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An Exploration of Impediments to Attachment in a Juvenile Offender Population:  
Comparisons between Juvenile Sex Offenders, Juvenile Violent Offenders and Juvenile  
Non-Sex, Non-Violent Offenders

A thesis submitted in partial fulfillment of the requirements for the degree of Master of  
Science at Virginia Commonwealth University

by

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May, 2005

## Acknowledgement

This thesis is written in honor of my parents, Jim and Doris Funari, whose love for one another and for me has demonstrated the power and importance of secure attachment. I have witnessed it in their words and deeds every day of my life. This is also written in memory of my grandmother, Sarah B. Smith, whose warmth and perspective allow me to realize that attachments last long beyond the years that one walks on this earth.

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## Abstract

### AN EXPLORATION OF IMPEDIMENTS TO ATTACHMENT IN A JUVENILE OFFENDER POPULATION: COMPARISONS BETWEEN JUVENILE SEX OFFENDERS, JUVENILE VIOLENT OFFENDERS AND JUVENILE NON-SEX, NON-VIOLENT OFFENDERS

By Sharon Kay Funari, M.A.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of  
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Virginia Commonwealth University, 2005

Major Director: Arnold L. Stolberg, Ph.D., Professor of Psychology

This current study addresses potential impediments to attachment that may differentiate between incarcerated juveniles who have committed sexual crimes and incarcerated juveniles who have not committed such offenses. The exploration of such potential barriers to attachment has been organized around Bronfenbrenner's Ecological Model. Subjects were 2948 incarcerated male adolescents adjudicated to the Virginia Department of Juvenile Justice and were divided based solely upon adjudicating offense: Juvenile non-violent, non-sexual offenders (JNVNSO, n=1149), Juvenile violent, non-sexual offenders (JVNSO, n=1433) and Juvenile sexual offenders (JSO, n=366). Results indicated that JSOs differed from JNVNSOs and JVNSOs in their histories of sexual abuse as well as placements in foster care. Attachment impairment and the number of risk factors present were also found to be significantly related. Future research directions and potential policy repercussions are also addressed.



## Introduction

Juveniles who commit sexual offenses are one of the fastest growing segments of the Juvenile Justice Population. Youth under the age of 20 are responsible for approximately 40% of all child sexual abuse (Gray, Pithers, Busconi, and Houchens, 1999). Nearly 16% of all arrests for forcible rape in 1995 and 17% of all arrests for other sex offenses involved persons under the age of 18 (Righthand & Welch, 2001). Three to four percent of adolescents between the ages of 15 and 21 are suggested to have committed a sexual offense (Ageton, 1983), resulting in approximately 500,000 annual offenses within the United States.

Individual states echo the national predicament faced by the Federal Department of Juvenile Justice. In Virginia alone, during the period from 1999-2003, over 600 youth were committed to the Department of Juvenile Justice who had either a committing or prior sex offense. This includes the following offenses: rape, forcible sodomy, inanimate object penetration, carnal knowledge of a child, aggravated sexual battery, bestiality or an attempt to commit one of the above listed offenses (Waite & Neff, 2004). Vermont reports an increase of 300% in sexual abuse perpetrated by youth below the age of 14 within the last ten years (Vermont Social and Rehabilitation Services, 1996). Southern states further echo the quandary as Georgia reports 815 juvenile sexual offenders sent to its Regional Youth Detention Centers between the fiscal years of 2001-2003 (Georgia Department of Juvenile Justice, 2003). Further evidence of individual states increasing their sexual offender population is seen as over ten percent of Californian incarcerated youth were adjudicated for forcible rape or for other sexual offenses (California Youth

Authority, 2003).

Not only are more children committing more sexual offenses, but the age at which offenses are committed appears to be getting younger. “Between 1980 and 1995, the juvenile arrest rate of children less than 12 for general crimes increased by 24%, but their arrest rate for sex offenses (excluding rape) escalated 125% and 190% for forcible rape” (Gray et.al., 1999). Six hundred ninety one children (defined as under the age of 12) were labeled as “sexually aggressive youth” by the State of Washington in 1991 (Gray & Pithers, 1993), while Vermont composed a similar report in the same year citing over 100 youth.

Offending trajectory, or the course of crimes throughout an individual lifetime, underscores the intensity of the juvenile sexual offending quandary. Adult sexual offenders who report their offending history as beginning prior to the age of 18 are estimated to range between 50 and 70%. Three hundred out of 561 adult male sexual offenders studied by Abel and Rouleau (1990) reported the onset of at least one deviant sexual interest prior to age 18. Further investigations into the subjects’ histories found that each of the 300 “reported two different paraphillias and an average commission of 380.2 sex offenses by the time he reached adulthood” (Abel and Rouleau, 1990).

The significance of what some would term the most heinous of crimes is underscored by these statistics. The figures themselves are only base descriptors of the entangled problems of this emergent population. The past two decades have produced a growing literature that highlights the plethora of issues encountered and created by juvenile sex offenders. The overarching “entangled problem” is so broad in scope that is

impossible to address in one fell swoop.

Interest of this current study lies in only a few strands of the entanglement; particularly those threads which impair or impede a juvenile's ability to develop attachments to caregivers. It is posited that examining such attachment bonds can assist in potentially untangling pieces of the ominous developmental puzzle of juvenile sex offenders. Bowlby (1946) initially theorized the connection between attachments and juvenile offending, suggesting that the attachment relationship is the vehicle for parents and children to effectively interact and "increase the likelihood of survival" during times of stress or trauma. This study seeks to further extrapolate Bowlby's theory through identifying potential characteristics that may differentiate the attachments of juvenile sex offenders from other categories of juvenile delinquents. Are there significant differences in the attachments that a juvenile sex offender experiences with his parents versus the attachments that a juvenile non-sex offender or violent offender might experience with his?

Bronfenbrenner's Ecological Model (Bronfenbrenner, 1979) serves as a scaffold around which information will be organized. This tool will allow for various attachment impediments to be examined systematically and will provide a "funnel effect" increasing focus on each class or system of potential impediments. Bronfenbrenner approached the examination of an individual's environment through a premise that includes factors from the following subsystems: Macrosystem, Exosystem, Mesosystem, Microsystem and the Individual. The most proximal subsystems are of greatest interest to this investigation, with utmost attention ascribed to the characteristics of the juvenile offender (Individual),

certain characteristics of his family (Microsystem) and the dynamics occurring between the two (Mesosystem). These three subsystems, and the synergy which they create together, will be the lenses through which attachment of juvenile sex offenders is viewed.

### *Attachment*

Attachment bonds between a child and his parents serve as the cornerstone from which the child's "psychological house" is built. The construction of this framework is dependent upon the quality, strength and nature of such connections. A child's first glimpse into the composition of human relationship and all of the complexities lying therein are based within the initial connections encountered with his parents. Imagine, from infant eyes, the interaction between an infant and the two persons that, theoretically, care and nurture the child into becoming an individual. The ensuing internalized picture of the world is completely comprised of what he views occurring between himself and his parents.

Envision this infant child beyond the initial few mental snapshots as he continues to grow and develop. He takes his internal "photo album" of what constitutes a relationship into every interaction, every nuance, and every friendship that he encounters. His photographs serve as the very basic map used to navigate this novel world of relationships, emotions and interactions. Thus, every interaction is the direct result of the attachment bonds, either positive or negative, that he holds with his parents.

Armed with positive and secure attachment bonds, a child may march into life with a confidence that comes from knowing that he is a priority, that his needs will be met and that he is loved. Such confidence provides the luxury of attending to novel

experiences unfettered by the fear of rejection. This assurance allows the child the security and identity to discover the surrounding environment and explore the vast possibilities that he may encounter (Erikson, 1950). If a child experiences his parents in this positive manner or, as Winnicott (1965) would posit, “Good-enough”, the attachment bonds allow for the development of healthy and reciprocal relationships throughout his entire life.

Inconsistency, abuse, and rejection, in contrast, will provide a psychological foundation of the child’s “house” with cracks, holes and crumbling bricks. In the same manner as positive bonds, insecure attachments form templates for relationships outside the family, and loss or disruption to such bonds leads to separation anxiety and potential psychopathology (Bowlby, 1973). The internal photograph possessed by a child from such negative bonds will also color every interaction, every nuance and every ensuing friendship. Armed with distrust and insecurity, such a child will eternally fear rejection and may evoke such dismissal from his environment (Scarr & McCartney, 1983).

The development of empathy is a principal derivative of the parental attachment bonds and an essential element in being human. Original ideas of empathy may hearken back to the Judeo-Christian directive to “do unto others as you would have them do unto you” (Matthew 7:12, New International Version). Current literature has transported the early teaching into a major arena of study, particularly empathy development during childhood and adolescence. Empathy is defined as sharing another’s emotional state or context (Eisenberg and Strayer, 1987). Translated into the child’s “photo album” of relationship, empathy will grant him the ability to truly comprehend that other individuals

experience feelings and to potentially respond in some way to such feelings. That ability to distinguish emotion shall also bestow upon the child a moderator of behavior so that as he grows to understand how he feels, and in turn how others feel, he will be more likely to inhibit aggression or harmful acts against others. Therefore, prosocial behaviors are seen to be encouraged and cultivated through that very basic building block of empathy.

Parents are the crucial developers of a child's empathy capacity, in the same way as they are the initial pictures of attachment. Parental reasoning with children, even very small ones, about the effects of their behavior on others has been shown to promote empathy and prosocial behavior (Cohen and Strayer, 1996). Empathy development is also shown to be positively influenced by parental modeling of empathetic, caring behavior toward children, and toward others in the children's presence (Eisenberg and Mussen, 1989).

Attachment bonds and empathy development are equally dependent upon parental contribution. In the same way that a child might develop the presence of empathy from his parents, he will also experience severe deficits if he is in a counterproductive environment. Inconsistent care and parental rejections or withdrawal are associated with lower levels of child empathy (Kestenbaum, Farber, and Sroufe, 1989). For example, children with fathers who physically abuse their mothers have low levels of empathy and were shown to be unable to recognize the emotional states of other people and respond appropriately (Hinchey and Gavelek, 1992).

Reciprocity, as a counterpart of empathy development, is also a building block upon the foundation of attachment bonds. This idea progresses the child from the

understanding that another human being has feelings, to the position that he might affect that other human being in much the same manner that he, himself, is affected. This reciprocity is characterized by its mutuality, its shared feelings of commitment and investment as well as in its joint empathy and trust. Reciprocity, cumulatively speaking, is that which moves us beyond simply experiencing emotion to that place of truly sharing emotion.

In light of this need to share emotion, again, it is the caregiver relationship which provides the foundational training from which the child will learn. Parent-child socialization is depicted by Maccoby (1992) to be the process of inducting the child into a system of reciprocal and mutually responsive relationships. Recall the child with his internal “photo album” for an illustration of such reciprocity. Perhaps he is fortunate enough to have caregivers who allow him the chance to share his emotions with them. Imagine that, upon skinning his knee in a bike accident, he runs home and cries to his mother about his pain. The mother responds with a kiss to bandage his heart and gauze to bandage his knee. Such responsiveness teaches the child that human beings do have feelings, and in healthy relationships, can share them and have them embraced. Our child’s photo album would now carry a representation of true reciprocity. Present research would echo this particular ideal of caregiver reciprocity and its long-term effects. A recent study found that mother-child reciprocity during the first four years predicted the child’s willingness and eagerness to accept rules and norms of behavior assessed several years later and in expanded spheres (Kochanska and Murray, 2000).

Contrastingly, imagine that the child’s crying about his skinned knee is met with

indifference, or perhaps even anger. The relational rejection of a child parlays itself into a cycle that recapitulates into his every relationship. Such a cycle might begin in such a home where parents are neglectful. Thus a logical deduction may be that since no one cares for him, he is not worthy of love. It follows a logical, however dysfunctional, path into an emotional world where empathy does not exist. For, if no one cares about the child's needs, why should a child care for his own, much less anyone in his world?

The spiral into the milieu of juvenile delinquency is initially paved by these types of negative attachment bonds leading towards extreme deficiencies in the building blocks of reciprocity and empathy. The dilemma facing researchers and clinicians alike is not the existence of such bonds, but how those attachment bonds become so very negative that a child compensates through perpetration of sexual offenses. Examination of components to that dilemma will follow, beginning with the most proximal subsystem of individual characteristics of juvenile offenders.

### *Individual Characteristics*

*Attachment style.* Attachment reflects a process that constitutes the essence of what it is to be human, exemplified through the development of empathy as well as in the ability to moderate our social, interpersonal and moral behaviors. It “characterizes human beings from the cradle to the grave” (Bowlby, 1979). Attachment is truly that which allows us to participate in, and to fully enjoy, the everyday exchanges of human interaction. Those behaviors cut to the depths of our core and are posited to be some of the most individual of characteristics. In light of such a paramount human attribute, attachment style is thought to be an important potential impediment and comprises part of



the most proximal sphere of influence examined within this study.

Poor attachment bonds and lack of adult intimacy are linked to the propensity to commit criminal sexual offending in Marshall's model of sexual offending (1989, 1993). This assimilation is accomplished through conceptualizing the criminal behavior as a means of achieving intimacy needs. Whereas the need for intimacy has been acknowledged as basic to human existence (Dahms, 1972), deficits in such needs are posed to have their inception in early development, as parents were neither available nor sensitive to the needs of the child. The persistence of such intimacy deficits into adulthood and the ensuing state of emotional loneliness sets the stage for sexual aggression (Holmberg, 2000). Such aggression as sexual offending has been defined as a "distorted attempt to seek emotional closeness in the absence of the ability to form appropriate relationships" (Marsa, O'Reilly, Carr, Murphy, O'Sullivan, Cotter, & Hevey, 2004).

Differences in intimacy and attachment styles between adult sex offenders and non-sex offenders serve as a platform for numerous studies (Hudson & Ward, 1997; Marsa, et.al 2004; Smallbone & Dadds, 1998). Sexual offenders have been shown to have significantly higher levels of emotional loneliness than all other groups in studies of the attachment styles of sexual offenders compared with groups of violent offenders, nonviolent offenders and community controls (Marsa, et al. 2004). Ninety-three percent of sexual offenders in the sample demonstrated ratings consistent with an insecure attachment style and rated themselves as having significantly lower levels of parental care than community controls.

Childhood attachment ratings have been found to be significantly different between incarcerated sex offenders and those of incarcerated non-sex offenders, as well as those of a non-offender population (Smallbone & Dadds, 1998). Specifically, sex offenders reported less secure childhood and adult attachments than non-offenders, while ratings of childhood maternal and paternal attachments discriminated sex offenders from other groups as well. Eighty-five percent of a sexual offender sample was found to be insecurely attached in a similar study (Lyn and Burton, 2004) strengthening the hypothesis that membership in a sexual offender group is highly correlated with an insecure attachment style. Such findings emphasize the important relationship between attachment and sexual offenses and assist in delineating between sexual offenders and non-sex offenders.

The interplay between attachment style and coercive sexual behavior was further demonstrated in an investigation of an entire group of adult university students, as an attempt to control for the effects of arrest and incarceration (Smallbone & Dadds, 2000). In spite of generally low sample levels of aggression, antisocial and coercive sexual behaviors, the study still revealed that insecure parent-child attachments were related to tendencies to engage in sexually coercive behavior.

Marshall's model has garnered enthusiastic empirical support from research on adult sexual offenders; however, as a potential individual characteristic of the juvenile offender, attachment style has received comparatively little attention. Significant paths between a child's bonding to his mother and his level of adolescent aggression were revealed through structural equation modeling in an examination of the perceptions and

histories of 117 juvenile male sexual offenders (Kobayashi, Sales, Becker, Figueredo, & Kaplan, 1995). The juveniles completed measures of perceived parental deviance, physical and sexual abuse histories, as well as a scale of parental bonding. The higher a child's score on the parental bonding scale reflected a higher level of bonding to the parent and was significantly correlated with lower levels of sexual aggression.

Significant relationships between positive attachments to parents and greater social skills also resulted from Holmberg's (2000) examination of similar variables. However, in contrast to Kobayashi et al (1995), attachment style in that study was unable to predict membership in an offense category.

*Maltreatment/victimization.* Perhaps the most controversial of all topics within the etiology of sexual offenders is that of prior victimization history. This debate was reflected by Ryan (1996) through his observation that percentages of maltreatment recounted in the literature range from 40%-90% in juvenile sex offender populations. On the low end of the spectrum, Widom (1989a, 1989b) suggests that only one in six physically abused children will go on to violently offend later in adolescence. In sharp contrast, reinforcement of the maltreatment characteristic was made throughout Ryan's summary as it was stated that "very few have no abuse in the history if physical, sexual and emotional abuse are considered collectively." Confirmation of the higher end of the spectrum was also reported by Boswell (1996) who discovered at some point in their psychosocial history, 72% of a reported sample of juvenile sexual offenders had experienced sexual, physical, emotional or organized/ritual abuse.

A noteworthy meta-analysis of data from 90 contributors in 30 states on more

than 1,600 juvenile sexual offenders was conducted by Ryan, Miyoshi, Metzner, Krugman & Fryer (1996). These data were developed by the National Adolescent Perpetrator Network to address issues of collecting sociodemographic information, identifying common characteristics, and potentially providing treatment recommendations pertinent to juvenile sex offenders. Information was gathered at intake, prior to a juvenile receiving treatment or before further disclosure was documented. Nearly 42% of the entire sample had been victims of physical abuse and close to 40% had been victims of sexual abuse.

Childhood physical and sexual abuse are significant factors that influence adolescent sexual coercion (Johnson and Knight, 2000). Juvenile's victimization histories have been examined through individual offender retrospective reports of childhood trauma (Johnson & Knight, 2000) as well as through information from the parents of juvenile sex offenders (Duane, Carr, Cherry, McGrath and O'Shea, 2003). Regardless of the information source, the juvenile offender's experience of child abuse was consistently found to be one of the most significant predictors of adolescent sexual coercion. Sixty-four percent of the sex offender parents reported that their adolescent had experienced child abuse as compared to 16% of normal controls and 0% of the clinical controls (Duane, Carr, Cherry, McGrath and O'Shea, 2003).

Emphasizing the role that maltreatment history plays as a possible impediment to attachment in extremely young offenders, Gray, Busconi, Houchens, and Pithers (1997) studied developmental characteristics of 127 6-to-12-year old children with sexual behavior problems. Sexual maltreatment characterized 95% of the sample and 48% of

the children had experienced physical assault. One of the more ominous findings suggested that the average age at which these children had first experienced some form of abuse was 4.0 (Gray et al, 1997).

Adult women survivors of childhood sexual abuse served as a comparison group to juvenile sex offenders in a significant study of traumagenic dynamics (Edwards & Hendrix, 2001). Subjects completed the Trauma-Related Beliefs Questionnaire developed by Hazard (1993) to assess beliefs corresponding to Finkelhor's Model of Four Traumagenic Dynamics. The traumagenic beliefs of betrayal and difficulty in trusting others were found to be as high in the juvenile sex offender population as in the group of adult women survivors. Similarities between these two groups serve to address the present study's inquiry into maltreatment history as an impediment to participation in successful attachments.

In spite of its similar dilemma in inconsistent findings, the adult sex offender literature provides additional direction for this study through a recent comparison of three groups: sex offenders, violent non-sex offenders, and nonviolent non-sex offenders (Stirpe & Stermac, 2003). The study was designed in an attempt to discriminate individuals who are abused and do not perpetuate the cycle of abuse as opposed to individuals with a history of abuse who go on to offend against others. Sex offenders were found to report significantly more childhood victimization than either the violent non-sex offenders or nonviolent non-sex offenders. Over 90% of the sex offender group stated that they had been physically disciplined by caregivers, with objects being used to discipline in 76% of the cases and medical attention being required in 15% of those

discipline situations. The study concludes that “early childhood disturbances within the family of origin lend support to the notion that difficulties within the attachment system are related to later sexual offending” (Stirpe & Stermac, 2003).

Such “disturbances within the family of origin” force exploration of, not only the juvenile’s characteristics, but of his surrounding environment. Individual factors such as attachment style and maltreatment serve as “necessary but not sufficient” (Wachs, 2000) ways to account for the development and etiology of juvenile sexual offending. A successful model must address the bidirectional nature of effect between the child and his environment. With this focus in mind, attention is now turned to the juvenile’s Microsystem and the attachment impediments it may place in his development.

#### *Microsystem Characteristics*

*Parental criminality.* Juvenile delinquency literature is filled with research attempting to delineate environmental risk factors. Prevalence of poverty, maternal education, and teenage pregnancy are but a few that have been routinely examined as predictors of adolescent delinquency (Loeber, Farrington, Stouthamer-Loeber, & van Kammen, 1998; Farrington and Loeber, 1999). The present study acknowledges the existence of numerous factors, but will focus on parental criminality as the Microsystem characteristics most salient to the current exploration.

Parental and family criminality has received a piece of the spotlight from such impressive sources as the Pittsburgh Youth Study (Farrington, Jolliffe, Loeber, Stouthamer-Loeber, & Kalb, 2001). High numbers of arrested individuals in that sample came from relatively few families, suggesting that if one family member was arrested, the

probability of another family arrest was significantly increased. Five hundred ninety-seven arrested individuals (43% of the arrested individuals in the study) came from only 117 families (8% of the families in the study), resulting in an average of five arrested persons per family with arrest history. Such current investigations echo early family criminality findings that demonstrated conviction of adolescent males increased considerably as the numbers of convicted relatives increased (Ferguson, 1952).

Guiding attention to parental criminality, 51% of a juvenile delinquent sample reported parents having criminal histories (Baryluk, 2003). Adding support from the Pittsburgh Youth study, Farrington et al. (2001) found that “nearly half of the boys with arrested fathers (43.5%) were petitioned to court, compared with less than a quarter of the remainder.” Arrests of fathers were found to be the most important predictor of delinquency independent of all other family members. However, maternal criminality was also a significant predictor of delinquency as nearly half of the boys with arrested mothers were described as delinquents. Continued evidence for the importance of parental criminality in the development of delinquency was suggested by Loeber and Stouthamer-Loeber (1986) as delinquents who committed more serious crimes were more likely to be raised by parents who had criminal histories of violent crimes.

Parental criminal backgrounds have been examined in relatively few studies, although the findings from the small numbers are quite significant. Thirty-two percent of parents with children exhibiting sexual behavior problems were found to have arrest histories (Pithers, Gray, Busconi and Houchens, 1998), corroborated by accounts of children with sexual behavior problems who reported that 35% of their parents had been

arrested (Gray et al., 1999). A significant difference was also found in the presence of criminality among parents between groups of juvenile sex offenders, clinical controls and normal controls (Duane et al, 2003). Nineteen percent of juvenile sex offenders had parents who had been arrested or possessed a criminal record versus 0% for both the normal and clinical control groups.

Interest has slowly mounted in Loeber & Stouthamer-Loeber's (1986) use of parental criminality to distinguish *different* types of juvenile offenders. Violent offenders were more likely to have criminally convicted parents than a group of non-violent juvenile offenders (Gray et al, 1997) suggesting that potential predictive validity of group membership may be found in parental criminality. As few studies were found to corroborate this position, further exploration of this potentiality is one of the goals of this study.

Parental criminality fills the role of a potential impediment to attachment in a number of ways. Certainly, parents who are encountering legal difficulties are diminished in their capacity to directly supervise their children, allowing for the increased possibility of delinquent acts occurring. It is also posited that those parents who move beyond legal difficulties into actual incarceration are even further diminished in their ability to physically care for their children, as well as diminished in their ability to meet such psychological needs as attachment.

### *Mesosystem Characteristics*

*Family climate.* Family climate is suggested to reflect the nature and tone of interactions between family members. It is not confined to simply the information



communicated back and forth from parent to child, but is posited to incorporate the manner in which that information is delivered. Perhaps a literal illustration would suggest that a family's climate might be assessed through an investigator placing a "thermometer" in the family room. Would it register at a freezing 20 degrees Fahrenheit, implying cold and distant relationships? Or might the mercury rise to a boiling point, betraying an environment of anger and violence? Exploration of such climates represents a movement to the outer layers of the examined attachment impediments to the juvenile sex offender.

"What is the difference between sexually abused juveniles who develop into sexual offenders versus sexually abused juveniles that do not?" is a question that is consistently posed throughout the relevant literature. As earlier examined in this study, maltreatment and victimization play an integral role in any exploration of juvenile sex offender development, however they do not account for all the development factors of sexually aggressive behavior. This section attempts to offer one of many potential answers to this daunting question through addressing family climate factors.

Witnessing and experiencing intrafamilial violence discriminated those who went on to perpetrate sexual offenses from those who did not in a small, but influential study of sexually abused males aged 11-15 (Skuse, Bentovim, Hodges, Stevenson, Andreou, Lanyado, New, Williams & McMillan, 1998). Further explanation by Skuse et al (1998) suggested that "the risk of adolescent boys who have been victims of sexual abuse engaging in sexually abusive behavior towards other children is increased by life circumstances which may be unrelated directly to the original abusive experience, in

particular to a climate of intrafamilial violence.”

Hostile home environments and parent-child interactions were also shown to be significant factors in a study utilizing structural equation model techniques and addressing delinquency and coercive sexual behavior in a national sample of college students (Malamuth, Sockloskie, Koss, & Tanaka, 1991). Violence occurring between parents was stated as characterizing such hostile home environments and was factored into a significant pathway leading to decreases in self-regulation capacities and social skills. Such deleterious effects on childhood development are thought to lead towards future violence directed at women and further sexually coercive behavior (Malamuth et al., 1991).

Further evidence of using family climate variables to delineate between groups of juvenile offenders is found in a number of studies (Stripe & Stermac, 2003; Ford & Linney, 1995; Ryan et al, 1996; Gray et al, 1997; Pithers et al, 1998; Baryluk, 2003). A history of inter-parental violence was a significant difference between a group of juvenile sex offenders as compared to juvenile violent offenders and juvenile non-violent, non sex offenders (Ford & Linney, 1995), with similar findings in an adult population as “sexual offenders were significantly more likely to report more severe violence in the home” (Stripe & Stermac, 2003). Over 63% of a nationwide sample of 1600 juvenile sex offenders reported witnessing some form of family violence within the home (Ryan et al, 1996) supporting the hostile and violent family climate as a potential impediment to attachment for these juveniles. Two separate studies found comparable percentages (53% and 51%) of children with sexual behavior problems who reported witnessing overall

violence between their parents (Pithers et al., 1998; Gray et al., 1997). The percentage increased markedly when further definition of violent behavior was given to the children. After clarification, 87% of the children reported that they had witnessed “hitting, slapping or shoving” between their parents (Grey et al., 1997). What effect does such an environment have where the earliest memories are colored with dark hues of violence and anger? Such marked violence in the home is posed to create a negative and hostile environment for these juveniles and serves as the image from which their attachments are created. It is with this in mind that family climate is included as a potential impediment to a juveniles’ attachment capacity.

*Family structure.* Family structure refers to the physical living arrangements of the juvenile. Parents (biological and step), siblings, grandparents, aunts and uncles are some of the potential members within a child’s family structure. For example, in the general population of the United States, 69% of children live in a family structure comprised of two parents (US Bureau of the Census, 2003). Differences in family structure are reflected in further Bureau statistics suggesting that 23% of US children live only with their mother, 5 % live only with their father, and 4% live in family structures with neither parent in the household.

Early childhood disruptions characterize the family structure of many juvenile sex offenders. In sharp contrast to the general population data, only 53.9% of a national sample of over 1600 juvenile sex offenders were living with two parents prior to incarceration (Ryan et al., 1996). Only 27.8% of juveniles within that 53.9% were living with both biological parents, suggesting that only to one-in-four came from “intact”

family structures. Further investigations of the influence of family structure support such findings as only 51.4% of a sample of children with sexual behavior problems were found to live in a family structure defined as a caregiver and a partner (Pithers et al., 1998). Family structure was also revealed to be significantly disrupted as 78% of sexual assault offenders were from single-parent families in a meta-analysis of perpetrator demographics and characteristics (Graves, Openshaw, Ascione & Ericksen, 1996).

One of the most disruptive family structure influences is the placement of the pre-adjudicated juvenile outside of non-parental care, which most often consists of foster care. Fifty-three percent of pedophilic youth were found to have a history of foster care in a twenty-year meta-analysis of juvenile sex offender literature (Graves, et al., 1996). Losses of parental figures through out-of-home placements were present in 34.2% of over 1600 juvenile sex offenders and helped to comprise a startling 57% of the sample who had experienced the loss of a parental figure in some manner (Ryan et al., 1996). Even two decades ago, 65% of a small sample of adolescent rapists were found to have a significant social role failure which resulted in involuntary removal from the home, community programs, institutions, or group homes (Van Ness, 1984). Eighteen percent of juvenile sex offenders had been placed in care outside of their home in a separate study comparing sexual offenders with clinical and normal control groups (Duane et al., 2003). Such a powerful disturbance is further reflected in the overarching delinquency literature with the recent finding that incarcerated juveniles with a psychosocial history of foster care scored significantly higher on the Psychopathy Checklist-Youth Version (Campbell, Porter & Santor, 2004).

In light of rather ominous statistics of disrupted family structures, further explorations of family configuration revealed a potential mediation relationship, as opposed to a simplistic causal notion that children from non-intact families will become delinquent (Kierkus & Baer, 2002). Variance in delinquent behavior was shown to be created, not by family structure, but by changes in levels of *parental attachment* which was, in turn, created by variance in family structure. “Most dramatically, the relationship between family structure and six delinquent behaviors was rendered statistically not significant when parental attachment was added to the regression equation” (Kierkus & Baer, 2002). Such a study assists in the defining of family structure as a potential impediment to attachment, as it suggests that juveniles from disrupted family structures experience deficits in attachment and that shortfall may lead to future delinquent behavior.

#### *Statement of the Problem*

In summary, this review addresses potential impediments to attachment that may differentiate between incarcerated juveniles who have committed sexual crimes and incarcerated juveniles who have not committed such offenses. The exploration of such potential barriers to attachment has been organized around Bronfenbrenner’s Ecological Model (Bronfenbrenner, 1979) in an effort to help us understand the impediments from those most proximal to the juvenile to those within his Mesosystem. Individual characteristics of the juvenile that are thought to influence attachment and, thus assist in the delineation of types of offenses, are his individual attachment style and history of maltreatment and victimization. These form the unique attributes that the juvenile *brings*

*into his environment* which allow for the creation of individual and distinctive dynamics within his milieu. Moving into the characteristics of the juvenile's Microsystem focuses upon parental criminality as a possible impediment to attachment, as parents' ability to participate in direct interaction and monitoring are posed to be extremely compromised by legal involvement or incarceration. The most distal of influences examined in this study are those falling into the juvenile's Mesosystem. Family climate and physical family structure are also posed to serve as hindrances to a child's ability to assimilate positive attachments as they create the atmosphere in which the child lives and finds his most powerful models of relationship.

This present study began with a listing of recent statistics regarding the growth of the sexual offender segment of the juvenile justice population. It is such escalation that verifies the need for this research on the developmental processes of these juveniles. Addressing similar attachment issues that may precede sexual offending is seen as paramount to the colossal task of predicting future sexual offending. Such research may also assist in the inception of prevention programs by targeting those developmental processes that play a determinative role in future sexual offending. Finally, at the basic science level, such a study emphasizes the importance of attachment as an essential task in becoming fully human.

This study hypothesizes that:

- (1) Juveniles who have committed sexual offenses will have experienced higher levels of dysfunction within the primary attachment relationships than juveniles without a history of sexual offenses.

(2) Juveniles who have committed sexual offenses will be more likely to have experienced sexual or physical abuse than juveniles without a history of sexual offenses.

(3) Parents of juveniles who have committed sexual offenses will exhibit higher levels of criminal activity and will be more likely to possess histories of incarceration than parents of incarcerated juveniles without a history of sexual offenses.

(4) The family climate of juveniles who have committed sexual offenses will have higher incidence of domestic violence and parental abuse than the family climate of incarcerated juveniles without a history of sexual offenses.

(5) Juveniles who have committed sexual offenses will be less likely to have lived in intact families and, in particular, will be more likely to have incurred foster home placements than incarcerated juveniles without a history of sexual offenses.

## Method

### *Participants*

Subjects were 2948 incarcerated male adolescents adjudicated to the Virginia Department of Juvenile Justice. Participants were incarcerated at some point between June 1998 and June 2001 and were to be less than 20 years of age at the time of custody. The three study groups were divided based solely upon adjudicating offense: Juvenile non-violent, non-sexual offenders (n=1149), Juvenile violent, non-sexual offenders (n=1433) and Juvenile sexual offenders (n=366).

Preliminary analyses reveal that the average age of all participants was 16.47 (SD=1.18). All participants were male, as the very small number of adjudicated female juvenile sexual offenders allows for very few significant analyses. Racial backgrounds within the sample reflected a composition of 60.6% African-American, 35.2% Caucasian, three percent Hispanic and 0.6% Asian. Tables 1 & 2, listed on the following pages, present a synopsis of basic demographic information.

### *Measures*

Independent variables will be operationalized in the following manner:

*Rating of primary attachment relationships by entire staffing team (educator, psychologist, case worker).* These ratings are categorized as: healthy levels of functioning; minimal dysfunction, stress or impairment; moderate dysfunction, stress or impairment; severe dysfunction, stress or impairment.

*Maltreatment/Victimization history.* This will be reflected in the presence/absence of sexual/physical abuse by parents, other family members or assault by someone other than a family member.

*Parental history of Criminality.* This variable will be characterized through the presence/absence of parental criminal activity, incarceration, or criminal history.



Table 1

*Participant Age*

<u>Age</u>	<u>Frequency</u>	<u>Percent</u>
11	4	00.1%
12	14	00.5%
13	81	02.7%
14	270	09.2%
15	547	18.6%
16	846	28.7%
17	1074	36.4%
18	82	02.8%
19	6	00.2%
20	1	00.0%
Total	2925	99.2%
System Missing	23	00.8%
TOTAL	2948	100.0%

Table 2

*Participant Race*

<u>Race</u>	<u>Frequency</u>	<u>Percent</u>
Asian	17	00.6%
Black	1786	60.6%
Hispanic	89	03.0%
White	1039	35.2%
<u>Other</u>	<u>17</u>	<u>00.6%</u>
TOTAL	2948	100.0%

*Family Climate.* The juvenile's family climate will be assessed through documentation of the presence/absence of domestic violence or parental abuse.

*Physical Family Structure.* Documentation of the juvenile's living situation immediately prior to incarceration as well as history of living situation will define this variable.

Dependent variable will be operationalized in the following manner:

*Membership in offense category.* (Juvenile Sexual Offenders; Juvenile Violent, Non-Sex Offenders; Juvenile Non-Violent, Non-Sexual Offenders).

*The Client Profile Database.* (Virginia Department of Juvenile Justice, 2001). Psychosocial history and other demographic data for each juvenile were available from intake information obtained by Virginia Department of Juvenile Justice (VDJJ) as part of standard screening (Appendix A). All adjudicated youth are evaluated at the Reception and Diagnostic Center for at least one month prior to admittance into the system. VDJJ employees who complete this information consist of educational, medical and mental health professionals. In particular, the clinical psychologists who assessed the youth during this period represented a median of more than fifteen years working with a juvenile justice population (Pinkerton, Waite, Wieckowski, McGarvey, & Brown, 2003). This database, which contains over 300 variables, includes arrest record; intellectual, behavioral and emotional assessments; school, medical and psychiatric history; and extensive family history (e.g., sexual/physical abuse, stability of home life, ratings of attachment relationships, parental criminal history and out-of-home placements).

Variables within the Client Profile Database (Pinkerton, et. al, 2003) that are of interest to this present study are those suggested as most salient to the particular juvenile's individual, Microsystem and Mesosystem characteristics of interest. These

particular variables are further delineated here as originally defined through the Client Profile Database. The salient variables have been grouped in the following manner for the sole purpose of this current study:

*Attachment style.* One variable in the database reflecting the rating by the entire RDC staffing team as either severe, moderate, mild or no dysfunction.

*Maltreatment/Victimization.* Comprised of three variables in the database: 1-Sexual/physical abuse by parents, 2-Sexual/physical abuse by other family member, 3-Assault by someone other than a family member.

*Parental Criminality.* Comprised of two variables in the database: 1-History of parental criminal activity, 2-History of parental incarceration.

*Family Climate.* Comprised of two variables in the database: 1-Domestic violence history in the home, 2-History of parental violence.

*Family Structure.* Comprised of two variables in the database: 1-Juvenile's living situation immediately prior to incarceration, 2-Juvenile's history of living situation.

### *Procedures*

Data used in this study were originally collected for a poster presented at the 22<sup>nd</sup> Annual Association for the Treatment of Sexual Abusers Research and Treatment Conference (Pinkerton, Waite, Wieckowski, McGarvey, & Brown, 2003). The study was designed to explore differences in personality characteristics and psychopathological characteristics using the Personality Inventory for Youth (PIY) between groups of incarcerated juvenile sexual offenders and juvenile non-sexual offenders.<sup>1</sup> This current

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<sup>1</sup> Two particular questions were addressed within the original poster: 1-In this incarcerated population, are there meaningful personality and/or psychopathological differences between juvenile sexual offenders and juvenile non-sexual offenders? 2-In this incarcerated population, are there meaningful personality and/or psychopathological differences between juvenile sex offenders and the subset of juvenile non-sexual offenders who have committed violent, non-sexual offenses? Results from the study

study seeks to further delineate potential differences between juvenile sexual offenders, juvenile violent non-sexual offenders and juvenile non-violent, non-sexual offenders by examining potential impediments to attachment in their psychosocial histories.

For the purposes of this study, delineation of potential differences is limited to the following salient variables: functioning of primary attachment relationships, maltreatment/victimization history, parents' history of criminality, family climate and family structure. These variables have been captured and rated within the Client Profile Database by the professionals within the VDJJ.

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revealed that significant differences did exist between the two groups, with juvenile sexual offenders scoring significantly higher on PIY subscales of cognitive impairment, impulsivity and distractibility, reality distortion, somatic concern and social skills deficits.

## Results

Descriptive results of the study sample initially delineate between the primary variables of interest: types of offenders and the percentages of attachment impairment scores within each offense category (Table 3). Further descriptive results of offender age and race were also analyzed by offense category (Table 4).

Table 3

*Characteristics of Sample: Juvenile Sex Offenders, Juvenile Violent Non-Sex Offenders and Juvenile Non-Violent, Non-Sex Offenders by Attachment Impairment Scores*

	JNVNSO	JVNSO	JSO
Score 0 No impairment	2.7%	2.7%	2.5%
Score 1 Minimal Impairment	14.7%	14.0%	8.5%
Score 2 Moderate Impairment	44.0%	39.2%	31.0%
Score 3 Severe Impairment	38.5%	44.2%	58.1%
TOTALS	100%	100%	100%

Table 4

*Characteristics of Sample: Juvenile Sex Offenders, Juvenile Violent Non-Sex Offenders and Juvenile Non-Violent, Non-Sex Offenders by Age and Race*

		JNVNSO	JVNSO	JSO
<i>Age</i>	11	0.0%	0.1%	0.8%
	12	0.5%	0.2%	1.4%
	13	1.8%	3.0%	5.2%
	14	8.1%	9.0%	13.7%
	15	18.5%	18.0%	21.4%
	16	31.3%	28.8%	22.8%
	17	37.2%	37.7%	31.0%
	18	2.5%	3.1%	2.7%
	19	0.1%	0.1%	0.8%
	20	0.0%	0.1%	0.0%
<b>TOTALS</b>		100%	100%	100%
<i>Race</i>	Asian	0.4%	0.8%	0.3%
	Black	58.0%	65.5%	49.6%
	Hispanic	3.4%	2.4%	4.1%
	White	37.7%	30.8%	44.7%
	Other	0.5%	0.4%	1.4%
<b>TOTALS</b>		100%	100%	100%

Two sets of multiple regressions were initially run to examine the relationships between attachment impairment (0=no impairment, 1=minimal impairment, 2=moderate impairment and 3=severe impairment) and type of offense (violent or sexual) and between attachment impairment and the five “blocks” of impediments or risk factors (history of sexual abuse, history of physical abuse, witnessing domestic violence, parental criminality and history of placement in foster care). Subsequent analyses then further examined the relationships between attachment impairment and types of offenses through a series of one-way analyses of variance and chi-square tests of independence. Analyses were then centered upon the results of the second regression and examined the relationship between attachment impairment and the individual risk factors elucidated throughout the study. These analyses were facilitated through a one-way analysis of variance and chi square tests of independence exploring the impact of numbers of risk factors on levels of attachment impairment.

The first multiple regression analyses (Table 5) predicting attachment impairment used regressors as presence of violent offense and presence of sexual offense.

Table 5

*Regression predicting attachment impairment by type of offense*

Regressor	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	F
Model 1				.011	15.61*
Sexual offense	.197	.046	.083		
Violent offense	.065	.031	.041		

\* =  $p < .001$



While the overall relationship between types of offenses and attachment impairment was significant [ $F(1,2936)=15.61, p<.001$ ], the relationship accounted for only 1% of the variance in attachment impairment scores ( $R^2_{\Delta} = .01$ ).

The second hierarchical multiple regression analysis (Table 6) also predicted attachment impairment, but used regressors entered in the following blocks: parental criminality, history of placement in foster care, witnessing domestic violence, history of sexual abuse, and history of physical abuse. The overall relationship between the regressors and attachment impairment was significant [ $F(8, 2920)=197.901, p<.001$ ], and accounted for 12% of the variance in attachment impairment scores ( $R^2_{\Delta} = .12$ ). Each of the regressor effects were significant ( $p<.005$ ) with parental criminality accounting for 6.3% of the variance within the overall model. The second block, history of foster care, accounted for an additional 3.1% of the variance. Witnessing domestic violence, history of sexual abuse and history of physical abuse accounted for 1.2%, 0.4% and 0.9% respectively.

Notwithstanding the small percentage of variance in attachment impairment scores that was accounted for in the multiple regression analyses, the further exploration of the relationships between attachment impairment and types of offenses, as well as between attachment impairment and the various blocks of risk factors (history of sexual abuse, history of physical abuse, witnessing domestic violence, parental criminality and history of placement in foster care) was undertaken. Secondary analyses were conducted to assist in explaining the variance that was being accounted for by the stated variables.

Table 6

*Hierarchical Regression predicting attachment impairment by potential impediments*

Regressor	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	<i>F</i>
Overall Model				.117	48.21*
Step 1				.063	197.9*
Parental criminality	.396	.028	.252		
Step 2				.031	99.78*
Foster care	.478	.048	.177		
Step 3				.012	38.46*
Domestic Violence	.201	.032	.113		
Step 4				.004	4.75*
Victim of sex abuse	.052	.083	.011		
Victim of sex abuse (Outside of immediate family)	.173	.073	.044		
Victim of sex assault	.177	.087	.037		
Step 5				.009	15.50*
Victim of phys abuse	.194	.042	.090		
Victim of phys abuse (Outside of family)	.185	.071	.049		

\* =  $p < .005$

A one-way, between-groups analysis of variance (Table 7) was conducted to explore the impact of offense type on attachment impairment. Subjects were divided into three groups according to their offense type (Non-violent-non-sex offender {NVNSO}, Violent-non-sex offender {VNSO} and Sex offender {SO}). There was a statistically significant difference at the  $p < .001$  level in attachment impairment for the three groups of offenders [ $F(2,2938) = 15.606, p < .001$ ]. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .01. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the SO group ( $M = 2.45, SD = .753$ ) was significantly different from both the NVNSO group ( $M = 2.18, SD = .780$ ) and the VNSO group ( $M = 2.25, SD = .791$ ). In contrast, the NVNSO group ( $M = 2.18, SD = .780$ ) did not differ significantly from the VNSO group ( $M = 2.25, SD = .791$ ). Results of the one-way between-groups analysis of variance suggests that a significant difference exists in attachment impairment between juveniles who offend sexually and those who do not offend sexually.

In light of the results of the one-way, between-groups analysis of variance, further investigations of the relationship between attachment impairment and type of offense were conducted. A chi-square test of independence (Table 8) was performed to examine the relationship between types of offenses committed and the presence of certain historical risk factors.

Table 7

*Analysis of Variance for Impact of Offense Type on Attachment Impairment**Summary*

	<i>df</i>	<i>F</i>	<i>η</i>	<i>p</i>
Between Groups	2	15.61	9.54	.000

*Post Hoc Tests*

A	B	Mean Diff	<i>SE</i>	<i>p</i>
NVNSO	VNSO	-.07	.031	.088
NVNSO	SO	-.26	.047	.000
VNSO	NVNSO	.07	.031	.088
VNSO	SO	-.20	.046	.000
SO	NVNSO	.26	.047	.000
SO	VNSO	.20	.046	.000

Table 8

*Chi-Square Tests of Independence with Violent Offenses and Presence of Risk Factors*

Risk Factor	$X^2$	$df$	Sig
Physical Abuse	5.68	1	.000
Domestic Violence	9.55	1	.002
Sexual Abuse	2.17	1	.141
Parental Criminality	.220	1	.639
Foster Care	1.05	1	.305

*Crosstabulations*

Risk Factor	Violent Offenders	Non-Violent Offenders
Physical Abuse	20.4%	16.8%
No Phys Abuse	79.6%	83.2%
Domestic Violence	29.3%	24%
No Domestic Violence	70.7%	76%
Sexual Abuse	9.3%	7.7%
No Sexual Abuse	90.7%	92.3%
Parental Criminality	50.7%	49.7%
No Parental Criminality	49.3%	50.3%
Foster Care	9.8%	8.6%
No Foster Care	90.2%	91.4%

The relationship between violent offenders and physical abuse was significant,  $X^2(1, N=2939) = 5.68, p<.02$ , as was the relationship between violent offenders and a history of witnessing domestic violence,  $X^2(1, N=2939) = 9.55, p<.002$ . Almost twenty-one percent of violent offenders possessed a history of physical abuse, whereas only 16.8% of non-violent offenders endured such a history. Juveniles who had witnessed domestic violence in their families composed almost thirty percent of the violent offender population in contrast to only 24% of the non-violent population.

Investigations of the sexual offender population were also achieved through the use of chi square tests of independence (Table 9). In contrast to the violent offenders, who had significant relationships with only two violent variables of physical abuse and domestic violence, the relationship of sexual offenders was significant with three variables of different origins. The relationship of sexual offenders and sexual abuse was significant,  $X^2(1, N=2939) = 82.186, p<.001$ . A history of sex abuse was present in 21.4% of sexual offenders, whereas only 6.9% of non-sexual offenders possessed such a history. Significance was also found between sexual offenders and a history of physical abuse,  $X^2(1, N=2939) = 6.64, p<.01$ , as well as with a history of foster care,  $X^2(1, N=2939) = 6.59, p<.01$ . Twenty-four percent of sexual offenders were physically abused as children compared to 18.3% of non-sexual offenders. Finally, 13.2% of sexual offenders were placed in foster care at some point in their lifetime contrasted with only 8.8% of non-sexual offenders.

Table 9

*Chi-Square Tests of Independence with Sexual Offenses and Presence of Risk Factors*

<u>Risk Factor</u>	<u>X<sup>2</sup></u>	<u>df</u>	<u>Sig</u>
Sexual Abuse	82.186	1	.000
Physical Abuse	6.637	1	.010
Foster Care	6.585	1	.010
Domestic Violence	3.160	1	.075
Parental Criminality	.059	1	.807

*Crosstabulations*

<u>Risk Factor</u>	<u>Sexual Offenders</u>	<u>Non-Sexual Offenders</u>
Sexual Abuse	21.4%	6.9%
No Sexual Abuse	78.6%	93.1%
Physical Abuse	24.1%	18.3%
No Phys Abuse	75.9%	81.7%
Foster Care	13.2%	8.8%
No Foster Care	86.8%	91.2%
Domestic Violence	31.2%	26.7%
No Domestic Violence	68.8%	73.3%
Parental Criminality	49.6%	50.4%
No Parental Criminality	50.4%	49.6%

Further analysis of the results of the second regression exploring attachment impairment and risk factors was conducted in order to determine if there is a significant influence of the cumulative effect of the number of risk factors a child experiences on his attachment impairment. A one-way, between-groups analysis of variance was employed to explore the impact of total number of risk factors present in a juvenile's history on attachment impairment (Table 10). The risk factors explored within this analysis were as follows: sexual abuse within immediate family, sexual abuse in extended family, sexual assault outside of family, physical abuse within family, physical abuse outside of family, witness of domestic violence, parental criminality, and placement in foster care.

Subjects were divided into eight groups according to their respective numbers of historical risk factors (Group 0 = 0 risk factors present, Group 1 = 1 risk factor present, Group 2 = 2 risk factors present, Group 3 = 3 risk factors present, Group 4 = 4 risk factors present, Group 5 = 5 risk factors present, Group 6 = 6 risk factors present, Group 7 = 7 risk factors present). The ANOVA was conducted without a Group 8, as no subjects possessed all eight historical risk factors. Distribution of percentages throughout the sample population is illustrated in Figure 1. There was a significant difference at the  $p < .001$  level in attachment impairment for the eight groups of offenders [ $F(2,2938)=57.32, p < .001$ ]. The effect size, calculated using eta squared, was .12. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 0 ( $M=1.91, SD=.83$ ) was significantly different from all other groups at the  $p < .01$  level [Group 1 ( $M=2.31, SD=.72$ ), Group 2 ( $M=2.49, SD=.67$ ), Group 3 ( $M=2.62, SD=.59$ ), Group 4 ( $M=2.64, SD=.63$ ), Group 5 ( $M=2.75, SD=.51$ ), Group 6 ( $M=3.00, SD=.00$ ),



Table 10

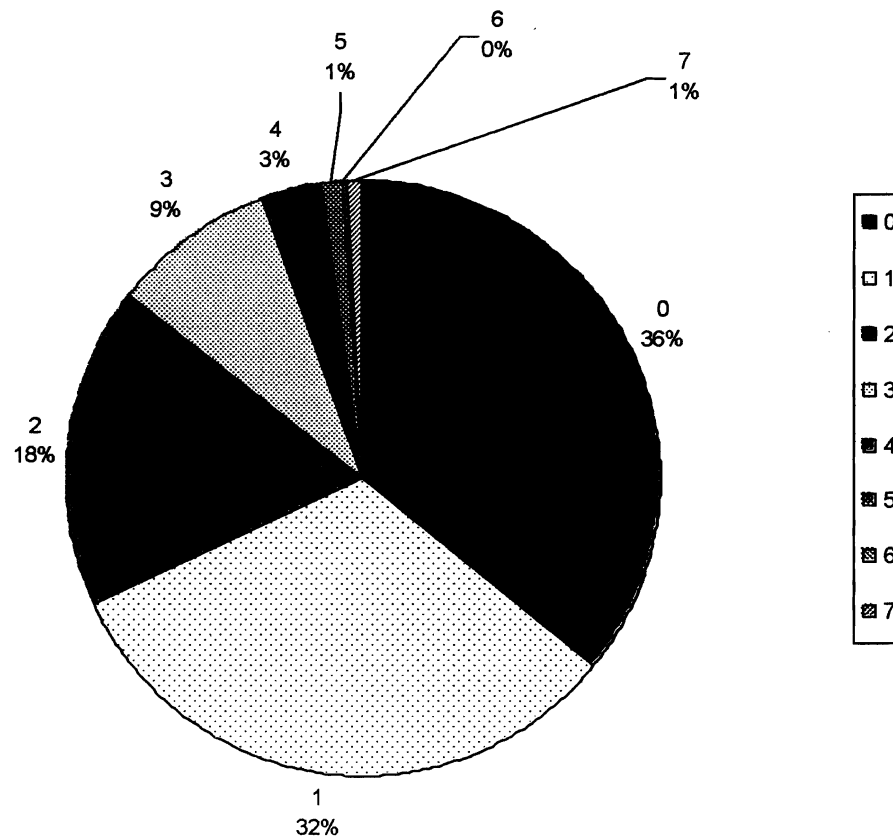
*Analysis of Variance for Impact of Numbers of Risk Factors on Attachment Impairment*

	<i>df</i>	<i>F</i>	<i>η</i>	<i>p</i>
Between Groups	7	57.323	31.217	.000

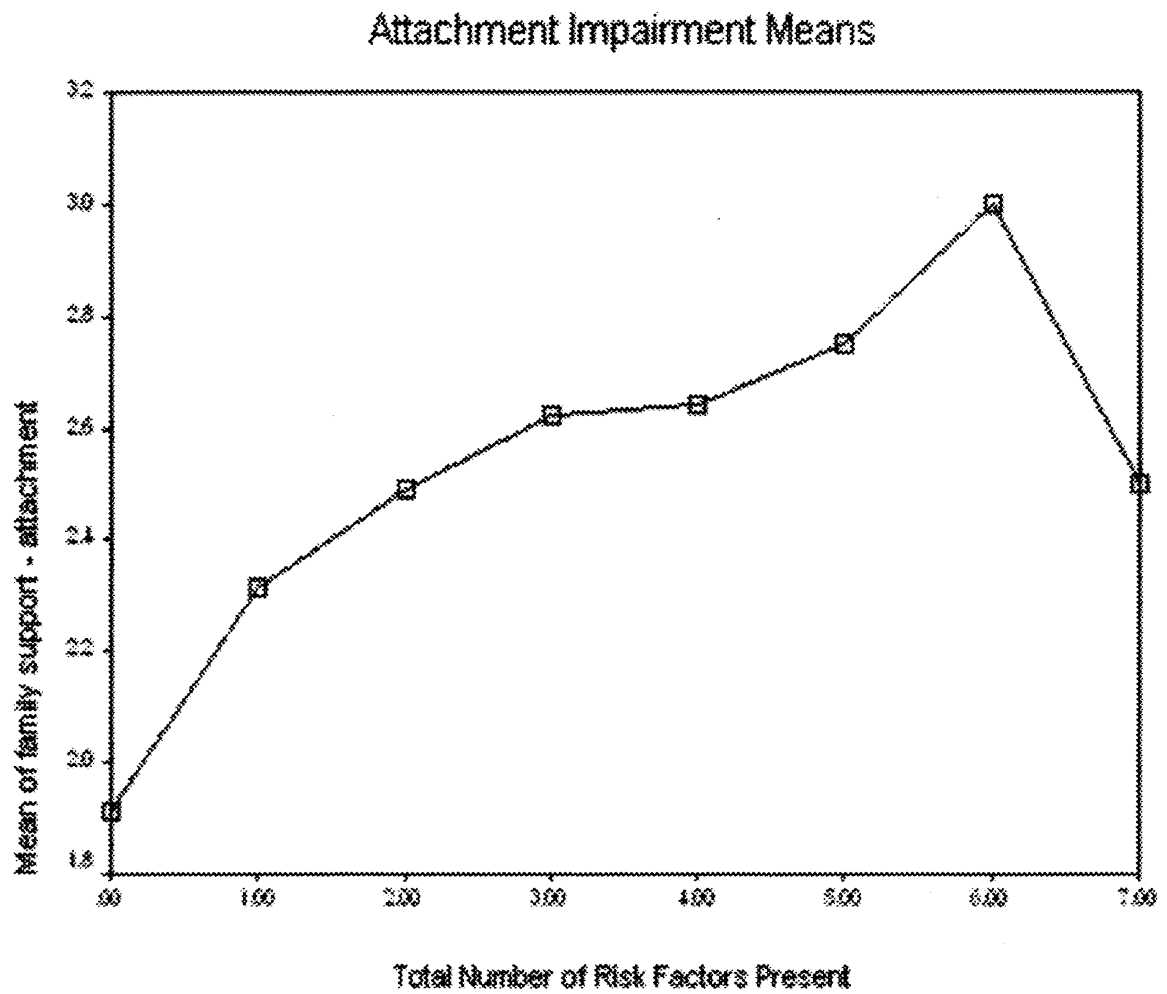
  

Number of Risk Factors	<i>M</i>	<i>SD</i>
Group 0	1.91	.83
Group 1	2.31	.72
Group 2	2.49	.67
Group 3	2.62	.59
Group 4	2.64	.63
Group 5	2.75	.51
Group 6	3.00	.00
Group 7	2.50	.67

Group 7 ( $\underline{M}$ =2.5,  $\underline{SD}$ =.67)]. Such a difference suggests that juveniles with no risk factors are significantly less likely to experience attachment impairments. This significant relationship is shown in Figure 2.



*Figure 1.* Percentages of risk factors present in this Juvenile Justice population.



*Figure 2.* The total number of risk factors present charted by the means of family attachment impairment ratings.

In light of the results of the one-way between-groups analysis of variance, further analyses of the relationship between attachment impairment and numbers of risk factors were conducted. A chi-square test of independence was performed to examine the relation between level of attachment impairment and the numbers of risk factors present in a juvenile's history (Table 11). The relationship between level of attachment impairment and number of risk factors was significant,  $X^2(21, N=2939) = 398.28$ ,  $p < .001$ . Seventy-three percent of juveniles with no rated impairment to attachment possessed zero historical risk factors, significantly contrasted to 21% of juveniles with severely impaired attachment possessed zero historical risk factors. Further percentages are charted on Figure 3:

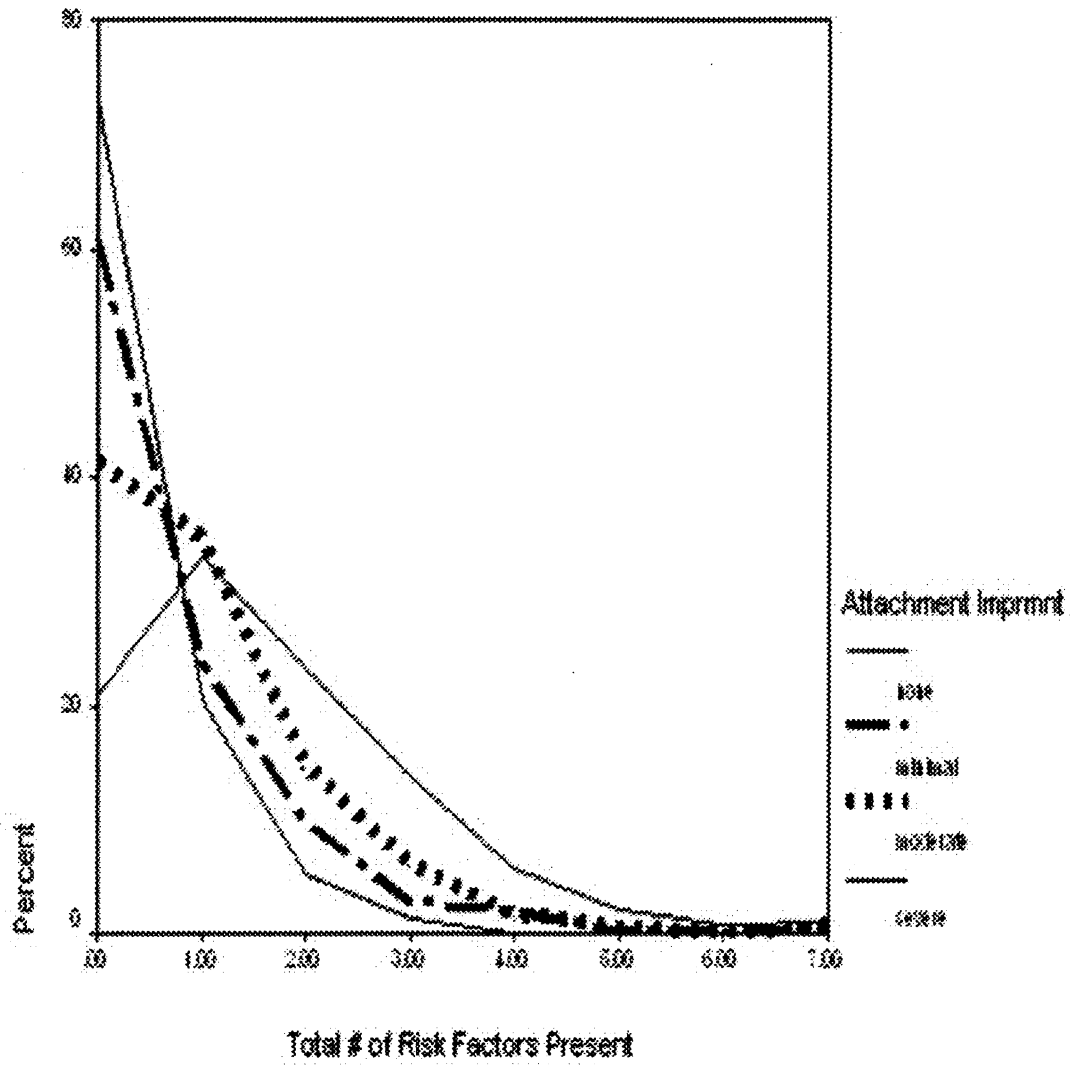
Table 11

*Chi-Square Tests with Attachment Impairment and Numbers of Risk Factors**Summary*

	<i>X</i> <sup>2</sup>	<i>df</i>	Sig
Impairment X Risk Factors	385.291	21	.000

*Crosstabulations*

	Numbers of Risk Factors							
	0	1	2	3	4	5	6	7
No Impairment	73.1%	20.5%	5.1%	1.3%	0.0%	0.0%	0.0%	0.0%
Minimal Impairment	60.9%	23.8%	9.8%	2.8%	2.0%	0.3%	0.0%	0.5%
Moderate Impairment	41.4%	34.8%	14.8%	6.2%	1.7%	0.5%	0.0%	0.6%
Severe Impairment	20.8%	32.9%	23.2%	13.6%	5.7%	1.9%	0.8%	1.0%



*Figure 3.* Percentages of attachment impairment severity charted by the total number of risk factors present in the population.

## Discussion

The important role of attachment impairment in juvenile offenders was demonstrated as a significant finding by this present study. Not only is attachment impairment *affected* by the juvenile's environment, but impaired attachment also seems to influence the characteristics of the offense the juvenile commits. As demonstrated through the significant results of analyses predicting attachment impairment, the findings suggest a number of important and quite salient points for discussion.

Picture a juvenile's sense of attachment as a potential *conduit* that is both reactive and proactive to its environment. A certain bi-directionalism exists as that sense of attachment is both acted on and acts upon its surroundings. The explored risk factors, such as sexual abuse, physical abuse and placement in foster care, may detrimentally influence the juvenile's sense of attachment. These risk, or the absence of protective, factors are a part of the environment which serves to shape how well, or how poorly, such a juvenile may attach to his caregivers, to his potential peers, or perhaps, sadly, to his victims. In much the same manner, a juvenile's sense of attachment is also that which acts back upon his environment as he chooses the manner and severity in which he offends.

The additive effect of the numbers of risk factors present in a child's environment was demonstrated as another particularly salient finding from this present study. The deleterious consequence of such factors upon the juvenile's ability to effectively attach to others is certainly a disturbing result. However, a more pronounced finding suggests that not only do attachments suffer at such risk increases, but that the actual types of crimes

committed by the juvenile might also differ as a result of such increases. These findings are thought to hold important implications for clinicians, researchers, and policy makers as they speak to the power and necessity of attachment as that which makes us human, or conversely, that which may keep us from feeling the most human of emotions. The following discussion seeks to integrate these most salient findings with the current literature, as well as to offer some suggestions for future research directions.

Higher levels of dysfunction within the primary attachment relationships were found in those juveniles who have committed sexual offenses than juveniles without a history of sexual offenses. The significant differences observed between Non-violent-non-sex offenders, Violent-non-sex offenders and sex offenders on attachment impairment suggest that juveniles who offend sexually are indeed dissimilar in their primary attachment relationships. Such significance is consistent with Marshall's model of sexual offending (1989, 1993) which suggests that poor attachment bonds and lack of *adult* intimacy are linked to the propensity to commit criminal sexual offending.

Dysfunction within the primary attachment relationships have been empirically supported with studies of adult offenders (Hudson & Ward, 1997; Marsa et.al, 2004; Smallbone & Dadds, 1998), demonstrating the attachment deficits that are present in adult sexual offenders. The present study offers that such deficits may also be present in juvenile sexual offenders, congruent with Kobayashi, et al (1995) who found that a higher level of bonding to a parent was significantly correlated with lower levels of sexual aggression. However, the current results suggest that attachment impairment was different between those juveniles who had sexually offended and those who had not, in



contrast to the Kobayashi study that was unable to predict membership in an offense category.

Attachment impairment and the number of risk factors present were also found to be related. As the number of historical risk factors (sexual abuse within immediate family, sexual abuse in extended family, sexual assault outside of family, physical abuse within family, physical abuse outside of family, witness of domestic violence, parental criminality, and placement in foster care) increased, so did the likelihood that a juvenile offender would experience attachment impairments. The aggregated impact of risk factors has been reported in the literature to be linked to a youth's vulnerability to juvenile delinquency (Farrington, 1997; Bassarath, 2001; Baryluk, 2003). The "dose-response" effect of risk factors was also evident as a predictor of increased vulnerability to delinquency as stated in the conclusion "...for those with no risk factors, convictions for violence were increased by only 3% compared to having 4 to 5 risk factors present which increased one's risk by 31%" (Farrington, 1997). The results of this present study are congruent with such increases by the numbers of historical risk factors; however, it would also contribute initial efforts in assessing the aggregation of risk factors as they relate to quality of caregiver attachments.

Perhaps the most controversial of topics within the sexual offender literature, support was rendered for the relationship between a history of sexual abuse and the perpetration of a sexual offense by those adolescents. A history of sex abuse was present in 21.4% of sexual offenders, whereas only 6.9% of non-sexual offenders possessed such a history, illustrating a significant difference in the victimization of sexual offenders.

Such a difference is consistent with the meta-analytic data on over 1,600 juvenile sex offenders reported by Ryan, et al. (1996). Increased percentages of sexual abuse in the studied population were reported. Whether self-report from the offender (Johnson & Knight, 2000) or parental report (Duane, et al, 2003), sexual abuse has been found to be a significant factor that influences adolescent sexual coercion.

A history of physical abuse within this sample suggested that such a risk factor may be more a predictor of offense severity, as opposed to actually delineating between a crime that is sexual or violent in nature. Twenty-four percent of sexual offenders were physically abused as children compared to 18.3% of non-sexual offenders. In contrast to the significance of sexual abuse, a history of physical abuse was not limited to sexual offenders only. Almost twenty-one percent of those juveniles who offended violently also possessed a history of physical abuse. A history of physical and sexual abuse is consistent in other studies examining both sexual and violent juvenile offenders (Boswell, 1996; Johnson & Knight, 2000; Duane et al, 2003).

Salient information was discovered regarding the role that parental criminality might play as a specific impediment to attachment. Results suggested that a parent's history of criminal behavior accounted for 6% of the overall variance in predicting a juvenile's overall attachment impairment. Certainly, parents who are modeling criminal behaviors are diminished in their capacity to *directly* supervise their children, but this piece of information may also provide a glimpse into ways that parental criminality may *qualitatively* affect a child's capacity for attachment to his caregiver.

Even though results of this study did not demonstrate a difference in the incidence

of domestic violence between sexual offenders and non-sexual offenders, a significant relationship was discovered between such a family climate and violent offenders. Such results, when combined with the earlier victimization indications, suggest this present population seems to follow a pattern of potential “modeling” effects, reminiscent of Bandura’s Social Learning perspective (Bandura, 1986). Violent offenders were more likely to have violent histories, such as physical abuse and domestic violence, whereas sexual offenders were more likely to have histories containing abuse of a sexual nature.

Sexual offenders were also shown to be more likely to have been placed in foster care. Such a finding is consistent with current juvenile sex offender literature (Graves, et al, 1996; Van Ness, 1984; Duane, et al, 2003), suggesting that such a physical and concentrated disruption to the caregiver relationship may have significant consequences upon the juvenile’s ability to attach. While such relationships do not imply causality or a directional influence of foster care on type of offending, these findings represent an initial effort in establishing an elementary relationship between such a severe disruption of the family structure and the juvenile’s ensuing offense type.

The importance of the study of juvenile sexual offenders is posited to be one of the most relevant and urgent facing researchers today. Recent media attention has propelled the problem of sexual offenders into the spotlight as never before. Tragic events in the state of Florida, such as the kidnapping, sexual assault and murder of Jessica Lunsford, are leading legislators to examine the relationship of public policy and sexual offenses. Sweeping legislation that appears to lump all sexual offenders into one category and punish them accordingly are within weeks of enactment. Will global

monitoring devices stop the offenses? Will reactive solutions *prevent* future crimes?

Will one hammer fix an entire house in disrepair?

It is posited that policy must rigorously examine the options available. This study is not abdicating the immense responsibility placed upon all of society to provide safety and order. Much to the contrary, it is hoped that by exploring those risk factors more common to certain offenders, our energies will be most effectively employed. Perhaps a more efficient tool that we could use to fix the “house in disrepair” might resemble one being piloted by Professor Robert Marvin in the Child-Parent Clinic at the University of Virginia (Marvin, 2005). Parents and their infant and toddler children participate in intensive training that teaches parents how to identify and respond to emotional cues by their children. One of the central tenets of the program suggests that “...distortions in feeling and thinking that stem from early attachment disturbances occur most often in response to the parent’s inability to meet the child’s needs for comfort, security, affect and behavior regulation, and emotional reassurance.” Programs to train and empower parents and, thereby circumvent future and more severe attachment disturbances, appears to be an exponentially more effective tool for our house in disrepair.

### *Limitations*

The overarching purpose of this study was to address potential impediments to attachment that may differentiate between incarcerated juveniles who have committed sexual crimes and incarcerated juveniles who have not committed such offenses. Those impediments consisted of Maltreatment/Victimization (Sexual and/or physical abuse), Parental Criminality, Family Climate and Family Structure. While the results and

interpretations of this study may have emphasized some significant differences between juvenile sex offenders and juvenile non-sex offenders, there are certain limitations within the study.

Eight-hundred fifteen of the juveniles within the sample had a history of physical abuse, sexual abuse or both. Representing almost 30% of the sample, these juveniles have encountered abuse that significantly impacts attachment capacity. Only thirty-six percent of this entire sample did not possess one or more of the examined risk factors. Such a population is suggested to represent the absolute extreme end of the continuum of juvenile development. It appears as though the study has examined “a sliver of the third standard deviation” at the far end of the bell curve of development. It is such homogeneity of the sample that may provide a reason for this study accounting for only 12% of the variance in delineating between the types of offenders. Very little variation in abuse histories exists in the subjects’ histories. However, such a failure to account for many significant differences appears to be congruent with some recent literature suggesting that sexual offenses are more an extension of delinquent behaviors, as opposed to a certain “subset” (Knight & Prentky, 1993; Ryan et al, 1996).

What accounts for the other 88% of the variance between types of offenders? In the midst of such homogeneity, such a question still begs to be answered. Quite possibly, one of the answers to such a question may lie in further exploration of attachment history that a juvenile might possess. Are there differences based upon type of attachment disruption? Chronic abuse versus one-time assault? Intrafamilial versus Extrafamilial abuse? Attachment disruption with mother versus father? Might the study have

accounted for further variance if it was able to further dismantle the types of risk factors and the perpetrators of abuse? It is posited that such exploration would certainly not account for all of the 88%, but may lend towards the explanation of at least further differences between types of offenders.

A particular limitation focuses upon the limited rating of attachment impairment. In light of the most salient results of this study revolving around discoveries of attachment impairment, it is important to note that there was only one variable that composed that rating of impairment. Even though the rating was assigned by a multi-disciplinary group of DJJ professionals, there is a significant reduction in the generalizability of the findings when multiple ratings are not employed.

Although segments of the literature point to the stability of family interactions over time (Loeber, Drinkwater, Yin, Anderson, Schmidt, & Crawford, 2000), a further limitation of this current study is its assumption that the juvenile's history of interactions and family contexts are constant. State documentation certainly assists in this study's ability to provide uniform information; however, it does not take into account the ability for a juvenile's environment and family climate to change.

Finally, the ethnic diversity of the sample prevents generalizations to be made to specific segments of the juvenile offender population. African-American juveniles represent almost 61% of the sample, with Caucasian juveniles composing another 35% of the population. Asian, Hispanic and other ethnic minorities make up the remaining four percent of the sample. Such a limitation would prevent any conclusions from being applied in a relevant manner.

### *Future Research*

This current study has generated potential questions for future research. As a number of studies have examined the importance of attachment in adult populations, this is one of relatively few studies who have explored the attachment relationships of juvenile sexual offenders. Such exploration of juvenile attachments seems to carry paramount importance as the numbers and saliency of juvenile sexual offenders grow in the United States. Attachment impairment is suggested by this study as one place that may provide some delineation between types of offenders, shedding some light on customarily murky waters.

Another potential research question of interest may be further exploration of differences within the sexual offender group. This current population illustrates a somewhat skewed distribution of more serious sexual offenders who have been incarcerated for their crimes. It is posed that a study might explore differences between groups of juvenile sexual offenders who have not committed a hands-on offense (exposure) and those who are incarcerated for more violent sexual crimes (forcible rape). Such distinctions may begin to provide researchers and clinicians alike with valuable information about the development of different types of juvenile sexual offenders.

### *Conclusion*

The present study represents an initial effort to examine potential impediments to attachment within a juvenile justice population. The exploration of such prospective barriers to attachment has been organized around Bronfenbrenner's Ecological Model (Bronfenbrenner, 1979) in an effort to help us understand the impediments from those

most proximal to the juvenile to those within his Mesosystem. Individual characteristics of the juvenile that are thought to influence attachment and, thus assist in the delineation of types of offenses, are his individual attachment style and history of maltreatment and victimization. These form the unique attributes that the juvenile *brings into his environment* which allow for the creation of individual and distinctive dynamics within his milieu. Moving into the characteristics of the juvenile's Microsystem focuses upon parental criminality as a possible impediment to attachment, as parents' ability to participate in direct interaction and monitoring are posed to be extremely compromised by legal involvement or incarceration. The most distal of influences examined in this study are those falling into the juvenile's Mesosystem. Family climate and physical family structure are also posed to serve as hindrances to a child's ability to assimilate positive attachments as they create the atmosphere in which the child lives and finds his most powerful models of relationship.

Results suggested that differences exist between juvenile sexual offenders and juvenile non-sexual offenders in sexual abuse histories, as well as in foster care placement. Such differences may further the research by alluding to the impending attachment impairments that ensue from such histories and perhaps allow the literature to begin a move towards the examination of the role of attachment impairment as a catalyst in the development of juvenile sexual offenders.

Attachment impairment was also found to be significantly intertwined with the numbers of risk factors that a juvenile incurs within his developmental history. These particular data seem to hold tremendous clinical and theoretical implications. As a child



is discovered to encounter sexual abuse or domestic violence or foster care, this information may draw attention to the necessity of interventions that may be provided to address the needs of the child. In no way do these results suggest causality or predict absolute membership in a particular group of offenders based solely upon the presence of one (or any) risk factor. It simply highlights the importance of potential relationships that may exist and offers possible distinctions between such difficult populations.

In conclusion, the problem of juvenile sexual offending is one of great complexity, relevance and entanglement. Attempting to delineate even the smallest of differences in this enigmatic population proves a daunting task for both researcher and clinician alike. This current study has attempted to provide some differences based upon attachment impediments within a large, juvenile population of incarcerated offenders. It is hoped that, as we learn more about such attachments and such impediments, we can offer more effective interventions for those who have offended, as well as offer successful prevention programs to keep future offenses from occurring.

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