e.g., Becker, 1998). Factors including research methodology and design have been found to contribute to chronic heterogeneity within juvenile sex offender research (Weinrott, 1996; Widom, 1989). The use of composite samples in studies seeking to distinguish juvenile sexual offenders from other youth contribute to the problem of heterogeneity since differences often go undetected as a result of failing to separate different types of juvenile sexual offenders. For example, in Moody’s (1994) study, adolescents diagnosed as oppositional defiant and a composite sample of juvenile sexual offenders revealed the oppositional defiant group had higher levels of pathology. However, when the sexual offender sample was more closely inspected, a number of juvenile sexual offenders had significantly elevated scores on the measure while others had lower scores on each of the scales. As a result, the high and low scores appeared to average-out, resulting in the juvenile sexual offender sample’s profile to appear normal (Moody,
1994). One way to address the problem of heterogeneity is to distinguish subgroups within the juvenile sexual offender population. Distinguishing a classification system of juvenile sexual offenders would assist with the development of more appropriate treatment and assessment methods. The following section will address various attempts that have been made to classify different typologies of juvenile sexual offenders.

**Previous Attempts to Classify Juvenile Sexual Offenders**

Clinically, it is apparent that juvenile sexual offenders represent a heterogeneous group (Carpenter et al., 1995). Moreover, the identification of subtypes of juvenile sexual offenders is imperative for tailoring appropriate interventions to achieve maximum treatment effectiveness. Some authors have attempted to distinguish subtypes of juvenile sexual offenders based on victim characteristics (e.g., child vs. peer). Other research has examined the differences between juvenile sexual offenders with and without a history of sexual abuse. Two studies have attempted to identify subtypes among juvenile sexual offenders using cluster analysis. Lastly, a few studies have been conducted to determine differences among juvenile sexual offenders based on types of offenses committed.

Hunter et al. (2003) compared 157 adolescent males who sexually offended against prepubescent children with 25 adolescent males who targeted pubescent and post pubescent females. Path analysis revealed that the former group had greater deficits in psychosocial functioning, used less aggression in their sexual offending, and were more likely to offend against relatives. In addition, non-coercive childhood sexual abuse by a male non-relative was found to be related with sexual offending against a male child. A major limitation of this study was unequal group sizes and an inadequate sample size of the adolescents who targeted pubescent and post pubescent females. In addition, this study did not distinguish child versus peer victims based on the age of the perpetrator.

In a similar study comparing personality characteristics of adolescent sexual offenders who offend against peers and adolescents who offend against younger children, Carpenter et al. (1995) found differences on the schizoid, dependent, and avoidant subscales of the Millon Clinical Multiaxial Inventory. Subjects included 16 adolescent sexual offenders who had offended against their peers and 20 adolescents who had offended against young children. Subjects were residing at a residential correction facility and were administered the Millon Clinical Multiaxial Inventory (MCMI). Pairwise multivariate analyses of variance was
performed followed by one-way ANOVAs for the Schizoid, Avoidant, Dependent, Histrionic, Narcissistic, and Antisocial basic personality disorder scales. The child molesters scored significantly higher on the Schizoid (p=.021), Avoidant (p=.003), and Dependent (p=.001) scales compared to the peer group; and the average Dependent scores for the child group was in the clinically significant range. Nonetheless, this study failed to report effect sizes making it impossible to assess the magnitude of the strength of the association of these variables. In addition the sample size of each group (n=16, n=20) limits the validity of the results.

Worling (1995) compared 29 adolescent male sex offenders who assaulted female children to 27 sex offenders who offended against female peers/adults. Offenders that sexually assaulted female peers or adults were more likely to be the recipients of physical parental discipline. The two groups were not significantly different with respect to history of sexual victimization, interpersonal functioning, self-perception, or sexual attitudes.

In efforts to better understand the similarities and differences between adolescent sexual offenders with and without a history of sexual abuse, Hummel et al., (2000) investigated the background and personal development of adolescents who had offended against children. Sixteen adolescents with a history of sexual abuse were compared with 20 adolescent sexual offenders without a history of sexual abuse. There were no significant differences found regarding IQ, physical development, interpersonal violence within the family, and parental psychopathology. The only significant difference revealed between these two groups was a higher frequency of experiencing a loss before the age of 14 among adolescent sexual offenses with a history of sexual abuse. Loss was defined as loss of a parent due to death, separation, divorce, or fostering.

Two studies have attempted to distinguish among types of juvenile sexual offenders using cluster analysis. In an earlier study by Smith et al. (1987) the MMPI was used to classify 262 non-incarcerated male adolescent sex offenders. The subjects were selected from a group of 500 adolescents referred to a juvenile sexual offender program that provided evaluations and treatment services. Less than 1% of the referred adolescents were incarcerated at the time of the evaluation, representing a relatively less violent population than incarcerated sexual offenders. Using cluster analysis, the authors found four distinct groups that differed with regard to MMPI 2-point code type, referral offense, and historical and clinical data. These four groups were (1) shy, emotionally overcontrolled, and isolated (2) narcissistic, disturbed, insecure, and
argumentative, (3) outgoing, honest, prone to violent outbursts, and (4) impulsive, mistrustful, and undersocialized. The subgroups were not related to victim age or gender. These four groups tended to represent minimal levels of psychopathology, suggesting that there are some adolescent sex offenders who may be relatively well-adjusted or whose maladjustment is not clearly assessed by the MMPI.

The results of the Smith et al. (1987) adolescent sex offender study contrast with those of most adult sex offender studies, which suggest that sex offenders are more pathological than other types of offenders (e.g., Bard et al, 1987; Henn, Herjanic, & Vanderpearl, 1976)(as cited in Smith et al., 1987). In addition, only 7% of the Smith et al. (1987) sample displayed the modal MMPI code types identified among adult sex offenders (Hall, 1989; Hall, Mauiro, Vitaliano, & Proctor, 1986; Rader, 1977) suggesting that more differences than similarities might exist between adolescent and adult sex offenders (as cited in Smith et al., 1987).

In a more recent study, Worling (2001) examined California Psychological Inventory scores from 112 adolescent male sexual offenders aged 12-19. A cluster analysis revealed four personality-based subgroups: Antisocial/Impulsive, Unusual/Isolated, Overcontrolled/Reserved, and Confident/Aggressive. Recidivism data was collected for a period ranging from 2 to 10 years. The Antisocial/Impulsive group (n=43) was described as antisocial, impulsive, anxious, unhappy, and rebellious. The Unusual/Isolated group (n=15) was described as unusual, undependable, isolated, confused, trusting, and spontaneous. The Overcontrolled/Reserved group (n=20) was described as emotionally overcontrolled, responsible, reserved, reliable, suspicious of others, and rigid. Lastly, the Confident/Aggressive group (n=19) was confident, self-centered, outgoing, aggressive, sociable, dependable, organized, and optimistic. Almost half of the study participants were classified as Antisocial/Impulsive. These adolescents were the most likely to have received criminal charges for their index sexual assaults, and to have been victims of abusive physical discipline from their parents. Both the Confident/Aggressive and the Antisocial/Impulsive offenders were most likely to be living in a residential (custodial or noncustodial) setting. Offenders in the two more pathological groups (Antisocial/Impulsive and Unusual/Isolated) were most likely to be charged with a subsequent violent or nonviolent offense. The four-group typology based solely on personality functioning was similar to findings from Smith et al.‘s (1987) cluster analysis of MMPI scores. These findings indicate different etiological pathways and treatment needs among juvenile sexual offenders.
Wijk et al. aimed to investigate the differences between juvenile child molesters, rapists, and violent and nonviolent offenders on a number of demographic characteristics, personality traits, and problematic behavior characteristics. The sample consisted of 57 sexual assaulters and rapists, 55 child molesters, 85 violent offenders, and 80 nonviolent offenders who had been subjected to a psychological assessment at the request of the judge or district attorney. Chi-square analyses revealed a larger proportion of child molesters were of White origin, whereas, a greater number of violent offenders were from ethnic minority groups. Violent offenders were significantly more extraverted and impulsive and showed higher scores on lack of conscience than other offenders. Child molesters showed significantly higher scores on neuroticism. With regard to problem behaviors, child molesters had the lowest school drop-out rate but experienced more interpersonal difficulties. The differences found in this study emphasized the notion that juvenile sexual offenders differ from non-sex offenders when treated as a heterogeneous group. More specifically, child molesters and violent offenders appear to have different personality characteristics and demonstrate problematic behaviors in different areas. It was further implicated that future studies should examine differences between juvenile sex offenders who have committed only sex offenses (specialists) and those who also committed other, non-sex offenses (generalists) to provide a sharper contrast among the heterogeneous group of juvenile sexual offenders, since the literature suggests that these two groups exhibit different levels of problem behavior (Butler & Seto, 2002; Kempton & Forehand, 1992)(as cited in Wijk et al., 2005).

In a recent study, Butler & Seto (2002) sought to identify differences between adolescent sex offenders based on nonsexual offense history utilizing the developmental model of sexual offending proposed by Seto and Barbaree (1997). The results of their study found consistent differences between adolescent sex offenders without a history of nonsexual offenses (sex-only) and those with such a history (sex-plus). Sex-only offenders (n= 22) had significantly fewer current behavior problems, more prosocial attitudes and beliefs, and a lower expected risk for future delinquency than sex-plus offenders (n=10). In many ways, the sex-plus offenders were similar to the versatile offenders (offenders who committed both violent and non-violent crimes). Due to the small sample size of this study, comparisons between sex-only and sex-plus offenders on sexual offense characteristics were not statistically significant. An earlier study by Kempton and Forehand (1992) found that a subset of 7 sex offenders who did not have a history of
nonsexual offenses had fewer behavioral problems than 9 sex offenders who also had a history of nonsexual, person-related offenses. A significant limitation of both of these studies (Butler & Seto, 2002; Kempton & Forehand, 1992) was a failure to achieve statistical significance due to very small sample sizes.

In summary, several studies have examined differences between juvenile sexual offenders and other groups as well as differences among juvenile sexual offenders. These studies have been hampered by small sample sizes, lack of representative samples, and methodological flaws. Unfortunately, the only definitive conclusion that can be drawn is that juvenile sexual offenders are a heterogeneous group. Moreover, there appears to be differences in the nature of juvenile sexual offending among different subtypes. Thus, the question worthy of investigation becomes, “how does the behavior of juvenile sexual offending develop among different types of juvenile sexual offenders?” Similar to the differences that exist among juvenile sexual offenders, the literature on etiology also suggests different origins of sexual offending behavior. This next section will address numerous etiological theories that have been proposed to explain the development of sexual offending.

**Etiological Theories of Sexual Offending**

Miner and Crimmins (1997) have noted the research on the etiology of adolescent sex offending is relatively young and has not benefited from much theoretical consideration. Even though numerous theories have been proposed to explain the etiology of sexual offending behavior in both adolescents and adults, much of these theories lack empirical validity. For example, Lakey (1994) observed that there have been many theories of sexually aggressive behavior but dismissed them as a group due to lack of empirical support. Several theories that have been proposed focus on past history of sexual victimization. However, many sexual offenders do not have a history of sexual victimization. Furthermore, theories are lacking that explain the developmental pathways of sexually abusive youth that have not been sexually victimized. More recently, evidence has emerged supporting two independent drives that underlie sexual offending behavior (Roberts et al., 2002; Prolix, 2000; Knight, 1999). In addition to describing traditional viewpoints that have been used to conceptualize the development of sexual offending behavior, Uri Bronfenbrenner’s ecological systems theory will be utilized to provide an integrative framework to help understand the multiple factors and contexts which may contribute to sexual offending.
Childhood Trauma

Several developmental theories focus on the effects of childhood trauma. These theories propose that there are mechanisms that contribute to an abuse cycle. These mechanisms involve a reenactment of the abuse (Longo, 1982; McCormack, Rokus, Hazelwood, & Burgess, 1992), an attempt to achieve mastery over resulting conflicts (Watkins & Bentovim, 1992) and the subsequent conditioning of sexual arousal to assaultive fantasies (Hunter & Becker, 1994)(as cited in Veneziano, et al., 2000). Rasmussen, Burton, and Christopherson (1992) argue that prior traumatization is one of many precursors to sexual perpetration with other predisposing factors including social inadequacy, lack of intimacy, and impulsiveness (as cited in Veneziano et al., 2000).

Jonson-Reid (1998) contends etiological theories that concern victim-to-victimizing conceptualizations must consider the influence of other confounding factors. These confounding variables include: poverty (Peeples & Loeber, 1994); cumulative exposure to violence in the home, school, and community (Jonson-Reid, 1998); other family dysfunction (Goetting, 1994), school failure (Williams & McGee, 1994); and genetic or psychiatric factors (Lewis, 1992, Weiler & Widom, 1996)(as cited in Jonson-Reid and Way, 2001). Moreover, association of maltreatment with type of offense may sometimes be indirect.

Johnson (1996) suggests that sexually aggressive behavior will develop from both the experience of child abuse/neglect and abandonment/disruption to attachment, and either the experience (personal or observed) of sex paired with aggression or the experience of sex and the experience of aggression (as cited in Lightfoot & Evans, 2000). The child subsequently develops a heightened physiological response to stress and sensitization to traumatic cues (i.e., aggression and sexual stimuli). Under such circumstances, emotional arousal may become a conditioned or generalized response. This generates negative cognitive effects such as: poor coping and problem solving skills, inability to manage feelings and thoughts, and difficulties overall in regulating arousal. The findings of Lightfoot & Evans (2000) provide some support for Johnson’s etiological theory. Their study compared sexually offending children to a matched group of clinic-referred youth with conduct disorder. There was no group difference in the frequency of experiencing sexual abuse. Both groups experienced dysfunctional parenting and disturbed family histories; however, the sexually abusive group was characterized by disruption in terms of
lack of a stable care-giving relationship. In addition, the sexually abusive youth had a tendency to internalize distress and were less likely to utilize available social supports.

**Independent Drives Underlying Sexual Offending**

More recently, theories have been proposed in both the adolescent and adult sexual offender literature which suggest a developmental model of sexual offending that distinguishes between individuals with and without a history general antisocial behavior (Becker, 1988; Knight, 1999). For example, Becker (1988), hypothesized that adolescent sexual offenders could be divided into those with deviant sexual interests and those for whom sexual aggression was part of a broader antisocial repertoire. In the adult literature, Knight & Prentky (1990) poised that adult rapists could be classified into those who are low in antisociality and those who are high in antisociality. Knight (1999) formulated a theory of sexual coercion involving two underlying independent drives: (a) sexual deviance/preoccupation and (b) hyper-(or negative) masculinity. The first type of drive involves either sexual interest in acts that are illegal and/or preoccupation with sexual behavior in general. The second route to sexual offending is through the influence of a set of personality characteristics related to aggressiveness, hostile attitudes toward women, gratification from dominance, and acceptance of violence against women as appropriate.

The findings of a study by Roberts, et al. (2002) support the notion that at least two independent dimensions underlie risk of sexual recidivism. They identified two clusters of characteristics that are congruent with theorized factors relevant to sexual recidivism. The first cluster of characteristics (General Criminality/Antisocial-Violence) involved a pattern of general criminality indicated by index and prior convictions for burglary and violence, younger age, and never having a male victim. The second cluster overlapped with characteristics Knight (1999) labeled as Sexual Deviance/Preoccupation drive. Characteristics in this cluster included pedophilia, boy victims, absence of a history of raping adult females, and lower scores on psychopathy. The two dimensions identified in Roberts et al. (2002) study are similar to two pathways of sexual offending proposed by Prolix (2000). The sexual deviance dimension corresponds to a pathway that combines positive affect, deviant sexual fantasies, and victimization of boys; whereas, the antisocial criminality/negative masculinity dimension corresponds to a pathway that combines negative affect, coercion with female victims, and perception of victim as an object (as cited in Roberts, et al., 2002).
In the adolescent research, Seto and Barbaree (1997) have proposed a developmental model of sexual aggression that distinguishes between at least two types of offenders. For the first type of offender, their sexual offense seems to be a part of a general antisocial repertoire. For the second type, a more specific path to sexual offending appears to play a role. Drawing from Moffit’s (1993) distinction between life-course-persistent and adolescent-limited offenders, Seto and Barbaree (1997) propose the first type of sex offender can be characterized as persistently antisocial, with a history of early, chronic, and extensive conduct problems. In contrast, the second type of sex offender does not demonstrate early onset, chronicity, or extent of antisocial behavior and tends to be more similar to nonoffending youth than the first type. Nonetheless, it is believed that the second type may be more likely to have deviant sexual interests (Becker, 1988; Knight & Prentky, 1990) (as cited in Butler & Seto, 2002).

**Social Learning Theory**

Social learning theory can be used to hypothesize how different pathways of sexual aggression may develop. Burton & Meezan (2004) examined social learning theory as a construct to explain adolescent sexual offending using Bandura’s (1986) work to outline the theory. Underlying this theory is the concept of learning through modeling (observational learning). Observational learning begins with witnessing a behavior, which is then imprinted in memory and modeled by the youth. Along with learning the behavior, the youth incorporates the patterns of expressed and interpreted thoughts and emotions of the person modeling the behavior. Prior research suggests adolescent sex offending is related to the youth experiencing sexual or physical abuse (Johnson, 1988) and witnessing violence in the family (Davis & Leitenberg, 1987). This research lends support to the notion that adolescent sexual offending may be learned through observational learning.

Based on social learning theory, several learning pathways to sexual aggression can be hypothesized (Burton & Meezan, 2004). For example, if one experiences sexual abuse, their probability of sexually abusing another should increase. Research supports that youth who sexually offend have higher than normal prevalence rates of having a history of sexual victimization (Fehrenbach et al., 1986). Having a history of sexual victimization also appears to be related to the type of sex offense committed. For example, Worling’s (1995) study revealed 75% of male youth who sexually assaulted a male child reported sexual victimization compared to 25% who assaulted a female child.
Additional learning paths to sexually abusive behavior include exposure to criminality and/or rule breaking (Burton & Meezan, 2004). For example, research indicates many sexually aggressive youth have been exposed to significant amounts of criminality in their families (Burton & Meezan, 2004). Burton & Meezan (2004) suggest that many youths who sexually offend have had the opportunity to learn rule breaking and criminal behavior and have been exposed to criminal thinking. Similarly, a youth may learn to be violent by experiencing or witnessing physical aggression. This may combine with other factors (i.e., exposure to pornography, social skills deficits) which lead to sexual aggression. Burton & Meezan (2004) also hypothesized that a chaotic home may expose a youth to more typically adult behaviors than in a well-structured home.

**Ecological Systems Theory**

Unlike social learning theory which explains only a few specific processes involved in the development of problem behaviors, Bronfenbrenner’s Ecological Systems Theory (EST) emphasizes a broad range of situations and contexts in which development occurs. Rather than competing with existing theories, Bronfenbrenner’s ecological systems theory provides an integrative framework within which contributions of separate disciplines can be acknowledged in the larger context of understanding individual development and functioning (Cicchetti & Cohen, 2006). Moreover, EST can be used as an ecological framework for integrating developmental, risk, and intervention research in advancing our understanding of juvenile sexual offenders and the contextual factors that may contribute to sexual offending.

In Bronfenbrenner’s model, a person interacts in four types of nested environmental systems (micro-, meso-, exo-, and macro- systems) with bi-directional influences within and between the systems (Seifert et al., 2000). Each system contains roles, norms, and rules that can powerfully shape development. The settings which affect the individual most intimately are called **Microsystems**. The microsystem refers to situations in which the person has face-to-face contact with influential others (e.g., family, teachers, peers). The microsystem is encompassed by a **mesosystem** which is composed of the connections and relationships that exist between two or more microsystems which influence the person because of their relationships. The next environmental level is the **exosystem** which represents the social structures that form the immediate context in which families and individuals function. It includes systems such as neighborhoods, legal services, and parent’s workplace. Lastly, the **macrosystem** represents the
larger cultural context, overarching institutions, practices, and patterns of belief that characterizes society as a whole.

By applying Bronfenbrenner’s ecological developmental theory to juvenile sexual offending, one can explore how multiple influences in the micro-, meso-, exo-, and macro-systems may contribute to the occurrence of juvenile sexual offending. Factors that are thought to contribute to sexual offending will be briefly described below using Bronfenbrenner’s model as an integrative framework.

Microsystem
At this level, multiple factors have been cited in the research literature as influencing the development of sexual offending behavior. These factors include family, peers, and personal characteristics. Cicchetti & Valentino (2006) point out that children’s parenting models, peer groups, and school performance, in combination, contribute to the occurrence of antisocial behaviors. These factors are described more specifically below as they relate to juvenile sexual offending.

*Family*: Ryan and Lane (1991) suggest that circumstances, experiences, and parental models in early life influence the development of sexual deviance. In addition, Digiorgio-Miller (1994) point out that prior victimization may lead to subsequent perpetration in an attempt to integrate the abuse experience into a coherent world view (as cited in Corcoran et al., 1997).

*Peers*: Peer groups play an especially significant role in the lives of adolescents (Seifert et al., 2000). Peer groups can exert powerful pressures to conform and provide an environment for making social comparisons between his own actions, attitudes, and feelings (Seifert et al., 2000). Peer pressure can be a source of both positive and negative influences. Association with delinquent peers has consistently been found to be correlated with higher levels of delinquent behavior (Seifert et al., 2000; Menard and Huizinga, 1994; Short, 1960). Unfortunately, there is a lack of research on the influence of peers on sexual deviant behavior specifically.

*Personal Characteristics*: Beyond peer involvement, academic achievement is an important aspect of an adolescent’s life (Cicchetti & Valentino, 2006). Research reveals that juvenile sexual offenders are often characterized as having academic and interpersonal difficulties (Pierce & Pierce, 1987; Fehrenbach et al., 1986; Starzyk & Marshall, 2003; Becker & Abel, 1985). In addition, research indicates that attention deficit disorder may play a role in the sexually
aggressive behavior of some youth (Fago, 1997). Lack of victim empathy has also been used to explain the occurrence of sexual offending (Gerber, 1994).

As mentioned previously, these systems interact and influence each other as they affect the developing person. For example, early experiences in the JSO’s family environment can inhibit the ability to empathize with others. At the same time, if the parent-child relationship is poor, peer influences are likely to exert more influence on one’s behavior. Furthermore, it is important to consider these factors collectively as an influence of juvenile sexual offending.

Unlike situational and interpersonal influences operating at the microsystem level, much less research has been conducted regarding influences in the meso-, exo-, and macro- systems (Cicchetti, 2006). Difficulty conceptualizing macro-, exo-, and meso- system influences on development explains why little research has been conducted in this area. Another complication lies in the fact the pinpointing the effect of these more distal contexts involves multiple disciplines (e.g., anthropology, sociology, economics) (Cicchetti, 2006). Nonetheless, examples will be provided to illustrate how influences in these more distal contexts could lead to sexually inappropriate behaviors.

The mesosystem would involve relationships between microsystems that contribute to sex offending. An example would be the relationship between a child’s teacher and parents. If a child’s teacher expresses concern to the child’s parent regarding inappropriate sexual behaviors, it may influence the child’s parent’s to have a discussion with their child that may influence whether or not the child continues to engage in maladaptive sexual behaviors. The exosystem involves settings in which the person does not participate but in which significant decisions are made affecting the individuals who interact directly with the person. For example, if the school board decides that all teachers will be educated on the prevention of sexual abuse, it may influence them to take certain actions in their classroom that prevent a child from developing sexually abusive behavior. Lastly, the macrosystem involves the overarching patterns of beliefs characteristic of the developing person’s environmental settings which contribute to the occurrence of sexual offending. At this level, an example would be the gender role belief that men should dominate women. Hall & Barongan (1997) suggest that mainstream cultural experiences in the United States place men at risk for sexually aggressive behavior. They mention societal risk factors such as the conditioning of sexual arousal to deviant stimuli, the
development of cognitive distortions that reduce the perceived impact of sexual aggression, and the condoning of anger toward women.

Cicchetti and Toth (1991) support the use of an ecological-transactional model such as Bronfenbrenner’s Ecological Systems Theory, to conceptualize risk and protective factors. At each level of the ecology, risk and protective factors may operate in tandem, transacting with characteristics of the individual (Cicchetti, 2006). Belsky (1980) proposed that risk factors at ecological levels that are closer to the individual exert a more direct influence on an individual’s development. Moreover, this study will examine risk variables at the closest ecological level, the microsystem, while at the same time recognizing the fact that juvenile sexual offending occurs in a social context and is both influenced by and influences the community, society, and cultural values and beliefs.

**Summary of Literature**

Although there has been considerable clinical speculation of the factors that motivate sexually abusive behavior, there is a need for further research to determine if and/or how different types of juvenile sexual offenders differ from each other to determine if there are different pathways that lead to the development and continuation of sexually abusive behavior. In light of evidence that suggests there are different pathways to sexual offending behaviors (e.g., Butler and Seto, 2002; Roberts et al., 2002), it appears that factors that contribute to sexual offending may vary for different types of juvenile sexual offenders. For juvenile sexual offenders with a history of general delinquency, sexual offending appears to occur in the context of a general propensity to disregard the feelings and rights of others. Moreover, it has been proposed that this type of offender may use sexual aggression as a way to exert control over others. On the other hand, juvenile sexual offenders with no history of general delinquency appear to be driven less by aggression and desire to exert power over another. Instead, their sexual offending appears to be more specifically related to sexual preoccupation and/or sexual deviance and may be a result of having been sexually victimized as a child.

Most of the research regarding the etiology of juvenile sexual offending is based on clinical speculation and lacks empirical support (Miner & Crimmins, 1997). In fact, a recent meta-analysis (Worling & Curwen, 2000) revealed that characteristics that have been used to describe the etiology of sexual offending (e.g., negative emotions, negative parent-child relationships) did not consistently contribute to sexual offending. Some characteristics (e.g.,
academic difficulties, poor interpersonal skills, impulsivity, poor parent-child attachments, and history of childhood maltreatment) have been used to describe juvenile sexual offenders; however, these characteristics differ among juvenile sex offenders and have also been used to describe non-sex offenders. Juvenile sex offenders also vary regarding victim preference, offense characteristics, history of sexual abuse as a child, and personality traits. Moreover, juvenile sex offenders appear to represent a heterogeneous group.

Several characteristics (i.e., academic difficulties, poor interpersonal skills, hyperactivity/impulsivity, poor parent-child relationships, and history of childhood maltreatment) which have been used to describe non-sex offending youth are similar to the characteristics that have been used to describe juvenile sex offenders, indicating that similarities exist between non-sex offending delinquents and juvenile sex offenders. Just as some juvenile sex offenders appear to resemble non-sex offending delinquents, certain types of juvenile sex offenders appear to be at greater risk to reoffend non-sexually (Worling, 2001) and possess risk factors that have been identified in the research literature on general offending behavior. On the other hand, juvenile sex offenders who repeat sex offenses only, appear to possess a different set of risk factors that are specific to sexual recidivism (e.g., low degree of self-reported delinquent behavior, frequency of having been a victim of sexual abuse, sexual interest in children) (Worling & Curwen, 2000; Epperson & Ralston, 2004). These research findings suggest there may be different motivating factors and/or etiological pathways among different groups of juvenile sexual offenders.

In addition to examining risk factors for sexual and non-sexual reoffending among juvenile sexual offenders, several studies have attempted to delineate a personality profile of juvenile sexual offenders that distinguishes them from other groups. Unfortunately these studies that have attempted to distinguish personality differences between juvenile sexual offenders and other groups have yielded inconsistent results. Some studies indicate that there are no discernable differences between juvenile sexual offenders and non-sexual offending peers or mentally ill youth using the MMPI (Murphy & Peters, 1992; Smith & Monastersky, & Deishner, 1987), while others using the same measure (MMPI) (i.e., Herkov et al., 1996; Valliant & Bergeron, 1997) indicate juvenile sexual offenders demonstrate greater levels of psychopathology when compared to non-sexual offenders. Studies comparing juvenile sexual offenders with other non-sexual offending groups are also confounded by the use of different
measures and different populations of juvenile sexual offenders (e.g., non-violent vs. violent sex offenders).

Researchers have also sought to identify differences that exist among juvenile sexual offenders based on personality, offense characteristics, victim characteristics, and sexual abuse history. Results of these findings must be interpreted with great caution given the very small sample sizes and methodological flaws of these studies. Despite some of these shortcomings, recent research suggests that juvenile sexual offenders with a history of antisocial behavior differ from those with no history of antisocial behavior (Butler & Seto, 2002). Butler and Seto’s study provides tentative support for the model of sexual aggression proposed by Seto & Barbaree (1997), which suggests that at least two types of juvenile sexual offenders exist. The first type is described as persistently antisocial, and the second type appears to resemble non-delinquent youth and is hypothesized as being more influenced by sexual deviance/preoccupation.

In summary, findings from previous studies examining differences both among juvenile sexual offenders and between juvenile sexual offenders and non-sexual offenders have been inconsistent and are confounded by methodological issues (i.e., small sample sizes, inappropriate statistical techniques, failure to report effect sizes, and use of composite samples). In addition, most of the studies conducted in this area are exploratory, descriptive in nature, and fail to test theory-derived hypotheses (Becker, 1998). Some studies report significant differences between juvenile sexual offenders and non-delinquent youth, while others report none. Research comparing juvenile sexual offenders with other delinquent youth has also been inconclusive with some researchers indicating that juvenile sexual offenders have more severe psychopathology than other delinquent youths, while other research holds that the opposite is true. Previous attempts to establish JSO typologies have yielded similar results in their failure to consistently distinguish between juvenile sexual offenders and non-sex offending controls (Becker, 1998; Marshall, 1997). The only definitive conclusion which has been reached thus far is that juvenile sexual offenders appear to represent a heterogeneous group with varying characteristics and treatment needs (Weinrott, 1996). Moreover, further research is needed to better distinguish between different types of juvenile sexual offenders in order to improve the assessment and treatment of this heterogeneous group. After a review of the literature, Becker (1998) recommended researchers attempt to distinguish subtypes between those youth who exclusively commit sex offenses and those who commit sex offenses as one part of a broader pattern of both
sexual and nonsexual behavior. Becker further argued that future research should be theory driven and involve testing specific theory-derived hypotheses in an effort to provide better understanding about the developmental pathways of juvenile sexual offending behavior.
CHAPTER 3:
METHODOLOGY

Participants

The current study utilized archival data of eighty-one juvenile males charged with a sexual offense between the ages of 13 and 18 years old who were referred to a private outpatient clinic in the Southeast for psychological assessment or treatment between the years 2003 and 2006. There were approximately 94 files, but 13 cases did not meet criteria necessary to be included in the study. Reasons for non-inclusion were: too young (n=7), mental retardation status (n=3), duplicate records (n=1), and insufficient information (n=2). Risk factors were coded based on multiple sources of information available in the archival records such as criminal history, arrest affidavit of the index sex offense(s), interview data, collateral information, and assessment data from the Juvenile Sex Offender Assessment Protocol, second version (Prentky & Righthand, 2001; J-SOAP-II) and the ERASOR version 2.0 (Worling & Curwen, 2001). All files which included an adequate amount of information to code the experimental variables were used in the current study. Each data set was assigned a unique number and no personal identifying information was documented that could link the individual to the data.

The choice of variables in the current study was based on prior research and the availability of information which could be reliably and consistently coded. The sample was restricted to males since the very small number of female sex offenders would not allow for meaningful statistical analysis. In addition, subjects documented as having mental retardation were not included in the study to avoid confounding results.

Juvenile sexual offenders were assigned to one of two groups (JSO-generalists or JSO-specialists) based on history of antisocial behavior. History of antisocial behavior was operationalized using the diagnostic criteria for Conduct Disorder (CD) in the DSM-IV-TR (American Psychiatric Association, 2000). If a youth met criteria for Conduct Disorder based on their available information, they were included in the JSO-generalist group. If criteria were not met for Conduct Disorder, the youth was included in the JSO-specialist group. Inter-rater reliability for conduct disorder criteria was assessed using a second independent rater.

The JSO-generalist group consisted of 35 individuals and the JSO-specialist group consisted of 46 individuals. The individuals in this study came from both urban and rural areas in Northern Florida. This sample appeared to represent a low- to medium- risk group of juvenile
sexual offenders, considering the majority had only been charged on one occasion for a sex
offense. Most of the individuals in the JSO-generalist group had been charged with a non-sex
offense(s) in the past.

Sexual offenses that were committed by the youth in this sample included: Sexual
Assault, Lewd and Lascivious Behavior, Indecent Assault or Act, Lewd and Lascivious Act in
the Presence of a Child, Lewd and Lascivious Molestation, Sex Offense, Sexual Offense Against
a Child, Sexual Battery on a Child, Attempted Sexual Battery, Lewd and Lascivious Battery,

Non-sex offenses in this sample included Battery, Assault, Resisting an Officer with
Violence, Simple Assault, Cruelty to Animals, Armed Battery, Aggravated Assault, Domestic
Battery, and Burglary with Assault, Burglary, Larceny, Disturbing the Peace, Fraud, Criminal
Mischief, Marijuana Possession, Shoplifting, Resisting an Officer without Violence, Damage to
Property, Robbery, Riot, Grand Theft-Auto, False Information, Trespassing, Narcotic Equipment
Possession, Carrying a Weapon, Petty Theft, Loitering, and Arson.

Procedures

The purpose of the present study was to explore various risk factors which may
potentially be used to predict and distinguish two subtypes of juvenile sexual offenders (JSOs):
(1) juvenile sexual offenders with a history of antisocial behavior (JSO- generalists) and (2)
juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). The overall
goal of this study was to fill a gap in the research by providing empirical support for two
different developmental pathways that may lead to juvenile sexual behavior problems. Logistic
Regression was used to examine the relationship between the categorical dependent variable of
history of antisocial behavior (present or absent) and several risk factors associated with sexual
recidivism. Logistic regression is useful for understanding group differences in a 2-group
categorical variable (Hair et. al., 1998). It is a specialized form of regression that is formulated to
predict and explain a 2-group categorical dependent variable rather than a metric dependent
variable (Hair et. al., 1998). An advantage of Logistic Regression is the ability to predict a
discrete outcome variable such as group membership when predictor variables are continuous,
discrete, or a combination of the two (Tabachnick & Fidell, 2007). It relates to answer the same
questions as discriminant analysis and multiple regression analysis; however, it is more flexible
and more robust to violations of assumptions about distributions of the predictor variables; does
not require normal distributions; linearity, equal variances; and can handle any mix of continuous, discrete, or dichotomous predictor variables (Tabachnick & Fidell, 2007). Discriminant analysis can provide comparable predictive classificatory results but is less robust to violations of the assumption of variance/co-variance inequalities across groups (Hair et. al., 1998). In addition, logistic regression is more appropriate for handling categorical (non-metric) independent variables; whereas, the use of dummy variables in discriminate analysis creates problems with the variance/covariance equalities (Hair et. al., 1998). Logistic regression is also useful to determine the relative contribution of each independent variable and can be used to understand and control the impact of potential covariates (Tabachnick & Fidell, 2007). Moreover, logistic regression was selected as the most appropriate statistical method based on the nature of the research question and the properties of the variables that were examined. Hierarchical logistic regression was used rather than stepwise logistic regression. Hierarchical is used for theory building and is better for understanding and explanation (Tabachnick & Fidell, 2007). Whereas, stepwise is data-driven rather than theory-driven and does not contribute to understanding (Tabachnick & Fidell, 2007). A potential pitfall of stepwise regression is that significant predictor variables can be overlooked or cancelled out by other predictor variables (Tabachnick & Fidell, 2007). Lastly, hierarchical regression was chosen to help control for potential covariates. Statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 15.

Regarding sample size, Hair et al. (1998) provide the following guidelines when calculating sample size using logistic regression (p258):

“Many studies suggest a ratio of 20 observations for each predictor variable. The minimum size is 5 observations per independent variable. You must also consider the size of each group. The smallest group size must exceed the number of independent variables. As a practical guideline, each group should have at least 20 observations.”

There are 8 independent variables being examined in the current study and the smallest group consists of approximately 35 participants. Moreover, the current sample meets the practical guidelines suggested by Hair et al. (1998). Although the sample size meets the practical guidelines, the sample size is less than ideal. Unfortunately, the sample size was limited based on the availability of archival data. The limited sample size is a potential limitation of the current study and may limit the generalizability of the results. Descriptive statistics were used to
describe how the two groups differ on relevant background characteristics such as age, race, ever failed or held back, ever enrolled in special education services (ESE or SLD), and history of ADHD. The variables of ever held back or failed a grade, ESE/SLD status, and history of ADHD were screened using chi-square analysis since they were viewed as potential confounds. The aforementioned variables were screened due to prior research which suggests academic difficulties and ADHD are related to antisocial behavior (Lahey & Loeber, 1997). In addition, it was suspected that group differences in cognitive ability could potentially impact variables such as lack of empathy and lack of remorse due to differences in stages of moral development (i.e., Kohlberg, 1981; Piaget, 1983). According to Piaget (1983), an individual’s level of cognitive development can affect their ability to view things from another’s perspective. Failed/held back status and enrollment in ESE/SLD classes were used as potential indicators of cognitive functioning since IQ scores were not available.

Individuals were categorized into one of two groups (JSO-generalists or JSO-specialist) based on history of antisocial behavior (present or absent). The categorical dependent variable of history of antisocial behavior (present or absent) was operationalized using the diagnostic criteria for Conduct Disorder in the DSM-IV-TR (American Psychiatric Association, 2000). (Note: See Appendix A for Conduct Disorder criteria). If a youth met criteria for Conduct Disorder based on available information, they were included in the JSO-generalist group. If criterion was not met for Conduct Disorder, the youth was included in the JSO-specialist group. Thirty-five cases were randomly selected and rated by a second independent rater to assess inter-rater reliability.

The independent predictor variables in this study were risk factors that have been identified in the research on sexual recidivism. These risk factors were selected based on the review of the literature which indicated possible differences among juvenile sexual offenders with a history of antisocial behavior (JSO-generalists) and juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). These risk factors included: history of childhood sexual victimization, exposure or experience of physical violence in the home, residing in a single-parent home, male victim, child victim, use of force or threats of violence during sex offense, lack of empathy, and lack of remorse.

Most of the risk factors were coded based on selected items derived from two clinically guided risk measures that are commonly used to assess juvenile sexual offenders, the J-SOAP-II (Prentky & Righthand, 2003) and the ERASOR 2.0 (Worling & Curwen, 2001). The J-SOAP-II
and ERASOR 2.0 are clinically-guided measures composed of a list of recidivism risk factors which have been identified in prior research. These measures provide objective scoring criteria to assess the presence or absence of various risk factors.

The environmental risk variable of residing in a single parent home was dummy-coded (1=yes, 0=no) based on the participant’s living situation at the time the offense occurred. The risk factor of use of physical force or threats of violence during the offense was also dummy-coded (1=yes, 0=no). Initially, this risk factor was going to be based on Item 8 of the ERASOR which is described as threats of, or use of excessive violence/ weapons during sexual offense. In this item, the term “excessive” refers to force or threats beyond what was needed to complete the offense. Since there were too few cases that met this criterion, this item was modified to the aforementioned criterion “use of physical force or threats of, or use of violence/ weapons during the offense”. This criterion was coded based on any evidence that the victim was physically forced or threatened with violence/ weapons during the commission of the offense. This would include cases where the victim clearly indicated their lack of consent either verbally (i.e., saying “no”) or non-verbally (i.e., trying to escape, pushing the perpetrator away). Offenses which involved coercion or compliance, where force or threats of violence were not used, were coded as (0=no). Examples of these types of offenses included cases of statutory rape where the victim voluntarily agreed to the sexual act but was under the age of consent and cases involving compliance or coercion of a victim who was too young to understand what was happening (e.g., use of bribery, tricks such as “let’s play doctor”).

The risk factors of ever sexually assaulted a child and ever sexually assaulted a male victim were assessed based on the risk assessment guidelines set forth in the ERASOR, version 2 (Worling & Curwen, 2001), items 9 and 12. The risk factors of childhood sexual victimization history, history of experiencing or witnessing physical violence in the home, lack of empathy, and lack of remorse were assessed using items 8, 10, 20 and 21 of the JSOAP-II, respectively. A description of the coding criteria for each of these risk factors is provided in Appendix A). Item ratings for the J-SOAP-II and ERASOR 2.0 were based on all available evidence, including self-report and official documents in the records.

The following steps were taken to improve the reliability of item ratings based on guidelines set forth by Worling and Curwen (2001): (1) items will be scored using multiple sources of information to the extent this is possible, (2) when the available information is very
limited, unclear, or incomplete, items will be scored “conservatively” (that is, in the direction of lower risk), and (3) raters will be trained on the use of the aforementioned measures and will complete training cases.

In addition to the above-mentioned steps, a subgroup of 35 cases was randomly selected from the sample to be coded independently by a second rater in order to evaluate inter-rater reliability.

**Instruments and Scoring**

**Juvenile Sex Offender Assessment Protocol**

To assist clinicians with the assessment of adolescent sex offenders, Prentky & Righthand (2000) developed the J-SOAP (Juvenile Sex Offender Assessment Protocol) as an empirically-guided risk assessment. The J-SOAP was designed such that it could be coded from archival data and is often used in research on juvenile sexual offenders. It was developed to be used with boys in the age range of 12 to 18 who have been adjudicated for sexual offenses, as well as nonadjudicated youths with a history of sexually coercive behavior. The risk assessment variables were developed after reviews of the literature which covered five areas: 1) clinical studies of juvenile sexual offenders, 2) risk assessment/outcome studies of juvenile sexual offenders, 3) risk assessment/outcome studies of adult sex offenders, 4) risk assessment/outcome studies from general juvenile delinquency, and 5) risk assessment on mixed populations of adult offenders (Prentky & Righthand, 2001). It has demonstrated good construct validity (Prentky et al., 2000). Reliability and validity data reported in the manual are based on the first version of the J-SOAP (Prentky & Righthand, 1998), and include acceptable ranges of inter-rater reliability, internal consistency, factor structure, concurrent validity, and discriminant validity (Prentky & Righthand, 2001).

During the construction and validation process, the scoring criteria for every item was carefully examined for ambiguity and behavioral examples and anchors were added. The inter-rater reliability (IRR) for all items, except for Caregiver Instability, was good to excellent, ranging from .75 to .91, with an average IRR of .83 (Prentky & Righthand, 2001). Based on the results of several studies examining the measure’s validity and reliability, the J-SOAP was revised, resulting in the J-SOAP-II. The revisions consisted of a few item additions and deletions. In addition, an attempt was made to better anchor items in clear, behavioral terms.
(Prentky & Righthand, 2001). The evaluation of this measure’s predictive validity has been limited due to low base rates of recidivism (Parks & Bard, 2006).

J-SOAP-II Scoring Instructions

The risk factors sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse were assessed using items 8, 10, 20, and 21 of the JSOAP-II, respectively. Items on the JSOAP-II are scored as follows: 2= implies the clear presence of the risk factor, 1= implies the presence of some information that suggests the presence of the item, but the information is insufficient, unclear, or too sketchy to justify a score of “2”, and 0=implies the clear absence of the risk factor. (A complete description of these items is provided in Appendix A).

The Estimate of Risk of Adolescent Sexual Offense Recidivism (Version 2.0)

The ERASOR 2.0 is an empirically guided checklist to aid in the assessment of recidivism risk among juvenile sexual offenders. It provides objective coding instructions for 25 risk factors which have been associated with sexual recidivism. Items are assessed based on the presence of the risk factor as follows: present, possibly or partially present, not present, or unknown. Given that there is currently no empirical support for a specific algorithm for combining risk factors to predict adolescent sexual recidivism, clinical judgment is necessary to determine overall level of risk when using this measure (Worling & Curwen, 2001). It has been found to have good internal consistency (.75, F(24, 3216)=35.48, p<.001 (Worling, 2004). Research on the ERASOR 2.0 has indicated acceptable inter-rater agreement for most individual risk factors (.76 to .92) and considerable inter-rater agreement for the overall clinical risk estimate (Worling, 2004).

The ERASOR was developed in a similar fashion to the SVR-20 (Boer et al., 1997). In this approach, raters base their predictions on a fixed list of risk factors that have been suggested by existing research and professional opinion. Unlike actuarial scales, there are no fixed rules for tallying risk scores. Since there are no actuarial measures that have been developed for adolescent sexual offenders, evaluators must rely on empirically-guided measures to assist in judging a youth’s risk to reoffend sexually. Risk factors suggested in the ERASOR are not exhaustive as there may be other unique risk factors specific for a particular individual being assessed (Worling & Curwin, 2001). Furthermore, the guidelines provided in the ERASOR are
based on the scientific knowledge to date; and are likely to change with the advancements of research (Worling & Curwin, 2001).

**ERASOR 2.0 Scoring Instructions**

Items on the ERASOR 2.0 are assessed based on the presence of the risk factor as follows: present, possibly or partially present, not present, or unknown. For the purpose of this study, numerical values will be assigned based on the presence or the absence of each risk factor as follows: 2= present, 1=possibly or partially present, 0= not present. Items that are not known will be treated as missing data. (See Appendix A for description of items).

**Limitations**

The present study was limited by the use of available data and the use of a select sample of juvenile sexual offenders. It is unknown how well this sample represents the general population of juvenile sexual offenders. The youth in this sample appear to represent mostly low to moderate risk and the results may not generalize to a population of high risk offenders. In addition, the selection of participants was not randomized. The use of available data also made it difficult to acquire an ideal sample size. The relatively small sample size in this study may limit the power and generalizability of the findings.
CHAPTER 4:
RESULTS

The purpose of the present study was to explore various risk factors which may potentially be used to predict and distinguish two subtypes of juvenile sexual offenders: (1) juvenile sexual offenders with a history of antisocial behavior (JSO-Generalists) and (2) juvenile sexual offenders without a history of antisocial behavior (JSO-Specialists). Logistic Regression was used to examine the relationship between the categorical dependent variable of history of antisocial behavior (based on Conduct Disorder criteria) and several risk factors associated with sexual recidivism. Conduct Disorder was used as the classification variable since it is a reliable indicator of antisocial behavior. The variables of ever held back or failed a grade, ESE/SLD status, and history of ADHD were screened as potential confounds using chi-square analysis. The aforementioned variables were screened due to prior research which suggests academic difficulties and ADHD are related to antisocial behavior (Lahey & Loeber, 1997). In addition, it was suspected that group differences in cognitive ability could potentially impact variables such as lack of empathy and lack of remorse due to differences in stages of moral development (i.e., Kohlberg, 1981; Piaget, 1983). Descriptive statistics were also used to describe background characteristics. The following research questions were addressed.

1) Is there an overall relationship between the outcome variable--group membership based on history of antisocial behavior (JSO-specialist vs. JSO-generalist) and the predictor variables: single-parent home, use of physical force or threats, child victim, male victim, sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse, after controlling for history of ADHD, ever failed/held back, and ESE/SLD status?

2) Which predictor variable(s) predict group membership based on history of antisocial behavior? If significant, how does the predictor variable(s) affect group membership?

Descriptive Statistics

Eighty-one individuals were included in the study. The participants were divided into two groups JSO-Specialists (no history of antisocial behavior) and JSO-Generalists (history of antisocial behavior). History of antisocial behavior was determined based on whether a youth met criteria for Conduct Disorder (CD). Data were collected pertaining to the participants’ history of antisocial behavior and several risk factors associated with sexual recidivism. The descriptive statistics for these data broken down by group memberships (specialist vs. generalist)
are provided in Table 1. The average participant age was 15.27 (SD = 1.56) years. The participants’ race was reported as follows: 53 (65.4%) black, 27 (33.3%) white and 1 (1.2%) other. Twenty (24.7%) of the individuals were diagnosed with ADHD, and a majority (58, 71.6%) of the participants had failed a grade or were held back. Twenty-nine (35.8%) of the individuals had history ESE/SLD classes. Forty-seven (58.8%) of the individuals used force or threats during the assault. Thirty-eight (48.1%) of the participants resided in a single-parent home. Thirty-five (43.2%) of the participants were included in the JSO-Generalist group based on Conduct Disorder criteria, and 46 (56.8%) did not meet criteria for Conduct Disorder and were placed in the JSO-Specialist group. Of those participants meeting Conduct Disorder criteria, 25 participants were rated as mild or moderate severity and 10 participants were rated as severe.
Table 1  
*Descriptive Statistics for the Participant Demographics by Group*

<table>
<thead>
<tr>
<th>Variable</th>
<th>JSO-Specialists</th>
<th>JSO-Generalists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Group Membership</td>
<td>46</td>
<td>56.8</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>27</td>
<td>58.7</td>
</tr>
<tr>
<td>White</td>
<td>19</td>
<td>41.3</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ADHD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>40</td>
<td>87.0</td>
</tr>
<tr>
<td>Yes</td>
<td>6</td>
<td>13.0</td>
</tr>
<tr>
<td>Held Back</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td>45.7</td>
</tr>
<tr>
<td>Yes</td>
<td>25</td>
<td>54.3</td>
</tr>
<tr>
<td>ESE/SLD Classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>34</td>
<td>74.0</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>26.0</td>
</tr>
</tbody>
</table>
Using a sub-sample of 35 participants which were randomly selected, inter-rater reliability was calculated for each item rating using the Inter-rater Reliability Calculator which can be found at: http://www.meded.online.org/rating/reliabity.php. Intraclass correlation coefficients (ICC) was the specific method used to ascertain inter-rater reliability. Intra-class correlation coefficients are the proportion of variance of an observation due to between-subject variability in true scores (Tabachnick & Fidell, 2007). The ICC will be high when there is little variation between the scores given to each item by the raters. The inter-rater reliability was acceptable and ranged from .70 to .99. The inter-rater reliability for each of the variables was as follows: criteria met for Conduct Disorder = .95, history of sexual victimization = .94, lack of remorse = .70, male victim = .99, exposure or experience of domestic violence = .93, lack of empathy = .71, child victim = .93, and physical force or threats used = .97. Most of the items were straight-forward and inter-rater reliability was easily established. For example, if a youth had offended against a male victim, it was clear-cut when rating the risk factor of presence of male victim. Likewise, item descriptions included objective scoring criteria for many of the variables. These objective criteria contributed to higher reliabilities.

The scoring criterion for the variables of lack of empathy and lack of remorse was less straightforward and involved a greater degree of subjectivity. Although inter-rater reliability was acceptable for lack of empathy and lack of remorse, these variables should be interpreted with caution. Both these variables are classified as dynamic factors which are subject to change, whereas most of the other variables are static or historical. Unfortunately, there is a lack of research on dynamic factors due to the inherent difficulty in measuring these constructs due to their subjective nature. Despite the inherent difficulties associated with assessing dynamic variables (i.e., lack of empathy, lack of remorse), examining dynamic factors is especially critical because these are variables that can be targeted in treatment whereas static factors are fixed and can not be changed.

Screening for Potential Covariates

Several analyses were conducted to screen for potential covariates or confounds. The following variables were investigated as possible confounding variables: age, ever diagnosed with ADHD, ever been held back or failed a grade, and whether the participant had ever been enrolled in ESE or SLD classes. These variables were screened as confounding variables since prior research has linked ADHD and academic difficulties with antisocial behavior (Lahey &
Loeber, 1997). Since academic achievement scores were unavailable, academic difficulties was based on a youth’s history of enrollment in ESE or SLD classes and ever failed or held back a grade. Additionally, age was screened as a potential covariate since a youth’s age would likely influence his developmental level and ability to experience empathy and remorse. In addition, age would also affect the length of opportunity to engage in antisocial acts.

First, an independent samples t-test was conducted to determine if there was a significant difference in age between individuals who met the criteria for conduct disorder and those who did not meet the criteria. The means and standard deviations of age for both groups are listed in Table 2. Levene’s test was not significant, suggesting that the two groups had equal variances. The t-test (Table 3) failed to reveal a significant difference in age between individuals who had conduct disorder and those who did not, $t(79) = -0.36, p > .05$.

Table 2

<table>
<thead>
<tr>
<th>Conduct Disorder</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>46</td>
<td>15.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Yes</td>
<td>35</td>
<td>15.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>$t$</th>
<th>df</th>
<th>Sig.</th>
<th>Mean Difference</th>
<th>SE</th>
<th>95% CI of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.36</td>
<td>79</td>
<td>.722</td>
<td>-0.13</td>
<td>0.35</td>
<td>-0.82 - 0.57</td>
</tr>
</tbody>
</table>
Next, several chi-square tests of independence were conducted to determine if ADHD, held back/failed status and whether or not a participant had taken ESE/SLD classes was significantly related to the dependent variable of history of antisocial behavior, based on a youth meeting conduct disorder criteria. The observed and expected frequencies for the ADHD, held back/failed and ESE/SLD analyses are listed in Tables 4 – 6, respectively. All three chi-squares (Table 7) were significant, suggesting that ADHD ($\chi^2 = 7.77, p < .01$), held back/failed status ($\chi^2 = 15.59, p < .01$) and ESE/SLD classes ($\chi^2 = 4.37, p < .05$) were significantly related to antisocial behavior history based on meeting CD criteria.

The ADHD analysis indicated that 70.0% (14) of the participants with ADHD were diagnosed with conduct disorder, while only 34.4% (21) of those without ADHD were diagnosed with conduct disorder. Likewise, individuals who were held back or failed a grade were more likely to be diagnosed with conduct disorder than those who were not held back, 56.9% (33) and 8.7% (2), respectively. Lastly, the analyses indicated that 58.6% (17) of the participants who had taken ESE/SLD classes were diagnosed with conduct disorder, and only 34.6% (18) of the individuals who had not taken these classes were diagnosed with conduct disorder.

Table 4

<table>
<thead>
<tr>
<th>ADHD</th>
<th>Conduct Disorder</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Observed</td>
<td>40</td>
<td>6</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>34.6</td>
<td>11.4</td>
<td>46.0</td>
</tr>
<tr>
<td>Yes</td>
<td>Observed</td>
<td>21</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>26.4</td>
<td>8.6</td>
<td>35.0</td>
</tr>
</tbody>
</table>
Table 5

*Observed and Expected Frequencies for Held Back/Failed X Conduct Disorder*

<table>
<thead>
<tr>
<th>Held Back/Failed</th>
<th>Conduct Disorder</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td>21</td>
<td>25</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>13.1</td>
<td>32.9</td>
<td>46.0</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>2</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>9.9</td>
<td>25.1</td>
<td>35.0</td>
</tr>
</tbody>
</table>

Table 6

*Observed and Expected Frequencies for ESE/SL X Conduct Disorder*

<table>
<thead>
<tr>
<th>ESE/SLD Classes</th>
<th>Conduct Disorder</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td>34</td>
<td>12</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>29.5</td>
<td>16.5</td>
<td>46.0</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>18</td>
<td>17</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>22.5</td>
<td>12.5</td>
<td>35.0</td>
</tr>
</tbody>
</table>

Table 7

*Chi-Squares for Conduct Disorder Analyses*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic</th>
<th>Value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>Pearson Chi-Square</td>
<td>7.77</td>
<td>1</td>
<td>.005</td>
</tr>
<tr>
<td>Held Back/Failed</td>
<td>Pearson Chi-Square</td>
<td>15.59</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>ESE/SLD Classes</td>
<td>Pearson Chi-Square</td>
<td>4.37</td>
<td>1</td>
<td>.037</td>
</tr>
</tbody>
</table>
Research Question 1:

"Is there an overall relationship between the outcome variable--group membership (JSO-specialists vs. JSO-generalist) based on history of antisocial behavior and the predictor variables: single-parent home, use of physical force or threats, child victim, male victim, sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse, after controlling for history of ADHD, ever failed or held back, and ESE/SLD status?"

A hierarchical binary logistic regression was conducted to determine if the following variables were significant predictors of group membership (JSO-specialists vs. JSO-generalists) based on CD criteria: resided in a single-parent/caregiver home at time of offense, the use of force/threats during the sex offense, presence of a child victim(s), presence of male victim(s), sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse. The aforementioned predictors were added to the model after controlling for history of ADHD, ever held back or failed a grade, and ever enrolled in ESE/SLD classes. The nominal scale predictor variables (presence of caregiver & use of force/threats) were dummy coded for entry into the regression model. The following dummy coding scheme was utilized: presence of caregiver at time of offense (0 = no, 1 = yes), use of force/threats (0 = no, 1 = yes). Lastly, the following dummy coding was used for the criterion: conduct disorder diagnosis (0 = no, 1 = yes).

The variables were entered in two models: the covariates (ADHD, held back/failed status, and enrollment in ESE/SLD classes) were entered in model 1, and the predictor variables were entered in model 2. Assumptions of logistic regression include: multicollinearity, outliers, and independence. In addition, there should be an adequate number of cases relative to the number of predictor variables. The assumptions of logistic regression were evaluated using the guidelines described by Tabachnick & Fidell (2007). The variance inflation factors and tolerance levels did not reveal evidence of multicollinearity (refer to Table 8). Multicollinearity occurs when independent variables are too highly correlated (Tabachnick & Fidell, 2007). Tabachnick & Fidell (2007) suggest that variance inflation factors should be less than 10. All variance inflation factors were well below 10, indicating no problems with multicollinearity. Review of the standardized residuals did not reveal any outliers as all standardized residuals were below three.
As a general rule of thumb, it is recommended that any values of 3 or more standard deviations above or below the regression line should be considered possible outliers (Tabachnick & Fidell, 2007). The assumption of independence was met since each item rating came from a different individual. Lastly, there were an adequate number of cases relative to the number of predictor variables.

Table 8
*Tolerance & Variance Inflation Factors*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>0.90</td>
<td>1.11</td>
</tr>
<tr>
<td>Held Back</td>
<td>0.82</td>
<td>1.22</td>
</tr>
<tr>
<td>ESE/SLD Classes</td>
<td>0.89</td>
<td>1.12</td>
</tr>
<tr>
<td>Caregiver Presence</td>
<td>0.83</td>
<td>1.21</td>
</tr>
<tr>
<td>Use of Force/Threats</td>
<td>0.78</td>
<td>1.28</td>
</tr>
<tr>
<td>Child Victimization</td>
<td>0.61</td>
<td>1.64</td>
</tr>
<tr>
<td>Male Victimization</td>
<td>0.67</td>
<td>1.49</td>
</tr>
<tr>
<td>Sexual Victimization History</td>
<td>0.75</td>
<td>1.34</td>
</tr>
<tr>
<td>Family Assault/Violence</td>
<td>0.86</td>
<td>1.16</td>
</tr>
<tr>
<td>Lack of Empathy</td>
<td>0.38</td>
<td>2.67</td>
</tr>
<tr>
<td>Lack of Remorse</td>
<td>0.42</td>
<td>2.41</td>
</tr>
</tbody>
</table>

The classification table based on the model using the covariates only (Model 1) is presented in Table 9. The classification table based on the overall model including the both the covariates and the predictor variables (Model 2) is presented in Table 10. Thirty-five individuals met conduct disorder criteria, and 46 participants did not meet conduct disorder criteria. Thus, if one guessed that every person would not have conduct disorder, one would classify 57.7% of the participants correctly by chance.

The omnibus model was a significant predictor of whether or not an individual met the criteria for conduct disorder, $\chi^2 (11) = 37.03, R^2 = .51, p < .01$. However, there was not a significant increase in $R^2$ from model 1 to model 2, $\chi^2 (8) = 12.01, \Delta R^2 = .14, p > .05$. This suggests that together the predictor variables did not significantly predict the criterion after
controlling for the 3 covariates (ADHD, held back/failed status and enrollment in ESE/SLD classes). That is, the predictors were unable to increase the prediction beyond what was already accounted for by the covariates.

The overall model correctly predicted 86.7% of the individuals who were not diagnosed with conduct disorder. However, the model correctly predicted only 69.7% of those individuals who were diagnosed with conduct disorder.

**Prediction Ability of Model with Covariates Only**

Table 9

*Classification Table for Model 1/Research Question 1*

<table>
<thead>
<tr>
<th>Observed Conduct Disorder</th>
<th>Predicted Conduct Disorder</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Disorder No</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>Conduct Disorder Yes</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Prediction Ability of Overall Model**

Table 10

*Classification Table for Model 2/Research Question 1*

<table>
<thead>
<tr>
<th>Observed Conduct Disorder</th>
<th>Predicted Conduct Disorder</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Disorder No</td>
<td>39</td>
<td>6</td>
</tr>
<tr>
<td>Conduct Disorder Yes</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 2:
Which predictor variable(s) predict group membership based on history of antisocial behavior?
If significant, how does the predictor variable(s) affect group membership?

Looking at the individual impact of each of the predictors (see Table 11), the coefficients indicate that lack of empathy was a significant positive predictor of conduct disorder after controlling for ADHD, held back/failed status and enrollment in ESE/SLD classes, $\beta = 2.02$, $p < .05$. Given the coding of the criterion (0 = no conduct disorder, 1 = conduct disorder), this suggests that individuals with conduct disorder were showing higher levels of lack of empathy than those who did not have conduct disorder. The odds ratio for lack of empathy suggests that the chance of correctly classifying participants is more than 7 times greater if one knows the participant’s level of empathy. The remaining predictors were not significant within this model after controlling for the 3 covariates.
Individual Impact of Predictors on Group Membership (JSO-specialists vs. JSO-generalist) based on CD criteria

Table 11

*Regression Coefficients for Research Question 2*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>1.69</td>
<td>0.81</td>
<td>4.32</td>
<td>1</td>
<td>.038</td>
<td>5.44</td>
<td>1.10</td>
<td>26.81</td>
</tr>
<tr>
<td>Held Back</td>
<td>2.04</td>
<td>0.88</td>
<td>5.43</td>
<td>1</td>
<td>.020</td>
<td>7.71</td>
<td>1.38</td>
<td>42.94</td>
</tr>
<tr>
<td>ESE/SLD Classes</td>
<td>0.76</td>
<td>0.67</td>
<td>1.27</td>
<td>1</td>
<td>.260</td>
<td>2.14</td>
<td>0.57</td>
<td>8.00</td>
</tr>
<tr>
<td>Single-Parent Home</td>
<td>0.17</td>
<td>0.67</td>
<td>0.06</td>
<td>1</td>
<td>.806</td>
<td>1.18</td>
<td>0.32</td>
<td>4.40</td>
</tr>
<tr>
<td>Use of Force/Threats</td>
<td>0.29</td>
<td>0.72</td>
<td>0.16</td>
<td>1</td>
<td>.691</td>
<td>1.33</td>
<td>0.33</td>
<td>5.41</td>
</tr>
<tr>
<td>Child Victim</td>
<td>0.34</td>
<td>0.40</td>
<td>0.71</td>
<td>1</td>
<td>.400</td>
<td>0.72</td>
<td>0.33</td>
<td>1.56</td>
</tr>
<tr>
<td>Male Victim</td>
<td>0.37</td>
<td>0.52</td>
<td>0.51</td>
<td>1</td>
<td>.474</td>
<td>0.69</td>
<td>0.25</td>
<td>1.90</td>
</tr>
<tr>
<td>Victimization History</td>
<td>0.45</td>
<td>0.69</td>
<td>0.43</td>
<td>1</td>
<td>.514</td>
<td>1.57</td>
<td>0.41</td>
<td>6.06</td>
</tr>
<tr>
<td>Family Violence</td>
<td>0.36</td>
<td>0.40</td>
<td>0.80</td>
<td>1</td>
<td>.371</td>
<td>1.43</td>
<td>0.65</td>
<td>3.12</td>
</tr>
<tr>
<td>Lack of Empathy</td>
<td>2.02</td>
<td>0.87</td>
<td>5.41</td>
<td>1</td>
<td>.020</td>
<td>7.51</td>
<td>1.37</td>
<td>41.05</td>
</tr>
<tr>
<td>Lack of Remorse</td>
<td>0.62</td>
<td>0.63</td>
<td>0.94</td>
<td>1</td>
<td>.332</td>
<td>0.54</td>
<td>0.16</td>
<td>1.87</td>
</tr>
</tbody>
</table>
CHAPTER 5:
SUMMARY & DISCUSSION

Summary of Findings

Previous studies have attempted to solve the problem of heterogeneity among juvenile sexual offenders in order to better tailor treatment and assessment needs. In order to solve the problem of heterogeneity, researchers have attempted to distinguish and classify subtypes of juvenile sexual offenders. Previous research has attempted to distinguish subtypes based on: (1) juvenile sexual offenders who offended a child victim versus juvenile sexual offenders who offended a peer victim, (2) juvenile sexual offenders with and without a history of sexual abuse, (3) type of offense (i.e., violent versus non-violent), and (4) mathematically, using techniques such as cluster analysis. Unfortunately, previous research findings have been tentative and inconclusive (Parks & Bard, 2006). Most research conducted has been exploratory, descriptive, and atheoretical (Parks & Bard, 2006). Becker (1998) argued future research should test theory-derived hypotheses in an attempt to shed light on the developmental pathways of juvenile sexual offending behavior.

The current study was an attempt to distinguish two subtypes of juvenile sexual offenders based on the developmental model of sexual aggression proposed by Seto and Barbaree (1997), which describes at least two types of sex offenders; the first type described as persistently antisocial with the second type being described as less antisocial, but more likely to demonstrate deviant sexual interests. Two smaller studies have attempted to distinguish between juvenile sexual offenders who committed sex-offenses only and JSOs with a history of non-sexual delinquent behaviors (Ford & Linney, 1995; Butler & Seto, 2002). These studies had tentative conclusions in support of Seto and Barbaree’s developmental model of sexual aggression (1997); however, these findings were not significant due to the very small sample sizes and methodological issues (i.e., failure to report effect sizes). The current study was an attempt to build empirical support for the theoretical model proposed by Seto & Barbaree (1997) which distinguishes at least two types of juvenile sexual offenders. More importantly, the overarching goal of this study was to assist in solving the problem of heterogeneity by attempting to distinguish subtypes of juvenile sexual offenders thereby, providing important implications for treatment and assessment.
Research Questions

The purpose of the present study was to explore various risk factors which may potentially be used to predict and distinguish two subtypes of juvenile sexual offenders: (1) juvenile sexual offenders with a history of antisocial behavior (JSO-generalists) and (2) juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). The current study sought to address the following research questions:

(1) Is there an overall relationship between the outcome variable—history of antisocial behavior (based on conduct disorder criteria) and the independent variables: single-parent home, use of physical force or threats, child victim, male victim, sexual victimization history, exposure or experience of domestic violence, lack of empathy, and lack of remorse, after controlling for history of ADHD, failed/held back status, and ESE/SLD enrollment?

(2) Which predictor variables predict group membership and if significant, how does each predictor variable(s) affect group membership? For example, does the variable of presence of a male victim predict JSO-specialist group membership and if so, does the presence of a male victim increase or decrease the probability of placing an individual in the JSO-specialist group?

Hypotheses

Based on a review of the literature, it was predicted the risk factors of: use of threats or physical force during the offense, lack of empathy, lack of remorse, exposure or experience of domestic violence, and single-parent home will be significant predictors of JSO-generalist group membership. Where as, it was predicted that the risk factors of childhood sexual victimization, having a male victim, and having a child victim, will be significant predictors of JSO-specialist group membership.

The results of the current study were somewhat unexpected. The potential covariates of age, history of ADHD, ever failed or held back a grade, and ever taken ESE/SLD classes were screened. There were no significant differences between the two groups in age. On the other hand, there were significant group differences on the variables of history of ADHD, ever failed or held back a grade, and ever taken ESE/SLD classes. To control for these variables they were entered into the model using hierarchical regression. First, only the control variables were entered in Model 1 to account for the effect the control variables had on the outcome variable of
history of antisocial behavior (CD criteria met). Second, the predictor variables were entered into the model to see if there was a significant increase in the effect size (strength of the association between the set of predictor variables and the outcome variable) from Model 1 to Model 2. Interestingly, the omnibus model was a significant predictor of whether or not an individual met criteria for conduct disorder (JSO-generalist). The effect size was quite large $R^2 = .51$. [Cohen (1998), provides the following guidelines for effect size: small ($R^2 = .01$), medium ($R^2 = .09$), and large ($R^2 = .25$)]. The overall model correctly predicted 86.7% of individuals without a history of antisocial behavior based on CD criteria (JSO-specialist group) and correctly predicted 69.7% of those individuals with a history of antisocial behavior based on CD criteria (JSO-generalist). Despite the strength of the overall model to predict group membership, the selected predictor variables in the study were unable to significantly contribute to the model’s ability to correctly predict group membership above and beyond the prediction ability of the model with the covariates only.

Looking at the individual impact of each predictor variable (including the covariates) on the outcome, ever held back or failed a grade, lack of empathy, and history of ADHD were the strongest predictors of group membership. Ever held back or failed a grade had a significance value of .020 (p-value <.05) with an Exp(B) or odds ratio of 7.71. This value reflects the proportion of increase in the variance in the outcome variable that is associated with the predictor variable of ever held back or failed a grade in the model. In other words, by including the variable of ever held back or failed, the probability of correctly classifying an individual is nearly eight times greater. The second strongest predictor of the outcome variable of history of antisocial behavior (Conduct Disorder criteria met) was the variable of lack of empathy. The predictor variable lack of empathy had a significance value of .020 (p-value <.05) with an Exp(B) or odds ratio of 7.51. Moreover, including the variable of lack of empathy, improves the model’s ability to correctly classify participants by 7.5 times. Lastly, the predictor variable of ADHD had a significance of .038 (p-value<.05) with an Exp (B) of 5.44. Furthermore, including the variable of ADHD, improved the model’s ability to correctly classify participants by 5.4 times. The presence of these variables was associated with an increase in probability of membership in the JSO-generalist group (those with a history of antisocial behavior).
Professional and Theoretical Implications

Academic Difficulties

The strong relationship between the control variable ever held back or failed a grade and the outcome variable (history of antisocial behavior) was not surprising. As mentioned previously, about half of juvenile sexual offenders experience academic problems (Pierce & Pierce, 1987) and about 40% are placed in the appropriate grade level (Fehrenbach et al., 1986). Prior research has found academic difficulties to be related to antisocial behavior (Lahey & Loeber, 1997). These results suggest that juvenile sexual offenders who struggle academically may be more likely to engage in other non-sexual delinquent behavior in addition to their sex offense.

Attention Deficit Hyperactivity Disorder

The control variable of ADHD was also a significant predictor of group membership in the JSO-generalist group. Given the fact that history of ever held back or failed a grade was a strong predictor of JSO-generalist group membership, it is not surprising that ADHD was also a significant predictor, since ADHD may contribute to academic difficulties. Attention deficit hyperactivity disorder has been linked to antisocial behavior during both adolescence and adulthood (Hechtman, Weiss, & Perlman, 1984; Loney, Kramer, & Milich, 1981)(as cited by Lahey & Loeber, 1997).

Prior research has failed to yield significant differences in academic achievement between juvenile sexual offenders and non-sex offenders (Davis & Leitenberg, 1987). For example, in a study by Jacobs, Kennedy, and Mayer (1997), no significant differences were found for IQ scores or for academic achievement between juvenile sexual offenders and juveniles non-sexual offenders (As cited in Becker, 1998). In a meta-analysis, the IQ scores of juvenile sexual offenders ranged from 71-127, with a mean of 92 (Parks & Bard, 2006). Past research findings indicating little or no difference between juvenile sexual offenders and juvenile non-sex offenders may be due to using a composite sample of juvenile sex offenders rather than distinguishing between JSO-specialists and JSO-generalists.

In the current study, approximately 72% of the juvenile sexual offenders had been held back or failed a grade. Additionally, approximately 36% of the individuals in the study had been enrolled in ESE and/or SLD classes. The JSO-generalist group was significantly more likely to
demonstrate academic problems related to failing or being held back a grade as well as being enrolled in ESE or SLD classes. Likewise JSO-generalists were also more likely to have been diagnosed with ADHD.

Given that the overall aim of this study was to provide implications for the treatment and assessment of JSOs, risk factors that are currently used in the assessment of juvenile sexual offenders were selected as predictor variables. History of ever held back/failed, enrollment in ESE/SLD classes, and ADHD were selected as control variables since prior research has suggested these variables are correlated with antisocial behavior (Lahey & Loeber, 1997). In addition, it was suspected that group differences in intellectual ability could potentially impact the variables of lack of empathy and lack of remorse due to differences in stages of moral development (Kohlberg, 1981; Piaget, 1983). The variables of ESE/SLD status and ever failed/held back were used as potential indicators of intellectual ability since IQ scores were not available.

Based on the current findings, it appears that academic difficulties and history of ADHD contribute to a developmental pathway of JSO-generalists and may play less of a role in the developmental pathway of JSO-specialists. These variables are not typically utilized in the assessment of recidivism risk among juvenile sexual offenders. The current results suggest that perhaps they should be used in the assessment and possibly treatment of JSOs. For example, perhaps JSO-generalists would benefit from treatment which also emphasizes academic performance and management of ADHD symptoms. Of course, these study results are only speculative and more research should be done in this area to assess the impact of academic difficulties and ADHD on the offending behavior of JSO-generalists.

**Lack of Empathy**

The risk factor of lack of empathy is often targeted in the treatment of both juvenile and adult sexual abusers. The ability to empathize is hypothesized to prevent ongoing harmful behavior towards a person in distress. Likewise, failure to recognize this distress would facilitate harmful behavior (Marshall et al., 1995). The tentative conclusions of this study suggest that lack of empathy may be especially important when treating juvenile sexual offenders with a history of antisocial behavior. There are several caveats to keep in mind regarding the results of this study. First, the inter-rater reliability for level of empathy was less than ideal at .70. In
addition, item ratings for this variable were based largely on self-report data and clinical judgment.

Some individuals are especially good at faking empathy such as psychopaths. Certainly, some individuals may have been motivated to express empathy to reduce sentencing requirements and for social desirability. In addition, some individuals may lack the verbal abilities to adequately express empathy when they may in fact feel empathy for their victims. In addition to the aforementioned caveats, the construct of empathy, itself, is difficult to measure objectively and no standardized measure of empathy has been developed for juvenile sex offenders. Despite the difficulties associated with assessing this variable, this finding could have important implications for the treatment and assessment of juvenile sex offenders.

The variable of lack of empathy may shed some light on the nature and perhaps the rationale for the offenses committed by JSO-generalists versus those offenses committed by JSO-specialists. For example, the offenses of JSO-generalists may be due to a general lack of concern for the well-being of others; where as, the offenses of JSO-specialists may be more specific to sexual deviance. This hypothesis corresponds with the developmental model of sexual offending behavior proposed by Seto and Barbaree (1997) which describes at least two types of juvenile sexual offenders; the first type appearing more antisocial and whose offenses appear to occur in the context of a general antisocial repertoire and the second type which appears to be less antisocial and whose offending pattern appears to be more specific to sexual deviance. The development of sexual aggression in the first type (persistently antisocial) is similar to the “lifetime-course-persistent” group described by Moffit’s developmental taxonomy of antisocial behavior (1993). According to the theory of life-course persistent antisocial behavior, children’s neuropsychological problems interact cumulatively with their criminogenic environment across development (Moffit, 1993, p.674). In a series of studies, a diagnosis of both CD and ADHD was related to neuropsychological deficits and history of persistent and severe antisocial behavior (Moffit, 1990; Moffit & Henry, 1989; Moffit & Silva, 1988)(as cited in Moffit, 1993). In the current study, the JSO-generalist group most resembles this first type of offender.

The second type of sex offender in Seto & Barbaree’s model, is characterized by sexually coercive activity that is mostly confined to adolescence and young adulthood. These individuals do not show the early onset, extent and persistence of other antisocial behavior that characterizes
the persistently antisocial group. This second group parallels Moffit’s “adolescence-limited”
group of offenders (Moffit, 1993). In Moffit’s taxonomy (1993), adolescence-limited antisocial
behavior results from a “contemporary maturity gap” (p.686). The contemporary maturity gap is
a result of an earlier onset of puberty (due to improvement in health care and nutrition) and
delayed entry into the workforce (Moffit, 1993, p.686). As a result, adolescents are biologically
capable of being sexual beings but are prohibited from engaging in privileges reserved for
adulthood (i.e., consensual sex) (Moffit, 1993). Compared with the life-course-persistent type,
adolescence-limited delinquents show relatively little continuity in their antisocial behavior
(Moffit, 1993). In the current study, the JSO-specialists parallel this second group of offenders.

A prior study explored the typological distinction proposed by Seto & Barbaree’s
developmental model of sexual aggression (1997) by examining the differences between sex-
only adolescent offenders (those charged with sex offenses only) and sex-plus adolescent
offenders (those charged with both sex and non-sex offenses) (Butler & Seto, 2002). The study
results suggested sex-only offenders had more prosocial attitudes and a lower risk for future
delinquency than did the sex-plus offenders. Their study was limited by the small sample size
(sex-only offenders, n=22; sex-plus offenders, n=10).

The current study sought to provide further support for a taxonomy which distinguishes
between juvenile sexual offenders with a history of antisocial behavior and juvenile sexual
offenders without a history of antisocial behavior. Unexpectedly, most of the variables that were
expected to contribute to a youth being placed in the JSO-generalist group were not significant
(i.e., single-parent home, experience/ exposure to domestic violence, use of force) with the
exception of lack of empathy. The presence of the risk factor lack of empathy significantly
increased the probability of a youth being placed in the JSO-generalist group. At the same time,
variables thought to contribute to a youth being placed in the JSO-specialist group were also not
statistically significant. The covariates history of ADHD and ever held back or failed a grade did
significantly predict a youth’s membership in the JSO-generalist group. This finding is not
surprising, since prior research has shown a correlation between the variables of ADHD,
average difficulties, and antisocial behavior (Lahey & Loeber, 1997).

**Implications for Assessment and Treatment**

The findings of the current study suggest that some juvenile sexual offenders appear to
share similar characteristics with nonsexual offenders and appear to have similar patterns of
criminal offending (JSO-generalists). For these juvenile sexual offenders, their sexual offending appears to be a part of a broad pattern of general antisocial behavior. Whereas, some juvenile sexual offenders appear to be more similar to non-delinquent youth and do not display characteristics of general antisocial behavior (JSO-specialists). Differences found between subtypes of juvenile sex offenders suggest that treatment approaches should be tailored to the unique needs of each group. Implications for the treatment and assessment of juvenile sex offenders will be provided in light of the current findings. In the current study, JSO-generalists were more likely to demonstrate empathy deficits and were more likely to experience academic difficulties related to held back or failed status and enrollment in ESE/SLD classes than JSO-specialists. Treatment and assessment implications related to these variables will be provided as well as possible mediating factors.

Marshall et al. (1995) conceptualized empathy as involving the following stages: (a) emotional recognition, the ability to ascertain the emotional state of another (b) perspective-taking, the ability to view situations from another’s perspective, (c) emotion replication, (e.g., replication of the observed emotion), and (d) response decision—decision that is based on the feelings experienced. Empathy is hypothesized to prevent ongoing harmful behavior towards a person in distress. Given the important implications of this variable, it is critical to assess this factor in juvenile sex offenders.

Constructs related to empathy include callousness and unemotionality. Individuals with empathy deficits often show callous disregard towards others. In a recent study by Zakireh et al., (2008) differences in callousness, unemotionality, and antisocial behavior were found between juvenile sex offenders in residential programs and juvenile sex offenders in outpatient programs. Zakireh et al. (2008) examined differences between four different groups of offenders: sexual offenders in residential placement, sexual offenders in outpatient treatment, nonsexual offenders in residential placement, and nonsexual offender in outpatient treatment. In this study, residential juvenile sexual offenders did not differ from the residential juvenile nonsexual offenders in the domains of callousness, unemotionality, and antisocial behavior. Residential juvenile sexual offenders also demonstrated higher impulsivity than outpatient sexual offenders, but did not differ from the nonsexual offender groups. In the present study, the JSO-generalists appear to most resemble the residential sexual offenders in the study by Zakireh et al. (2008) and
perhaps generalists require treatment that focuses more on general delinquency risk factors such as impulsivity, general disregard for the rights and feelings of others, and antisocial behaviors.

Similarly, a meta-analysis found that antisocial youth with callous unemotional traits have deficits in the processing of negative emotional stimuli and signs of fear and distress in others (Frick, 2008). Frick and Dickens (2006) found psychopathy or callous unemotional traits were associated with more severe conduct problems, delinquency, or aggression. This research indicates that individuals, who demonstrate callous unemotional traits, may benefit from treatment which focuses on developing empathy and emotional regulation. In terms of prevention, focusing on empathy development and emotional regulation in early childhood could potentially deter offending behavior from occurring in the first place.

It has been suggested that cognitive distortion may contribute to lack of empathy (McCrady et al., 2008). McCrady et al. (2008) found generic distortions (e.g. attributing carelessness to theft victims) were elevated and correlated with sex-specific distortions (e.g., attributing promiscuity to victims of rape). They found that sex-specific and generic distortions were correlated with low levels of empathy. McCrady et al., suggested that juvenile sex offenders cognitive distortion may neutralize concerns for victims and propose that treatment programs aim to remediate self-serving cognitive distortions. The authors point out that distortion scores were in the clinical range for fewer than half (42.3%) of the participants. They further proposed that their findings may be more relevant for incarcerated “criminally versatile” juvenile sexual offenders and may or may not generalize to offenders whose sexual offenses are less severe and who do not have delinquent histories.

In the present study, it is unknown how JSO-specialists and JSO-generalists differ in regards to their cognitive distortions. In light of the current study’s results, it could be hypothesized that JSO-generalists may benefit from treatment focusing on both generic and sex-specific distortions. Since JSO-specialists appear to demonstrate less general antisocial attitudes and behaviors, perhaps they would benefit more from the sex-specific cognitive distortions that led to their sex offense. These implications should be explored in future studies by examining possible differences in cognitive distortions displayed by these two groups. Identifying differences in cognitive distortions could increase our understanding of empathy deficits which may contribute to juvenile sex offending. If relevant, cognitive distortions could play an
important role in assessment and the tailoring of treatment to specific cognitive distortions which are relevant to particular types of offenders.

The results of this study also revealed that there was no distinction between juveniles who offended against children and those who offended against peers or older victims based on history of antisocial behavior. This finding was unexpected, since the adult literature suggests that rapists are often characterized by a history of general criminality and child molesters tend to have little, if any, history of general antisocial behavior. This suggests that adolescent sex offenders may be more malleable and their sexual interests are not fixed. Moreover, it is potentially harmful and likely to be inaccurate to classify juveniles who have offended against a child victim as a molester, just as it may be inaccurate to classify juveniles who offended against a peer or older victim as a rapist. Recidivism data indicate that the majority of juvenile sex offenders do not reoffend (likely falling into the adolescent-limited offending pattern described by Moffit, 1993). Estimates of recidivism range from 0% after a 6 month follow-up period (Mazur & Michael, 1992) to 30% after a mean follow-up period of 9.5 years (Langstrom, 2002). It is possible that the small percentage of adolescents that do go onto recommit sex offenses may be more fixed in their sexual interests (e.g., child molester vs. rapists). Future studies examining differences between generalists and specialists in a high-risk group of juvenile sex offenders should be conducted to examine if there is a distinction in victim selection (child vs. peer or older).

In terms of intervention and assessment, academic difficulties appear to play a role in the offending patterns of JSO-generalists. Given the strong correlation found between academic problems and delinquency, this is not surprising. It is interesting to find that academic difficulties appear to play less of a role in the offending behavior of JSO-specialists. The differences in academic achievement between juvenile sexual offenders and other groups (i.e., non-sex offenders, non-delinquent youth) have been unclear due to inconsistent findings in the research literature. Lack of consistent findings is likely due to using composite samples of juvenile sex offenders when comparing groups. The results of the current study suggest JSO-generalists are more likely to display academic difficulties than JSO-specialists. Factors such as poor academic achievement, grade retention, and truancy are related to criminal activity (Vacca, 2008). These factors appear to be more relevant for JSO-generalists than for JSO-specialists. It is suggested that when students fail to succeed in school, they might search for an
alternative area in which to excel. For some individuals, the alternative area in which they choose to excel is crime. Assuming this avenue, they may satisfy their needs and acquire social status. Moreover, addressing illiteracy, learning deficits and other academic difficulties appear to be especially critical in treating JSO-generalists and preventing them from continuing on a path of chronic delinquency.

The results of the current study imply that academic difficulties may play a critical role in the development of offending behavior of JSO-generalists. Currently, commonly used measures of risk assessment for juvenile sex offenders do not include factors related to academic difficulties. The current findings suggest that such factors (i.e., enrollment in ESE/SLD classes, grade retention) should be included in the assessment of juvenile sexual offenders. Future studies should examine if these factors contribute to sexual reoffending among juveniles, since academic and learning difficulties have been found to contribute to general criminal reoffending.

As mentioned previously, youth who do not excel in the school environment, may find other areas in which to excel. Some of these individuals may choose a path of delinquency. In terms of treatment, it may be fruitful to incorporate a multisystematic approach to the treatment of JSO-generalists which involves a youth’s community, school administration, teachers, and parents to assist the child in overcoming academic difficulties and finding other avenues in which the youth can succeed. If the youth could learn to excel in school and perhaps other productive areas (such as sports, community activities, etc.), their needs (i.e., social status, achievement, peer relationships) could be met and their antisocial behaviors may desist.

Lastly, the results of this study indicate that it may be contraindicated to combine JSO-generalists and JSO-specialists in group treatment, since the pro-criminal attitudes and behaviors of more antisocial youth have been shown to negatively impact the attitudes and behaviors of less antisocial youth (Dishion & Dodge, 2005). Dodge (2008) indicates youths who are most susceptible to deviant peer influence are early-adolescent boys who have just begun a trajectory of deviant behavior but have not committed to that lifestyle. JSO-specialists in this study were characterized as youths who had committed a sexual offense but had minimal or no history of other antisocial behavior. JSO-specialists appear to resemble more closely the adolescent-limited offender described in Moffit’s taxonomy of antisocial behavior (1993) and could potentially be influenced by more deviant peers to assume a path of deviancy. Furthermore, clinicians should
use caution when combining JSO-generalists and JSO-specialists in treatment, and may want to consider treating these groups separately.

**Limitations**

The present study was limited by the use of available data and the use of a select sample of juvenile sexual offenders from the Southeast who were referred to a private outpatient clinic for a psychological evaluation or treatment. It is unknown how well this sample represents the general population of juvenile sex offenders. In addition, the selection of participants was not randomized and the two groups differ regarding background characteristics. For example, there was a greater percentage of African American youth in the JSO-generalist group than in the JSO-specialist group (74% versus 59%, respectively). The JSO-generalist group also differed on background characteristics such as ever held back or failed, ever been enrolled in ESE or SLD classes, and history of ADHD. These variables were included in the model as covariates to control for confounding results.

The use of available data also made it difficult to acquire an ideal sample size. The relatively small sample size in this study also limits the power and generalizability of the findings. Additionally, the generalizability of the study’s results is restricted to a select sample of juvenile sexual offenders. The current sample appeared to represent a relatively low risk group of sexual offenders, considering most of the youth had no more then one sexual offense. It is unknown how the sample of juvenile sexual offenders in this study compares to the juvenile sexual offender population as a whole, particularly those who are considered high risk and those from different geographic locations.

In descriptive studies, JSOs have been reported as having an average age of 15 (Becker, Et al., 1986). The average age of the JSOs in the current sample was 15.27 years. Racial demographics appear to vary among different studies. In a meta-analysis, Parks & Bard (2006) reported a racial distribution of 19% African American, 63% Caucasian, 8% Hispanic, and 10% Native American. In a study by Kemper & Kistener (2007) with a sample of participants coming from Central and North Florida from both urban and rural communities, the demographics were reported as follows: African Americans (56%), Caucasians (37%), Hispanics (6%), and other (1%). The current study sample appears to most closely resemble the sample used in Kemper & Kistener’s study (2007) in terms of demographics. Another caveat of the current study’s sample concerns level of risk. Participants in the current study appeared to represent mostly low to
moderate risk for sexual recidivism. It is unknown how these participants compare to juvenile sexual offenders who are considered high risk.

Unfortunately, sampling issues have been a hindrance in much of the research concerning this population. For the most part, samples reported in the literature regarding juvenile sexual offenders are not representative, are small, and lack clarity about the sample location (Burton & Meezan, 2004). An additional limitation of this study was the use of some self-report data. Although collateral information (i.e., arrest affidavit, criminal records) was utilized, some data were based on self-report and relied, in part, on clinical judgment. This is a serious limitation, since self-report may be impacted by a number of variables including social desirability, mood, and memory distortion. For example, a youth may have feigned feelings of guilt and remorse as an attempt to avoid incarceration. In addition, a youth and/or his caregiver(s) may have denied or withheld certain information (e.g. history of sexual victimization) due to feelings of shame or guilt. Lastly, some of the items assessed in this study relied partially on clinical judgment due to their nature. This is especially true when assessing dynamic factors (also known as treatment variables) such as lack of empathy and lack of remorse. Due to the subjective nature of dynamic factors, they have received little attention in the research despite their clinical utility. To help improve the reliability of these items, the guidelines set forth by Worling and Curwen (2001) were followed and inter-rater reliability was assessed.

**Directions for Future Research**

The results of this study suggest the possibility of differences in developmental pathways for juvenile sexual offenders with a history of antisocial behavior (JSO-generalists) and juvenile sexual offenders without a history of antisocial behavior (JSO-specialists). For example, perhaps variables of ADHD and academic difficulties play more of a role in the development of juvenile sexual problem behaviors among JSO-generalists and may play less of a role in the development of sexual problem behaviors in JSO-specialists. Further studies, should be conducted in this area to explore differences in these variables as well as possible mediating effects utilizing specialized statistical techniques such as structural equation modeling. In addition, the variable of lack of empathy should be further evaluated for its utility in the evaluation and treatment of juvenile sexual offenders.

The risk factor of lack of empathy is often targeted in the treatment of both juvenile and adult sexual abusers. The tentative conclusions of this study suggest that lack of empathy may be
especially important when treating juvenile sexual offenders with a history of antisocial behavior. This variable may also shed some light on the nature and perhaps the rationale for the offenses committed by JSO-generalists versus those offenses committed by JSO-specialists. For example, the offenses of JSO-generalist may be due to their lack of concern for others: whereas the offenses of JSO-specialists may be more specific to sexual deviance and inability to control sexual impulses. Beyond the specific aim of this study to provide implications for different developmental pathways of sexual offending behavior, further areas in need of exploration regarding juvenile sexual offending behavior are described below.

Like most of the research on juvenile sexual offending, this study focused primarily on risk factors in a youth’s immediate environment, or what is referred to as the microsystem in Bronfenbrenner’s Ecological Systems Theory (EST) (Bronfenbrenner, 1979). In Bronfenbrenner’s model, a person interacts in four types of nested environmental systems (micro-, meso-, exo-, and macro-systems) which can influence development. Few studies to date have investigated factors in the exosystem (e.g., social structure, neighborhood) and macrosystem (e.g., cultural beliefs, values) of Bronfenbrenner’s model and their impact on juvenile sexual problem behaviors. For example, it would be useful to explore what cultural beliefs and values contribute to sexual offending behaviors. Today’s youth are inundated with messages about sex and gender roles in the media now more than ever with the evolution of reality TV and the world-wide web. It may be particularly illuminating to investigate the relationship between messages received in the media (songs, reality television shows, movies) and juvenile males’ attitudes and perceptions of women and sex.

**Pornography**

As mentioned previously in the literature review, a few descriptive studies have found juvenile sexual offenders to be more likely to have viewed pornography than other non-sex offending youth. Unfortunately, very few studies have investigated the relationship between pornography exposure and juvenile sexual offending behavior. Future studies should attempt to identify the role that pornography may play in the development of sexual offending behavior among juveniles.

**Peer Influences**

Peers have been shown to have a strong influence on the behavior of adolescents during a time period when acquiring a sense of belonging and acceptance is considered imperative. Dodge
(2008) points out the strong relationship that deviant peers have over deviant behavior among high-risk adolescents. He further suggests that youths who are most susceptible to deviant peer influence are early-adolescent boys who have begun a trajectory of deviant behavior but have not become committed to that lifestyle (Dodge, 2008). It would be interesting to examine the influence of a youth’s peer group on their sexual attitudes and behaviors.

**Emotional Intelligence**

Lack of empathy is often associated with juvenile sexual offending and other delinquent acts. Factors associated with empathy deficits are likely to include cognitive, social, sexual, and emotional deficits. In particular, emotional intelligence appears to play an integral role in one’s ability to experience empathy. Daniel Goleman (1995) described emotional intelligence as “being able to rein in emotional impulse; to read another’s innermost feelings; to handle relationships smoothly” (p. xiii)(as cited by Pfeiffer, 2001). Goleman suggests a large number of abilities fall within the emotional intelligence construct such as delay of gratification, motivation, impulse control, ability to empathize, and attunement to others.

Mayer & Salovey (1997) describe four components of emotional intelligence which include the capacity to perceive emotion, to integrate it in thought, to understand emotion, and to manage emotion. Research on emotional intelligence indicates that individuals with high emotional intelligence tend to be more socially competent, have better quality relationships, and are viewed as more interpersonally sensitive than those lower in emotional intelligence (Mayer et al., 2008). Given the integral role emotional intelligence plays in a person’s ability to empathize, future research should explore the role of emotional intelligence in juvenile sexual offending. Research indicating different levels of emotional intelligence and the potential effect it has on victim empathy could assist in better understanding the nature of juvenile sexual offending and could have potential treatment implications.

**Hypersexualization**

Another avenue that has received little attention in the juvenile sexual offending literature is hypersexualization at an early age through inappropriate exposure to adult sexual activity either in the family context or through media/television. It would be worth investigating what environmental factors may lead to hypersexualization in children. It would also be worth investigating the age of onset of sexual offending and it’s relationship to sexual recidivism, given the research which indicates early-onset of general antisocial behavior is correlated with a more
extensive and persistent pattern of antisocial behavior than those offenders who begin their offending in adolescence (Moffit, 1993). It is worth investigating if early-onset of sexual problem behaviors is also related to a more extensive and chronic pattern of sexual offending.

**Intellectual Functioning and Illiteracy**

Characteristics such as lower intellectual abilities and illiteracy have been correlated with antisocial behavior. Clarizio (1997) points out that reading disabilities are associated with childhood conduct disorder and adult criminality, but not with adolescent delinquency. Drawing from Moffit’s distinction between life-course-persistent offenders and adolescent-limited offenders, the above research implies that reading disabilities is more prominent in life-course-persistent offenders. In a longitudinal study, Moffit (1990) analyzed IQ data for adolescent-limited offenders and life-course persistent offenders. Moffit found only a 1 point mean deficit for adolescent-onset delinquents but a 17-point mean deficit for childhood-onset offenders. This data indicate that intelligence is unrelated to antisocial behavior among adolescent-limited offenders. In contrast, intelligence appears to play a more critical role in the antisocial behavior of life-course-persistent offenders. IQ data were not available in the current study, however, it would be worth exploring how JSO-specialists and JSO-generalists differ in terms of intelligence and illiteracy. Particularly, it would be interesting to determine if factors such as lower intellectual abilities and illiteracy are related to the development of sexual offending behavior in JSO-generalists.

**Negative Attitudes and Beliefs**

Several thinking errors and distorted cognitions about sexual behavior have been associated with sexual reoffending (Zakireh et al., 2008). It would be interesting to investigate what negative thoughts and beliefs contribute to juvenile sexual offending (e.g., “girls that dress sexy want to have sex”, “sex with children is not harmful”). In addition, it could be useful to examine differences in cognitive distortions between JSO-generalists and JSO-specialists to see if there are unique distortions which contribute to the offending pattern of each group. For example, perhaps, JSO-specialist’s attitudes would reveal more naivety or desire to gain peer approval, whereas the cognitions of JSO-generalists may be driven more by aggression and hostility towards women.
Prevention

Lastly, areas in critical need of research include primary prevention for sexual offending. Several studies have investigated risk factors for sexual recidivism but few studies have investigated primary risk factors to be targeted before offending behavior occurs. Developing a better understanding of factors which may predispose a youth to sexually offend could lead to effective prevention programs. In fact, society would most benefit from the prevention of sexual offending before it occurs.

Juvenile sexual offenders appear to share some primary risk factors with non-sexual offenders, while others may not. Both juvenile sex offenders and non-sex offenders are frequently said to experience a high level of family dysfunction (Davis & Leitenberg, 1987). In addition both have been found to have more behavior problems, more difficulties in peer and family relations and worse academic performance in comparison to non-delinquent youths (Ronis & Borduin, 2007). It is important to consider that most studies comparing juvenile sex offenders to other groups such as non-sex offenders and non-delinquent youth do not distinguish between juvenile sex offenders with a history of general antisocial behavior (JSO-generalists) and those without (JSO-specialists). The current study suggests there are differences between these two groups and generalists are more likely to share characteristics with general offenders while JSO-specialists are more likely to resemble non-offending youth. This finding implies that there may be different primary risk factors for JSO-generalists versus JSO-specialists. Since some juvenile sex offenders appear to resemble non-sex offenders (e.g., JSO-generalists), primary risk factors and prevention programs for both general delinquency and sex offending will be discussed.

Children with early emotional and social problems and early onset behavior problems are at high risk for academic failure, truancy, and delinquency (Moffit, 1993). The Early Child Longitudinal Survey (ECLS), a nationally representative sample of over 22,000 kindergarten children, suggests that exposure to multiple poverty-related risks increase the odds that children will demonstrate less social competence. Webstser-Stratton et al. (2008) suggest interventions offered to socio-economically disadvantaged population that include a social and emotional component and train teachers in effective classroom management skills and in promotion of parent-school involvement are promising for preventing conduct disorder and promoting academic success. Moreover, there is substantial evidence indicating that well-trained and
supportive teachers, who use high levels of praise, proactive teaching strategies, and non-harsh discipline, can play a crucial role in fostering the development of social and emotional skills and preventing the onset of delinquency (Webstser-Stratton et al., 2008). In fact, Burchinal, Roberts, Hooper, and Zeisel (2000) found low-income children in high quality preschool settings are significantly better off, cognitively, socially, and emotionally than a comparison group in low quality settings. In addition to several school programs that show promise for delinquency prevention, multisystematic therapy and multidimensional treatment-based foster care are effective in preventing chronic violence (Dodge, 2008). Reddy & Pfeiffer (1997) have also found treatment foster care to be successful in producing large effect on children’s social skills and medium effects in reducing behavior problems.

Unfortunately, few prevention programs have been developed to prevent the onset of sex offending in children. One reason for this may be due to the sensitive nature of the subject matter and the fear that talking to youth about sex could lead them to engage in sexual activity. In a paper written by a person who was a sex offender in his youth (Oliver, 2007), three recommendations were provided for preventing juvenile sex abuse. These recommendations included: telling youth who are about to enter puberty that sexual relations between adolescents and young children are a crime and that young children can never consent to sexual relations, to tell young people about to enter puberty that dwelling on sexual thoughts about young children is dangerous and that if this occurs, they should seek help, and to provide better education to adults about warning signs which may be exhibited by adolescents at risk of sexual offending so early intervention can be provided. Other recommendations for the prevention of sex offending include: reduction of the secrecy and the hesitancy to discuss sexuality during childhood; recognizing that childhood sexuality is not a pathological condition, increasing our understanding of sexual behaviors in childhood and pre-adolescence so the continuum of sexual behavior can be evaluated and responded to appropriately; and emphasizing the importance of consent in adolescent sexual behavior, which must be informed and equal (Ryan, 1991)(as cited in Oates, 2007).

Given the serious societal costs of juvenile sexual offending, it is imperative to develop a better understanding of developmental precursors which lead to sexual offending in order to develop effective prevention programs. Some primary risk factors appear to be similar for both the onset of general offending and sexual offending (i.e., family dysfunction and poor social and
emotional skills). In addition, educating children about what legal and illegal sexual behavior appears to be important, since some youth who commit sex offenses do not realize they committed a crime until the offense has already been committed. In addition, youth should be informed of the need for consent and what consent means. In particular, they should know that children can not provide consent and that consent must be informed and equal.
APPENDIX A:
SCORING CRITERIA WORKSHEET
CONDUCT DISORDER CRITERIA
A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of 3 or more of the following criteria in the past 12 months, with at least criteria present in the past 6 months.

_Rater Instructions:_ Place check mark next to criteria if present.

**Aggression to People Or Animals**
1) often bullies, threatens, or intimidates others___
2) often initiates physical fights___
3) has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)___
4) has been physically cruel to people ___
5) has been physically cruel to animals___
6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)___
7) has forced someone into sexual activity___

**Destruction of Property**
8) has deliberately engaged in fire setting with the intention of causing serious damage__
9) has deliberately destroyed others’ property (other than fire setting)___

**Deceitfulness or theft**
10) has broken into someone else’s house, building, or car___
11) often lies to obtain goods or favors or to avoid obligations (i.e., cons others)___
12) has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)___

**Serious Violations of Rules**
13) often stays out at night despite parental prohibitions, beginning before age 13 years__
14) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)___
15) is often truant from school, beginning before age 13 years___

**Total # of criteria met:**___

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning___

_Specify Severity:_ (Place check by appropriate severity level)

**Mild:** few if any conduct problems in excess of those required to make the diagnosis and conduct problems cause only minor harm to others (e.g., lying, truancy, staying out after dark without permission).___

**Moderate:** number of conduct problems and effect on others intermediate between “mild” and “severe” (e.g., stealing without confronting a victim, vandalism)___
Severe: many conduct problems in excess of those required to make the diagnosis or conduct problems cause considerable harm to others (e.g., forced sex, physical cruelty, use of a weapon, stealing while confronting a victim, breaking and entering). ___

1. Resided in a single-parent/caregiver home (at the time offense):
   yes___ no___ Insufficient info___

2. Use of physical force and/or threats of, or use of, violence/weapons during sexual offense. (Note: Force is present if the victim expressed objection to the sexual activity either verbally (e.g., saying, “no”) or non-verbally (e.g. trying to push the perpetrator away). In addition, this item should be endorsed if threats of violence against the victim or against other persons important to the victim and/or actual use of violence was used to complete the offense.
   (1) Present = ____
   (0) Not Present:.____
   Unknown=.____
*This item is a modification of item 8 on the ERASOR.

ERASOR VARIABLES
3. (Item 9 on ERASOR) Ever sexually assaulted a child.
   (2) Present= Adolescent has EVER intentionally sexually assaulted a child victim under 12 years of age and at least 4 years younger than the adolescent.___
   (1) Possibly or Partially Present= Possible of partial evidence that the adolescent has ever intentionally sexually assaulted a child victim under 12 years of age and at least 4 years younger than the adolescent.___
   (0) Not Present= Adolescent has NEVER intentionally sexually assaulted a child victim under 12 years of age and at least 4 years younger than the adolescent.___
   Unknown= Insufficient information to support a decision regarding this risk factor.___

4. (Item 12 on ERASOR) Ever sexually assaulted a male victim (Coded for male adolescents only).
   (2) Present= Male adolescent has EVER intentionally sexually assaulted a male victim.___
   (1) Possibly or Partially Present= Possible or partial evidence that the male adolescent has EVER intentionally selected and sexually assaulted a male victim.___
   (0) Not Present= Male adolescent has NEVER intentionally selected and sexually assaulted a male victim.___
   Unknown= Insufficient information to support a decision regarding this risk factor.___

J-SOAP ITEMS
5. (Item 8 on JSOAP): Sexual Victimization History
   Description: This item assesses the juvenile’s own history of sexual victimization. In this context, excessive force refers to force that clearly exceeded what was necessary to gain compliance.
   Scoring:
   0 = None known.___
1 = The juvenile was a victim of sexual abuse. There is no evidence of any form of sexual penetration or excessive force or physical injury to the juvenile.

2 = The juvenile was a victim of sexual abuse. Score 2 if there is evidence of sexual penetration or excessive force or physical injury.

6. (Item 16 on J-SOAP): History of Physical Assault and/or Exposure to Family Violence
Description: This item assesses the juvenile’s own history of having been physically abused and/or exposed to violence within the home by a caregiver (biological, adoptive, foster, or step family). Exposure to family violence includes visual or auditory exposure to physical assaults on family members. It is not necessary for both physical abuse and exposure to violence to be present to score this item.

Scoring:
0 = No/Unknown.
1 = Yes. There is clear evidence that the juvenile was the victim of physical abuse by any caregiver. The documented history must indicate that the physical injuries did not warrant medical attention. Exposure to violence may include exposure to threats of violence and physical altercations involving pushing, shoving, and slapping, but no injuries requiring medical attention.
2 = Moderate/Severe. The physical abuse was frequent or very severe, resulting in serious injuries ordinarily requiring medical attention, including black eyes, broken bones, and severe bruising. Score for exposure to violence if the exposure was frequent or if the violence was very severe, resulting in serious injuries ordinarily requiring medical attention. The term “ordinarily” reflects the fact that the victims of violence may not receive medical attention but, in your estimation, the severity of the injury deserved such attention.

7. (Item 20 on J-SOAP): Empathy
Description: This item assesses the youth’s capacity for empathy in multiple situations. An attempt should be made to distinguish between statements that appear to reflect genuine feelings and those statements that are primarily cognitive and reflect attitudes (e.g., socially desirable responses or genuinely held but strictly intellectual statements).

Scoring:
0= Appears to have a genuine capacity for feeling empathy for his sexual abuse victims and can generalize to others in a variety of situations.
1= There is some degree of expressed empathy, however these statements appear to be internalized at a strictly intellectual level, or are intended primarily to “look good” or respond in a socially acceptable way.
2= There is little or no evidence of empathy and clear evidence of callous disregard for the welfare of others.

8. (Item 21 on J-SOAP): Remorse and Guilt
Description: This item assesses the extent to which the juvenile expresses thoughts, feelings, and sentiments that reflect remorse for offending and offense related behavior. This item attempts to assess feelings of regret, guilt, or self-reproach. An attempt should be made to distinguish between statements that appear to reflect genuine feelings and statements that are primarily cognitive and reflect attitudes (e.g., socially desirable responses or genuinely held but strictly intellectual statements about “feeling bad”).
Scoring:
0= Appears to have genuine remorse for his victims and can generalize to other victims. Importantly, remorse appears to be internalized at an affective (emotional) level and is expressed or demonstrated without prompting.___

1= There is some degree of remorse or guilt; however, there are possible egocentric motives (e.g., shame or embarrassment, to avoid incarceration). Score 1 when the remorse appears to be internalized at a strictly cognitive (thinking) level.___

2= There is little or no evidence of remorse for victims.___

Rater Comments:
APPENDIX B:
PERMISSION LETTERS
Dear Dr. Worling:

I am completing a dissertation at Florida State University entitled “Differentiating Two Types of Juvenile Sex Offenders: Generalists versus Specialists.” I would like your permission to use the risk assessment guidelines as specified in the ERASOR, version 2.0 to rate some of the risk factors that I am looking at in my study.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. This authorization is extended to University Microfilm Inc. / ProQuest Information and Learning, Ann Arbor, Michigan, for the purpose of reproducing and distributing copies of this dissertation. Your signing of this letter will also confirm that you own [or your company owns] the copyright to the above-described material.

If these arrangements meet with your approval, please sign below and return it to me via fax: (559) 782-2167 with "Attention: Amanda Wolf" stated on the cover sheet. If you would prefer to send it by mail, let me know and I can mail you a pre-addressed stamped envelope. Thank you very much!

Sincerely,

Amanda Wolf

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

[Signature]

Dr. James R. Worling, Ph.D., C. Psyh.
Consultant Psychologist/Co-ordinator of Research
SAFE-T Program
Thistletown Regional Centre
51 Panorama Court
Toronto, Ontario, Canada M9V 4L8

Date: October 10, 2008
Dear Dr. Prontky:

I am completing a dissertation at Florida State University entitled "Differentiating Two Types of Juvenile Sex Offenders: Generalists versus Specialists." I would like your permission to use the objective scoring criteria as specified in the J-SOAP-II to rate some of the risk factors that I am looking at in my study.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. This authorization is extended to University Microfilm Inc./ProQuest Information and Learning, Ann Arbor, Michigan, for the purpose of reproducing and distributing copies of this dissertation. Your signing of this letter will also confirm that you own [or your company owns] the copyright to the above-described material.

If these arrangements meet with your approval, please sign the attached letter and return it to me via fax: (559) 782-2167 with "Attention: Amanda Wolf" stated on the cover sheet. If you would prefer to send it by mail, let me know and I can mail you a pre-addressed stamped envelope. Thank you very much!

Sincerely,

Amanda Wolf

[Signature]

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE.

Robert Prontky, Ph.D.

Date: 10/24/08
Subject: Use of Human Subjects in Research - Approval Memorandum

From: Human Subjects <humansubjects@magnet.fsu.edu>

Date: Tuesday, June 17, 2008 6:49 am

To: alw8273@fsu.edu

Cc: kelly@mail.coe.fsu.edu

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(904) 644-8673  FAX (904) 644-4392

APPROVAL MEMORANDUM

Date: 6/17/2008

To: Amanda Wolf

Address: P.O. Box 2675, Fortville, CA 93258
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
Differences in risk factors between two types of juvenile sex offenders

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 06/11/2008. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 6/10/2009 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing, any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandmn, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB000000446.

Cc: Donald Kelly, Advisor
HSC No. 2008-079

https://webmail.campus.fsu.edu/print.html

10/8/2008
DATA USE AGREEMENT FOR RESEARCH

This agreement is made by and between Nancy Wonder, Ph.D. (covered entity) and Amanda Wolf ("Data Recipient"). Both parties are committed to complying with the Standards for Privacy of Individually Identifiable Health Information ("Privacy Rule") under HIPAA. This Agreement sets forth the terms and conditions under which the limited data set that is provided by or received by the Data Recipient from or on behalf of the Covered Entity, will be handled between the Data Recipient and the Covered Entity during the term of the Agreement and after its termination.

The Parties agree as follows:

1. DEFINITIONS

(a) Protected Health Information shall have the same meaning as the term “protected health information” in 45 C.F.R. §164.501, limited to the information created or received by Data Recipient from or on behalf of Covered Entity.

(b) Privacy Rule shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and part 164, subparts A and E.

(c) Limited Data Set shall have the same meaning as the term “limited data set” in 45 C.F.R. §164.514(e)(2).

(d) Secretary shall mean the Secretary of the Department of Health and Human Services or his/her designee.

(e) Terms used, but not otherwise defined, in this Agreement shall have the same meaning as those terms in the Privacy Rule.

2. PURPOSE

Data Recipient represents that s/he will use the limited data set for RESEARCH purposes.

3. OBLIGATIONS OF COVERED ENTITY

Covered Entity shall disclose to Data Recipient a Limited Data Set which excludes direct identifiers of any individual, relative, employers and/or household members of the individual.

4. OBLIGATIONS AND ACTIVITIES OF DATA RECEPIENT

(a) Data Recipient agrees to not use or disclose the Limited Data Set other than as permitted or required by the Agreement or as Required By Law.

(b) Data Recipient agrees to use appropriate safeguards to prevent use or disclosure of the Limited Data Set other than as provided for by this Agreement.

(c) Data Recipient agrees to report to Covered Entity any use or disclosure of the Limited Data Set not provided for by this Agreement of which it becomes aware.

(d) Data Recipient agrees not to attempt to re-identify the information or try to contact individuals.

5. WHO MAY RECEIVE LIMITED DATA SET

Data Recipient, and any of his/her agents, to whom they provide Limited Data Set information received from Covered Entity, provided they agree to the restrictions and conditions that apply through this Agreement with respect to such information.

Nancy Wonder, Ph.D. Data Use Agreement
6. PERMITTED USES AND DISCLOSURES BY DATA RECIPIENT

(a) Except as otherwise limited in this Agreement, Data Recipient may use or disclose Limited Data Set to perform research functions, activities, or services provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity.

7. PERMISSIBLE REQUESTS BY COVERED ENTITY

Covered Entity shall not request Data Recipient to use or disclose Limited Data Set in any manner that would not be permissible under the Privacy Rule if done by Covered Entity.

8. TERM AND TERMINATION

(a) Term. The Term of this Agreement shall be effective upon execution, and shall be effective permanently, except as in section 8(b) below.

(b) Termination for Cause. Upon Covered Entity's knowledge of a material breach of this Agreement by Data Recipient, Covered Entity shall either:

(1) Provide an opportunity for Data Recipient to cure the breach or end the violation OR terminate this Agreement if Data Recipient does not cure the breach or end the violation within the time specified by Covered Entity; or

(2) Immediately terminate this Agreement, if cure is not possible, and report the violation to the Secretary.

(c) Effect of Termination

Data Recipient shall extend the protections of this Agreement to any Limited Data Set information that it does not destroy or return to Covered Entity and limit further uses and disclosures of such Limited Data Set for so long as Data Recipient and its agents retain Limited Data Set information.

9. MISCELLANEOUS

(a) Regulatory References. A reference in this Agreement to a section in the Privacy Rule means the section as in effect or as amended.

(b) Amendment. The Parties agree to take such action as is necessary to amend this Agreement from time to time as is necessary for either Party or both Parties to comply with the requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.

(c) Survival. The respective rights and obligations of Data Recipient under Sections 4, 5, and 6 of this Agreement shall survive the termination of this Agreement.

(d) Interpretation. Any ambiguity in this Agreement shall be resolved to permit Covered Entity to comply with the Privacy Rule.

(e) Construction of Terms. The terms of this Agreement shall be construed in light of any applicable interpretation or guidance on HIPAA or the Privacy Rule issued by the Department of Health and Human Service or its Office of Civil Rights from time to time.

(f) No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.

Nancy Wonder, Ph.D. Data Use Agreement
REFERENCES


BIOGRAPHICAL SKETCH

Amanda Wolf completed her Master of Science degree and Specialist in Education degree in Counseling and Human Systems at Florida State University in May 2003. She received her Bachelor of Science degree in Psychology from Nova Southeastern University in December of 2000. During her graduate studies, she worked at the Leon Regional Juvenile Detention Center and an outpatient treatment program for juvenile sex offenders under the supervision of a licensed psychologist.

During her clinical experience, she observed distinctions between two different groups of juvenile sex offenders. She observed one group of offenders who typically had no prior arrest history or history of behavior problems. These youth also tended to be submissive, endorse pro-social attitudes, and sought social approval. Individuals of this type tended to have younger victims and often did not use physical force or violence to complete their offense. On the other hand, she observed a second group of offenders who appeared to demonstrate antisocial attitudes and behaviors, showed disregard for social norms and the rights of others, and appeared to have a higher prevalence of exposure to violence. In group treatment, she noted the different treatment needs of these two groups and the potential harmful effects of combining both types in one treatment group. This was especially noted when youth were detained in the same facility. The antisocial attitudes and beliefs of the more antisocial group appeared to influence some of the individuals in the less antisocial group. Her clinical experience led to her curiosity to investigate group differences between juvenile sex offenders with a history of antisocial behavior and those without a history of antisocial behavior.

In addition to her work with juvenile offenders, Amanda also worked with at-risk youth at the Boys and Girls Club by facilitating an after-school program which focused on drug prevention and health promotion. More recently, she completed her pre-doctoral internship at Porterville Developmental Center in Porterville, California where she provided psychological services to intellectually deficient individuals with forensic backgrounds. She currently works at Porterville Developmental Center as a Psychology Associate where she provides psychological services to individuals with multiple medical issues and cognitive impairments. Her areas of interest include: assessment and treatment of juvenile sex offenders, treatment of offenders with intellectual impairments, and assessment of malingering in intellectually deficient individuals.