The Impact of Violence Exposure on Sexually Abusive Behavior in Types of Adolescent Sex Offenders

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LOYOLA UNIVERSITY CHICAGO

THE IMPACT OF VIOLENCE EXPOSURE ON SEXUALLY ABUSIVE BEHAVIOR IN TYPES OF ADOLESCENT SEX OFFENDERS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN CLINICAL PSYCHOLOGY

BY
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CHICAGO, ILLINOIS
AUGUST 2007
ACKNOWLEDGMENTS

I would like to thank the individuals who directly made this dissertation possible: my faculty chair, Scott Leon, Ph.D. and former clinical director of CAUSES, Steve Spaccarelli, Ph.D. Without their support, including Dr. Spaccarelli’s contribution of time and data, this study would not have been possible. I am also grateful for the support and feedback from the members of my dissertation committee: Catherine Haden, Ph.D., Grayson Holmbeck, Ph.D., and Maryse Richards, Ph.D. Their insight and professionalism undoubtedly improved the rigor and value of the study. Finally, I would like to offer personal thanks to the many family and friends who provided emotional support and encouragement throughout the process of completing this dissertation. Colleagues and friends, Barbara Jandasek and Jill Zukerman, not only contributed invaluable moral support, but acted generously and efficiently to help me achieve a successful oral defense of this dissertation. I would also like to extend gratitude to my classmate and friend, Satin (Mona) Abad, who has been a true colleague throughout the process of reaching milestones in our pursuit of the Ph.D. A very special thanks goes to Philip O’Donnell, whose self-discipline and work ethic inspired and motivated me to complete my dissertation in a timely manner; and whose intellect and insight paralleled the contributions of my committee faculty members. In addition, his tireless support and encouragement sustained me through this rigorous process.
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INTRODUCTION

Documented more consistently since the 1980s, crime statistics indicate alarming prevalence rates of adolescents committing a considerable proportion of all sex offenses. For example, the National Center for Juvenile Justice found that 43% of sexual assaults against children age six and younger are committed by juveniles (2003). According to other statistics collected by the U.S. Department of Justice, juveniles commit approximately 23% of all documented sexual assaults, including 27% of sexual crimes against victims over the age of 11, and 39% of sexual crimes against victims between ages 6 and 11 (Snyder, 2000). Further, these data likely under-represent the scope of the problem due to substantial numbers of unreported incidents of sexual assault or sexual abuse, and lack of actual arrests in response to what is reported (Snyder; Veneziano & Veneziano, 2002).

The current study seeks to gain an improved understanding of the developmental pathways by which youth commit two main types of sex offenses: those against younger children, and those against pubescent and post-pubescent females. A review of the literature suggests some common themes, including offenders’ complex histories of violence exposure, individual characteristics that function as risk factors, and disorganized or disrupted family structure (Veneziano & Veneziano, 2002). Based on consistent findings regarding the predictive nature of childhood experiences of abuse and violence, this study will examine how this history of abusive experiences and exposure
to violence relates to the exhibition of types of sexually abusive behaviors.

The study’s sample consists of males aged 9-17, all of whom are involved in the child welfare system, have experienced some form of disruption in their primary families, and have been officially reported for a sexual behavior problem or offense. Guiding the specific hypotheses is the notion that there are two distinct profiles of “adolescent sex offenders:” those who approximate the juvenile delinquent profile and demonstrate sexually violent and abusive behavior with same-age or older females; and those who have poor social competence, and relate to others through dysfunctional sexual behavior with younger children. Preliminary evidence supports the idea of qualitatively different “sex offenders,” (Hunter, Hazelwood, & Slesinger, 2000; Hunter, Figueredo, Malamuth, & Becker, 2003), but developing appropriate and effective treatment for these youth depends on a greater understanding of what contributes to their behavior. Based on an extensive review of previous literature on child maltreatment, exposure to violence, and sex offending in adolescents and adults, the current study has designed two sets of models of developmental pathways from a history of violence exposure to sexual behavior problems (see Figures 1 and 2). The youth who exhibit sexual behavior problems with younger children are expected to be more likely to have a history of sexual abuse, depression and anxiety symptoms, and social competence deficits. Alternately, the youth who demonstrate sexual behavior problems with same-age or older females are expected to be more likely to have a history of exposure to community violence and pornography, physical abuse, and witnessing domestic violence, and to show aggression and negative attitudes toward women.
Adding empirical support for developmental pathways for this sample will enhance classification efforts, and better inform prevention work with this at-risk population. Findings may also supplement more effective implementation of treatment programs designed to target distinct types of sex offenders (Pithers, Gray, Busconi, & Houchens, 1998). Finally, this study has the potential to contribute to two major fields of research: empirical work on adolescent sex offenders and the child welfare literature.

This topic is of utmost importance on multiple ecological levels: the individual psychological experiences of victims and perpetrators, the family's contribution and reaction to the behaviors, social and cultural messages about sexuality, as well as the oftentimes alarmist societal and legal response to sexual activity in youth. Adolescents' sexually aggressive and abusive behavior clearly endangers the well-being of others, especially when considering the negative psychological impact on victims, and the theories that abuse and violence operate in cycles. For every sex offender, there exists a victim, who may, in addition to suffering emotional trauma, develop into a perpetrator (Kaufman, Hilliker, & Daleiden, 1996). Furthermore, many adult offenders report they committed their first sex offenses during adolescence (Knight & Prentky, 1993). Although empirical and theoretical work has approached this troubling phenomenon of adolescents exhibiting sexually abusive behavior, many questions and issues remain unresolved. A priority for future research includes the need to determine and empirically support an appropriate typology for this heterogeneous group, as well as to supplement the current understanding of the profile of an adolescent sex offender with a developmental perspective (Veneziano & Veneziano, 2002). The paucity of reliable and
valid typologies for this population is especially concerning considering the notable variations in sexual behaviors as well as treatment interventions (Center for Sex Offender Management, 1999; Becker, Harris, & Sales, 1993). Developing effective prevention and intervention programs may not only protect potential victims, but also protect at-risk adolescents from becoming one of the most alienated and rejected members of society. This is evidenced by states’ recent efforts to institute juvenile sex offender registries despite the lack of empirical support for the risk posed by these youth due to the lack of longitudinal studies (Becker, 1998; Snyder, 2000).
Defining and labeling adolescents’ sexually aggressive or abusive behavior presents a challenge, especially considering the discrepancy between developmental and legal perspectives. From a developmental perspective, sexually problematic behaviors are defined by their degree of deviance from normal sexual behavior, as well as in clinical terms by the extent to which the behaviors impair functioning (Chaffin, Letourneau, & Silovsky, 2002). A developmental approach considers the child’s capacity to intend or plan to harm someone else based on his or her developmental stage, as well as the role of impulsivity. Thus, those approaching labeling these behaviors from a developmental perspective would favor using the term, “sexually problematic behaviors,” especially for children younger than twelve. Not only does this minimize placing responsibility on the child by labeling the behavior rather than the child, it resists the use of criminal terminology. Furthermore, data does not yet support that one incident of sexually abusive behavior predicts future incidents for juveniles, suggesting a label indicating a pattern of behavior is not appropriate (Becker, 1998).

In contrast, the legal system considers behavior involving a victim as abusive, and therefore criminal (Chaffin et al., 2002). Therefore, legal language results in the term,
“sex offense” and consequently, “sex offender.” Although the developmental perspective may tend towards exonerating children younger than age 12 from culpability, children as young as 10 have been adjudicated in the juvenile justice system for their “sexual behavior problems” (Snyder, 2000). Statistics indicate that in 1995 children age twelve and younger committed 11% of forcible rapes perpetrated by juveniles, and 18% of other sex offenses committed by juveniles (U.S. Department of Justice, 1997). Thus, the term “sex offense,” determined by its criminality, would apply to pre-adolescents. Concerns have been raised regarding the use of “juvenile sex offender” as a label due to the implications of this criminal term for these youths’ futures, as well as the stigma it attaches to the individual rather than to the behavior (Chaffin et al.; Veneziano & Veneziano, 2002). Although this has been acknowledged, the psychological literature continues to use the terms “juvenile sex offender” or “adolescent sex offender” across theoretical and empirical work. In order to be consistent with the existing nomenclature, as well as because more invasive sexual behaviors will be included, the current study will also use the term “adolescent sex offender,” although with noted reservation.

Female Sex Offenders

Although crime statistics have generally reflected females as a small minority of offenders, those numbers have been climbing in recent years for adult sex offenders. For example, in 1994 fewer than 800 women (1% of total incarcerated sex offenders) had been incarcerated for rape and sexual assault; by 1997, however, 6,292 women (8%) had been arrested for forcible rape or other sex offenses (Federal Bureau of Investigations, 1997; Greenfeld, 1997). In addition, women commit 20% of sex offenses against young
children (Association for the Treatment of Sexual Abusers, 1996). Rates for juveniles indicate a similar pattern, with female adolescents comprising 1% of forcible rapes and 7% of arrests for sex offenses (except for prostitution; Snyder, 2000). It is hypothesized, however, that statistics for females are likely substantially underreported due to social expectations of females to not act in a sexually aggressive manner, as well as socially constructed definitions of female sexual behavior as less harmful or threatening (Mathews, Hunter, & Vuz, 1997; Vick, McRoy, & Matthews, 2002).

The subpopulation of female adolescent sex offenders is a critical one to study and understand, but small sample sizes have precluded sufficient research on this group. The issue of small sample size is an unfortunate plague on the field since preliminary findings indicate qualitative differences between females and males exhibiting sexually aggressive or abusive behavior, implicating the need for distinct assessment and treatment (Vick et al., 2002). A study examining clinicians’ reports found consensus that the assessment and treatment research and information on males were not effective with their female clients (Vick et al.). Relevant to the current study, evidence points to a more severe and traumatic history of child abuse, especially sexual abuse, in the histories of females who exhibit sexually abusive or aggressive behavior (Mathews et al., 1997). The current study’s sample includes only male participants for two primary reasons: 1) Consistent with samples reported in other studies, the number of females in the current study between ages 9 and 17 is too small to warrant adequate statistical analyses; and 2) past findings support differences in abuse histories between males and females.
Theories of Adolescent Sex Offending

*Developmental Psychopathology*

The hypotheses of the current study rest on the principles of developmental psychopathology, which emphasize the multiplicity and complexity of pathways to and from certain points in development. Tenets of developmental psychopathology include understanding causal processes, distinguishing between normal and abnormal development, continuities and discontinuities along developmental pathways, and valuing the presence and role of developmental mechanisms (Rutter & Sroufe, 2000). The current study seeks to explore what contributes to certain children’s abnormal sexual behavior, in terms of hypothesized primary “causes” and secondary mechanisms leading from the “cause” to the behavior.

**Sexual Development**

A major tenet of developmental psychopathology is to understand “normal” development in order to better comprehend how abnormalities occur in the developmental process. According to the underlying theory of developmental psychopathology, abnormal development results from a disruption in normal processes due to atypical experiences (Sroufe & Rutter, 1984). In infancy, the process of attachment with primary caregivers begins, building the foundation for attachment behaviors and interpersonal relationships throughout development (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1982). Atypical experiences such as child maltreatment have been found to negatively impact attachment behaviors (Main & Solomon, 1986; Morton & Browne, 1998); these disruptions in attachment may have implications across domains of
development, including contributing to abnormal processes of sexual development. A discussion of “normal” sexual development will lay the foundation for further exploring potential etiology of abnormal sexual behavior.

It is believed that sexuality is present—to some extent—starting in infancy, with increasing awareness and exploration through pre-school and school ages (Bukowski, Sippola, & Brender, 1993). Puberty sparks a major transition in sexual development, including physical changes that demand a new awareness of the body and sexual feelings. Bodily changes also result in a heightened sensitivity to gender roles and how they relate to sexuality. Theory of sexual development proposes that sexuality results from the integration of multiple processes: physical, cognitive, interpersonal, cultural, social, and relational. These processes are interdependent, so that which impacts any one process affects all of them, including sexuality. Sexual development differs for boys and girls, not only because of distinct mean ages of pubertal onset, but due to diverse social, cultural, and interpersonal processes impacting sexuality (Bukowski et al.).

Six components have been proposed to be necessary for the development of a healthy sexuality: 1) intimacy gained through peer interactions; 2) understanding roles and relationships within and outside of family; 3) modifying body schema based on physical changes; 4) adapting to and integrating sexual feelings and experiences; 5) gaining an understanding of society’s standards and norms around expressing sexuality; and 6) learning about and appreciating reproductive processes (Bukowski et al., 1993). The first two components relate closely to attachment processes, which are necessary for the development of intimacy and the understanding of interpersonal relationships. The
ultimate endpoint of healthy sexual development is the ability to integrate sexual and interpersonal processes to achieve compatible sexual and personal needs, goals, and rights with another person (Bukowski et al.). Clearly, individuals using coercive or aggressive means to meet their sexual needs have not followed a healthy pathway to integrating sexual and interpersonal processes. The role of physical touch is important in understanding possible disruptions in developing and understanding intimacy and one’s sexuality. In childhood, children develop ideas about their bodies via physical touch, including the function of affection. This experience of physical touch is critical to developing an understanding of intimacy (Bukowski et al.). Thus, the kind of physical touch received from parents is a major part of forming one’s concept of intimacy and sexuality, posing serious implications for the impact of abusive touch on a child’s understanding of his or her body, the function of touch, and his or her concept of intimacy.

Developmental Processes

Consistent with developmental psychopathology, developmental processes are more important to examine and understand than isolated components of development; furthermore, discontinuities or disruptions in these processes are more likely to lead to problems (Bukowski et al., 1993; Rutter & Sroufe, 2000). This perspective relates to the current study’s approach to understanding types of adolescent sex offenders through an examination of the cumulative impact of violence exposure and personality variables on an at-risk child welfare population. The current study’s underlying rationale derives from present theories that the constellation of variables and how they fit together holds more
value than isolating single determinants of sexually abusive behavior. For example, the additive experience of being physically abused and witnessing domestic violence may be more critical in the developmental process of an adolescent compared to solely examining the relation of physical abuse and sexual behavior problems. The next section addresses general and specific experiences of exposure to violence in order to outline the mechanisms of how these experiences may critically impact the development of sexually abusive and aggressive behavior in adolescence.

Exposure to Violence

The application of theories of sexual development and developmental psychopathology should focus on how processes have interfered with the synthesizing of the self, other, and society (Bukowski et al., 1993). In the current study, a major experience theorized to cause a disruption in normal developmental processes is exposure to violence. The concept of achieving healthy sexual development by integrating the self, other, and society, poses great implications for the impact of being victimized by abuse, and witnessing family and community violence. The term “exposure to violence” encompasses all three of these experiences, which share the unifying characteristic that other people pose a threat to a child’s safety. Depending on the combination of types of violence exposure, the child experiences his or her environment as unsafe, and likely has parents with decreased capacities for caregiving, if not parents who actively jeopardize his or her well-being. In theoretical and empirical analysis of these three types of violence, it becomes apparent that although distinct problems result from each type, how the violence exposure impacts children in the context of pathways has similarities across
types (Margolin & Gordis, 2000). For example, children likely react similarly to all types of violence with some extent of helplessness, fear, anger, and hyperarousal. These feelings, especially when experienced chronically, may seriously compromise emotional and social functioning. Another finding that supports examining exposure to violence as a whole rather than by type is the high rates of co-occurrence between forms of violence: data show that domestic violence and child physical abuse often co-occur, as well as exposure to community violence and family violence (Margolin & Gordis). In one study of chronic delinquent male adolescents, those arrested for sex offenses reported more exposure to domestic violence and severe physical abuse compared to a control group arrested for “low-violent” offenses, suggesting that this violence exposure predicted sexual aggression (Spaccarelli, Bowden, Coatsworth, & Kim, 1997). In addition, consistent with the research on risk factors operating exponentially rather than individually (Brown, Cohen, Johnson, & Salzinger, 1998), worse outcomes are associated with combinations of violence exposure (Margolin & Gordis). In the context of the current study’s sample of youth in the child welfare system, these children are more likely to have the complex histories of multiple risk factors that relate to less resilience and a higher likelihood for problematic functioning. In order to fully appreciate the impact of exposure to violence as a whole, however, it is critical to understand how each type of violence independently relates to risk and outcomes.

**Sexual Abuse**

Empirical work has linked sexual abuse with a range of emotional and behavioral problems, including clinical levels of internalizing disorders (e.g., depression, anxiety,
and PTSD), sexually problematic behaviors, and high-risk behaviors (Berliner & Elliott, 2002; Margolin & Gordis, 2000; Veneziano & Veneziano, 2002). Outcomes of sexual abuse are heterogeneous overall, including the finding that as many as 40% of children who were sexually abused do not show any abuse-related symptoms (Kendall-Tackett, Williams, & Finkelhor, 1993). Studies have also encountered difficulty in distinguishing effects of sexual abuse from other types of abuse. For example, both sexual abuse and physical abuse have been empirically linked to internalizing disorders on a consistent basis. In the range of psychological outcomes associated with sexual abuse, a weak and inconsistent link has been found between sexual abuse and aggression (Margolin & Gordis). Although research with adults suggests females report more serious outcomes, it is possible that males are more likely to underreport abuse or externalize distress through anger or aggression (Berliner & Elliott). This further blurs the possible relation between sexual abuse and aggression in male youth. Due to the weak support for this link, the current study includes aggression only as a mediator of types of violence other than sexual abuse.

Research has supported the instinctual link between a history of sexual abuse and sexually problematic or abusive behaviors. Findings show higher rates of sexually problematic behaviors (e.g., sex play and masturbation) for children with a history of sexual abuse, with no similar findings for physical abuse, neglect, or psychiatric problems (Berliner & Elliott, 2002; Margolin & Gordis, 2000). Boys are more likely to expose their genitals and use sexual coercion; however, only one-third of children who have been sexually abused display these sexual behavior problems (Friedrich, 1993).
terms of adolescents, samples of juvenile sex offenders report high rates of previous sexual abuse (Veneziano & Veneziano, 2002), although some research has found this to be true only for adolescents who abuse younger children (Ford & Linney, 1995; Kaufman et al., 1996). Theorized mechanisms of the relation between a sexual abuse history and sexually problematic or abusive behaviors include: 1) reenacting the abuse; 2) attempting to achieve mastery over the experience; and 3) a conditioning of sexual arousal to fantasies reminiscent of experience. A caveat to these mechanisms again arises from developmental considerations; there is some evidence that sex offenses relate to different motivations for adolescents and adults. Deviant sexual arousal appears to be more salient for sex offenses in adults, whereas adolescents may commit sex offenses as abusive acts to feel a sense of power and control, rather than to experience sexual arousal. This has been difficult to show empirically due to ethical concerns around using phallometric assessment to measure deviant arousal in adolescents (Veneziano & Veneziano). Furthermore, power and control should not be dismissed as driving adults’ sexually abusive behavior.

A review of studies emphasizes the importance of examining a history of sexual abuse in youth with sexually abusive behavior. Perhaps more critically, however, these examples highlight corresponding variables that may play significant roles in the pathway between sexual abuse and sexually abusive behavior. In one study of high school students, adolescents who reported sexual abuse in childhood endorsed coercive sex significantly more than those without an abuse history (40% v. 8%; Lodico, Gruber, & DiClemente; 1996). In another study of pedophilic adults reporting on their behavior in
adolescence, two important findings emerged. First, a history of *multiple* sexual abuse incidents in childhood correlated with pedophilic activity in adulthood. Second, sexual and emotional abuse in childhood significantly and highly correlated. This combination was significantly associated with worse mental health outcomes in adulthood (e.g., depression, anxiety, suicidality, and trauma). Furthermore, this combination was significantly linked to pedophilic interest and/or behavior; this interest/behavior in turn related to more depression, anxiety, and suicidality (Bagley, Wood, & Young, 1994).

Other research implicates the role of family functioning in maladaptive developmental pathways. Families in which sexual abuse occurs have been found to have more dysfunction and worse functioning overall (Berliner & Elliott, 2002). In both incest and nonincest cases, however, physical abuse or neglect of the victimized child, and interparental violence predicted lower maternal support of the victim, which is associated with worse outcomes (Elliott & Briere, 1994; Spaccarelli & Fuchs, 1997).

Although there are clear links between childhood sexual abuse and psychopathology, the mechanisms of the association of sexual abuse and sexually abusive behavior needs more investigation. There are indications that sexual abuse combines with other experiences (e.g., other types of child maltreatment) to affect outcomes, but further empirical work needs to more thoroughly examine these relations among predictor variables. In addition, the role of mediating variables such as psychopathology, personality traits, and other behaviors should be studied in the context of understanding the pathway from an abusive history to abusive behavior. An integration of findings across adolescent and adult samples suggests it is possible that a history of sexual abuse
relates to pedophilic interests among adolescents and adults. Thus, a history of sexual abuse may be a distinguishing variable between subtypes of adolescent sex offenders, which will be tested in the current study.

Physical Abuse

Research on adolescent sex offenders consistently documents a history of physical abuse; however, the mechanisms of this link remain less clear (Becker et al., 1993; Center for Sex Offender Management, 1999; Veneziano & Veneziano, 2002). Comprising 24% of all maltreatment reports, physical abuse places second to neglect as the most reported type of child maltreatment (U.S. Department of Health & Human Services, 2000). As mentioned previously, however, rates of physical abuse are difficult to determine with accuracy because most statistics are based only on reported incidents (Margolin & Gordis, 2000). Extant research on risk factors has identified poverty, domestic violence, early separation from mother, low maternal involvement, and perinatal problems as significant predictors of physical abuse (Brown et al., 1998; Cadzow, Armstrong, & Fraser, 1999; Whipple & Webster-Stratton, 1991). Physical abuse in childhood clearly implicates cognitive, socioemotional, and behavioral development (Kolko, 2002; Lewis, 1992; Margolin & Gordis, 2000; Wekerle & Wolfe, 2003), each of which poses potential mediating factors for becoming sexually abusive.

*Cognitive consequences of child physical abuse*

Some types of physical abuse directly damage the brain’s development (e.g., shaken baby syndrome, head injuries) but children suffering other types of physical abuse also show impaired neurological functioning. Potential effects of child physical abuse on
neurological functioning include lower levels of serotonin, higher levels of dopamine and testosterone (Lewis, 1992), a higher likelihood of structural abnormalities, and impaired functioning on left-hemisphere tasks (Kolko, 2002). Related to neurological abnormalities, studies consistently support the finding that physically abused children demonstrate lower intellectual functioning, as measured by IQ and achievement measures (Wekerle & Wolfe, 2003). This delayed intellectual functioning clearly has serious implications for impaired academic performance, which is also a consistent negative outcome linked to childhood physical abuse. Empirical work has found specific deficits in expressive and receptive language for these children. In addition, however, the impact of environmental factors such as the higher likelihood for these children to change schools and move frequently, as well as have more tardies, have been cited as important considerations in the association with poorer academic functioning. It is possible that the abusive home environment, including less stimulation and controlling the child’s exploration and curiosity, critically affects language deficits that relate to academic difficulties (Kolko). In the context of the current study, poor school performance likely reciprocally relates to poor school attachments, and poor attachments in general influence the social isolation has distinguished adolescent sex offenders from other violent offenders (Becker, 1998). Deficits in cognitive functioning not only impact academic functioning, but potentially the ability to use moral reasoning. It is likely that physically abusive parents create an environment of control and power, and do not model concern for the well-being of others; thus the child is unable to develop morally-based social cognitions important for social relationships (Wekerle & Wolfe, 2003).
Socio-emotional consequences of child physical abuse

Empirical work on the socio-emotional skills of physically abused children supports the notion that impaired social cognitions may have serious consequences for interpersonal relationships. Findings consistently show that physically abused children demonstrate serious deficits in social competence. Specifically, these children are more likely to be rejected by and isolated from peers, have conflictual interactions, demonstrate less intimacy in social interactions, express more negative affect, and use coercion in dating (Kolko, 2002; Margolin & Gordis, 2000; Wekerle & Wolfe, 2003). Proposed mediators for the link between a history of physical abuse and poor peer relations include less affective regulation, inappropriate and insensitive emotional responses to social interactions, and more hostile attributions to social cues. In terms of coping with social interactions, children with a history of physical abuse struggle with perspective-taking and positive social problem-solving, and use aggressive means to respond to problematic social interactions (Kolko; Margolin & Gordis). Placing this in the context of sexual relationships in adolescence, youth with these traits may use aggressive and insensitive means to navigate the process of initiating and understanding sexual interactions, or may inappropriately use sexual means to relate socially.

Behavioral and emotional consequences of child physical abuse

Psychiatric diagnoses have been consistently and independently associated with physical abuse. The literature includes mostly cross-sectional studies; thus, evidence has not determined if abuse causes psychopathology. The answer to this is likely complicated considering the relation of childhood physical abuse to a wide array of psychopathology.
(e.g., depression, conduct disorder, substance abuse, disruptive behavior disorders; Kolko, 2002; Margolin & Gordis, 2000). The above-mentioned empirical work assesses DSM diagnoses as outcomes; subclinical levels of dysfunction that may not fully meet criteria, however, still impact the child’s functioning and should be considered important sequelae of physical abuse.

Empirical work generally supports the association between child physical abuse and aggressive behavior, which may be mediated by social cognitions. Aggression has been operationally defined as the exhibition of aggressive behavior during peer interactions, and higher ratings by peers, parents, and teachers of aggression, fighting, hostility, antisocial behavior, and other externalizing behaviors. Social learning may explain the frequently supported link between physical abuse and aggression (Margolin & Gordis, 2000). In addition to aggression as a common externalizing symptom associated with physical abuse, research also supports links with a higher likelihood of a disruptive behavior disorder, delinquency, criminal arrests, and severe antisocial behavior (Kolko, 2002; Margolin & Gordis). These findings have obvious implications for how a history of physical abuse may lead to behavior that is consistent with psychological profiles of violent adolescent sex offenders.

While aggression is the most consistently related externalizing behavior, physical abuse is associated with a range of internalizing disorders, including trauma and depressive symptoms. Approximately 1/3 of physically abused children have met diagnostic criteria for PTSD, and 1/3 of those children continued to meet criteria two years later (Famularo, Fenton, Kinscherff, Ayoub, & Barnum, 1994; Famularo, Fenton,
Augustyn, & Zuckerman, 1996). In addition to trauma symptoms, children with a history of physical abuse exhibit higher levels of negative affect, depression, and feelings of hopelessness (Kolko, 2002). The pathways from childhood physical abuse and psychological outcomes are not clearcut and linear; research shows evidence of mediating factors such as family characteristics, presence of another type of abuse, and social deficits. Child abuse researchers have called for more empirical work to be conducted on potential moderators and mediators in order to better understand the various possible developmental pathways (Kolko; Margolin & Gordis, 2002). The current study aimed to gain an improved understanding of how physical abuse may relate to aggression and trauma to result in sexually abusive behavior with peer and adult females.

**Domestic Violence**

Abusive families exhibit more aggressive and coercive behavior toward each other, and have fewer positive interactions compared to control families. Associated with these characteristics, abusive families show higher rates of conflict and less cohesion; however, more research is necessary to understand how these characteristics relate to and impact each other (Kolko, 2002). Domestic violence research often focuses on the partner dynamics and disproportionate victimization of women by men, but the impact on children and adolescents is equally disturbing. Incidence rates estimate between 3.3 and 10 million children witness domestic violence every year. In high school, 20% of females report their boyfriend had physically or sexually abused them; twice that number of 14 to 17-year-olds report knowing a same-age peer who had experienced violence with her boyfriend (Silverman, Raj, Mucci, & Hathaway, 2001; Family Violence Prevention Fund,
Adolescent sex offenders as a group report high rates of exposure to domestic violence (Caputo, Frick, & Brodsky, 1999). For example, one study found 79% of adolescent sex offenders compared to 20% of nonviolent delinquent adolescents reported witnessing family violence (Lewis, Shanok, & Pincus, 1981). Severity of adolescent sex offenses has also been linked to the degree of victimization experienced by the adolescents’ mothers (Smith, 1988). Domestic violence has predicted sexual aggression, but there has been no difference found between adolescents who commit violent offenses, whether sexual or nonsexual, in terms of rates of exposure to domestic violence (Becker et al., 1993; Spaccarelli et al., 1997).

Understanding how exposure to domestic violence may impact sexually abusive behavior through the study of mediating variables can critically inform domestic violence interventions. Theoretically, aggressive and conflictual parents can model aggression and offer lower levels of warmth and availability (Marshall, Hudson, & Hodkinson, 1993). There have been mixed findings regarding the link between interparental violence and aggression (Margolin & Gordis, 2000), although there is some empirical support that this type of violence is associated with sexual aggression (White & Koss, 1993). Some research has explored how the impact of exposure to domestic violence is distinct from that of child physical abuse. Interestingly, children with both experiences have exhibited the highest levels of externalizing behavior, children with exposure to domestic violence but no history of physical abuse have shown medium levels of externalizing behavior, and those exposed to neither demonstrated the lowest levels of externalizing behavior (Hughes, Parkinson, & Vargo, 1989). This finding adds further support to the current
study's premise that children with complicated histories of violence exposure comprise an important at-risk population for becoming sexually abusive. Similar to this cumulative impact on externalizing symptoms, a combination of physical abuse and domestic violence has been better established as a risk for internalizing symptoms compared to independent effects of each type of violence on internalizing symptoms (Margolin & Gordis, 2000). In terms of trauma symptoms specifically, however, evidence clearly links exposure to domestic violence with symptomatic and diagnostic levels of PTSD (Kilpatrick & Williams, 1997). Another area of interest, attitudes, has yielded evidence that males' sexually abusive behavior has been associated with their fathers' attitudes about sexual aggression (White & Koss, 1993; Kanin, 1985). However, the theoretical connection between witnessing domestic violence against women and adolescent sex offenders' negative attitudes toward women has not received empirical support (Caputo et al., 1999). The current study examined this association with a mediational model previously untested.

Community Violence

The literature on the impact of community violence on youth does not discuss direct associations with adolescent sex offending. However, the literature does examine significant links between exposure to community violence and variables that have been identified as risk factors for adolescents to become sexually abusive, including aggression and trauma symptoms (DuRant, Pendergrast, & Cadenhead, 1994; Fitzpatrick & Boldizar, 1993; Margolin & Gordis, 2000; O'Keefe, 1997). The link between exposure to community violence and aggression has been consistently supported as a strong and
independent predictor of aggression, even when controlling for exposure to family violence (DuRant et al., 1994; Margolin & Gordis; O'Keefe). With regards to trauma symptoms, higher levels of exposure to community violence have been found to significantly relate to more self-reported PTSD symptoms in a sample of African American, low-income youth (Fitzpatrick and Boldizar, 1993). In terms of future directions for researching violence in youth, Tolan (2001) has called for overarching goals that are consistent with the current study’s method and purpose. First, Tolan suggests the need to examine how community violence co-occurs with other types of violence; this has received little attention compared to other types of violence exposure, and is important for developing interventions. Second, investigating differential risk between populations is necessary for building more effective interventions. The current study specifically targeted the child welfare population, which has been exposed to multiple risk factors and is at high risk for associated negative outcomes. Third, media violence must be addressed because of the norms it promotes.

Exposure to Pornography

The current study targeted the impact of exposure to pornography on sexually abusive behavior. The previously discussed theories on the etiology of adolescent sex offending implicate the role of pornography since this medium perpetrates a coercive, aggressive concept of sex as well as hypersexual men (Marshall et al., 1993). Although the research on the association between pornographic violence and adolescent sex offending is sparse, one comparison of sexual and nonsexual adolescent delinquents found that sex offenders reported significantly more exposure to hard-core pornography
as well as an earlier age of first exposure to pornography (Ford & Linney, 1995). A study of adult sex offenders found that those who molested children most frequently viewed hard-core pornography before perpetrating an offense. Results of this study revealed no significant differences in exposure to pornography during adolescence between adult participants who molested children versus those who committed rapes (Marshall, 1988). Based on the theoretical importance of pornographic violence in adolescent sex offending, this variable deserves further empirical exploration. The current study examined how exposure to pornography in childhood related to negative attitudes toward women, which would predict a higher likelihood in adolescence of engaging in non-consensual sexual behavior with a same-age or older woman. Unfortunately, the research on the impact of pornography exposure on adolescents' sexual behaviors is considerably lacking and little empirical work has supplemented theory.

Indirect Effects

Although mediators have already been discussed in the context of distinct types of violence exposure and outcomes, this section will examine indirect effects through mediators specifically proposed for adolescent sex offenders. In exposure to violence literature, two proposed categories of mediators and moderators relate to the current study’s purpose: 1) individual characteristics and 2) family and social relationships (Margolin & Gordis, 2000). In the adolescent sex offender literature, three primary studies have hypothesized and investigated mediators of the impact of previous exposure to violence on committing sex offenses in adolescence. The chief mediators examined
included social competence, masculinity, and negative attitudes toward women (Caputo et al., 1999; Hunter, 2004; Hunter et al., 2003).

**Social Competence**

Deficits in social competence have been identified as a key characteristic of adult sex offenders; these deficits have also been linked to more aggression in adolescents. In one study, psychosocial deficits were measured with the Youth Self Report’s assessment of anxious and depressed symptoms, social problems, withdrawn subscales (poor self-esteem, loneliness, immaturity and peer rejection, and social isolation) and a Social Self-Esteem Inventory (Hunter, 2004). Results revealed that in a sample of male adolescent sex offenders, exposure to violence against females significantly predicted psychosocial deficits, which predicted sexual offenses against children. Furthermore, data indicated that the impact of exposure to violence against same-age or older females on nonsexual aggression was mediated by psychosocial deficits. These results suggest psychosocial deficits may play a critical role in the impact of violence exposure for the adolescent sex offender who perpetrates against younger children, but not for the adolescent sex offender who perpetrates against same-age or older females. This indicates the need for separate mediational models dependent on type of sex offender, consistent with the current study’s design.

**Masculinity and Negative Attitudes toward Women**

Other proposed mediators of a history of exposure to violence against females and later sex offending are the individual’s adherence to masculine gender roles, and his attitudes toward women. These variables have been proposed as mediators specifically
for adolescents who offend against pubescent females. Although there has been some support for sexually aggressive men to hold more sexist attitudes, the empirical work done thus far has not found support for the theory that either attitudes toward women or masculinity would function as mediators of the influence of exposure to violence against women on sexually abusive behavior toward women (White & Koss, 1993). One study’s findings showed that exposure to violence against women in childhood and male-modeled antisocial behavior both functioned as risk factors for nonsexual aggression and delinquency in adolescence (Hunter, 2004). Other studies did not find any support for a mediational model, although one study used a chi-square analysis to test for a mediation, which is not a sufficient method to detect an indirect effect (Caputo et al., 1999; Hunter et al., 2003). Researchers who have begun the pursuit of mediational models in the field of adolescent sex offending have indicated the need for more exploration of relations between risk factors, mediators, and outcomes (Becker, 1998; Hunter, 2004).

**Trauma Symptoms**

Trauma symptoms have not been tested in a mediational model, but prevalence rates of Posttraumatic Stress Disorder in this population, as well as the results of investigating links between symptoms and offenses, imply they may serve a critical role as a mediator of the impact of past trauma history on committing sex offenses (McMackin, Leisen, Cusack, LaFratta, & Litwin, 2002). Backgrounds of adolescent sex offenders have been found to be replete with traumatic experiences as indicated by reported rates of violence exposure. According to prevalence rates for adolescent sex offenders, between 17% and 32% of male juvenile delinquents meet criteria for PTSD.
(McMackin, Morissey, Newman, Erwin, & Daly 1998; Steiner, Garcia, & Matthews, 1997). This compares to a national prevalence rate in boys documented to be between one and 3.7% (Fletcher, 2003; Kilpatrick, Ruggiero, Acierno, Saunders, Resnick, & Best, 2003). In a sample of 40 male adolescent sex offenders, 95% had experienced a traumatic event necessary for a PTSD diagnosis, and according to clinician ratings, 65% of the sample met criteria for PTSD. In an examination of how trauma symptoms may function as triggers for sex offending, results indicated three main trauma symptoms triggered offenses, as evaluated by clinicians’ judgment: helplessness in 55% of cases, intense fear in 37.5% of cases, and horror in 20% of cases. In this sample, 42.5% of participants had a documented history of involvement in the child welfare system. In terms of types of offenders, 57.5% had committed rape or assault and battery against a child and 37% against a peer or older person (McMackin et al., 2002).

**Taxonomies for Adolescent Sex Offenders**

Empirical work has supported the notion that adolescent sex offenders are distinct from adult sex offenders in their developmental pathways. Specifically, adolescents are more likely to have a complex history of early trauma, and their behavior is more likely related to their abuse histories, violence exposure, and dysfunctional families (Veneziano & Veneziano, 2002). However, reliable and valid typologies are needed to facilitate progress in the field. Research thus far has found more empirical support for offense-driven typologies compared to personality-driven typologies; however, it has been recommended that hypothesized typologies should combine type of offense with individual personality characteristics (Veneziano & Veneziano). The current study aimed
to fill this need by examining aggression, attitudes, and social competence as mediators of the impact of childhood violence exposure on sexually abusive behavior against either younger children or same-age or older females. The following review of empirical work on adult and adolescent sex offenders emphasizes the necessity of implementing a developmental perspective as well as the utility of using offense-driven typologies.

A major conclusion reached by those developing and applying theories of etiology and development to the pathways of adolescent sex offenders is the impossibility of a single, comprehensive theory. Due to the heterogeneity of offenses, theories should be developed for types of offenses because there are likely distinct processes (Marshall & Eccles, 1993). The classification movement began with empirical work on types of adult sex offenders, which were then applied to juveniles. Two early models of adolescent sex offender typology relied on personality profiles to distinguish types of juvenile sex offenders (e.g., Naïve Experimenter, Sexual Compulsive; O’Brien & Bera, 1986; Becker, 1988). However, empirical efforts to establish validity and reliability for these personality-driven classification systems yielded overlapping dimensions and no support for this taxonomic approach. Offense-driven types, however, have continued to persist across the empirical literature, from adult offenders to adolescents. This system separates adolescent sex offenders into two groups: those who abuse younger children and those who sexually aggress against peers, particularly females (Hunter, Figueredo, Malamuth, & Becker, 2003; Knight & Prentky, 1993).

Knight & Prentky (1993) conducted a study with adult male sex offenders in order to examine the utility of applying their adult typology of child molesters and rapists
to juveniles, as well as to identify discriminating personality characteristics between those whose first offense occurred in adolescence versus adulthood. Adult sex offenders in the study retrospectively reported offenses committed in adolescence. Participants were recruited from a treatment center and included 254 rapists and 207 child molesters. The study created two general groups—men who had been charged with or convicted of a sexual crime prior to age 19 ("juvenile sex offenders"), and men whose sexual criminal record began after 19 ("non-JSOs"). Clinical file reviews and interviews were conducted for each participant in order to most accurately create and analyze four specific groups: child molesters whose first offense occurred in adolescence, child molesters whose first offense occurred in adulthood, rapists whose first offense occurred in adolescence, and rapists whose first offense occurred in adulthood. Results revealed that those who committed their first offense in adolescence were more likely to be characterized by lower social competence and higher levels of antisocial behavior. In addition, those who were pedophilic in adolescence tended to have a significant history of physical abuse and those who raped in adolescence tended to have a neglect history. There was also some evidence that those who molested children were more likely to have a history of sexual abuse as children and those who raped were more likely to have witnessed sexually abusive behavior in their families.

The design of the study raised important methodological issues with the inclusion of what was labeled, "hidden juvenile sex offenders." These were participants who reported perpetrating their first sex offense in adolescence but never being apprehended or charged. Analyses indicated that those who were arrested for their crimes in
adolescence were more likely to show impulsive and other antisocial behaviors, and those who did not have a juvenile record showed higher social competence, as well as lower levels of impulsivity and antisocial behavior. Furthermore, a comparison of criminal records and self-report showed a significant difference in rates of sexual coercion as well as distinct patterns of how other variables operated; this suggests cautious interpretation of data in future studies with only one informant. In a study of adolescent delinquents, however, a comparison of arrested and self-reported sex offenders showed no significant differences in several personality and psychopathology variables, nor in physical abuse history (Spaccarelli et al., 1997). The current study’s participants have not necessarily been arrested for their sex offenses, thus data will not be influenced by personality characteristics of adolescents who are more likely to be apprehended.

This classification research illuminates two important points relevant to the current study: 1) categorization is necessary to facilitate the development of appropriate prevention and intervention efforts; and 2) a history of experiencing and witnessing abuse is a salient part of a complex developmental pathway. However, due to the developmental discontinuities represented by crime statistics (e.g., most juvenile sex offenders do not become adult sex offenders), categorizing according to adult typology may not be sufficiently developmentally sensitive (Chaffin et al., 2002). Despite this consideration, offense-driven classifications, although based on adult typologies, seem empirically sturdier than personality-driven and have thus been explored for juveniles. A study of male adolescents currently enrolled in treatment programs for juvenile sex offenders further tested the validity of dividing juvenile offenders into two types: those
who offend against prepubescent children, and those who offend against pubescent females. Findings revealed that when compared to adolescents who offended against pubescent females, youth who offended against prepubescent children reported more psychosocial deficits, lower levels of aggression, were more likely to offend against relatives, less likely to use substances during offense, and less likely to use a weapon (Hunter et al., 2003). This study used an adolescent sample rather than relying on adults' retrospective reporting and therefore may be more directly applicable to the empirical efforts to support at least two distinct types of adolescent sex offenders.

Child Welfare Population

In 2000, Child Protective Services (CPS) received 2.8 million reports of child abuse or neglect, involving five million children. Of these 2.8 million reports, CPS investigated 61.7%, and substantiated 28%, or 476,000 of the reports of child abuse and neglect (U.S. Department of Health and Human Services Administration on Children, Youth, and Families, 2002). This vulnerable population deserves substantial research to ameliorate prevention and intervention efforts due to the exponential risk associated with being involved in the child welfare system. Many of these maltreated children have endured separation from their parents, and a subgroup of these children experiences multiple placements in foster care and other institutional care. Although the child welfare system removes children from abusive and neglectful home environments in an effort to protect them, children continue to suffer maladaptive developmental outcomes as they endure up to several placements in foster homes or institutional care (Albus & Dozier, 1999; Boris & Zeanah, 1999; Coolbear & Benoit, 1999; Leathers, 2002). For children
who have exhibited sexual behavior problems, research has found they are more likely to live in institutional rather than family care, and to have a significantly greater number of placements than children without a history of these behaviors (Edmond, Auslander, Elze, McMillen, & Thompson, 2002). Theoretical and empirical work has established the importance of the early attachment relationship on the individual’s formation of relationships and overall developmental trajectory (Bowlby, 1982; Sroufe, Carlson, Levy, & Egeland, 1999). Thus, it is likely that the disruption or loss of this primary attachment could have detrimental impacts on the child’s psychological and social development, likely exacerbated by further placements with different caregivers.

Social control theory supports the notion that multiple placements and removal from the parents is damaging to the child via interferences in attachment (Leathers, 2002). According to social control theory, the network of external social controls, including primary attachment figures, community institutions, and neighborhoods, affects the development of delinquent behavior. Weak social controls increase the likelihood of behavioral problems. Therefore, when children are moved from one home environment to a novel one, they experience separation not only from their parents, but also from their community. This uprooting weakens the impact of the new social controls, which then increases the risk of behavioral problems. Although the Olmstead Act portion of the American Disabilities Act imposes the “least restrictive environment” standard onto placement decisions within the child welfare system, children who have exhibited sexual behavior problems are at greater risk for more restrictive placements due to their behavior’s potential harm to others. Thus, they are at greater risk not only for multiple
placements, which repeatedly disrupt relationships, but also for living in a residential facility without primary caregivers. Due to the implications of the child’s and adolescent’s development within these circumstances, it is imperative to ameliorate prevention efforts for children at risk for these behaviors.

The current study’s sample of youth involved in the child welfare system who have a record of sexual behavior problems presents a unique research opportunity. These youth have a documented history of the primary risk factors associated with sexually problematic and abusive behavior: child maltreatment and exposure to violence (Center for Sex Offender Management, 1999). In addition, they have exhibited problematic or abusive sexual behavior. This combination allows for an exploration of how multiple risk and mediating factors may interact to shape the pathway from childhood experiences to sexually abusive behavior. This investigation into a complex relation of factors has been identified as a critical need in the area of adolescent sex offender research and treatment (Becker et al., 1993; Center for Sex Offender Management). An improved understanding of these factors may help prevention efforts target specific factors in order to reduce the likelihood of children developing sexual behavior problems. The current study has the capacity to contribute not only to the understanding of adolescent sex offenders, but also to the child welfare literature.
CHAPTER TWO
CURRENT STUDY

The current study examined how some maltreated children may differentially develop into one of two types of adolescent sex offenders—abusing younger children or same-age/older females—depending on certain combinations of life experiences, personality traits, and psychopathology. The premise of the study’s hypothesis was that adolescents who are sexually abusive with adolescent females have distinct profiles from those who are sexually abusive with younger children. Based on the noted lack of an empirically validated typology for adolescent sex offenders in conjunction with preliminary support for an offense-driven classification, the current study sought to move the field closer to an understanding of distinct types of these youth. Previous work indicates that adolescent sex offenders who perpetrate against children are likely qualitatively different from those who perpetrate against peer or older females (Hunter et al., 2000; Hunter et al., 2003). Although empirical work has identified common predictors of sexual aggression, how those variables relate to this outcome is substantially less understood (Hunter, 2004). A limited number of studies testing mediating variables has yielded early indications that this topic is complex yet promising, and in need of much further exploration (Caputo et al., 1999; Hunter, 2004; Hunter et al., 2003). Determining a validated typology would help facilitate more effective and heterogeneous treatment, and the improvement of understanding distinct developmental pathways can
provide target areas for prevention work (Becker, 1998; Veneziano & Veneziano, 2002).

Developmental theories have not yet intersected with empirical work on typology, despite the superiority of hypothesis-testing based on theory, as well as the noted lack of theory-driven treatments for sex offenders (Chaffin et al., 2002). Developmental theories offer understanding of potential psychological outcomes of compromised attachment and impoverished developmental experiences in the context of children and adolescents who exhibit sexually abusive and aggressive behavior. The sex offense literature furnishes preliminary support for classifying sexually abusive and aggressive adolescents into two types. Theory and empirical work each provides an important piece to promoting understanding of this population, but their integration would further strengthen the field. Although prior research has suggested the importance of developmental trajectories, and has examined some isolated mediations (Caputo et al., 1999; Hunter, 2004; Hunter et al., 2003), the current study presented two distinct developmental pathways to describe two types of adolescent sex offenders in a way previously untested and supported by theory.

Hypotheses

Two central principles of developmental psychopathology—examining risk factors in combination rather than independently, exploring mechanisms of how previous experiences relate to current behavior—structured the framework of the current study’s hypotheses. The theory underlying the hypotheses is that two types of adolescent sex offenders exist, as represented by distinct profiles. Thus, the combination of previous experiences, personality traits, and psychopathology determines the type of sexualized behavior enacted by the adolescent.
For the adolescent who victimizes a younger child, it was hypothesized that a history of sexual abuse leads to symptoms of depression, anxiety, and trauma, as well as social competence deficits, which would then increase the likelihood of abusing younger children rather than peers or adults. Based on previous findings, the experience of sexual abuse was theorized to impact behavior through deficits in social development (Bagley et al., 1994; Ford & Linney, 1995; Kaufman et al., 1996). Considering attachment theory and empirical findings, children suffering abuse develop attachment styles that likely compromise their interpersonal skills, as well as their understanding of appropriately using touch to communicate affection and relate to others (Kolko, 2002; Marshall & Eccles, 1993; Marshall et al., 1993; Morton & Browne, 1998; Wekerle & Wolfe, 2003). Both factors, sexual abuse and poor social relationships, significantly relate to internalizing symptoms (Bagley et al., 1994; Berliner & Elliott, 2002; Margolin & Gordis, 2000). The combination of previous sexual abuse, deficits in social functioning, and internalizing symptoms may make a youth more vulnerable to engaging sexually with a younger child, with whom the perpetrator feels more comfortable interacting, and where the victim is susceptible to coercion rather than force.

In contrast, the hypothesized second type of sex offender approximates the general profile of a juvenile delinquent, including the centrality of aggression. For the adolescent who victimizes a same-age or older female, it was hypothesized that exposure to pornography and exposure to domestic violence would relate to negative attitudes toward women and aggression to increase the likelihood of victimizing same-age or older females. Theoretically, the combination of witnessing domestic violence and exposure to
pornography would shape negative and sexist attitudes toward women (Marshall et al., 1993; Smith, 1988). Domestic violence and physical abuse both likely compromise the quality of attachment (Marshall et al., Morton & Browne, 1998), and in conjunction with the experience of community violence exposure, increase the likelihood of aggression toward others (DuRant et al., 1994, Hughes et al., 1989, Kolko, 2002; Margolin & Gordis, 2000; O'Keefe, 1997). Negative attitudes toward women may combine with this propensity toward aggression to manifest in sexually aggressive behavior with women. In addition, the trauma associated with each type of exposure to violence, as evidenced in previous research, may trigger this sexually aggressive behavior (Famularo et al., 1994; Fitzpatrick & Boldizar, 1993; Kilpatrick & Williams, 1997; McMackin et al., 2002).

Based on previous research (Margolin & Gordis, 2000; Spaccarelli et al., 1997), it was predicted that domestic violence and physical abuse would significantly and highly correlate, allowing for them to be collapsed into one variable, identified as family violence, when they were hypothesized to have the same relation with mediator and outcome variables. It was further expected that family violence would significantly and highly correlate with community violence for the adolescents who sexually aggressed against same-age or older females, allowing for those variables to be collapsed into an overall “exposure to violence” variable (Margolin & Gordis, 2000). The separate types of internalizing symptoms – anxiety, depression, and trauma – were also expected to significantly and highly correlate, thus forming one variable representing internalizing symptoms. In terms of the predicted developmental pathways, it was expected that an
examination of mediational pathways between predictor variables and type of adolescent sex offender would yield distinct pathways based on type of offense.

The following hypotheses describe how predictors and mediating variables were expected to operate differently for each type of adolescent sex offender:

1) It was expected that a history of sexual abuse would be a significant predictor for youth who perpetrated against younger children. Depression, anxiety, trauma, and social competence deficits were hypothesized to mediate the relation between sexual abuse and perpetrating sexually abusive behavior against a younger child (See Figure 1). In the case of a significant and high correlation among depression, anxiety, and trauma, the mediating variable of “internalizing symptoms” would be used in analyses.

2) It was expected that exposure to pornography, community violence exposure, and histories of physical abuse and witnessing domestic violence would significantly predict sexually abusive behavior with same-age or older females. Negative attitudes toward women were hypothesized to mediate the relations between two of the predictors--exposure to pornography and witnessing domestic violence--and sexually aggressing against peer or older females; aggression and trauma were predicted to mediate the relations between all three types of violence exposure (community violence, physical abuse, witnessing domestic violence) and sexual aggression with peer or older females (see Figure 2). In the case of a significant and high correlation among all three violence variables, a single predictor variable of “exposure to violence” would be used in analyses; if only physical abuse and witnessing domestic
violence showed a strong correlation, the variable of "family violence" would be used.
CHAPTER THREE

METHOD

Participants

The current study was part of a larger research project, The Children with Sexual Behavior Problems Longitudinal Study, designed to study wards of the Department of Children and Family Services (DCFS) who have exhibited sexual behavior problems (Leon, Miller, Ragsdale, & Spacarelli, in press). The study was conducted by the Child Abuse Unit for Studies, Education and Services (CAUSES), a private treatment and research agency in Chicago, under contract with DCFS. As part of protocol in Chicago’s child welfare system, children demonstrating sexual behavior problems receive an “unusual incident report,” requiring a specialized screening by DCFS. Over a period of 34 months, researchers collaborated with DCFS to recruit participants from this screening process. Of 352 youth deemed eligible for the study, DCFS caseworkers obtained legal consent for 339 (the thirteen youth without legal consent were in a juvenile detention center at the time). Seventy percent of this group provided valid data to result in a sample size of 240. The remaining 30% of consented participants were dropped from the study due to a variety of reasons: 10.3% had caregivers who were difficult to locate (n=35), 8.2% of participants randomly responded or skipped responses (n=28), 4.7% of youth did not provide assent (n=16), 3.5% of participants’ caregivers or caseworkers refused participation (n=12), and 2.4% of participants scored below a fourth-grade
reading level (n=8). Finally, thirteen more participants were deemed inappropriate and excluded due to severe emotional disturbance (e.g., psychosis) or severe developmental delay.

The mean age of the final 227 participants was 10.5 years old, including 54% over the age of 10. Males comprised 69% of the entire sample, with gender proportion changing with age. For example, approximately three-quarters of 11-17-year-olds were male compared to an equal number of boys and girls for children under age six. Racial composition of participants included 86% African American, 8% Caucasian, 4% Latino, and 2% multi-racial. The current study included 189 males ages 9-17, 82% of whom were African American, 12.7% Caucasian, and 4.8% Latino. The sample’s mean age at the time of disposition was 13 years and 3 months (SD=1.9, range=9 years 8 months to 17 years 9 months). The original research project categorized sexual behavior problems into five types ordered by level of invasiveness: 1) sexualized behavior only (e.g., unusual or precocious behavior without involvement of another person), 2) non-contact (e.g., exhibitionism), 3) non-genital touch, 4) genital touch, and 5) penetration (includes oral copulation, as well as vaginal or anal penetration). These five categories broke down further into twelve levels:

Ordered from least to most invasive:

- No sexual behavior
- Sexualized behavior only
- Consensual sexual behavior between two youth aged 13 and over
- Non-contact
Non-genital touch

Genital touch

Genital contact without attempted penetration

Genital contact with attempted penetration

Penetration

Genital contact with penetration

Oral penetration

Vaginal/anal penetration

The current study excluded the first three levels because of no identified victim in these cases.

Procedure

The study recruited participants from DCFS’ files of “unusual incident reports” in Chicago’s Cook County, dated from 2000-02 over a period of 34 months. The consent process began with verifying state guardianship, securing legal consent from the DCFS attorney, and reviewing each participant’s appropriateness for the study with his DCFS caseworker. Once this process identified eligible participants, research personnel contacted caregivers of the identified youth in order to obtain informed consent, and then youth gave assent to participate. Each youth and his caregiver received a $35 gift certificate as compensation for participation.

The youth and their guardians participated in data collection during a single appointment at their place of residence lasting several hours. Under supervision of a
trained research assistant, youth completed an interview between 375 and 540 questions self-administered on a laptop computer. The time of completion ranged from 60 to 90 minutes. As youth filled out their surveys, caregivers completed one of two versions of the 247-item Caregiver Survey, either for youth ages 12 and under, or youth ages 13 to 17. For youth living in residential facilities, residential staff completed a Residential Staff Survey, either for youth ages 12 and under, or youth ages 13 to 17. These data were collected between 3 and 12 months after the documented sexual incident. This range in length of time was influenced by caseworker responsiveness, time of the guardianship office to provide consent, and problems scheduling home visits with foster families.

In addition to the data provided by the youth and their caregivers, data were collected via caseworkers and DCFS records. A DCFS contractor conducted a comprehensive review of DCFS family files for each participant, and compiled a separate sexual incident-screening file. In order to code family composition and history, abuse/neglect history, placement and educational history, and sexual behavior incidents, research assistants reviewed each document in the family file. Research assistants collaborated with the DCFS Office of the Research Director to obtain information from its electronic integrated database.

Measures

Three sources provided data for the current study: youth, caregivers, and DCFS records. Youth responded to a survey of 519 questions measuring eighteen variables. The current study included nine of these variables (see Appendix A). Caregivers completed
one of two versions of the Caregiver Survey, either for youth 13-17, or for youth 12 and under. Both versions included nine sections, two of which pertain to the current study’s hypotheses (see Appendix B). For youth living in a residential facility at the time of the study, a residential staff member completed a survey identical to the Caregiver Survey. Finally, DCFS records supplemented data with information obtained from case files regarding family composition and history, abuse/neglect history, placement and educational history, and sexual behavior incidents.

Independent Variables

Demographic Information.

*DCFS records.* Basic demographic information such as age, gender, and race were obtained from file reviews and coded by research staff.

Witnessing Domestic Violence.

*Youth report.* Nine items adapted from the Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) assessed the youth’s exposure to domestic violence. Previous research has established this scale to have good reliability and validity with adult and adolescent samples for measuring domestic violence and physical abuse, with internal consistency ranging from .79-.95 (Parrott & Zeichner, 2003; Stets, 1991). Respondents rated items on a five-point frequency scale: 1=Never, 2=Only once, 3=2-5 times total, 4=6-10 times total, 5=More than 10 times. Items referred to physical conflict the youth had observed between any two adults in any home in which he has lived. Examples include “one or more of the adults threw something at another adult” and “one of the adults pushed, grabbed, or shoved another adult.” In the current study, the domestic
violence scale yielded an internal consistency coefficient of .94, with a mean of 16.13 (SD=9.59).

**DCFS records.** Research staff reviewed files and coded domestic violence when treatment reports or social histories documented that either biological parent had a record of arrest for domestic violence, either parent had been victimized by domestic violence, or either parent had received treatment for domestic violence.

**Physical Abuse.**

**Youth report.** This section of the Youth Survey included 9 items, also adapted from the Conflict Tactics Scale (Straus et al., 1996). Respondents rated each item on a five-point scale of frequency: 1=Never, 2=Only once, 3=2-5 times total, 4=6-10 times total, 5=More than 10 times. Examples include “how many times has an adult kicked, bit or hit you with their fist?” and “how many times has an adult threatened you with a knife or gun?” In the current study, the physical abuse scale yielded a reliability coefficient of .90, with a mean of 15.38 (SD=8.16).

**DCFS records.** Research staff coded a history of physical abuse by reviewing each youth’s file. Reports involving serious physical injury including burns, bone fractures, cuts, bruises, or welts were considered physical abuse.

**Witnessing Community Violence.**

**Youth report.** Nineteen items, adapted from the Survey of Children’s Exposure to Violence (Richters & Saltzman, 1990), assessed youths’ exposure to sexual acts and physical violence in their neighborhoods. This measure has been widely used in exposure to violence research, providing support for good reliability and validity. Studies report
internal consistency ranging from .85-.90 and test-retest reliability as .81 (Howard, Cross, Li, & Huang, 1999; Kliewer, Lepore, Oskin, & Johnson, 1998; Kuo, Mohler, Raudenbush, & Earls, 2000). Respondents rated each item on a five-point frequency scale, in reference to what they have witnessed in their neighborhoods: 1=Never, 2=Only once, 3=2-5 times total, 4=6-10 times total, and 5=More than 10 times. Examples include “seen someone use an illegal weapon” and “seen someone stab or try to stab someone.” In the current study, the measure yielded a reliability coefficient of .93, with a mean of 39.70 (SD=18.21).

Sexual Abuse.

Youth report. The larger research project developed 57 items in order to gather information on the details of each youth’s experience of sexual victimization. Two series of questions assessed experiences of coercion and pedophilic molestation. The question, “have you felt like someone made you do sexual stuff when you really didn’t want to” initiated the first set of items, and the question, “[did you] ever do sexual stuff with someone much older than you (5 years or more)” began a second set of items. Participants proceeded to follow-up questions only when responding “yes” to the initial item. Most items required a “yes” or “no” response, and some items solicited demographic data about the perpetrator. Examples include “did that person touch or play with your penis” and “did that person ever threaten to hurt you or your family members.” In the current study, the measure yielded a reliability coefficient of .78. Thirty three participants in the current study’s sample (17.5%) indicated any sexual abuse. Due to the
low frequency of reported incidents of sexual victimization, the present analyses treated sexual abuse as a dummy coded variable (1=present, 0=absent).

**DCFS records.** Research staff coded sexual abuse when youths’ files indicated a founded case of molestation, sexual exploitation, or penetration in his history.

*Exposure to Pornography.*

*Youth report.* This section of the Youth Survey included 33 items and was developed for the larger study. The purpose of this scale was to gather information on each youth’s exposure to sexual content via various media types, as well as if the content represented violent sexual acts or sexual acts with children. Respondents answered items in a variety of formats, including “yes” or “no,” and six-point frequency scales: 1=Never, 2=Only once, 3=Total of 3-5 times, 4=Every once in awhile (monthly), 5=Regular (weekly), and 6=All the time (daily). The 18 interval-scale items yielded an internal consistency coefficient of .94, with a mean of 34.17 (SD=16.61).

*Mediator Variables*

*Internalizing Symptoms/Trauma.*

*Youth report.* Selected scales of the Trauma Symptom Checklist for Children (Briere & Runtz, 1989) included 36 items, which broke down into subscales assessing trauma, depressive, and anxious symptomatology. Previous research has established this measure to have good reliability and validity, including its utility for measuring symptoms related to childhood maltreatment (Briere et al., 2001). Respondents rated each item on a four-point interval scale, in reference to symptoms they have experienced in the last six months: 1=Never, 2=Sometimes, 3=Lots of times, 4=Almost all the times.
Examples include “feeling sad or unhappy,” “worrying about things,” and “bad dreams or nightmares.” In the current study, the measure yielded an internal consistency coefficient of .93 with a mean of 22.01 (SD=15.97). Internal consistency of subscales were as follows: trauma=.83 (mean=7.59, SD=5.86); depression=.77 (mean=5.25, SD=4.29); and anxiety=.79 (mean=4.33, SD=3.9).

**Social Competence.**

*Caregiver report.* Caregivers responded to 33 items adapted from the socialization domain of the Vineland Adaptive Behavior Scale (VABS), which assessed the caregiver’s perspective of the youth’s social behaviors (e.g., “Refrains from asking questions or making statements that might embarrass or hurt others”). The VABS has demonstrated strong reliability and validity (Sattler, 2002). Respondents rated each item on a four-point scale: 0=Never, 1=Sometimes, 2=Usually, 3=Don’t know, 4=No opportunity. Higher scores represent greater social competence. In the current study, the measure yielded a reliability coefficient of .83, with a mean of 48.61 (SD=14.01).

**Negative Attitudes toward Women.**

*Youth report.* This section of the Youth Survey included 13 items, adapted from the Attitudes Towards Women Scale for Adolescents, which has shown good internal consistency, test-retest stability, and construct validity (Galambos, Petersen, Richards, & Gitelson, 1985). Respondents rated each item on a four-point interval scale: 1=Disagree strongly, 2=Disagree, 3=Agree, 4=Agree strongly. Examples include “girls should have the same freedom as boys” and “if a girl gets a guy turned on, she should have sex with
him even if she does not want to.” In the current study, the measure yielded a reliability coefficient of .78, with a mean of 38.53 (SD=7.15).

**Aggression.**

*Caregiver report.* Caregivers responded to 48 items adapted from the Conner’s Parent Rating Scale-Revised, which assessed conduct problems, impulsivity, and hyperactivity. This measure has shown acceptable internal consistency reliability, ranging between .73 and .96, as well as strong convergent validity and criterion validity (Sattler, 2002). The current study isolated four items specifically measuring aggression: “carries a chip on his shoulder;” “bullies others,” being cruel,” and “fights constantly.” Respondents rated items on a four-point scale: 0=Not at all; 1 = Just a little; 2=Pretty much; and 3=Very much. These four items yielded an internal consistency coefficient of .72 with a mean of 4.57 (SD=2.93).

*Dependent Variable*

**Sexual Perpetration.**

*Youth report.* Two sets of questions encompassed the youth’s account of his sexual behavior that is relevant to the current study. The first item asked if the participant had ever been accused of being sexual with someone “much younger” or being sexual in ways the other person “did not want” or ways that “were wrong.” For participants who endorsed any of these items, they proceeded to complete questions probing details of the alleged sexual incidents. Finally, youth responded “yes” or “no” to whether they had done what was alleged. For those who endorsed engaging in a sexual incident as a perpetrator, youth responded to 36 items adapted from Modus Operandi (Kaufman et al.,
In the current study, self-report of sexual perpetration was included as a dichotomous variable.

*DCFS records.* Research staff reviewed files and coded several variables: total number of victims and incidents, invasiveness of the sexual behavior, the participants’ admission of the behavior, witnesses of the behavior, and use of coercion, persuasion, and physical force during the incidents. The current study treated sexual perpetration as a categorical variable by creating four groups that encompassed the offense types:

1 = Sexual behavior with younger males, 2 = Sexual behavior with peer/older males, 3 = Sexual behavior with younger females, 4 = Sexual behavior with peer/older females.

Only those participants with a documented incident involving non-contact, non-genital contact, genital contact, and penetration were included. A participant qualified as “ever having a younger victim” if his victim was at least four years younger, AND age 11 or younger.

**Planned Analyses**

*Correlation Analyses.*

Correlation analyses tested the extent of agreement among reporters. If reports from different informants significantly and highly correlated, the reporters would be collapsed into a single variable. In the case of informants not showing highly significant correlations, analyses would be run separately for reporters. Correlation analyses were also conducted to determine predictor variables that significantly correlated and mediator variables that significantly correlated. In the case of highly correlated variables, they were collapsed into one variable when consistent with hypotheses (e.g., physical abuse.
and witnessing domestic violence were not only expected to co-occur, but were both expected to predict aggression and trauma, which leads to the sexually aggressive behavior with peer/older females). This was done to reduce the number of analyses, thus improving statistical power (Cohen, 1992) and minimizing the chance for Type I error. MANOVAs.

Multivariate Analyses of Variance (MANOVAs) were conducted to test differences between the four groups (1=Sexual behavior with younger males, 2=Sexual behavior with peer/older males, 3=Sexual behavior with younger females, 4=Sexual behavior with peer/older females) on predictor variables and mediator variables. Groups were also compared on age of the youth at the time of the offense, and invasiveness of the sexual behavior; in the case of a significant difference, the variable would be included as a covariate in the path analyses.

The MANOVA is the most appropriate statistical analyses for this phase because it accommodates the categorical variable of four groups of offense types (identified as the independent variable for the MANOVA) in order to compare the predictor and mediator variables (identified as the dependent variables for the MANOVA) across the four groups. Running this analysis instead of multiple univariate tests offered the benefit of minimizing Type 1 error by reducing the number of analyses as well as accounting for multicollinearity that is undetected in running multiple univariate analyses. The MANOVA provides an F statistic for each dependent variable to indicate whether there are significant differences across the four groups.
Logistic Regression

To establish the necessary significant relations before testing mediations, logistic regression was determined to be the most appropriate statistical analysis based on several reasons: the dependent variable can be categorical with more than two classes; it yields percent of variance in the dependent variable for each independent variable; the independent variables can be either continuous or categorical; and it estimates the probability of the type of offense occurring. Further, multinomial logistic regression allows for a comparison of more than one contrast (e.g., 4 v. 2 and 4 v. 3 for Model 2). A binomial or multinomial logistic regression analysis tested if each predictor variable significantly increased the odds of group membership for one type of offense with better accuracy than the other types. For example, in Model 1 it was predicted that a history of sexual abuse would increase the odds of group membership for offense types 1 and 3 (sexually abusive behavior with younger males and females), but not offense types 2 and 4 (sexually abusive behavior with peer/older males and females). In Model 2 it was predicted that a history of exposure to pornography, physical abuse, witnessing domestic violence, and exposure to community violence would increase the odds of group membership for offense type 4 (sexually abusive behavior with peer/older females) but not offense types 1, 2, or 3. In the case of a significant association for this model, post-hoc comparisons would be conducted to compare offense type 4 with 3 (to account for the potential effect of the victim’s age) and offense type 4 with 2 (to account for the potential effect of the victim’s gender).
Mediation Models.

Three sets of regression analyses were analyzed for each predicted mediational relationship in order to establish an indirect effect. In the case of significant associations, a regression analysis would test if each predictor variable significantly related to each mediator variable. Finally, a multinomial logistic regression analysis would test if each mediator variable significantly related to the outcome when the predictor variable is controlled. Since the dependent variables in these analyses are categorical (1=Sexual behavior with younger males, 2=Sexual behavior with peer/older males, 3=Sexual behavior with younger females, 4=Sexual behavior with peer/older females), doing a mediation with logistic regression requires additional steps. The residual variance would need to be normalized to \( \pi^2/3 \) to account for the condition that the residual variance needs to be fixed. Another challenge presented by logistic regression in mediations is the constancy of the scale across the equation. In regular regressions, this scale is constant, but in logistic regression, the scale depends on the prediction, which relies on the model’s variables. To address this, regression coefficients would have to be standardized before the mediation analyses in order to make the scale equivalent across equations. Following these steps, Sobel’s test could be used to detect a mediation.
Figure 1: Mediational Model for First Type of Offender

- Depression
  - Youth
- Anxiety
  - Youth
- Trauma
  - Youth
- Social Competence Deficits
  - Caregiver

1 = Sexually Abusive Behavior with Younger Males
  - Youth
  - DCFS

2 = Sexually Abusive Behavior with Peer/Older Males
  - Youth
  - DCFS

3 = Sexually Abusive Behavior with Younger Females
  - Youth
  - DCFS

4 = Sexually Abusive Behavior with Peer/Older Females
  - Youth
  - DCFS
Figure 2: Mediational Model for Second Type of Offender

- Exposed to Pornography
  - Youth

- Witnessed Domestic Violence
  - Youth
  - DCFS

- Witnessed Community Violence
  - Youth

- Experienced Physical Abuse
  - Youth
  - DCFS

- Negative Attitudes Towards Women
  - Youth

- Aggression
  - Caregiver

- Trauma Symptoms
  - Youth

- 1 = Sexually Abusive Behavior with Younger Males
  - Youth
  - DCFS

- 2 = Sexually Abusive Behavior with Peer/Older Males
  - Youth
  - DCFS

- 3 = Sexually Abusive Behavior with Younger Females
  - Youth
  - DCFS

- 4 = Sexually Abusive Behavior with Peer/Older Females
  - Youth
  - DCFS
CHAPTER FOUR

RESULTS

Preparatory Analyses

Frequencies for Categorical Variables.

Type of sexual behavior.

As described previously, the sample for the current study included males aged 9-17 who have exhibited sexually aggressive behavior that ranged from non-contact (e.g., exhibitionism, public masturbation) to vaginal and/or anal penetration. Of the 189 males, 39 demonstrated sexual behavior rated between 0 and 2 for level of invasiveness (e.g., no identified victim for their behavior), yielding a sample of 150 youth for the current study. See Table 1 for frequencies of sexual behavior type.

Group membership.

To create the outcome variable of group membership, three criteria were identified: 1) age difference of at least four years between perpetrator and victim when victim is age eleven or younger, 2) the victim's gender, and 3) a minimum sexual behavior rating of 3. These criteria yielded a final sample of 141. Categories were labeled with the differentiating characteristics (age difference and gender) of the youths’ victims. See Table 2a for the frequencies of group membership. A closer analysis of the nature of perpetration in this final sample revealed that only 79 had just one victim on record; 23
had two reported victims, and one person had 11 victims. In addition, 56 had only one reported offense whereas 44 had more than three offenses on record. The current study collected descriptive data only related to the presenting incident, and thus focused on this offense. There were minimal data collected for a second offense once the youth was in the study (n=4); due to the negligible amount of information, these data were not included in analyses.

Missing Data.

When conducting descriptive analyses of all the variables, the social competence variable had 12 missing cases and the exposure to pornography variable had 37 missing cases. According to recommendations of Schaefer and Graham (2002), a new social competence variable was created by including randomly generated scores so as to not artificially reduce variability in scores. These authors argue that omitting data systematically can result in two primary problems: 1) hiding relationships that actually exist (e.g., people who abuse drugs systematically do not respond to questions, thus not revealing relationships that exist between substance abuse behavior and other factors); and 2) allowing relationships to be more easily influenced by outliers (e.g., with a smaller sample size, the outliers play a potentially greater role in impacting the data). To address the problems inherent in systematically omitting data, Schaefer and Graham recommend imputation of the data. They assert that including data from a distribution does not restrict variability, thus supporting the imputation from the original data’s distribution. This procedure included several steps: 1) The distribution was tested by examining the Shapiro-Wilks statistic, which indicated a normal distribution, W = .99, p > .05; 2) Based
on the mean and standard deviation, a new variable was obtained by creating a randomly generated vector of values sampled from a normal distribution with a mean and standard deviation value equal to that of the existing data; 3) Finally, a new variable was created that retained the values for the participants who had scores and filled in the missing values with scores based on the randomly generated vector. Due to the proportion of the missing cases for exposure to pornography relative to the sample size (37 of 141), imputation was not conducted for this variable.

Outliers.

An examination of frequencies and scatterplots of variables indicated a total of ten data points across variables greater than three standard deviations away from the mean: negative attitudes toward women (1), domestic violence (2), physical abuse (2), trauma (1), depression (1), anxiety (1) and exposure to pornography (2). According to Kirk (1995), this substantial deviation from the mean justifies removing these cases from the analysis. Outliers act as extreme data points that can impact results by skewing the mean and standard deviation for a variable, as well as relationships with other variables. Once all outliers were removed, the final sample size was 131. At this point, including the exposure to pornography variable resulted in a sample size less than 100 due to its missing data. This is not adequate for conducting a path analysis, which requires a minimum sample size of 100 (Kline, 2004); thus, the exposure to pornography variable was removed from analyses. Reflected by the almost unchanged proportion of group members to the full sample as displayed in Tables 2a and 2b, this removal of outliers
appears to not be confounded with type of offender. See Table 2b for the final sample’s frequencies of group membership.

**Description of Final Sample**

The final sample of 131 males aged 9-17 included 86% African American, 8% Caucasian, 6% Latino, and 1% Multi-ethnic persons. Due to the overwhelming majority of African Americans in the sample, race was not examined as a potential covariate. The proportion of n to the sample size for type of sexual behavior did not change when comparing the final sample of 131 to the original sample of 150 (see Table 3). The mean age of the sample was 11.76 (sd = 3.54). In regards to self-report of a history of sexual abuse, 34 (26%) disclosed being sexually abused and 97 (74%) denied any sexual abuse history. Only 45% of the final sample (n=59) admitted the sexual behavior associated with the reported incident; therefore, the youth’s report of the sexual behavior was not included.

In terms of relationship of the youth to his victim, the highest frequency was foster sibling (n=30), with residential youth (n=26) as a close second. Biological siblings (16) and family members (14) also had relatively high frequencies. There was only one reported case of a victim who was a stranger (see Table 4 for all frequencies of types of relationship between perpetrator and victim). In regards to type of placement at the time of the youth’s screening, none was with his biological parents. The two most common placement types were foster homes (n=54) and residential (n=40), with three youth incarcerated (see Table 5 for all placement frequencies).
Using independent samples t-tests, this final sample of 131 youth was compared to the 58 males who were excluded from the study for the various reasons previously described. There were no significant differences between the groups for age at first offense, total number of offenses, or total number of victims. There were significant differences for domestic violence, physical abuse, trauma, anxiety, and depression, with higher levels reported across all variables for the group excluded from the study. This can be at least partially explained by the removal of outliers, which included data points of all five of the variables. In addition, the group included in the study had a significantly higher mean for level of invasiveness of sexual behavior, 5.23 compared to 2.6. This difference is expected due to the exclusion of youth with invasiveness levels below 3.

Correlation Analyses

Correlation analyses showed significant and positive associations among exposure to violence variables (see Table 6). As predicted, physical abuse and domestic violence were significantly and positively associated (.38, \( p < .01 \)), as were physical abuse and community violence (.33, \( p < .01 \)) and domestic violence and community violence (.51, \( p < .01 \)). Although these variables showed moderate correlations, they did not reach the strength sufficient to justify collapsing them further; thus, each variable remained in the model as an independent predictor.

Internalizing symptoms (depression, anxiety, and trauma) significantly and positively correlated with each other. Anxiety and trauma showed the strongest correlation, \( r = .76, p < .01 \), with depression and trauma correlating at \( r = .71, p < .01 \), and anxiety and depression correlating at \( r = .67, p < .01 \). Based on these strong
correlations, these three variables were collapsed into one “internalizing symptoms” variable for the analyses testing a pathway for youth sexually abusing younger children in the first model. This step of reducing the number of independent variables increases statistical power (Cohen, 1992). Trauma was significantly and positively correlated with community violence \((r = .30, p < .01)\) and negative attitudes toward women \((r = .19, p < .05)\). Anxiety and depression were also significantly and positively correlated with community violence \((r = .23, p < .01\) and \(r = .19, p < .05\), respectively).

The caregiver ratings of social competence and aggression were significantly and positively correlated, \(r = -.41, p < .01\). Contrary to expectation, aggression did not significantly correlate with any of the violence variables: \(r = -.01, p = .90\) for domestic violence; \(r = -.08, p = .40\) for physical abuse; \(r = -.11, p = .81\) for community violence. Negative attitudes toward women also did not show the predicted association with domestic violence exposure, \(r = -.11, p = .21\).

An examination of analyses conducted with the original, larger sample revealed that concordance rates between youth report and DCFS report of history of sexual abuse, physical abuse and domestic violence were poor. When working with the variables previously created for the DCFS reports, there were multiple versions and no record of which were the most accurate. Thus, these variables were not useable and only the youth report of history of sexual abuse, physical abuse, and witnessing domestic violence were included in analyses. The use of adolescents’ self-report of these variables has been successful in previous research with adolescent sex offenders (Spaccarelli et al., 1997; Smith, Wampler, Jones, and Reifman, 2005).
A MANOVA was conducted to test the effect of group type on two variables that could contribute to differences between groups: age of the youth at the time of his offense, and the level of invasiveness of the sexual behavior. This analysis revealed a significant effect of group type on both variables, Wilk's lambda = .90, $F = 2.36, p < .05$. An examination of between-subjects effects for each variable showed a significant effect of group type on age, $F = 3.55, df = 3, p < .05$, and a non-significant effect of group type on sexual behavior, $F = 1.69, df = 3, p = .17$. In regards to age of the youth at the time of his offense, Tukey's post hoc tests revealed a significant difference between two groups: those who victimize younger female victims ($x = 12.66$) and those who victimize peer/older females ($x = 10.59; p = .046$). See Table 7a for group means for each variable.

A MANOVA was also conducted to test the effect of group type on the predictor and mediator variables. Dependent variables included the following continuous variables: negative attitudes toward women, social competence, domestic violence, physical abuse, community violence, aggression, trauma, anxiety, and depression. No significant effects of group type were found: Wilk's lambda = .85, $F = .74, p = .82$. See Table 7b for group means for each variable.

**Univariate Analyses**

Due to the conservative nature of conducting one MANOVA to simultaneously test group differences for nine variables, as well as the small number of participants in each group, separate univariate analyses tested for significant differences between the
four groups of offenders for each predictor and mediator variable. No significant differences emerged from these analyses.

*Chi-Square Analysis*

A chi-square analysis tested for group differences in the predictor variable, self-report of a history of sexual abuse. This revealed no significant difference: \( \chi^2 = 5.35, \text{df} = 3, p = .15. \)

*Path Models with Binomial and Multinomial Outcomes*

MPlus versus SPSS.

The statistical software MPlus was used to examine relations among the predictor variables, mediator variables, and classification of group membership. A relatively new software program, MPlus accommodates path analyses that include several combinations of continuous and unordered (nominal) categorical variables. For the purpose of the current study, MPlus was able to conduct a multinomial logistic regression with indirect effects. Relations among multiple variables were analyzed simultaneously in a method more parsimonious than what is involved with SPSS software. Use of SPSS requires multiple steps and modifications in order to evaluate indirect effects in a multinomial logistic regression. As described earlier, the residual variance must be normalized to \( \pi^2/3, \) regression coefficients need to be standardized, and Sobel's test is then conducted to detect a mediation. MPlus does not require these modifications or multiple steps, treating the analysis as that of path models, testing regressions and indirect effects with categorical outcomes in one step. The parsimony offered by MPlus has been praised for a variety of complex analyses, including path analysis with endogenous variables and a
combination of continuous and categorical variables (Vandenberg, 2006). In other complicated mediator models, MPlus has been described as the only software program able to simultaneously estimate total and indirect effects (Preacher & Hayes, in press).

Justification of Path Analysis Structure.

Since the current study’s hypotheses essentially structure models consistent with the principles of path analysis, MPlus was selected for its efficient analysis of path models. Path analyses allow for a causal order of predictions between variables, rather than simply testing a prediction of one variable causing a second variable (Klem, 1998). For path analysis, it is recommended to have a minimum sample size of 100 (Kline, 2004), and five to ten cases per parameter (Bentler & Chou, 1988), which includes each variable as well as the residual for each endogenous variable, which are the mediators in this study. According to these guidelines, the five parameters of Model 1 (each pathway plus residual for each mediator) would require a total sample size of 25 to 50; the nine parameters of Model 2 would require a total sample size of 45 to 90. In the current study, the sample size of 131 exceeds the minimum of 100 recommended for path analysis.

Interpreting MPlus Output.

In interpreting values from MPlus output, the chi-square goodness of fit value should not be significant \((p > .05)\) and the Root Mean Squared Error of Approximation (RMSEA) value should be less than .06 to indicate the data fit the model well. The estimate divided by the standard error represents a z-statistic signifying whether the relation between two variables is significant (a significant value is above +1.96 or below
Path Analysis of Offenses against Younger Children.

In Model 1, the relations among a history of sexual abuse (predictor variable), internalizing symptoms and social competence (mediator variables), and the outcome variable (group membership in Group 1, 2, 3, or 4) were examined by combining Group 1 and Group 3 into one category of offenses against younger children, and Group 2 and Group 4 into one category of offenses against peers or older victims (see Figure 3). This dichotomizing of the outcome variable ensured that the analysis isolated the group of interest (youth who perpetrate against younger children) in a way that accommodates the assumptions of an analysis of a categorical outcome variable.

The analysis to predict offenses against younger children showed the data fit the model well ($\chi^2 = 1.83, p > .05; \text{RMSEA} < .01$). However, no significant relations between variables emerged when examining each pathway: the self-report of sexual abuse did not predict internalizing symptoms ($r = .04, z = .36$); the self-report of sexual abuse did not predict social competence ($r = .15, z = 1.61$); internalizing symptoms did not increase odds of group membership for offending against younger children ($r = .04, z = .40$); and neither did social competence ($r = -.01, z = -.09$). Furthermore, there were no indirect effects of internalizing symptoms or social competence (see Table 8). MPlus did not provide a regression coefficient for the direct relation between predictor variables and group membership. A multinomial logistic regression was conducted with SPSS to analyze whether a self-report of sexual abuse increased the odds of group membership in
Groups 1 and 3, offending against younger children. Results indicated that a self-reported history of sexual abuse did not significantly predict membership in any group (odds ratio = .62, p > .05).

Path Analysis of Offenses against Peer/Older Females.

In Model 2, the relations between predictor variables (exposure to domestic violence, witnessing community violence, and experiences of physical abuse) and mediator variables (negative attitudes toward women, aggression, and trauma) were examined by running one analysis to examine the odds of membership in Group 4 versus Groups 1, 2, or 3 (see Figure 4). The model fit the data well ($\chi^2 = 11.15$, p > .05; RMSEA = .068). There was one significant relation between variables: witnessing community violence predicted trauma ($r = .33$, $z = 3.55$). However, no other significant relations between variables emerged: witnessing domestic violence did not predict negative attitudes toward women ($r = -.10$, $z = -1.00$); witnessing domestic violence did not predict aggression ($r = -.00$, $z = -.03$); witnessing community violence did not predict aggression ($r = .05$, $z = .51$); physical abuse did not predict aggression ($r = -.09$, $z = -.90$); witnessing domestic violence did not predict trauma ($r = -.05$, $z = -.53$); physical abuse did not predict trauma ($r = .05$, $z = .56$); negative attitudes toward women did not increase the odds of group membership in Group 4 ($r = -.01$, $z = -.05$); aggression did not increase the odds of group membership in Group 4 ($r = .01$, $z = .11$); and trauma did not increase the odds of group membership in Group 4 ($r = -.02$, $z = .12$). There were no indirect effects of trauma, aggression, or negative attitudes toward women (see Table 9). A multinomial logistic regression was conducted with SPSS to analyze whether any of the predictor
variables — witnessing domestic violence, physical abuse, or community violence exposure — increased the odds of group membership in Group 4, offending against peer or older females. Results revealed good model fit ($\chi = 5.41, p > .05$), meaning the set of variables as a whole improved the odds of accurately predicting group membership. Further examination of the predictors independently, however, showed that none of them significantly predicted group membership for offending against peer or older females.
Table 1

**Frequencies of sexual behavior categories.**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
<th>n</th>
<th>% of N</th>
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<tbody>
<tr>
<td>3</td>
<td>Non-contact</td>
<td>29</td>
<td>19</td>
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<tr>
<td>In between 3 and 4</td>
<td>Non-genital fondling</td>
<td>40</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>Genital contact without penetration</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>Genital contact with attempted penetration</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Oral penetration</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Vaginal/anal penetration</td>
<td>28</td>
<td>19</td>
</tr>
</tbody>
</table>
### Table 2a

**Frequencies of group membership including outliers.**

<table>
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<th>Group</th>
<th>Description</th>
<th>n</th>
<th>% of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Younger male victims</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Peer/older male victims</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Younger female victims</td>
<td>46</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Peer/older female victims</td>
<td>35</td>
<td>25</td>
</tr>
</tbody>
</table>

### Table 2b

**Frequencies of group membership excluding outliers.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
<th>N</th>
<th>% of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Younger male victims</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Peer/older male victims</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Younger female victims</td>
<td>44</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>Peer/older female victims</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>Rating</td>
<td>Description</td>
<td>n for N = 131</td>
<td>% of N</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>3</td>
<td>Non-contact</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Non-genital fondling</td>
<td>35</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>Genital contact without penetration</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Genital contact with attempted penetration</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Oral penetration</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>Vaginal/anal penetration</td>
<td>25</td>
<td>19</td>
</tr>
</tbody>
</table>
### Table 4

**Frequencies of relationship to the victim.**

<table>
<thead>
<tr>
<th>Relationship</th>
<th>n</th>
<th>% of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Sibling</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Foster sibling</td>
<td>30</td>
<td>23</td>
</tr>
<tr>
<td>Family member</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Residential youth</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>Acquaintance</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Stranger</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School peer</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Foster parent/other</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>adult</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other child</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Residential staff</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 5

*Frequencies of placement type at time of screening.*

<table>
<thead>
<tr>
<th>Placement</th>
<th>n</th>
<th>% of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized foster home</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Foster home</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Group home</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Home of relative</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Hospital</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Incarcerated</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>On the run</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Residential</td>
<td>40</td>
<td>31</td>
</tr>
<tr>
<td>Shelter</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 6
*Intercorrelations among variables.*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depression</td>
<td></td>
<td>.67**</td>
<td></td>
<td>-.14</td>
<td>.16</td>
<td>.19*</td>
<td>.10</td>
<td>.15</td>
<td>-.09</td>
</tr>
<tr>
<td>2. Anxiety</td>
<td>.76**</td>
<td></td>
<td>-.08</td>
<td>.10</td>
<td>.23*</td>
<td>.11</td>
<td>.15</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>3. Trauma</td>
<td></td>
<td>-.17</td>
<td>.13</td>
<td>.30**</td>
<td>.12</td>
<td>.19*</td>
<td>.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social Competence</td>
<td></td>
<td>.09</td>
<td>-.03</td>
<td>-.02</td>
<td>-.12</td>
<td>-.41**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Domestic Violence</td>
<td></td>
<td>.51**</td>
<td>.38**</td>
<td>.11</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Community Violence</td>
<td></td>
<td>.33**</td>
<td>-.05</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Physical Abuse</td>
<td></td>
<td></td>
<td>-.10</td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Negative Attitudes</td>
<td></td>
<td></td>
<td></td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Aggression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Mean | 4.58 | 3.81 | 6.74 | 50.26 | 15.08 | 38.05 | 14.36 | 29.19 | 4.06 |
| SD   | 3.62 | 3.68 | 5.04 | 13.99 | 8.47  | 17.63 | 6.83  | 5.54  | 3.17 |

*p<.05, **p<.01
Table 7a

*Group means and standard deviations for age of youth and invasiveness of sexual behavior.*

<table>
<thead>
<tr>
<th>Group Type</th>
<th>Age of youth at time of offense</th>
<th>Sexual behavior level of invasiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1: Younger male victims</td>
<td>12.35</td>
<td>1.72</td>
</tr>
<tr>
<td>2: Peer/older male victims</td>
<td>10.57</td>
<td>3.82</td>
</tr>
<tr>
<td>3: Younger female victims</td>
<td>12.66a</td>
<td>2.15</td>
</tr>
<tr>
<td>4: Peer/older female victims</td>
<td>10.59a</td>
<td>5.25</td>
</tr>
</tbody>
</table>

*aSignificant difference between groups at *p*<.05*
Table 7b

*Group means and standard deviations for continuous variables.*

<table>
<thead>
<tr>
<th>Group Type</th>
<th>Negative Attitudes</th>
<th>Social Competence</th>
<th>Domestic Violence</th>
<th>Physical Abuse</th>
<th>Community Violence</th>
<th>Aggression</th>
<th>Trauma</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Younger</td>
<td>28.97</td>
<td>51.20</td>
<td>17.42</td>
<td>13.85</td>
<td>40.09</td>
<td>3.94</td>
<td>5.79</td>
<td>2.77</td>
<td>3.59</td>
</tr>
<tr>
<td>male victims</td>
<td>(5.55)</td>
<td>(16.65)</td>
<td>(11.31)</td>
<td>(8.34)</td>
<td>(24.09)</td>
<td>(3.12)</td>
<td>(5.85)</td>
<td>(3.23)</td>
<td>(3.57)</td>
</tr>
<tr>
<td>2: Peer/older</td>
<td>29.87</td>
<td>49.09</td>
<td>14.91</td>
<td>13.14</td>
<td>33.91</td>
<td>4.67</td>
<td>7.24</td>
<td>4.71</td>
<td>4.76</td>
</tr>
<tr>
<td>male victims</td>
<td>(6.90)</td>
<td>(14.68)</td>
<td>(7.40)</td>
<td>(5.79)</td>
<td>(14.81)</td>
<td>(3.33)</td>
<td>(4.35)</td>
<td>(3.91)</td>
<td>(4.45)</td>
</tr>
<tr>
<td>3: Younger</td>
<td>28.66</td>
<td>50.84</td>
<td>15.55</td>
<td>15.23</td>
<td>38.59</td>
<td>3.69</td>
<td>7.48</td>
<td>4.25</td>
<td>5.16</td>
</tr>
<tr>
<td>4: Peer/older</td>
<td>29.03</td>
<td>48.43</td>
<td>16.09</td>
<td>14.50</td>
<td>37.88</td>
<td>4.27</td>
<td>6.41</td>
<td>3.72</td>
<td>4.72</td>
</tr>
<tr>
<td>female victims</td>
<td>(4.68)</td>
<td>(13.95)</td>
<td>(10.76)</td>
<td>(9.52)</td>
<td>(19.97)</td>
<td>(3.23)</td>
<td>(5.36)</td>
<td>(3.65)</td>
<td>(4.02)</td>
</tr>
</tbody>
</table>
Table 8

MPlus output values for Model 1 pathways predicting offenses against younger children.

<table>
<thead>
<tr>
<th>Regression</th>
<th>S.E.</th>
<th>Est./S.E.</th>
<th>Std.</th>
<th>StdYX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing on sexual abuse</td>
<td>2.54</td>
<td>.36</td>
<td>.91</td>
<td>.04</td>
</tr>
<tr>
<td>Social competence on sexual abuse</td>
<td>3.01</td>
<td>1.61</td>
<td>4.83</td>
<td>.15</td>
</tr>
<tr>
<td>Group type on internalizing</td>
<td>.01</td>
<td>.40</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>Group type on social competence</td>
<td>.01</td>
<td>-.09</td>
<td>-.00</td>
<td>-.01</td>
</tr>
</tbody>
</table>

**Indirect effects**

<table>
<thead>
<tr>
<th></th>
<th>S.E.</th>
<th>Est./S.E.</th>
<th>Std.</th>
<th>StdYX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing symptoms</td>
<td>.01</td>
<td>.27</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Social competence</td>
<td>.04</td>
<td>-.09</td>
<td>-.00</td>
<td>-.00</td>
</tr>
</tbody>
</table>

*p<.05
Table 9

**MPlus output values for Model 2 pathways predicting offenses against peer/older female victims.**

<table>
<thead>
<tr>
<th>Regression</th>
<th>S.E.</th>
<th>Est./S.E.</th>
<th>Std.</th>
<th>StdYX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative attitudes on Domestic violence</td>
<td>.06</td>
<td>-1.00</td>
<td>-.06</td>
<td>-.10</td>
</tr>
<tr>
<td>Aggression on Domestic violence</td>
<td>.04</td>
<td>-.03</td>
<td>-.00</td>
<td>-.00</td>
</tr>
<tr>
<td>Community violence</td>
<td>.02</td>
<td>.51</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>.05</td>
<td>-.90</td>
<td>-.04</td>
<td>-.09</td>
</tr>
<tr>
<td>Trauma on Domestic violence</td>
<td>.05</td>
<td>-.53</td>
<td>-.03</td>
<td>-.05</td>
</tr>
<tr>
<td>Community violence</td>
<td>.03</td>
<td>3.55*</td>
<td>.09</td>
<td>.33*</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>.06</td>
<td>.56</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>Group type on Negative attitudes</td>
<td>.02</td>
<td>-.05</td>
<td>-.00</td>
<td>-.01</td>
</tr>
<tr>
<td>Aggression</td>
<td>.03</td>
<td>.11</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Trauma</td>
<td>.02</td>
<td>.12</td>
<td>.00</td>
<td>.02</td>
</tr>
</tbody>
</table>

**Indirect Effects**

Aggression

| Domestic violence | .00  | -.03  | .00  | .00  |
| Community violence | .00  | .10   | .00  | .00  |
| Physical abuse | .00  | -.10  | .00  | -.00 |

Trauma

| Domestic violence | .00  | -.12  | .00  | -.00 |
| Community violence | .00  | .12   | .00  | .00  |
| Physical abuse | .00  | .12   | .00  | .00  |

Negative attitudes

| Domestic violence | .00  | .05   | .00  | .00  |

*p<.05
Figure 3: Pathway coefficients for predicting odds of offending against younger children.

- Experienced Sexual Abuse • Youth
- Internalizing Symptoms • Youth
- Social Competence Deficits • Caregiver
- Combined 1 and 3 = Sexually Abusive Behavior with Younger Males and Females • DCFS
- Combined 2 and 4 = Sexually Abusive Behavior with Peer/Older Males and Females • DCFS
Figure 4: Pathway coefficients for predicting odds of offending against peer/older females.
CHAPTER FIVE

DISCUSSION

Overview of Results.

The current study aimed to empirically support a classification approach for adolescent sex offenders based on grouping them according to their victim’s characteristics, and to examine the differential impact of exposure to violence, and personality and psychopathology variables on the development of victim-specific sexually abusive behavior. Two models of developmental pathways were proposed and tested. The only significant pathway that emerged from analyses was that relating the self-report of witnessing community violence and trauma symptoms. There was no evidence to support the other predicted pathways, including no indirect effects to demonstrate mediation of personality or psychopathology factors.

In summary, there was no evidence to support the hypothesized typology for the current sample of male adolescent sex offenders. Those youth who victimized younger children did not have a higher likelihood of being sexually abused, which social competence and more internalizing symptoms did not mediate to predict their targeting younger children. Adolescents who victimized peer or older females did not have a higher likelihood of exposure to violence (witnessing domestic violence, experiencing physical abuse, witnessing community violence) mediated by negative attitudes toward
women, aggression, and trauma symptoms to predict the targeting of peer and older females.

Descriptives.

*Type of sexual behavior.*

Types of sexual behavior were coded as follows: 3 = non-contact (e.g., exhibitionism), in between 3 and 4 (in between non-contact and non-genital fondling), 4 = non-genital fondling, 5 = genital contact without penetration, 6 = genital contact with attempted penetration, 7 = oral penetration, and 8 = vaginal/anal penetration. The largest proportion of type of behavior was non-genital fondling, but penetration, in any form (e.g., oral and vaginal/anal), constituted almost half of the offenses. This shows the range of types of behavior, although the small frequencies in two of the categories ("in between 3 and 4" = 4 and "genital contact with attempted penetration" = 6) may indicate problematic coding labels. In examining the content of incident reports, it was often difficult to discern the specifics of the sexual behavior. Thus, these frequencies are a good estimation of range of behavior, but may not qualitatively capture the true nature of behaviors.

*Group membership.*

Consistent with rates shown in previous research on adolescent sex offenders (McMackin et al., 2002), sixty percent of victims in the current sample were at least four years younger than the perpetrator, with younger female victims accounting for the largest majority (34%). The victim group least offended against was peer/older males, constituting 16% of victims; peer/older females made up a quarter of the victim
population. In relation to the hypotheses separating offenders into two groups--targeting younger children versus peer/older females,—this would indicate 24% fitting the hypothesized second type, approximating the adult label of “rapist,” targeting women. However, the range of types of sexual behavior discussed above suggests the behavior perpetrated against peer and older females could include non-contact and non-genital fondling, which does not fit the social construction of “rape” as involving some type of penetration. In the current sample, only eight youth perpetrated offenses against peer/older females that included penetration. Thus, a practically negligible proportion of this sample would fit the hypothesis of adolescent offenders fitting the label used for adults forcing penetration on women, “rapist.” These data are useful, even descriptively, when considering the use of an adult typology and terminology. In addition, forced penetration with male victims clearly constitutes rape, but does not fit the study’s general hypothesis focusing on the development of behavior targeting females—witnessing violence against women predicting negative attitudes toward women, to lead to victimizing women.

Correlation Analyses.

Violence variables showed the predicted significant and positive correlations, although not robustly enough to justify collapsing them as was expected. Interestingly, the intrafamilial types of violence—domestic violence and physical abuse—did not have the strongest correlation (.38, p < .01); the strongest correlation was between domestic violence and community violence (.51, p < .01). This suggests that those male youth reporting witnessing domestic violence were more likely to also report being exposed to community violence; there was less of an association with also experiencing physical
abuse. This is somewhat of a departure from previous research showing especially robust associations between domestic violence and physical abuse. It is useful, however, to contemplate the powerful and cumulative effects of a violent environment inside and outside the home on youth’s development. For example, this pervasive exposure to violence across contexts likely relates to seriously diminished coping resources and external supports for the youth, which would theoretically compromise their potential for healthy emotional, behavioral, and social development.

Consistent with previous research on internalizing symptoms, trauma, depression, and anxiety showed positive and significant correlations with each other, which were strong enough to justify collapsing them into one variable representing internalizing symptoms. This indicates that male youth reporting trauma symptoms were likely to also report depressive and anxiety symptoms. This is important when considering a child welfare population likely exposed to traumatic events, because depression and anxiety may need to be assessed and addressed in conjunction with the trauma symptoms. These findings are consistent with prior findings of high rates of internalizing disorders in incarcerated male sex offenders ages 9-14 (Shaw et al., 1993).

With regards to trauma, however, the current sample only showed a significant and positive association between trauma and community violence (.30, p < .01), and not between trauma and physical abuse or domestic violence. This would suggest that the male youth reporting community violence exposure were more likely to report trauma symptoms, but not for witnessing domestic violence or experiencing physical abuse. This contradicts previous research with ample evidence of a relation between family violence and trauma. There were also weak but significant and positive correlations between
community violence exposure and depression (.19, \( p < .05 \)), and community violence exposure and anxiety (.23, \( p < .05 \)). In this sample, it appears that community violence had the largest impact on the self-report of internalizing symptoms in male youth.

One more finding for trauma included a weak but significant and positive correlation with negative attitudes toward women (.19, \( p < .05 \)). This suggests that those youth reporting trauma are also somewhat likely to report negative attitudes toward women. Due to no significant correlations between trauma and domestic violence, it is possible that the association between trauma and negative attitudes toward women may relate to community violence exposure. The data in the current study do not elucidate this relation, but one possible interpretation is that male youth exposed to high levels of community violence may have views of males as powerful, aggressive, and in control, especially compared to females.

A moderate and negative correlation between social competence and aggression emerged (-.41, \( p < .01 \)). As the only two variables reported by caregivers, this significant association could be attributed to common source variance (Holmbeck, Li, Schurman, Friedman, & Coakley, 2002). However, it is logical that the more social competence one demonstrates, the less aggressive behavior is exhibited. For example, a youth with greater social competence is less likely to misinterpret social cues, such as misattributing hostility to neutral statements. These attributional errors have been found to relate to more aggressive behavior with peers (Dodge, 1980). The significant negative correlation in the current sample suggests that those male youth perceived as having greater social competence were observed as relating with others through less use of aggression.
MANOVAs.

Age of youth and invasiveness of sexual behavior.

The MANOVA examining the effect of group type on the age of the youth at the time of his offense and on level of invasiveness of the sexual behavior showed an overall significant effect. However, closer analysis revealed the significant difference driving this effect was the difference in age between youth who perpetrated against younger female victims and those who perpetrated against peer/older females. The males who victimized younger females were almost two years older, on average, than the males who victimized peer/older females; age 12.66 versus 10.59, respectively. This difference makes sense intuitively since the older the perpetrator, the more likely there will be a greater age difference with a younger victim.

When looking at the means for each group, the similarities are interesting to consider along with the differences. The average age for male youth perpetrating against younger children was almost the same across male and female victims: 12.35 for younger male victims and 12.66 for younger female victims. Similarly, the mean age of the youth perpetrator for offenses against peer/older victims was almost exactly the same across genders: 10.57 for peer/older male victims and 10.59 for peer/older female victims. Looking at the data for clinical significance, this suggests a meaningful difference between mean age of perpetrators against younger children and mean age of perpetrators against peer or older victims, regardless of gender of victims.

Although there were no statistically significant differences between groups on level of invasiveness of sexual behavior, a trend similar to the age of perpetrators emerged between those who offended against younger children and those who offended
against peers or older victims. Offenses against younger children tended to be more invasive than offenses against peer or older victims: the mean invasiveness level for sexual behaviors with younger males was 5.65 and with younger females was 5.41. Qualitatively, this indicates that offenses against younger children clustered around genital contact with and without penetration. In contrast, the mean level of invasiveness for sexual behavior with peer/older females and peer/older males were identical for both groups at 4.81, falling between non-genital fondling and genital contact without penetration. The interpretation of these mean differences suggests offenses against younger children tended to be more invasive than those against peers and older victims. However, this interpretation is based on potentially clinically meaningful differences rather than statistically significant differences.

**Predictor and mediator variables.**

No significant differences emerged when examining the effect of group type on the continuous variables used as predictors and mediators in the analyses: negative attitudes toward women, social competence, domestic violence, physical abuse, community violence, aggression, trauma, anxiety, and depression. When examining the means, however, it could be argued there are clinically meaningful differences. For example, means for witnessing domestic violence ranged between 14.48 and 14.97, except for a mean of 16.09 for the group offending against peer/older females. It is possible that with a larger n for each group, a statistical difference may have been detected. This would also be consistent with social learning theory that witnessing spousal abuse, which is most often inflicted by males against females, models aggression against women. Another interesting observation is the grouping of means for physical
abuse: those perpetrating against males showed means of 13.85 (younger males) and 13.14 (peer/older males). Although not statistically greater, it is an interesting split with the means of offending against female victims: 15.23 for younger females and 14.50 for peer/older females. The difference between the groups with the highest and lowest means of physical abuse could warrant further exploration of the possibility that male youth who perpetrate against younger females suffer more physical abuse compared to male youth who perpetrate against peer/older males.

A closer examination of community violence means across groups also shows a potentially meaningful difference, with youth offending against peer/older males reporting the lowest levels of community violence exposure (33.91), especially compared to those offending against younger male victims (40.09). With respect to internalizing symptoms, a pattern that emerges is that male youth perpetrating against younger males consistently report the lowest means of trauma, anxiety, and depression. An integration of these possible patterns indicates that male youth who perpetrate against younger males may be qualitatively different from the other sexually abusive male youth. Specifically, these youth reported the highest levels of exposure to community violence but the lowest levels of internalizing symptoms, contrary to the overall significant associations between community violence and trauma, depression, and anxiety in the full sample. This could indicate either a certain desensitization from the effects of violence exposure, or less of an ability to accurately report on their internal states. It becomes important that this group comprised a quarter of the current sample, suggesting this is not an insignificant phenomenon. Further exploration of this group in samples with a higher N, and therefore greater statistical power, is warranted.
Path Models.

Path analysis of offenses against younger children.

Although the overall model fit was good, no significant regressions emerged; this indicates that the path models captured the common variance shared by the variables, but there was not much shared variance among these variables. The only pathway that approached significance was a history of sexual abuse predicting levels of social competence ($r = .15, z = 1.61, p \approx .10$).

Path analysis of offenses against peer/older females.

Similar to the first path analysis, the model fit the data well but there was only one significant regression among eleven total pathways. Exposure to community violence significantly predicted trauma symptoms ($r = .33, z = 3.55$). This finding is consistent with previous research on the impact of community violence on youth (Margolin & Gordis, 2000). It is possible that exposure to community violence may be a salient variable for the current sample due to its demographic composition of 86% African Americans recruited from an urban city, a population especially vulnerable to community violence exposure (Cooley-Quille, Boyd, Frantz, & Walsh, 2001).

Statistical explanations for lack of support for hypotheses.

Impact of reporter.

In exploring the ultimate finding that the results do not support hypotheses that were well-grounded in previous research and theory, it is essential to examine potential methodological and statistical contributions to the lack of significant findings. First, the correlations did not show significant associations between aggression and any of the violence variables. It is possible this is due to combining the caregiver report of the
youth's aggression with the youth's self-report of exposure to violence. Although it is considered statistically robust to have a significant relation between variables with different reporters (Holmbeck et al., 2002), the lack of correlations between caregiver and youth reports across variables shows a discrepancy between caregivers' observations and youth's self-perceptions. This is consistent with previous research on exposure to community violence and internalizing symptoms, which demonstrates that parents and caregivers generally do not report similarly to their adolescent children (Gaylord, Kitzmann, & Coleman, 2003; Howard et al., 1999; Kuo et al., 2000). It is interesting to note the caregivers in the current sample were not biological parents (over 40% were foster parents, 30% were residential staff). There is no evidence, however, that this non-biological relationship impacts reporter agreement in either a positive or negative direction. The influence of common source variance also emerges with the significant correlation between the only two caregiver-reported variables: social competence and aggression, which was previously discussed.

Power.

The MANOVA analyses revealed a disappointing lack of significant differences among group means. The overall implication of this is that groups based on types of offenses did not differ from each other, except on the age when perpetrating the reported offense. However, none of the hypothesized predictor or mediator variables showed statistically significant differences. Although the overall N of the sample complied with the requirements of path analysis, the categories reduced the sample into four smaller groups, which resulted in a group as small as 22 participants. It is possible that a greater number of participants per group would have enhanced the statistical power, resulting in
the detection of differences. Another factor that reduced power was the number of pathways, especially in the second model. The violence variables could not be collapsed due to their moderate correlations, resulting in a total of eleven pathways. Had this been reduced, it is possible more significant pathway coefficients could have emerged. However, the coefficients did not approach significance, likely indicating a real weakness in the hypothesized pathways. In the first model, the pathway between self-report of sexual abuse and social competence approached significance, and could have emerged as a significant finding with greater power.

Validity.

It is imperative to consider the cultural relevance of the measures used in the study since the population was primarily African American. Interestingly, the most robust variables across analyses were trauma and exposure to community violence, the latter of which affects African American youth at a disproportionately higher rate than other ethnicities (Cooley-Quille et al., 2001). In an informal review of articles on community violence and subsequent trauma, there is no discussion of cultural norming of measures, despite the predominantly African American samples (Cooley-Quille et al., 2001; Gorman-Smith, Henry, & Tolan, 2004; Kliewer et al., 1998). In fact, a bane of psychological research is the dearth of culturally competent methodology. Relevant to the premise of the current study, these shortcomings include the shortage of research on normative development in African American youth (McLoyd, 1998) as well as the erroneous assumption of content validity in psychological measurement (Rogler, 1999). There have been well-documented differences in the expression of psychological symptoms across cultures, which are not represented in measure development (Rogler).
Further, distinct response styles have been found to result in issues with scale equivalence; for example, African Americans are more likely to endorse extremes on a Likert scale compared to their Caucasian counterparts (Hughes, Seidman, & Williams, 1993). In order to enhance validity of studies with non-Caucasian samples, it has been recommended to begin with a qualitative approach that informs a quantitative study (Gil & Bob, 1999). To build on the current study, this could entail interviewing the youth with a semi-structured interview about their sexual behavior, as well as their childhood experiences. Based on themes emerging from these interviews, salient variables could be identified, measured with instruments shown as valid with African American populations, included in a developmental model, and tested statistically.

In addition to this potential influence of cultural bias in research methodology, two variables may have been weakened by measurement problems: aggression and exposure to pornography. With only four items from a subscale of the Conner’s Parent Rating Scale-Revised (a measure of conduct problems, impulsivity, and hyperactivity), aggression may have been strengthened as a construct had there been a greater number of items to assess it. The extent of missing data for the exposure to pornography variable, which precluded its use in the analyses, has implications for its inclusion in future studies with adolescents. Due to the sizeable difference in missing data compared to the other self-report variables, the questions about pornography exposure may have created discomfort in the youth while reading the questions. It could be useful to determine a more sensitive way to measure this variable, possibly with fewer questions and less graphic detail.
Conceptual explanations of findings.

Although the unique nature of the current sample offered the advantages of selecting youth likely exposed to violence who had also exhibited sexually abusive behaviors, the homogeneity of the child welfare sample may have also presented a critical disadvantage. Primarily, there may not have existed enough differences between the experiences of family violence to result in distinct developmental pathways. Since the nature of a child welfare sample inherently includes a high likelihood of experiencing and witnessing violence, violence variables may be more potent across types of offenders, offering less of a possibility to function as a differentiating tool. The examination of the impact of types of violence exposure may have been more useful as a way to distinguish types of offenders in a more general sample. However, the robustness of community violence and trauma in the sample implicates the impact of violence outside the family and the home, which does not directly relate to involvement in the child welfare system, as does family violence. This may be important to explore further as the issue of community violence exposure continues to pervade urban communities.

Exposure to community violence.

The one significant pathway of exposure to community violence predicting trauma symptoms has interesting implications for the current sample. First, although it could be argued that the significant pathway resulted from Type I error due to the number of pathways tested without a significant finding, the examination of community violence across analyses revealed it as an important variable in the current study. It was the only violence variable to significantly correlate with internalizing symptoms, showing positive correlations with depression, anxiety, and trauma. In addition, it shared the highest
correlation with another type of violence, domestic violence. Although the MANOVA did not find a significant difference among groups for community violence, the means between two of the groups could be interpreted as clinically significant (x=40.09 for those who offended against younger male victims; x=33.91 for those who offended against peer/older male victims). In conjunction with the lower means of internalizing symptoms for those who offended against younger male victims, this contradiction of the trend in the full sample may have implications for understanding male youth who sexually abuse younger males.

The finding of a significant pathway between community violence exposure and trauma replicates what has been shown in a multitude of studies on the impact of community violence exposure on urban and African American youth (Berman, Kurtines, Silverman, & Serafini, 1996; Cooley-Quille et al., 2001; Dempsey, 2002; Margolin & Gordis, 2000; Ozer & Weinstein, 2004). Although this finding in and of itself does not provide new information, the context of the current study may elaborate on the role of community violence exposure in these communities. Male youth who have been exposed to maltreatment and separation from their parents may also be experiencing the cumulative stress of community violence. Research has repeatedly elucidated the link between family violence and poor outcomes, as well as between community violence and poor outcomes, but the combination of this violence exposure and its effects deserve more research attention (Tolan, 2001).

In the context of the current study, community violence exposure is associated with anxiety, depression, and trauma in male youth who have perpetrated sexually abusive behaviors. With the caveat that the trend of higher community violence exposure
and lower internalizing symptoms in male youth who have sexually abused younger males was not statistically significant, the pattern itself warrants exploration. It is possible that those males who have experienced high levels of community violence but report relatively low levels of internalizing symptoms have some quality that puts them at risk to target younger male victims. One explanation could be that males who witness male-on-male violence in their communities and may respond to this stress with externalizing behaviors rather than internalizing symptoms, view younger males as vulnerable targets of abusive behavior and are more likely to select them as victims of their own abusive behaviors.

Offense data.

Perhaps the most damaging methodological flaw in the current study’s purpose of establishing a typology is the lack of data available for the adolescents’ sexual behavior problems outside of the presenting incident. This shortcoming decisively undermines the premise that the youth in the study have perpetrated sexually abusive behaviors against one of four types of victims. Although the current study included information that only 79 of the 131 youth had one official reported victim, there was not data about the other victims, beyond frequencies. Furthermore, it is impossible to know if the 79 youth with one reported victim had additional victims in unreported incidents. Without the information on the youths’ other occasions of sexual behavior problems, it is inconceivable to reliably determine if the youth had solely targeted one type of victim, or several types of victims (e.g., younger males and older females). This data—even descriptively—would illuminate if adolescents who have demonstrated sexually abusive behaviors show heterogeneity or homogeneity in their types of victims. This would
ideally be the first step in any examination of a typology of adolescent sex offenders.

In the Knight and Prentky research (1993) that primarily informed the typology hypotheses of the current study, they did not assess for a range of type of victims, but simply whether the adult sex offender had committed a sex offense in adolescence. However, an unfortunate reality of dealing with offenses in general (sexual or nonsexual) is the lack of information on unreported incidents, and the ambiguity of retrospectively reported information. This obstacle in the current study is amplified by findings in previous research that that the average adolescent sex offender has perpetrated between eight and nine sexual offenses (Shaw et al., 1993) and has typically underreported prior offenses by at least one third, and additionally has victimized at least one more person than initially reported (Emerick & Dutton, 1993; Weinrott, 1996).

Developmental considerations.

As previously discussed, there may not be enough differences in a sample of youth in the child welfare system to detect meaningful group differences that would substantiate a typology. It is also important to consider the idea of a null hypothesis, however, based on the persistent difficulty across studies to empirically support and replicate a typology for this population (Weinrott, 1996). Perhaps the developmental period of early to middle adolescence is too fluid to fit behaviors into a typology. The age range included in the current sample (9-17) covers a period where youth are vulnerable to multiple outcomes, thus they may not fit well into a predetermined profile. In the context of normal developmental processes, this age range encompasses an array of tasks and milestones, not the least of which is developing an identity—including a sexual identity. It is unclear from the literature how certain risk factors may have interfered with
normative developmental phases in the specific population of juvenile sex offenders. However, all behavior falls along the continuum of normal to pathological (Rutter & Sroufe). As Sroufe (1997, p. 265) states, "the same laws that govern normal development govern the pathological as well." Thus, these youth enter developmental phases in the same way non-pathological youth do, except with sexually problematic behavior as part of their development. It is unknown how this interacts with other developmental tasks across adolescence to lead to their ultimate identity development in adulthood.

Developmental theory and clinical research support the ideas of multifinality and equifinality (Rutter & Sroufe, 2000; Sroufe, 1997); in the context of the current study, it could be argued that although all of the youth demonstrated sexually abusive behavior with one type of victim in the reported incident, it does not mean they will exhibit the same behavior again, or with the same type of victim. Even if an adolescent shows maladaptive sexual behaviors during this age period, it does not necessarily predict a continued pattern into adulthood, as reflected in data on adult sex offenders (Davis & Leitenberg, 1987). Research since 1943 on recidivism for adolescent sex offenders supports this, indicating that a majority of these youth do not reoffend, and have recidivism rates lower than those of non-sexual juvenile offenders (Davis & Leitenberg; Weinrott, 1996). This finding is consistent with the construct of multifinality, which suggests that one pathway can lead to different outcomes over time (Sroufe, 1997). Thus, applying an offense-driven typology to adolescents may not be appropriate due to developmental considerations. As Sroufe (1997, p. 254) noted, "It is generally inappropriate to think of maladaptation or disturbance as something a child either 'has' or 'does not have' in the sense of a permanent condition." This argument would support the
notion that locating the problem within the individual, as society and the legal system do with adolescents exhibiting sexually abusive behavior, does not fit the dynamic nature of development (Rutter & Sroufe, 2000; Sroufe).

Consistent with Bronfenbrenner’s ecological theory of the impact on development of the child’s microsystem, mesosystem, exosystem, and macrosystem, developmental research has suggested powerful influences of individual characteristics, family, peers, social institutions (e.g., school, church), neighborhood, and larger society. Clearly, the nature of each of these factors can vary greatly between each child, as well as within the time of adolescent development, especially within the context of children changing homes and caregivers. Alternately, however, research on the impact of stressful life events shows a promotion of continuity of psychological characteristics, rather than discontinuity (Rutter, 1996). In Rutter’s discussion of turning points and transitions, he argues that major life experiences do not necessarily equal turning points or discontinuities (1996), and that both stability and change related to the life experience should be assessed. This area of research on adolescent sex offenders would benefit enormously from the integration of these aspects of developmental theory in capturing a sound understanding of who this population is, and how to best treat them while simultaneously protecting the community. Unfortunately, the minimal amount of research on this population combined with the lack of developmental theory, leaves a critical gap to be filled (Weinrott, 1996).
Future Directions.

Qualitative analysis.

Incident reports.

In a review of a subsample of incident reports used in the current study, it was clear that many of the incidents required judgments around whether or not coercion or an abusive relationship was present. For example, if a foster parent walked into a room to witness suspicious behavior such as two children naked in bed, it could be difficult to determine the nature of the behaviors involved in the interaction, and whether it was consensual or not. If there were an age difference of at least four years with the younger child being eleven years at the oldest, it was determined to be non-consensual. If one child reported he or she did not want to engage in the alleged behavior, it was also coded as non-consensual. However, these details as well as the details of the actual behaviors varied widely among the incident reports. In addition, several reports indicated suspicion of previous sexual behavior problems, but no further information. It could be useful to conduct a qualitative analysis of these reports in order to highlight the utility and challenges of extracting offense data from this medium. A qualitative analysis could code the proportion of reports with ambiguous information, and the nature of the ambiguity. This type of exploration could also support the notion that adolescents may not fit into a neat typology, especially that used with adult sex offenders.

Definitional issues.

The nature of sexual behavior problems also adds challenge to the puzzle of research on adolescent sex offending, as the behaviors can be difficult to define. As stated initially in this paper, a truly valid method of defining “sex offenses” or “sexual behavior
problems” has not been well-developed. This process can be subjective depending on the perceived victim and reporter; for example, a child in a foster home may be more likely to be reported to the system for sexual behavior than a child experimenting with a family member in an intact family. Thus, there is likely bias toward reporting for a child welfare sample. This is supported by recalling the types of placements of the youth in the current study at the time of the incident report (1/3 in a foster home, 1/3 in residential care). A qualitative analysis could provide richer data about the range of what becomes included in the nomenclature of “sex offense” or “sexual behavior problems.” For example, incident reports ranged from a boy dressing and acting like a “pimp” at school, to a ten-year-old holding a knife to a nine-year-old’s throat as he forced intercourse on her in a stairway. These are obviously substantially different behaviors although both were deemed worthy of a “sexual incident report.” Although the coding system used in the current study partially captures this difference, a qualitative analysis may shed more light on the complexity of these differences as well as the necessity of improving definitions in the field.

Modify classification approaches.

A recent study by Smith and colleagues (2005) approached classifying adolescent sex offenders by grouping a sample of 116 males ranging in age from 9 to 19 with a documented sex offense into groups defined by risk. This method used a variety of sources to identify risk factors for the youth, thus classifying groups as low-risk, medium-risk, and high-risk depending on the number of risk factors present. Risk factors included use of violence or predatory behaviors in the sex offense, a prior sex offense, history of suffering sexual abuse or sexual abuse present within the family, substance
abuse history, behavior problems (e.g., school suspensions, antisocial behaviors), and
unstable home life (e.g., domestic violence, single-parent household, changing
caregivers). In doing this, the study found meaningful and significant differences between
groups, suggesting this approach as a useful way to conceptualize this population.
Interestingly, the high-risk group had significantly lower family cohesion than the other
two groups. This finding has implications for the current study's sample, which by this
classification system may have predominantly fallen into the high-risk group, further
explaining a lack of variance contributing to the absence of significant group differences.
It should be noted, however, that the sample in Smith's study included a majority of
Caucasian males, 78% of whom lived with their parents or relatives. It would be
beneficial to replicate this study with a wider variety of ethnic and racial groups to
determine if risk-classification could be useful for a range of samples. The current data
set would not sufficiently replicate this study because of not having information on prior
offenses or substance abuse history. Another important future direction to consider is the
longitudinal examination of data that would follow adolescent sex offenders after
treatment and into adulthood. This would further elaborate on the clinical utility of any
classification system (Smith et al., 2005).

Female adolescent sex offenders.

Finally, future research on females labeled as adolescent sex offenders is crucial
to the advancement of this field of research. From a developmental perspective, it is well-
established that there are sex differences across domains of development: biological,
cognitive, language, and social-emotional (Keenan & Shaw, 1997; Lippa, 2005). These
have been studied as generally protective for girls from developing problem behaviors,
although females are more likely to have internalizing problems (Mackinaw-Koons & Vasey, 2000). In addition to this conventional wisdom around girls’ development, ecological influences are also important to consider. Despite the societal perception and depiction of females as victims rather than aggressors, which are also embedded in the social construction of female sexuality (e.g., females as sexual objects or sexually innocent), there have been documented increases in girls’ and females’ problematic sexual behaviors, which warrant examination (Snyder, 2002).

As discussed previously in this paper, very little information on this group exists because of the historically small number of females in this population. However, the rates of females in the juvenile justice system – across types of offenses – have been climbing in recent years (Snyder, 2002). This phenomenon deserves research attention as females enter legal and treatment systems without a well-grounded understanding of their behaviors. Previous research has suggested that females who exhibit sexually abusive behaviors have an even higher likelihood of trauma and severe abuse histories than their male counterparts (Mathews et al., 1997), thus treatment likely needs to be modified to their particular needs (Vick et al., 2002). In the full sample of the larger study from which the current study’s sample was extracted, females comprised a quarter of the sample (n=67). When the criteria for inclusion in the current study was applied, the number of males decreased from 189 to 131; thus it is feasible to estimate the n of females would have been approximately 46, which when further divided into four groups, would not have provided sufficient strength for a statistical analysis. Although the current study’s hypotheses did not include females, a descriptive analysis of these girls and even basic comparisons with the males in the sample could provide useful data.
Conclusion.

Despite the lack of findings to support the hypothesized pathways leading to two different types of adolescent sex offenders, informative results and intriguing patterns emerged. It is possible that increased power with a higher number of participants in each of the four groups would have yielded more substantive findings. The patterns of mean differences, however, may have useful clinical utility; specifically, male youth who sexually victimize younger male youth may require interventions distinct from those implemented with other sexually abusive male youth. Finally, it must be considered that classification of adolescents exhibiting sexually abusive behavior may need to diverge from that used with adults; the complexity of adolescent development challenges the idea that demonstrating sexually abusive behavior represents a fixed pattern of behavior, as is documented in adult sex offenders. In this vein, classification efforts may be more successful if using methods other than offense-driven typology, such as level of risk based on salient factors related to family structure, psychopathology, and a history of violence exposure and child maltreatment. Research on classification of this population must forge ahead within the framework of developmental psychopathology in order to not only inform treatment, but to increase awareness in society and the legal system of the complexity of these sexual behaviors, as well as the individual heterogeneity inherent in these boys and young men.
APPENDIX A

SELF-REPORT MEASURES
### EXPOSURE TO DOMESTIC VIOLENCE

42. I want you to think about things you have seen in any home where you lived. As best you can remember, how many times in your life have you seen the following things go on between any two adults living in your home (such as your parents, a stepparent, a parent's friend, another family member, etc.)?

- One or more of the adults threw something at another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

43. One of the adults pushed, grabbed or shoved another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

44. One of the adults slapped another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

45. One of the adults kicked, bit or hit another adult with their fist.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

46. One of the adults hit another adult with an object.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

47. One of the adults beat up another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

48. One of the adults choked another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

49. One of the adults threatened another adult with a knife or gun.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times

50. One of the adults used a knife or gun against another adult.
  - □ 1 Never
  - □ 2 Only once
  - □ 3 2-5 times total
  - □ 4 6-10 times total
  - □ 5 More than 10 times
PHYSICAL ABUSE

51. *I want you to think about things you have seen in any home where you lived. As best you can remember, how many times have the following things gone on between you and an adult (such as your parents, a stepparent, a parent’s friend, another family member, etc.)*?

   Adult threw something at you.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

52. Adult pushed, grabbed or shoved you.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

53. Adult slapped you.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

54. Adult kicked, bit or hit you with their fist.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

55. Adult hit you with an object.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

56. Adult beat you up.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

57. Adult choked you.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

58. Adult threatened you with a knife or gun.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total

59. Adult used a knife against or fired a gun at you.
   ☐ 1 Never       ☐ 4 6-10 times total
   ☐ 2 Only once   ☐ 5 More than 10 times
   ☐ 3 2-5 times total
EXPOSURE TO COMMUNITY VIOLENCE

60. Now I want you to think about some of the things that you have seen in your neighborhood. As you read each statement, think how many times you have seen it happen and select your response.

   Seen someone drunk.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

61. Seen someone using drugs.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

62. Been approached to use drugs.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

63. Been approached to buy drugs.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

64. Seen someone rob or try to rob someone else.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

65. Seen someone punch, hit or slap someone else.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

66. Seen someone flash or expose his or her private parts to other people.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

67. Seen others having sex with whores or prostitutes.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

68. Seen someone get arrested.
   □ 1 Never
   □ 2 Only once
   □ 3 2-5 times total
   □ 4 6-10 times total
   □ 5 More than 10 times

69. Seen someone use an illegal weapon.
   □ 1 Never
   □ 4 6-10 times total
70. Seen a dead body (not at a funeral).
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times
   - 5 More than 10 times

71. Been asked to sell drugs.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

72. Seen someone trying to make another person have sex or trying to rape someone.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

73. Seen someone break into a house.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

74. Seen a group of people trying to get someone to have sex.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

75. Seen someone stab or try to stab someone.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

76. Seen someone shoot or try to shoot someone else.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

77. Seen someone try to kill him or herself.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

78. Seen someone get killed.
   - 1 Never
   - 2 Only once
   - 3 2-5 times total
   - 4 6-10 times total
   - 5 More than 10 times

INTERNALIZING SYMPTOMS / TRAUMA

79. How often have each of these things happened to you in the last 6 months? Read each statement and select the answer that applies best to you.
Bad dreams or nightmares.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

80. Feeling afraid something bad might happen.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

81. Scary ideas or pictures just pop into my head.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

82. Remember to think how often these things happened to you in the past 6 months. Wanting to say dirty words.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

83. Feeling lonely.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

84. Touching my private parts too much.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

85. Feeling sad or unhappy.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

86. Remembering things that happened that I didn't like.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

87. Going away in my mind, trying not to think.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

88. Remembering scary things.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

89. Crying.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

90. Getting scared all of a sudden, and don't know why.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

91. Thinking about having sex.

- 1 Never
- 2 Sometimes
- 3 Lots of times
- 4 Almost all the time

92. Wanting to hurt myself.
109

93. Thinking about touching other people’s private parts.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

94. Thinking about sex when I don’t want to.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

96. Feeling scared of women.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

97. Washing myself because I feel dirty inside.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

97. Feeling stupid or bad.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

100. Remember to think how often these things happened to you in the past 6 months.

   Feeling nervous or jumpy inside.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

    □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

102. Not trusting people because they might want sex.
    □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

103. Can’t stop thinking about something bad that happened to me.
    □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

104. Being afraid of the dark.
    □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

105. Getting scared or upset when I think about sex.
106. Worrying about things.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

107. Feeling like nobody likes me.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

108. Remembering things I don't want to remember.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

109. Having sex feelings in my body.
   □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

110. Can't stop thinking about sex.
     □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

111. Feeling afraid someone will kill me.
     □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

112. Wishing bad things had never happened.
     □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

113. Wanting to kill myself.
     □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

114. Getting upset when people talk about sex.
     □ 1 Never □ 2 Sometimes □ 3 Lots of times □ 4 Almost all the time

NEGATIVE ATTITUDES TOWARD WOMEN

148. You are now going to read some opinions about things boys and girls do and about dating and sex. Decide whether you agree or disagree with each opinion and then choose your answer.

Swearing is only okay for boys.
   □ 1 Disagree strongly □ 2 Disagree □ 3 Agree □ 4 Agree Strongly

149. On average, girls are smarter than boys.
     □ 1 Disagree strongly □ 3 Agree
111

150. Families should encourage their sons to go to college more than their daughters.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

151. It is more important for girls to do well in school than it is for boys.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

152. Boys are better leaders than girls.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

153. Girls should be more concerned with becoming good wives and mothers than desiring a career.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

154. Girls should have the same freedoms as boys.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

155. On a date, a boy should pay for everything.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

156. It is all right for a girl to ask a boy out on a date.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

157. You should expect to have sex when you go on a date.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

158. Some girls say "no" to sex even when they want to.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

159. Girls can wear sexy clothes when they are not interested in sex.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

160. If a girl gets a guy turned on, she should have sex with him even if she does not want to.
   - 1 Disagree strongly
   - 2 Disagree
   - 3 Agree
   - 4 Agree Strongly

SEXUAL ABUSE

263. Have you felt like someone made you drink or do drugs more than you wanted to?
   - 1 Yes
   - 2 No

264. Have you felt like someone made you do sexual stuff when you really didn't want to?
265. Who was the first person who ever made you do sex stuff that you really didn't want to?
   ☐ 1 A stranger  ☐ 2 An adult I knew, not in my family (teacher, sitter, etc.)  ☐ 3 My mom or dad  ☐ 4 My step-mom or step-dad  ☐ 5 My brother or sister  ☐ 6 My stepbrother or sister  ☐ 7 Another family member  ☐ 8 A foster parent  ☐ 9 A foster brother or sister  ☐ 0 A friend or acquaintance

[IF THE ANSWER IS 2, THEN SKIP TO QUESTION 301]

266. Was that person male or female?
   ☐ 1 Male  ☐ 2 Female

267. How old was that person at the time? ____________________

268. For the next 6 questions think about what kind of sexual things that person did to you.
   Did that person kiss or touch your mouth or body?
   ☐ 1 Yes  ☐ 2 No

269. Did that person touch or play with your penis or vagina?
   ☐ 1 Yes  ☐ 2 No

270. Did that person kiss or suck your penis or vagina?
   ☐ 1 Yes  ☐ 2 No

271. Did that person make you touch or suck a penis or vagina?
   ☐ 1 Yes  ☐ 2 No

272. Did that person make you have sex?
   ☐ 1 Yes  ☐ 2 No

273. How many times did you do anything sexual with this person? ________________

274. How old were you when this happened? ____________________

275. Did that person ever give you anything so you would go along with the sexual stuff?
   ☐ 1 Yes  ☐ 2 No

276. For the next 3 questions, think about any kinds of force or threats that person used to make you go along with the abuse.
   Did that person hold you down with some part of their body (hand, leg, on top)?
   ☐ 1 Yes  ☐ 2 No

277. Did that person ever threaten to hurt you or your family members?
   ☐ 1 Yes  ☐ 2 No
278. Did that person threaten you with a weapon?
   □ 1 Yes  □ 2 No

279. Did an adult ever find out about this specific sexual abuse that happened to you?
   □ 1 Yes  □ 2 No

280. Did a friend ever find out about this specific sexual abuse that happened to you?
   □ 1 Yes  □ 2 No
   [If the answer to question 279 is 2, then skip to question 282]

281. Did you ever go to counseling for this specific sexual abuse?
   □ 1 Yes  □ 2 No

282. Did another person (other than who you just talked about) ever make you do sexual things when you didn’t want to?
   □ 1 Yes  □ 2 No
   [If the answer is 2, then skip to question 301]

283. Who was that person?
   □ 1 A stranger
   □ 2 Someone not in my family (like a teacher, minister, sitter)
   □ 3 My mom or dad
   □ 4 My step-mom or step-dad
   □ 5 My brother or sister
   □ 6 My stepbrother or sister
   □ 7 Another family member
   □ 8 A foster parent
   □ 9 A foster brother or sister
   □ 0 A friend or acquaintance

284. Was that person male or female?
   □ 1 Male  □ 2 Female

285. How old was that person at the time?

286. For the next six questions think about what kind of sexual things that person did to you.

   Did that person kiss or touch your mouth or body?
   □ 1 Yes  □ 2 No

287. Did that person touch or play with your penis or vagina?
   □ 1 Yes  □ 2 No

288. Did that person kiss or suck your penis or vagina?
   □ 1 Yes  □ 2 No

289. Did that person make you touch or suck a penis or vagina?
   □ 1 Yes  □ 2 No

290. Did that person make you have sex?
   □ 1 Yes  □ 2 No
291. How many times did you do anything sexual with this person? ____________ 

292. How old were you when this happened? ____________ 

293. Did that person ever give you anything so you would go along with the sexual stuff?  
   ☐ 1 Yes ☐ 2 No

294. For the next 3 questions, think about any kinds of force or threats that person used to make you go along with the abuse. 

   Did that person hold you down with some part of their body (hand, leg, on top)?  
   ☐ 1 Yes ☐ 2 No

295. Did that person ever threaten to hurt you or your family members?  
   ☐ 1 Yes ☐ 2 No

296. Did that person threaten you with a weapon?  
   ☐ 1 Yes ☐ 2 No

297. Did an adult ever find out about this specific sexual abuse that happened to you?  
   ☐ 1 Yes ☐ 2 No

298. Did a friend ever find out about this specific sexual abuse that happened to you?  
   ☐ 1 Yes ☐ 2 No

   [IF THE ANSWER TO QUESTION 297 IS 2, THEN SKIP TO QUESTION 283]

299. Did you ever go to counseling because of this specific sexual abuse?  
   ☐ 1 Yes ☐ 2 No

300. Other than the two people you just talked about, how many other people have ever made you do sexual things when you didn't want to?  
   ☐ 1 None ☐ 2 One ☐ 3 Two ☐ 4 Three ☐ 5 Four ☐ 6 Five or more

301. Other than who you may have just talked about, have you ever done sexual stuff with someone much older than you (5 years or more)?  
   ☐ 1 Yes ☐ 2 No

   [IF THE ANSWER IS 2, THEN SKIP TO QUESTION 320]

302. If so, who was this person?  
   ☐ 1 A stranger  
   ☐ 2 Someone not in my family (like a teacher, minister, etc.)  
   ☐ 3 My mom or dad  
   ☐ 4 My step mom or step dad  
   ☐ 5 My brother or sister  
   ☐ 6 My step brother or step sister  
   ☐ 7 Another family member  
   ☐ 8 A foster parent  
   ☐ 9 A foster brother or foster sister  
   ☐ 0 A friend or acquaintance
303. Was that person male or female?
   □ 1 Male  □ 2 Female

304. How old was that person at the time?

305. For the next six questions think about what kind of sexual things that person did to you.

   Did that person kiss or touch your mouth or body?
   □ 1 Yes  □ 2 No

306. Did that person touch or play with your penis or vagina?
   □ 1 Yes  □ 2 No

307. Did that person kiss or suck your penis or vagina?
   □ 1 Yes  □ 2 No

308. Did that person make you touch or suck a penis or vagina?
   □ 1 Yes  □ 2 No

309. Did that person make you have sex?
   □ 1 Yes  □ 2 No

310. How many times did you do anything sexual with this person?

311. How old were you when this happened?

312. Did that person give you anything so you would go along with the sexual stuff?
   □ 1 Yes  □ 2 No

313. For the next 3 questions, think about any kinds of force or threats that person used to make you go along with the abuse.

   Did that person hold you down with some part of their body (hand, leg, on top)?
   □ 1 Yes  □ 2 No

314. Did that person ever threaten to hurt you or your family members?
   □ 1 Yes  □ 2 No

315. Did that person threaten you with a weapon?
   □ 1 Yes  □ 2 No

316. Did an adult ever find out about this specific sexual stuff that happened with this person?
   □ 1 Yes  □ 2 No

317. Did a friend ever find out about this specific sexual stuff that happened with this person?
   □ 1 Yes  □ 2 No
   [IF THE ANSWER TO QUESTION 316 IS 2, THEN SKIP TO QUESTION 319]

318. Did you ever go to counseling because of the sexual stuff that happened with this person?
   □ 1 Yes  □ 2 No
319. Other than who you just talked about, how many other people (who were 5 years or more older than you) have done sexual stuff with you?
   - 1 None
   - 2 One
   - 3 Two
   - 4 Three
   - 5 Four
   - 6 Five or more

SEXUAL PERPETRATION

320. Have you ever been sexual with someone in a way they did not want, OR have you been accused of this?
   - 1 Yes
   - 2 No
   [IF THE ANSWER IS 1, THEN SKIP TO QUESTION 323]

321. Have you ever been sexual with someone in a way that was not right, OR have you been accused of this?
   - 1 Yes
   - 2 No
   [IF THE ANSWER IS 1, THEN SKIP TO QUESTION 323]

322. Have you ever been sexual with someone who was much younger than you, OR have you been accused of this?
   - 1 Yes
   - 2 No
   [IF THE ANSWER IS 2, THEN SKIP TO QUESTION 473]

323. Who was involved in the incident?
   - 1 A stranger
   - 2 An acquaintance or friend
   - 3 A roommate or foster sibling
   - 4 A brother or sister
   - 5 A stepbrother or stepsister
   - 6 Some other family member (cousin, niece, nephew)
   - 7 Someone else not listed

324. Was the person a boy or girl?
   - 1 Boy
   - 2 Girl

325. Was that person someone you cared about?
   - 1 Yes
   - 2 No

326. How old were you when this happened? _____________________________________________________________________________

327. How old was the other person? ___________________________________________________________________________________

328. For the next 8 questions, think of the sexual things you did or were accused of doing.

   Did you kiss or touch the other person's mouth or body?
   - 1 Yes
   - 2 No

   Did you touch their bare skin in places other than their penis or vagina?
   - 1 Yes
   - 2 No

   Did you rub your penis or vagina on their body?
   - 1 Yes
   - 2 No
331. Did you touch or play with their penis or vagina?
   - 1 Yes  2 No

332. Did you kiss or suck their penis or vagina?
   - 1 Yes  2 No

333. Did you make them touch or suck your penis or vagina?
   - 1 Yes  2 No

334. Did you make them have sex?
   - 1 Yes  2 No

335. Did you put your penis or other object in their butt?
   - 1 Yes  2 No

336. Did you do any of the sexual things you were accused of doing to this person?
   - 1 Yes, I did all those sexual things
   - 2 Yes, I did some of those sexual things
   - 3 No
   - 4 I was never accused
   [IF THE ANSWER IS 3, THEN SKIP TO QUESTION 340]

337. How many times did you do sexual things with that person?
   - 1 Once
   - 2 A few times
   - 3 Many times

338. Do you consider any of the sexual things you did as wrong?
   - 1 Yes  2 No
   [IF THE ANSWER IS 2, THEN SKIP TO QUESTION 340]

339. How responsible do you think you are for what you did wrong?
   - 1 Fully responsible
   - 2 A little responsible
   - 3 Not responsible
   - 4 Not sure

340. Do you consider any of the sexual things you were accused of doing as wrong?
   - 1 Yes
   - 2 No
   - 3 Was never accused
   [IF THE ANSWER TO QUESTION 338 IS 1, THEN SKIP TO QUESTION 341]

341. Over what period of time did the alleged abuse occur?
   - 1 0-1 day
   - 2 2-7 days
   - 3 1-3 weeks
   - 4 1-2 months
   - 5 2-6 months
   - 6 7-12 months
   - 7 Over 1 year

342. Were you and this person living in the same house any of this time?
   - 1 Yes  2 No

343. Had you thought of or imagined being sexual with that person before it happened?
   - 1 Yes  2 No

344. How long did you know this person before the first incident with them?
345. How would you describe your relationship with that person before the incident?
- □ 1 Had a real friendship
- □ 2 You pretended to be friends
- □ 3 Tried to be like a parent to the other person
- □ 4 You pretended to have a romantic relationship
- □ 5 You were strangers
- □ 6 Something not listed here

EXPOSURE TO PORNOGRAPHY

487. *Now I am going to ask you about some of the things you have seen.*

Have you *ever* seen a naked person in a picture or movie or magazine?
- □ 1 Yes
- □ 2 No
[IF THE ANSWER IS 2, THEN SKIP TO QUESTION 490]

488. What naked parts did you see? Select all that apply.
- □ 1 Woman's breasts
- □ 2 Vagina
- □ 3 Penis
- □ 4 Butt
- □ 5 None of the above

489. Would you call any of the naked stuff you've seen a porno or pornography?
- □ 1 Yes
- □ 2 No

490. Have you ever seen people doing sexual stuff in a movie or magazine or porno?
- □ 1 Yes
- □ 2 No
[IF THE ANSWER IS 2, AND...]
[IF THE ANSWER TO QUESTION 487 IS 2, THEN SKIP TO QUESTION 518]

491. *Think about the naked or sexual stuff you have seen.*

492. How old were you when you first saw any naked or sexual stuff in movies or magazines?

492. *How often have you seen naked or sexual stuff in the following ways? Select the answer that best applies to you.*

In a magazine.
- □ 1 Never
- □ 2 Only once
- □ 3 Total of 3-5 times
- □ 4 Every once in a while (monthly)
- □ 5 Regularly (weekly)
- □ 6 All the time (daily)

- □ 1 Never
- □ 2 Only once
- □ 3 Total of 3-5 times
- □ 4 Every once in a while (monthly)
- □ 5 Regularly (weekly)
- □ 6 All the time (daily)

494. On a music video.
- □ 1 Never
- □ 2 Only once
- □ 3 Total of 3-5 times
- □ 4 Every once in a while (monthly)
- □ 5 Regularly (weekly)
495. On cable television.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

496. In a movie theater or on video.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

497. In person.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

498. When was the last time you saw any naked or sexual stuff?
   - 1 Yesterday
   - 2 Last week
   - 3 Last month
   - 4 Few months ago
   - 5 Last year
   - 6 All the months ago

499. Were you ever at your own house when you saw any naked or sexual stuff?
   - 1 Yes
   - 2 No

500. Did any adults know you were seeing this in your house?
   - 1 Yes
   - 2 No

501. Did you think or know that any of this naked or sexual stuff was meant only for grown ups?
   - 1 Yes
   - 2 No

502. Have you ever wanted to try some of the naked or sexual stuff you've seen?
   - 1 Yes
   - 2 No

503. Have you ever seen sex stuff in the following ways where people were treating each other badly? Select the answer that best applies to you.
    In a magazine.
    - 1 Never
    - 2 Only once
    - 3 Total of 3-5 times
    - 4 Every once in a while (monthly)
    - 5 Regularly (weekly)
    - 6 All the time (daily)

504. On the internet.
    - 1 Never
    - 2 Only once
    - 3 Total of 3-5 times
    - 4 Every once in a while (monthly)
    - 5 Regularly (weekly)
    - 6 All the time (daily)

505. On a music video.
    - 1 Never
    - 2 Only once
    - 3 Total of 3-5 times
    - 4 Every once in a while (monthly)
    - 5 Regularly (weekly)
    - 6 All the time (daily)

506. On cable television.
    - 1 Never
    - 4 Every once in a while (monthly)
507. In a movie theater.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

508. In person.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

509. Have you ever seen sex stuff where someone was using force against someone or where someone was causing another real pain?
   - 1 Yes
   - 2 No

510. Have you ever seen sex stuff with ropes or handcuffs?
   - 1 Yes
   - 2 No

511. Have you ever seen **sex stuff in the following ways that showed kids who are under 18?** Select the answer that best applies to you.

   In a magazine.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

512. On the internet.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

513. On a music video.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

514. On cable television.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

515. In a movie theater or on video.
   - 1 Never
   - 2 Only once
   - 3 Total of 3-5 times
   - 4 Every once in a while (monthly)
   - 5 Regularly (weekly)
   - 6 All the time (daily)

516. In person.
517. Have you **heard** any sexual stuff in music?
   □ 1 Yes   □ 2 No  [IF THE ANSWER IS 2, THEN SKIP TO QUESTION 520]

518. *Think about the sex stuff you've heard in music.*

   Was someone singing or rapping and disrespecting a girl in a sexual way?
   □ 1 Yes   □ 2 No

519. Was someone singing or rapping about using force against a girl in a sexual way?
   □ 1 Yes   □ 2 No
Progress Note:
Reviewed records.

Signature/Date
Erin Shinn M.Ed
APPENDIX B

CAREGIVER SURVEY
Your views of the youth’s social behaviors

<table>
<thead>
<tr>
<th>Rate how often you think s/he engages in each of these behaviors</th>
<th>Never</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Don’t know</th>
<th>No opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Laughs or smiles appropriately in response positive statements.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>2) Shows desire to please others.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>3) Labels happiness, sadness, fear, and anger in self.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>4) Identifies people by characteristics other than name when asked.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>5) Has preferred a friend of either sex.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>6) Follows school or facility rules.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>7) Responds verbally and positively to good fortune of others.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>8) Apologizes for unintentional mistakes.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>9) Has a group of friends.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>10) Follows community rules.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>11) Does not talk with food in mouth.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>12) Has best friend of the same sex.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>13) Responds appropriately when introduced to strangers.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>14) Makes or buys small gifts for caregiver or family member on major holidays, on own initiative.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>15) Keeps secrets or confidences for more than one day.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>16) Returns borrowed toys, possessions, or money to peers, or returns borrowed books to library.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
<tr>
<td>17) Ends conversations appropriately.</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
<td>π 4</td>
</tr>
</tbody>
</table>
18) Follows time limits set by caregiver.  
19) Refrains from asking questions or making statements that might embarrass or hurt others.  
20) Controls anger or hurt feelings when denied own way.  
21) Independently weighs a consequence of actions before making decisions.  
22) Apologizes for mistakes or errors in judgment.  
23) Remembers birthdays or anniversaries of immediate family members and special friends.  
24) Initiates conversations on topics of particular interest to others.  
25) Repays borrowed money from caregiver.  
26) Responds to hints or indirect cues in conversation.  
27) Makes and keeps appointments.  
28) Belongs to organized clubs, interest group, or social or service organization.  
29) Goes with one person of the opposite sex to party or public event where many people are present.  
30) Goes on double or triple dates.  
31) Goes on single dates.  
38) How well does s/he get along with his/her friends?  
   π 1 Better than average  π 2 Average  π 3 Worse than average  
39) How many close friends does s/he have? _____
Your views of the youth's behavior

*Rate how much you think s/he has been bothered by this problem during the past month.*

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Just a little</th>
<th>Pretty much</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Carries a chip on his/her shoulder</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
</tr>
<tr>
<td>2) Bullies others</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
</tr>
<tr>
<td>3) Being cruel</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
</tr>
<tr>
<td>4) Fights constantly</td>
<td>π 0</td>
<td>π 1</td>
<td>π 2</td>
<td>π 3</td>
</tr>
</tbody>
</table>
REFERENCES


Center for Sex Offender Management (1999). *Understanding juvenile sex offending behavior: Emerging research, treatment approaches and management practices*.


The author, Dr. Emily S. Edlynn, was born and raised in San Diego, California. In 1998, she received her Bachelors of Arts degree in English Literature, with a minor in Psychology, from Smith College in Northampton, Massachusetts. Dr. Edlynn graduated with First Honors and successfully earned a place on the Dean’s List six out of six semesters at Smith College.

Dr. Edlynn has worked with diverse populations of children and families, including a residential facility for emotionally and behaviorally disordered children, and over two years as a home-based family counselor for families involved with the Department of Human Services in Denver, Colorado. During this time, Dr. Edlynn participated as a research assistant for a home-based intervention project examining the impact of domestic violence on families with toddlers, piloted by Dr. Rossman at the University of Denver.

Dr. Edlynn continued her interest in working with disadvantaged, highly stressed families as she commenced her graduate studies at Loyola University of Chicago in 2001. Dr. Edlynn’s research focused on various effects of different types of violence on ethnic minority youth. Although her interest lay primarily in child maltreatment, community violence also emerged as a major area of study. In August 2003, Dr. Edlynn completed her master’s thesis, *African American Urban Youth Exposed to Violence: Coping Skills*
as a Possible Moderator for Anxiety, graduating with her Masters of Arts degree in clinical psychology from Loyola. As her clinical training progressed, Dr. Edlynn developed a specific interest in trauma, not only in the context of family and community violence, but in the area of life-threatening illness and physical disability. Pursuing a career in pediatric psychology, she completed her internship training at the APA accredited site, Children’s Hospital of Stanford/Children’s Health Council consortium in Palo Alto, California. At the time of completing this dissertation, Dr. Edlynn has accepted a one-year postdoctoral fellowship in pediatric oncology at Children’s Hospital of Orange County, near Los Angeles, California to begin in August, 2007.
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The final copies have been examined by the director of the dissertation and the signature that appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

5/14/07
Date

Director’s Signature