A DEVELOPMENTAL PERSPECTIVE ON JUVENILE SEXUAL OFFENDERS:

THE ROLE OF CHILDHOOD ABUSE IN THE DEVELOPMENT OF

PSYCHOPATHOLOGY AND SEX OFFENDING BEHAVIOR

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in collaboration with my advisory committee. The dissertation does not include proprietary or classified information.

____
Kelly Leanne Farris

Certificate of Approval:

__________________________	__________________________
Roger Blashfield Professor Psychology	Barry Burkhart, Chair Professor Psychology
__________________________	__________________________
Steven K. Shapiro Associate Professor Psychology	Adrian Thomas Associate Professor Psychology

____
Joe F. Pittman
Interim Dean
Graduate School

A DEVELOPMENTAL PERSPECTIVE ON JUVENILE SEXUAL OFFENDERS: THE ROLE OF CHILDHOOD ABUSE IN THE DEVELOPMENT OF PSYCHOPATHOLOGY AND SEX OFFENDING BEHAVIOR

Kelly L. Farris

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Philosophy

Auburn, Alabama
August 4, 2007

A DEVELOPMENTAL PERSPECTIVE ON JUVENILE SEXUAL OFFENDERS:

THE ROLE OF CHILDHOOD ABUSE IN THE DEVELOPMENT OF

PSYCHOPATHOLOGY AND SEX OFFENDING BEHAVIOR

Kelly L. Farris

Permission is granted to Auburn University to make copies of this dissertation at its discretion, upon request of individuals or institutions and at their expense.
The author reserves all publication rights.

____
Signature of Author

____
Date of Graduation

VITA

Kelly Leanne Farris was born in Chester, South Carolina to her parents Larry and Peggy Farris. She has one beautiful younger sister, Amy. Kelly grew up in Rock Hill, South Carolina and graduated from Rock Hill High School in 1990. She participated in multiple activities as a child and teenager to include cheerleading, dance, and piano and had a love for learning from a young age. She graduated from Winthrop University in 1994, where her interest in psychology, and particularly criminal behavior, began. She obtained her Masters degree in Clinical Psychology in 1997 from Appalachian State University in Boone, North Carolina. Her first job was as a probation officer for the South Carolina Department of Juvenile Justice, and upon completion of her Masters degree, she moved into a staff psychologist position for four years in which her desire to work with juvenile delinquents was solidified. She began her doctoral training at Auburn University in 2002 in the child specialty of the clinical psychology program. Five very long years later she completed her internship at the William S. Hall Psychiatric Institute in Columbia, South Carolina and is currently anticipating beginning at forensic post doctoral fellowship at West Central Georgia Regional Hospital in Columbus, Georgia.

DISSERTATION ABSTRACT

A DEVELOPMENTAL PERSPECTIVE ON JUVENILE SEXUAL OFFENDERS: THE ROLE OF CHILDHOOD ABUSE IN THE DEVELOPMENT OF PSYCHOPATHOLOGY AND SEX OFFENDING BEHAVIOR

Kelly L. Farris

Doctor of Philosophy, August 4, 2007
(M.A., Appalachian State University, 1997)
(B.A., Winthrop University, 1994)

209 Typed Pages

Directed by Barry R. Burkhart

The child development field has a relative lack of research considering the impact of child abuse and victimization from a developmental perspective, and even less research that examines the effects of multiple types of abuse and victimization in children and adolescents who are navigating stage-salient developmental tasks. David Finkelhor proposed four conditions to contribute to negative and detrimental outcomes for victims, and these conditions, rooted in developmental victimology, led to the formation of multiple hypotheses for this project to test the conditions according to specific outcomes: 1) Repetitive and ongoing conditions of victimization, 2) The victim's relationship with their main support system is significantly altered due to the victimization, 3) The

victimization has an additive effect when combined with other serious stressors, and 4) The victimization occurs during a critical period of developmental task and interrupts successful navigation of the stage. Subjects included 614 incarcerated juvenile delinquent males consisting of juvenile sexual offenders and non-sexually offending delinquents. Focus was placed on the etiology of sexual offending behavior and the role that a history of sexual and physical victimization may play in the perpetration of sexual offenses on others as well as in the development of psychopathology. Finkelhor's four conditions were tested among numerous dependent variables including a standard set of internalizing and externalizing variables, and interpersonal, substance abuse, trauma, criminal behavior, victim characteristics, self identity variables, and risk for future victimization variables. Analyses included chi-square, analyses of variance, and multivariate analyses of variance. Results supported each of the four conditions. Implications for the findings, limitations of the study, and directions for future research are discussed.

ACKNOWLEDGEMENTS

Foremost, thank you to my parents, Larry and Peggy, who taught me there was absolutely nothing I was not capable of doing and for unwavering tolerance for a daughter who has spent way too many years searching for who she wanted to become. Thanks to my sister, Amy, who has become my good friend and has grown into a caring, beautiful, and creative woman that I admire. Thanks to my special friend of 17 years, Phil Murdock, for believing in me. Without your ability to get me focused and being an incredible role model of achievement, I would still be procrastinating! Thank you to my Auburn friends Jeshmin Bhaju and Amanda Mulfinger, incessant sources of support and two of the most amazing people one could ever know. Thank you to Amanda for forging through the program with me and being such a good friend. Thank you to James Eason for doing more than your share to make our relationship work and for putting peace back into my life. Thank you to DeRosset Myers, Jr. for encouragement and support with completing this project during my internship year. My timely completion would not have been possible without your flexibility. Thank you to my committee members: Roger Blashfield, Steve Shapiro, and Adrian Thomas, and to Annette Kluck for guidance with this final hurdle! Finally, thank you to my major professor, Barry Burkhart. I am eternally grateful for the many hours you devoted to assisting me with the project and to the personal and professional support over the course of the past several years.

Style manual or journal used: *American Psychological Association Publication Manual: 5th Edition.* (2001). American Psychological Association, Incorporated: Washington, D.C.

Computer software used:

1) Statistical Program for the Social Services (SPSS), Version 15.0 for Windows

2) Microsoft Windows XP Professional

TABLE OF CONTENTS

Section/SubSection Page

LIST OF TABLES x

INTRODUCTION 1

Consequences of Childhood Sexual Abuse 4

Etiology of Sexual Offending Behavior 5

Developmental Research 8

Developmental Psychopathology..9

Developmental Tasks..11

Self and Affective Regulation...11

Attachment Development 13

Autonomous and Coherent Self-System..14

Peer Relationships..15

School Adaptation..16

Tasks of Adolescence: Psychological Autonomy, Development

of Romantic Relationships...16

Developmental literature which has addressed stage-specific victimization……… 17

Developmental Victimology 21

Developmental Dimensions Model....24
Condition #1....27
Sexual Abuse Specific Research....28
Condition #2....32
Condition #3....34
Condition #4....38
Hypotheses....46
METHOD....55
Participants....55
Measures....56
Procedure....60
Analyses....63
RESULTS....70
DISCUSSION....143
Limitations....176
Future Directions....177
Conclusion....178
REFERENCES....184

LIST OF TABLES

Title of Table Page

Table 1: Dependent Variables Examined Through 1-way Analyses of............................65
Variance (ANOVA) and Multivariate Analyses of Variance (MANOVA)
(continuous variables)

Table 2: Correlations Between the Variables of the Internalizing Composite 67

Table 3: Correlations Between the Variables of the Externalizing Composite 68

Table 4: Analysis of Variance for Internalizing Symptoms by History of 74
Sexual Abuse

Table 5: Mean Scores for Internalizing Scales for Number of Sexual 75
Abuse Victimizations

Table 6: Analysis of Variance for Internalizing Symptoms by History of Incest 78

Table 7: Mean Scores for Internalizing Scales for History of Incest 79

Table 8: Analysis of Variance for Interpersonal Variables by History of Incest...............81

Table 9: Number of Subjects for Interpersonal Variables by Incest Analysis...................82

Table 10: Mean Scores for Interpersonal Variables by History of Incest 84

Table 11: Analysis of Variance for Internalizing Symptoms by History of 88
Physical Abuse

Table 12: Analysis of Variance for Externalizing Symptoms by History of.....................90
Physical Abuse

Table 13: Mean Scores for Externalizing Scales by History of Physical Abuse.............. 91
by Family

Table 14: Analysis of Variance for Interpersonal Variables by History of 93
Physical Abuse

Table 15: Number of Subjects for Interpersonal Variables by Physical Abuse 94

Table 16: Mean Scores for Interpersonal Variables by History of Physical 96
Abuse by Family

Table 17: Analysis of Variance for Internalizing Symptoms by History of Sexual........101
and Physical Abuse

Table 18: Mean Scores for Internalizing Scales by History of Sexual and 103
Physical Abuse

Table 19: Analysis of Variance for Externalizing Symptoms by History of 104
Sexual and Physical Abuse

Table 20: Mean Scores for Externalizing Scales for History of Sexual and 105
Physical Abuse

Table 21: Analysis of Variance for Social Competence Variables by History of 106
Sexual and Physical Abuse

Table 22: Number of Subjects for Social Competence and Relationship 108

Table 23: Mean Scores for Social Competence Variables by History of 110
Sexual and Physical Abuse

Table 24: Analysis of Variance for Internalizing Symptoms by History of 111
Traumatic Events

Table 25: Mean Scores for Internalizing Symptoms by History of Traumatic 113
Events

Table 26: Analysis of Variance for Externalizing Symptoms by History of 114
Traumatic Events

Table 27: Mean Scores for Externalizing Scales for History of Traumatic Events.........116

Table 28: Analysis of Variance for Internalizing Symptoms by History of 118
Sexual Abuse by Age

Table 29: Mean Scores for Internalizing Symptoms by History of Sexual 119
Abuse by Age

Table 30: Analysis of Variance for Internalizing Symptoms by History of 120
Physical Abuse by Age

Table 31: Mean Scores for Internalizing Symptoms by History of Physical 122
Abuse by Age

Table 32: Analysis of Variance for Externalizing Symptoms by History of 124
Physical Abuse by Age

Table 33: Mean Scores for Externalizing Scales for Age of Onset of Physical 125
Abuse

Table 34: Analysis of Variance for Internalizing Symptoms by History of 132
Sexual Abuse by Age (12)

Table 35: Mean Scores for Internalizing Symptoms by History of Sexual 133
Abuse by Age (12)

Table 36: Analysis of Variance for Internalizing Symptoms by History of 134
Physical Abuse by Age (12)

Table 37: Mean Scores for Internalizing Symptoms by History of Physical 136
Abuse by Age (12)

Table 38: Analysis of Variance for Externalizing Symptoms by History of 137
Sexual Abuse by Age (12)

Table 39: Mean Scores for Externalizing Symptoms for History of Sexual 138

Abuse by Age (12)

Table 40: Mean Scores for Externalizing Symptoms for History....................................140

Physical Abuse by Age (12)

INTRODUCTION

Childhood sexual abuse (CSA) has been a significant problem in our society for many years, and there has been much research conducted with young victims of sexual abuse which points to pervasive negative consequences of sexual abuse beginning at the point of perpetration and extending, for some victims, into adulthood. The prevalence of CSA has been reported to range from 5.8% to 34% in females and from 2% to 11% in males (Walker, Carey, Mohr, Stein, & Seedat, 2004). These figures mean that two to four out of every 10 females and one to two out of 10 males has been a victim of CSA (Wilcox, Richards, & O'Keeffe 2004). Putnam (2003) reported that about 10% of reports of child maltreatment cases involve substantiated sexual abuse, a figure of approximately 88,000 child victims in the year 2000. These data define the sexual abuse of children as a problem large in scope and consequence. In addition, recent research indicates that children often experience multiple types of victimization and that a youth who is victimized one time has a 69% chance of being a victim of a different type of abuse during a single year (Finkelhor, Ormrod, Turner, & Hamby, 2005).

In addition, the literature base on sexual offenders is large. Moreover, sexual perpetration has been found to be committed by children and adolescents

as well as adults. The study of these young offenders is important for two reasons. First, some youthful offenders continue their offending behavior into adulthood which can result in having a high number of victims, per offender over the course of time. Second,

youthful offenders commit a significant amount of sexual victimization, as well as other offending behavior, against others. For example, according to the United States Department of Justice's Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2.3 million individuals age seventeen and younger were arrested in the year 2001 (OJJDP, 2003). Additionally, Pithers and Gray (1998) reported that in cases of sexual victimization against children, 40% of the perpetrators are persons under the age of 20, and 13-18% of child sexual abuse incidents are committed by children between the ages of 6 and 12; therefore, a significant portion of all sexual offenses are committed by children and adolescents, and this population of offenders warrants further study.

Given the large number of young people engaging in offending behavior, and given the potential for a significantly large number of victims, this population of young offenders is important to study. A common theory used to explain the presence of child and adolescent psychopathology, including antisocial/offending behavior, is the developmental psychopathology theory, which indicates that psychopathology is a product of the interplay among many different variables including characteristics of the child and family as well as the environment, and these factors act as risk and protective factors that occur and change over time (Cicchetti & Rizley, 1981 as cited in Manly, Kim, Rogosch & Cicchetti, 2001). Beginning in infancy and continuing through adolescence, children must navigate through a series of developmental tasks, which build upon each other and whose mastery is essential to the successful mastery of future tasks. When interference occurs with these tasks, such as through victimization, successful mastery of future stage-salient tasks may be significantly compromised (Manly et al., 2001). With this theory in mind, adolescent and youthful offenders are a unique

population to study, as compared to adult offenders. Due to their young age, youthful offenders are relatively closer in time and proximity to any developmental insults, than adult offenders. If specific events occur during critical time periods, and can be definitively shown to be detrimental and to have long-term negative impacts, there is potential for prevention. If these specific events can be identified empirically and recognized early in the victim, intervention could hopefully occur early, and some of the long-term negative effects, including perpetration against other children and adolescents, could be mitigated or prevented. This dissertation utilized the developmental psychopathology perspective as a foundation for examining environmental pathogens, specifically sexual abuse and other maltreatment, occurring during important developmental stages/stage-salient tasks of childhood and adolescence.

As part of understanding the specific impact that abuse and maltreatment, occurring during developmental stages, has on children and adolescents, focus was placed on the ongoing debate about whether being a victim of sexual abuse contributes to future sexual offending. Due to the fact that juveniles are in a complicated process of development and growth, it would make sense that being a victim of sexual abuse would impact children and juveniles differently dependent upon their stage of growth and development and the capacities that are associated with each stage. This paper sought to outline the current state of knowledge about the effects of victimization, particularly sexual victimization on children, and, also, examined how these effects varied depending on the child's developmental stage and capacities. The conceptual foundation behind juvenile sexual offending, as well as the relationship between being a victim of sexual

abuse, or other types of abuse and maltreatment, and future sexual acting out was also explored.

Consequences of Childhood Sexual Abuse

The detrimental effects of being a victim of childhood sexual abuse have been well documented in the literature and provide consistent information on the potential long and short-term effects that sexual abuse victims endure. For example, Putnam (2003) reported the following to be outcomes of childhood sexual abuse: sexualized behavior, psychopathology, depression, and substance abuse; however, depression in adults and sexualized behavior in children are among the most consistently documented outcomes. Other outcomes include low self-esteem, guilt, self-blame, delinquency, impaired sexual functioning, and vulnerability to repeated victimization (Walker, Carey, Mohr, Stein, & Seedat, 2004). In addition, Walker et al. indicated that males are more likely to display externalizing behaviors (oppositional behavior, aggression, impulsivity, substance abuse) and higher levels of eroticism than female victims of CSA. Both sexes have been shown to experience increased lifetime rates of adjustment and mood disturbances, anxiety, ADHD, oppositional defiant behavior, eating disturbances, substance use, conduct problems, borderline personality, and somatization disorders (Walker et al., 2004). Tyler indicated that, in her review of the child sexual assault literature, outcomes included suicide, substance use, gang involvement, pregnancy, running away, posttraumatic stress, behavioral problems, and risky sexual behavior (2002). In a retrospective study of the long-term effects of childhood sexual abuse, conducted by Dube et al., (2005), 17,337 adults participated in a survey concerning childhood abuse, dysfunction in the childhood home, and health-related issues. Sixteen percent of men and 25% of the females reported

a history of sexual victimization in childhood, and this history significantly increased the risk for negative outcomes including history of suicidal actions, likelihood of marrying an alcoholic, and increased risk for marital problems. Of interest was the finding that there were no significant differences obtained regarding the sex of the perpetrator. In addition, Widom (1991) noted that victimization during childhood has been demonstrated in research to be a primary contributing cause of delinquency in young people. Taken together, the above research findings demonstrated there are multiple and variable significant and long-lasting consequences associated with sexual victimization. These findings provided consistent information about the seriousness of childhood sexual abuse for victims who endure a wide range of significantly detrimental effects. Given the large number of children affected by sexual victimization and the symptomatology that results from such victimization, it is clear that large numbers of children endure multiple ill effects which will likely impact them both as children and into adulthood.

Etiology of Sexual Offending Behavior

As noted above, one of the outcomes of childhood sexual abuse is inappropriate and/or risky sexual behavior, and research has shown that many children who are sexually abused repeat similar behavior on their own victims (Bromberg & Johnson, 2001; Worling, 1995; Weeks & Widom, 1998). However, there are a number of theories of etiology for sexual offending including physiological, intrapsychic, learning theory, developmental theory, attachment theory, cognitive theory, addictive theory, family systems theory, and integrative theories (Ryan, 1997).

For the purposes of this study, the three theories which appear to be most closely related to juvenile offending and child development were highlighted. First, as presented

by Ryan (1997), according to learning theory, when sexual arousal is paired with deviant behavior, a condition exists whereby sexual deviance may occur. In this situation, sexual deviance is learned by classical conditioning which may occur if a child experiences early sexual arousal emerging in a context of a sexually exploitive relationship or a deviant sexual situation. Ryan also indicated instrumental conditioning may occur if such behavior is either rewarded or punished. In addition, sexually deviant behavior may be learned through observation and imitation of deviant behavior. When such early imitative or reactive behaviors occur and are positively reinforced, a pattern response of deviant behavior may occur. Ryan indicated that learning theory is particularly applicable to children who are, by developmental stage, impressionable, curious, and open to new experiences. If an individual in a role model, caretaking, or authority position commits an inappropriate sexual act on a child, that behavior may serve as a model for future behavior by the child or also may serve as a model of intimacy and attachment or as defining sexually arousing situations. If exposure to such unhealthy and deviant interactions occur at early ages, imitation and internalization of these behaviors and situations is probable.

According to Ryan and developmental theory, a second way offending behavior develops is through past deviant experiences laying the foundation for interpreting future experiences. Ryan used Piaget’s terms of accommodation and assimilation to explain how abuse experiences contribute to a deviant foundation for future experiences. It stands to reason that childhood is of particular importance as experiences with family and environment are essential influences in development in general, and of sexuality specifically. Negative childhood experiences of lack of empathic care, trauma in the

family, neglect, abuse, scapegoating, and enmeshed boundaries contribute and potentially negatively taint life views which form in the first years of life. Fixation in an unsuccessful developmental stage may occur (1997). According to Groth's concept of the fixated pedophile, stage of development is important as sexually traumatic or explicit experiences, or explicit materials in the environment may contribute to the formation of deviant or abusive sexual behavior and prevent successful mastery of both current and subsequent stage-salient developmental tasks and challenges (as cited in Ryan, 1997). Some children who experience maltreatment do not appear to possess "resilient self-strivings," and their traumatic experience may have a significantly detrimental effect on both psychological and biological development (Cicchetti and Rogosch, 2002, p.9). Developmental theory provides an acknowledgement that children are faced with many special and critical tasks which are essential to development of healthy intimate relationships in the future as well as to successful accomplishment of subsequent developmental tasks. It speaks to the harm that sexually abusive interactions have on a developing child's ability to successfully navigate through their development and to engage in appropriate sexual behavior and avoid sexual offending.

Finally, according to Burk and Burkhart (2003), in attachment theory, it is assumed that the relationships children form early in life establish internal representations of what they will view as normal, average, or appropriate relationships and expectations of relationships throughout their life span. These internal working models and style of attachment to the primary caretaker, whether secure, anxious, ambivalent, or avoidant, play a role in the child's future capacity for formation of intimate personal relationships (Burk & Burkhart). From this theoretical perspective, it would seem logical that children

with impaired attachment relationships, due to sexual victimization, would have difficulty establishing intimacy in later relationships, and children with secure attachment to a primary caretaker would hold a higher capacity for establishment of healthy intimacy in future relationships.

Developmental Research

Understanding that sexual offending behavior can develop through a variety of channels, and keeping the developmental, attachment, and learning theories in mind, it is clear that being a victim of abuse, particularly sexual, as a child may play a core role in the development of sexual offending behavior as well as other negative outcomes. There is a substantial body of research concerning the effects of abuse on children; however, there is a relative lack of information pertaining to any potential specific consequences of abuse relative to a victim's stage of development and the possible differences in outcome related to the stage the victimization occurs. Several researchers have noted this gap in the literature including Cicchetti and Rogosch (2002), who commented on the "paucity" of research in the area of development and psychopathology in adolescence. Finkelhor and colleagues (1995) noted that for most types of abuse, no "true developmental trajectories across the span of childhood" exist (p.6). Higgins and McCabe (2001) indicated there is not an "adequate representation" in the literature pertaining to sexual abuse and the developmental trajectory/consequences that result in males. In addition, in a review by Cicchetti and Toth (1995), they concluded that utilizing a developmental psychopathology orientation within the context of child abuse and neglect would provide "considerable promise" for making significant advancements in research and intervention in the area of the maltreatment of children (p.541). Specifically, these researchers

indicated there are differences in the way maltreated children navigate stage-salient developmental tasks. Since the call for a developmental focus, other researchers have attempted to contribute in this area by analyzing the differences in outcomes as related to abuse experienced at difference ages (Smith, Ireland, & Thornberry, 2005; Ireland, Smith, & Thornberry, 2002; Eckenrode, Zielinski, Smith, Marcynyszyn, Henderson, Kitzman, Cole, Powers, & Olds, 2001; Thornberry, Ireland, & Smith, 2001). As earlier indicated, one of the goals of this study was to contribute to a developmental understanding of sexual offending behavior. Thus, this dissertation conducted an analysis of abuse as effects differ based on the victim's age, developmental task at time of victimization, and number of subsequent developmental tasks the victim has faced post victimization in an effort to increase understanding of juvenile sexual offending behavior.

Developmental Psychopathology

The field of developmental psychopathology provides a theoretical framework for understanding the effects of abuse on maltreated children by taking into account developmental considerations such as stage-salient tasks and environmental variables as they impact an individual's development of psychopathology. Specific to the study of child maltreatment, the developmental psychopathology approach emphasizes the interplay among many different variables including characteristics of the child and family as well as environmental events to analyze risk and protective factors as they occur and change over time (Cicchetti & Rizley, 1981 as cited in Manly, Kim, Rogosch & Cicchetti, 2001). The field of developmental psychopathology is related to the above developmental etiological theory of sexual offending behavior, in that the sexual acting

out and offending behavior are consequences of developmental insults. This model is a specific example of a developmental psychopathological perspective.

The developmental psychopathology perspective of offending behavior consists of several key components. First, organizational theory of development proposes that individuals must conquer challenges presented by each stage, and that "early competence tends to promote later competence…incompetence in development is fostered by difficulties or maladaptive efforts to resolve the challenges of a developmental period. Inadequate resolution of developmental challenges may result in a developmental lag or delay" (Cicchetti and Cohen, 1995, p.6).

Cicchetti and Rizley (1981) indicated that beginning in infancy and continuing throughout childhood, children are presented with core tasks which define each period of development. Researchers have argued that the quality of the resolution of these tasks primes the manner in which the next set of developmental tasks is approached. In other words, the successful accomplishment of initial stage-salient developmental challenges lends itself to future success in negotiation of later developmental tasks. However, when problems occur with successful mastery of early developmental tasks, maladaptive outcomes may be expected with later developmental challenges. In the context of understanding developmental trajectory, child maltreatment represents an extreme deviation from normal environmental circumstances and is highly likely to cause a negative impact on children's abilities to navigate through and accomplish developmental tasks in an adaptive manner (as cited in Manly, Kim, Rogosch, & Cicchetti, 2001).

From this perspective, it is assumed that if maltreatment interferes with the successful accomplishment of stage-salient developmental tasks, the child's

developmental trajectory will be altered in a negative manner, and it also is likely that the effects will be compounded if the abuse occurs early and persists such that multiple developmental tasks are impacted.

Developmental Tasks

Prior to examining the role the impact of victimization plays during various stages of development, it is necessary to provide brief information on the specific tasks which occur during each stage of development. The following stage-salient developmental tasks, presented by Cicchetti (2004), are primarily tasks of infancy and childhood. These tasks include: physiological and affective regulation, development of secure attachment with primary caregiver, emergence of autonomous and coherent self-system, formation of effective peer relations, and successful adaptation to the school environment. Primary tasks of adolescence will be presented separately below.

Self and Affective Regulation

Beginning in infancy and early childhood, children are presented with numerous tasks, whose mastery is essential to successful transition between developmental stages. One of the earliest developmental tasks children are presented with is self-regulation. This task begins in infancy and continues throughout childhood; consequently, "the growth of self-regulation is a cornerstone of early childhood development that cuts across all domains of behavior" (Shonkoff & Phillips, 2000, p.3). Furthermore, between the ages of birth and five, children are acquiring the core skills necessary for successful future development, and "early child development can be seriously compromised by social, regulatory, and emotional impairments. Indeed young children are capable of deep and lasting sadness, grief, and disorganization in response to trauma, loss, and early personal

rejection," and these detrimental impacts can be long lasting (Shonkoff & Phillips, 2000, p. 5).

Self-regulation refers to the ability to manage one's emotions, physiological arousal, and attention, and such tasks include the acquisition of day-night, wake-sleep rhythms; regulation of crying; developing, understanding, and regulating emotions; and regulating attention (Shonkoff & Phillips, 2000). In particular, affect regulation has been referred to as a primary developmental task for early childhood. Successful affect regulation would promote future success in establishing and maintaining effective relationships with peers, while unsuccessful regulation of affect would promote difficulties in establishing and maintaining effective peer relationships (Howes & Cicchetti, 1993).

Numerous studies have been conducted with maltreated children, and detrimental effects of maltreatment on the ability to regulate affect and self have been demonstrated during infancy, toddlerhood, childhood, and adolescence. For example, in a study by Kaufman and Cicchetti (1989), grade-school children were reported to demonstrate a variety of behavioral dysregulations with main effects on disruptive and aggressive behavior. The same results were found for maltreated preschool children, who were also less competent with their peers as well as perceived by their teachers to be more emotionally disturbed than their nonmaltreated peers (Alessandri, 1991).

In addition, Cicchetti and Toth (1995) indicated that a converging set of studies identified a sensitization model as the likely process, meaning that as children are repeatedly exposed to maltreatment as well as anger and family violence, there is likely an increased emotional reactivity in the form of fear and other internalizing problems.

Finally, Cicchetti and Toth (1995) and Burk and Burkhart (2003) indicated that because affective regulation plays a role in attachment relationships, when a child's affect regulation is not satisfactorily developing, there is likely to be disorganization in a child's ability to form attachments with others, thus negatively impacting a second developmental task.

Attachment Development

The next category of developmental tasks is the development of secure attachment with a primary caregiver. The development of an attachment relationship with the primary caregiver is an inborn need in all children, and this attachment quickly and easily forms when the caregiver is adequately responsive to the child (Shonkoff & Phillips, 2000). The attachment relationship is said to serve two primary purposes: 1) to provide a sense of security and fear reduction in novel and challenging situations, and 2) to regulate stress (Shonkoff & Phillips, 2000). In addition, the attachment relationship plays an important role in development of internal working models of the self, attachment figures, and relationships with others (Cicchetti & Toth, 1995). As noted earlier, problems with attachment have been presented as a possible theory of sexual offending in juveniles (Burk and Burkhart, 2003).

Numerous studies have supported the finding that children who endure maltreatment develop problems with attachment. Lynch and Cicchetti (1991) examined maltreated children between the ages of 7 and 13 and found that 30% reported attachment problems with their mother, indicating that attachment problems with maltreated children are likely to exist from childhood into preadolescence, although rates were lower for the older children. In addition, Crittenden (1988) and Egeland and Sroufe (1981) have shown

that children who endure maltreatment tend to form insecure attachments with their caregivers at a rate greater than children with no history of maltreatment (as cited in Cicchetti & Toth, 1995).

Whether a child is maltreated by an attachment figure or maltreatment prevents formation of an attachment, subsequent problems are likely with development of intimacy and healthy relationships with others. Moreover, this condition may contribute to the development of inappropriate sexual behavior with others.

Autonomous and Coherent Self-System

The development of the self-system is another developmental task that involves the transfer of self-regulation from the parent's responsibility to the child's. The self-system incorporates many components which include ability to talk about their own feelings and emotions, development of social and play interactions with other children, development of language and symbolic thinking, and development of self-concept and self-esteem (Cicchetti & Toth, 1995).

Research has shown that children experiencing maltreatment exhibited more aggression, poor competence, and decreased levels of symbolic play than their nonmaltreated peers (Alessandri, 1991). In later childhood, maltreated children have been shown to experience low self-esteem (Kaufman & Cicchetti, 1989), and more symptoms of depression than children with no history of maltreatment (Allen & Tarnowski, 1989). Other research has shown that sexually abused preschool boys experienced more loneliness and more withdrawal than young sexually abused girls or boys and girls with no history of such abuse (White, Halpin, Strom, & Santilli, 1988). Taken together, these

studies demonstrated impairment in the self-system which could contribute to problems with development of relationships with others.

Peer Relationships

Formation of effective peer relationships is a developmental task which continues through preschool and early school age as well as throughout the lifespan. Consequently, the ability to build successful interactions and relationships with peers is important to the overall adaptation and success of children (Cicchetti & Toth, 1995).

Maltreated children, particularly those who have been physically abused tend to exhibit increased levels of both physical and verbal aggression in their peer relationships. For example, Dodge, Bates, and Pettit (1990) found that children with a history of being physically victimized were more physically aggressive towards their peers than children with no history of physical victimization, and that this history of physical abuse was significantly predictive of future aggressive behavior. Haskett and Kistner (1991) found similar results in that physically abused three to six year olds made fewer attempts to interact with other peers and also exhibited more instrumental aggression than their non-abused peers. In addition, they were viewed by their non-victimized peers as less desirable for play. Aggression towards peers will undoubtedly lead to negative and problematic peer relationships. On the other hand, in both toddlers and school-age children with a history of maltreatment, increased levels of withdrawal and peer interaction avoidance were found (Mueller & Silverman, 1989).

Cicchetti and Toth (1995) summarized the literature on peer relationships and maltreated children and found that, overall, maltreated children experienced peer rejection and isolation (less social competence and fewer peer interactions), and that the

problematic models of attachment continued to cause problems in peer relationships and in school adaptation in subsequent life.

School Adaptation

Adaptation to school, another development task which occurs during childhood, includes adapting to leaving home, acquisition of acceptable behavioral and academic performance, achievement motivation, and finding a peer group (Cicchetti & Toth, 1995).

Cicchetti and Toth (1995) indicated that children who are maltreated are at a significantly increased risk for school failure. In a study by Erikson, Egeland, & Pianta (1989), neglected children exhibited severe problems in school. In particular, sexually abused children exhibited anxious, inattentive behavior and had difficulty comprehending their expectations within the classroom. They tended to be the least popular children, and they exhibited aggression and/or withdrawal in their interactions with their peers. They tended to be highly dependent upon their teacher and exhibited a strong need for approval and assistance.

Tasks of Adolescence

According to Cicchetti and Rogosch (2002), two of the developmental tasks of adolescence are psychological autonomy and the development of romantic relationships. Collins, Gleason, & Sesna (1995) stated psychological autonomy involves several components including “emotional autonomy from childhood dependence on parents, behavioral autonomy in terms of independent functioning and self-reliance, and cognitive autonomy involving self-confidence in decision making” (as cited in Cicchetti & Rogosch, 2002, pp. 9-10). The best way to attain psychological autonomy, according to

Hill and Holmbeck (1986) is through establishing and keeping positive relationships with parents.

Regarding the development of romantic relationships, studies have found that romantic relationships developed during late childhood and early to middle adolescence may have harmful consequences (conduct, academic, and substance use) whereas romantic relationships which begin in later adolescence do not appear to have negative consequences, likely because they are more developmentally normative (Neeman, Hubbard & Masten, 1995). In addition, male adolescents with a history of sexual abuse reported engaging in sexually risky behavior including daily sexual intercourse, poor contraceptive use, and younger sexual intercourse age of onset than females with a history of sexual abuse (Chandy, Blum, & Resnick, 1996). These factors suggested potential maladaptive practices in successful relationship development. In a separate study, male children and adolescents exposed to domestic disturbances in turn exhibited increased levels of both verbal and physical aggression in their own romantic relationships (Kinsfogel & Grych, 2004). These findings suggested long-term problematic prognosis for relationships for young males exposed to domestic disturbances and the potential for unsuccessful completion of this adolescent task.

Developmental Literature Pertaining to Stage-Specific Victimization

For the purposes of this paper, the subjects were divided into developmental periods, based on both developmental stage theory and the divisions accepted in previous literature. Most researchers, who have attempted to look at victimization as it affects children at different developmental levels, have tended to divide childhood into stages encompassing the major stage-salient tasks of that period of development. Typically,

three distinct stages have been identified and include 1) ages 0-6, infancy/preschool/early childhood, 2) ages 7-12, school-age/latency/middle childhood, and 3) ages 13-18, adolescence (O'Beirne-Kelly & Reppucci, 1997; Tyler, 2002).

According to White, Halpin, Strom, and Santilli, gender differences have been shown with children sexually abused during the preschool period. They found that sexually abused girls, but not boys, tend to be developmentally delayed as well as to have problems with enuresis. Boys have been shown to be more withdrawn and lonely than sexually abused preschool girls as well as twice as likely to have somatic complaints. Both sexes have been shown to exhibit increased sexualized behaviors and to exhibit familiar behavior, such as touching, with nonfamiliar adults/strangers (1988). In addition, children sexually abused between the ages of 3 and 12 have been shown to report the following additional symptoms: anxiety, nightmares, a variety of internalizing and externalizing symptoms, and PTSD symptomatology. The symptoms vary according to the child's relationship with the perpetrator, the severity of the abuse, and the sex of the child, with sexualized behavior being related to the number of perpetrators and the frequency of the abuse (Friedrich, Beilke, & Urguiza, 1986). Research has also shown that children sexually abused during the latency period, have demonstrated more fear, internalizing problems, anxiety, inattentiveness, withdrawal, aggression, and unpopularity with peers than children without such history of abuse (Erickson, Egeland, & Pianta, 1989).

Tyler (2002) examined the literature and summarized her findings about the effects of abuse as they differed based on the victim's developmental level. Her review of early childhood was limited to one study which found that female children who were

victims of sexual abuse exhibited both internalizing and externalizing problems as well as inappropriate sexual behavior. In middle childhood, both internalizing and externalizing problems were found at significant levels and included depression, suicidal ideation, posttraumatic stress disorder, anxiety about sex, and inappropriate sexual behavior. On a positive note, she found that the children with supportive parents demonstrated higher levels of self-worth and reduced externalizing problems. For the adolescence period, numerous negative outcomes were reported including depression, posttraumatic stress disorder, suicidal thoughts, internalizing, and externalizing problems as well as risky sexual behavior, substance use, suicide attempts, involvement in gangs, running away, and pregnancy. As with middle childhood, having a supportive family mitigated these negative outcomes. One criticism of these findings is the generality and lack of distinction of the findings. For example, the findings of externalizing problems can include multiple symptoms such as aggression, oppositional behavior, and anger.

In her literature review, Tyler (2002) also examined variables such as gender, age, race, family support, and abuse characteristics, and she found mixed results, particularly regarding age of onset of abuse, severity of abuse, and duration in the role these variables played on outcome. For example, she found studies which indicated that duration and frequency played a role in outcome and several other studies which indicated duration and frequency did not play a role in outcome. She indicated there was a wide range of outcomes related to all variables of interest, and that “only a few studies were found to support a particular outcome” (p.583). She found more consistent findings when abuse was perpetrated by a family member as outcomes were consistently more negative, particularly with more internalizing problems and symptoms of trauma. Regarding age, a

study by Feiring, Taska, & Lewis (1999) found that older children were more likely to experience depression and to have lower levels of self-esteem and self-worth than younger children. In addition to these findings, Tyler attempted to provide an explanation for the mixed results she found in the studies she reviewed. She noted problems with samples including lack of diversity, lack of control groups, and uneven distributions of males and females, small sample sizes, design flaws, studies conducted with no specific hypothesis or theory as a foundation, problems with measures, and inconsistent definitions of abuse (2002). The current study will attempt to address each of these problems as the sample is large and diverse, with a control group, theoretical foundation for the study, and consistent administration of measures.

Recently, several important studies addressing maltreatment, developmental stages, and outcomes in adolescents have come from the Rochester Youth Development Study (Smith, Ireland, & Thornberry, 2005; Ireland, Smith, & Thornberry, 2002; Eckenrode, Zielinski, Smith, Marcynyszyn, Henderson, Kitzman, Cole, Powers, & Olds, 2001; Thornberry, Ireland, & Smith, 2001). In a recent publication of a longitudinal study conducted with 884 subjects between the ages of 13 and 22, results indicated that the maltreated juveniles (physical, sexual, emotional abuse, or neglect) were more likely to be arrested in the future, to self-report general and violent offending behavior, and to use illicit substances (Smith et al.). In the study by Ireland et al., the timing of maltreatment and subsequent outcomes was the focus of the study. The groups of adolescents with a history of chronic maltreatment and the adolescents whose maltreatment was limited to the adolescence-only period exhibited increased levels of drug use and delinquent behavior. In contrast, no increase in delinquent behavior was found for adolescents whose

maltreatment was confined to childhood only. The Thornberry et al. study found that conditions of persistent maltreatment as well as adolescent-limited maltreatment contributed to the following outcomes in adolescence: delinquency, substance use, teen pregnancy, and internalizing problems. When maltreatment was limited to childhood only, adolescents were no more likely to experience negative outcomes than the group that had never been maltreated. Another result of the study was that when adolescents had a history of both physical abuse and neglect, in the absence of sexual abuse, they experienced more generalized and severe consequences in later adolescence than the group of adolescents who experienced no maltreatment. The Eckenrode et al. (2001) study found that when children were assessed at the age of fifteen, those with no maltreatment and those with childhood-only maltreatment did not differ regarding early onset of problematic behavior; however, differences were found in the group with adolescent-limited maltreatment and persistent maltreatment in that both groups exhibited early onset of problematic and negative behaviors in comparison to those with no history of maltreatment. As a whole, these studies have begun to establish consequences/ outcomes of abuse perpetrated during various developmental stages. The current study contributed to this body of literature as it utilized a large sample and addressed stage-specific abuse.

Developmental Victimology

Given that the current study was conducted with a forensic sample and with a group of children and adolescents with a wide range of victimology, literature from the delinquency and developmental victimology fields can lend insight into this population and to the links between victimization and offending behavior. For example, Widom

(1991) has noted that victimization during childhood has been demonstrated to be a primary contributing cause of delinquency in young people, and the subject of child victimization became a focus of research in the late 1980's and early 1990s. One of the results of this focus on victimization was a new field presented by Finkelhor, similar to the concept of developmental psychopathology. Finkelhor (1995) proposed a field named *developmental victimology* which he described as "the study of victimization across the changing phases of childhood and adolescence" (p.178). This field provided a more specific look at the impact of victimization on development, whereas developmental psychopathology provided a more general theory of the manner in which psychopathology develops in young people, based on general and nonspecific potential stressors and protective factors. Finkelhor divided the field of developmental victimology into two branches. The first branch addressed factors, related to a child's level of development, which would impact the child's risk for victimization, such as ability to protect and defend oneself against victimization. The second branch sought to determine the impact of victimization on individuals as related to vulnerabilities and potential associated with stage-specific developmental periods. This second branch is most relevant to this paper.

According to Finkelhor (1995), the research base on child abuse and neglect is large and the most developmentally oriented of all research on child victimization. Research in this area has addressed developmentally-related conceptual frameworks for thinking about impact and has sought to follow young children over time. This research has demonstrated the pervasive, detrimental impact of abuse and neglect as related to

several of the earlier mentioned developmental stages including: social competence, autonomy, self-esteem, peer relations, and adaptation to school (Finkelhor).

In formulating his theory, Finkelhor (1995) proposed that there are two types of impact which occur with victimization. The first is common and consists of localized post-trauma symptoms such as fearfulness. These symptoms tend to be short-term and typically manifest themselves in behavior associated with the victimization (nightmares, etc). The second type of impact, which is of more concern, is a more developmental impact described as "deeper and generalized types of impact, more specific to children, that result when a victimization experience and its related trauma interfere with developmental tasks or dysfunctionally distort their course" (p.184). Finkelhor reviewed the literature available at the time. He noted several pervasive impairments as examples of this second type of impact occurring during development for children suffering from maltreatment. His findings indicate direct negative impact on stage-salient developmental tasks including: impairment of attachment and self-esteem, adoption of highly sexualized or highly aggressive behavior, interpersonal relation problems, failure to acquire competence in peer relations, and adoption of dysfunctional ways of dealing with anxiety, such as drugs and dissociation.

In the same way the field of developmental psychopathology acknowledges the importance of experiences during childhood, developmental victimology focuses on childhood experiences as being pivotal to a child's present and future functioning. Along these lines, MacDonald (1985) indicated children are specifically vulnerable to detrimental effects of victimization because they are working through various critical developmental processes, during which they may be particularly vulnerable to

environmental disturbances. Finkelhor (1995) noted that at the time of his review, although there was a significant amount of research conducted on the effects of sexual abuse, little of the research had addressed childhood sexual abuse in a specifically developmental context, and he argued that “the impact of victimization on these processes needs to be systematically taken into account” (1995, p. 184).

Developmental Dimensions Model

As part of the field of developmental victimology, Finkelhor & Kendall-Tacket (1997) proposed a “Developmental Dimensions Model of Victimization Impact” which included four distinct dimensions of possible various impacts on children (p.7). The dimensions represent moderators of abuse contributing to differential outcomes and include the following:

1) Appraisals of the victimization and its implications. Children appraise their victimization experience differently depending upon their developmental stage and use their appraisals to form various expectations. Their level of understanding and their attributions concerning their abuse experience are proposed to influence outcome. Other researchers, Valle and Silvosky (2002) also proposed the same, indicating that “Children’s outcomes are thought to vary depending on whether children attribute child sexual or physical abuse to internal or external factors, to stable or unstable factors, to global or specific factors, and to controllable or uncontrollable factors” (p.10).

2) Task application. Children at various developmental stages are coping with different developmental tasks, upon which these appraisals apply.

3) Coping strategies. Depending upon their developmental stage, children have access to varying levels of coping strategies which are used to respond to the stress resulting from an experience of victimization.

4) Environmental buffers. Children at various developmental stages are part of different social and family environments which can influence how the victimization affects them. This concept of environmental buffers has also been presented by other researchers. For example, available family support and parental monitoring have been shown to have a mitigation effect on the level of problematic outcomes from abuse. In addition, level of maternal education, higher concern for the victim from the parents, and higher levels of familial emotional attachment have been shown to be protective factors (Chandy et. al., 1996).

While the above model provides a mechanism by which to understand outcomes of abuse, the study of these moderators is beyond the scope of this paper which will focus on direct effects of abuse. Future research could provide further information regarding appraisals, protective factors, and coping strategies of children who have been abused. This type of research would help provide a more complete picture of effects of victimization and provide insight as to how to help children who have been victims of abuse and neglect and other types of victimization.

Finkelhor's Developmental Dimensions Model heavily relies on cognitive appraisals, and is part of an ongoing debate as to whether children can be harmed by behavior which they do not understand. The same logic can be applied to victimization occurring at early ages. Literature suggests abuse occurring at an early age in the child's life, prior to a child's being able to understand the full scope and implications of the

abuse, is a protective factor in situations of sexual abuse; however, researchers have been unable to empirically prove this hypothesis (Kendall-Tackett, Williams, & Finkelhor, 1993). Finkelhor (1995) speculated children may be harmed by sexual victimization, even though they do not understand the behavior due to the physical pain likely to accompany certain types of sexual victimization, such as vaginal or anal penetration. Moreover, powerful sensations of a physical nature, when paired with other stimuli such as the mother-child relationship, can be detrimental to normal development. In addition, it is also possible that, as presented earlier in the paper, early maltreatment interferes with development of attachment, development of the self-system, and other critical early stage-salient tasks. These early developmental insults may actually cause significantly more harm than proposed in the early literature. As advocates of a developmental psychopathology model have indicated that problems in mastering early stage-salient tasks will create deficits in a child's foundation for successful achievement of future critical tasks, and as hypothesized in Finkelhor's third and fourth condition (presented below), these subsequent victimizations and interference with critical developmental tasks will have an additive effect and contribute to significant psychopathology and problems with healthy development.

Finkelhor's Four Conditions Contributing to Negative Outcomes for Victims

After conducting his review of the literature available at the time, Finkelhor (1995) summarized several conditions which would potentially contribute to negative and detrimental effects for victims in their development: 1) Repetitive and ongoing conditions of victimization, 2) The nature of the victim's relationship with their main support system is significantly altered due to the victimization, 3) The victimization has an additive

effect when combined with other serious stressors, and 4) The victimization occurs during a critical period of developmental task and interrupts successful navigation of the stage. These four conditions are developmental in nature and will be a focus of this dissertation. The first two conditions are consistently supported in the literature. The last two conditions have been a focus of more recent research.

Condition # 1: Repetitive and ongoing conditions of victimization contribute to detrimental effects for victims.

This condition refers primarily to repetitive and ongoing conditions of one type of victimization, for example, only physical abuse or only sexual abuse, etc. The main idea is that individuals who endure multiple episodes of victimization over an extended period of time tend to have poorer outcomes than individuals who may be a one-time or limited time period victim. Also inherent in this condition is that if victimization is chronic, it is likely that at least one, if not several, periods of development will be impacted. This condition has been consistently supported in the literature.

Hamilton, Falshaw, and Browne (2002) found that in a group of children and adolescents (aged eleven to eighteen) institutionalized for being a risk to self or others, over half had been repeatedly victimized by either a single or multiple perpetrators. In the group with a history of a sexual and/or violent crime perpetration, 74% reported a history of being victimized by multiple perpetrators. This finding of multiple perpetrators implies multiple victimizations and therefore supports other research about outcomes related to multiple victimization episodes. In this particular study, the researchers concluded that there was an association between victimization by multiple perpetrators and future commitment of serious crime. In addition, only 20.8% of this sample reported no history

of victimization. Of those with a history of victimization, 26.2% of the sample reported one type of victimization, with the remainder reporting two or more types of victimization (sexual, physical, emotional, neglect). These findings provide support for the hypothesis that repeated victimization, particularly by multiple perpetrators is associated with future commitment of serious crime.

SEXUAL ABUSE SPECIFIC RESEARCH

Also included in this category would be the literature pertaining specifically to sexual abuse. As presented in the introduction of this paper, the question regarding whether a history of sexual victimization is linked to sexual offending has been widely researched, and for the most part, the findings have been that most people who are victims of sexual abuse do not go on to commit sex offenses; however, there is a significant percentage of sexual offenders who do have a history of sexual victimization. This issue is of particular relevance to this paper because the developmental tasks of children and adolescents include development of self and sexuality. As outlined earlier, there are many critical tasks that children face. Problems in these critical periods can have extremely long-lasting detrimental impact on the child's ability to establish relationships with others, on their ideas and representations about others, and on their feelings about and behavior towards others. As it is clear that many sexual offenders have a history of being a victim of abuse, particularly sexual abuse, the question arises as to whether timing of the victimization is important. Some of the literature pertaining to and connecting a history of abuse, especially sexual abuse with sexual offending behavior is presented below.

In their literature review, Bromberg and Johnson (2001) concluded that individuals with a history of sexual victimization in childhood were more likely than those without such a history to victimize children at some point in the future. For example, in a study by Freund and Kuban (1994) on adult sexual offenders, results indicated that those perpetrating pedophilia against female children, as opposed to those committing sexual offenses against male children were more likely to have a history of their own sexual victimization. In a separate review by Renshaw (1994), which focused on populations of convicted child molesters, half of those convicted of child molestation reported having been victims of sexual abuse when they were children. Additionally, those with a history of their own sexual victimization, reported having approximately three times as many child victims as those with no history of personal sexual victimization as a child.

Bagley, Wood, and Young (1994) conducted a study with young adult males aged 18 to 27. They found that the men reporting a history of multiple episodes of sexual victimization during childhood were most likely to report recent or current sexual activity involving a person under legal age of consent. This type of behavior could lead to arrest and or legal consequences. Furthermore, the males reporting sexual interest in children also reported more depression, anxiety, and suicidal actions and feelings than the males without sexual interest in children (1994). These findings suggested that adult males, with a history of sexual abuse in childhood, are likely to report symptoms of mental illness as adults as well as to engage in sexual behavior which could lead to arrest as adults.

In a study with 127 six to twelve year olds (male and female) with a history of developmentally unexpected sexual behaviors, Gray, Pithers, Busconi, A., & Houchens,

(1999) found that greater than half of these children had been victims of both physical and sexual abuse by greater than two perpetrators, and that age four was the average age of onset of their maltreatment. In addition, these children were found to have acted out sexually against an average of two other children. Thirty-five percent of the children sexually acted out against their siblings, and 34% sexually acted out against their friends. Eleven percent acted out sexually against other relatives, and 7% acted out sexually against animals. One third of the children in the study were found to have been sexually abused by other children and adolescents. Finally, the researchers found that children who were victims of multiple perpetrators had more victims themselves, as well as more psychiatric diagnoses.

Widom and Ames (1994) indicated that in adults, a history of childhood sexual abuse (in the absence of physical abuse or neglect) was associated with a significant increase in arrest rates for sex crimes and prostitution, regardless of gender. Further supporting the theory that children who have been sexually abused themselves are likely to abuse others, Worling (1995) conducted a study with 90 male adolescent sexual offenders and collected histories on their sexual offending and victimization. The offenders were divided into four groups, based on their victim's gender and age. In the groups of adolescents with at least one male child victim, 75% had been sexually victimized themselves as a child. This compared with only 25% of the group with only female victims. Worling provided three explanations for the findings including: 1) the victim may have been sexually stimulated by their own abuse by a male, and subsequent masturbation to similar fantasies may cause conditioning/arousal to young boys, 2) if the offender was sexually abused by a male, questions about sexual orientation may arise,

and 3) social-learning principles dictate that some victims of sexual abuse will model their own victimization. These findings and Worling's explanation are related to the stage-salient tasks of development of the self-system to include possible gender identification and development of sexual identity and interests. In addition, the etiological learning theory for sexual offending behavior is supported.

Although not limited to adult sexual offenders, another study conducted with incarcerated male offenders indicated that of the 100 male inmates, participating in the retrospective surveys, 59% reported being a victim of sexual abuse at the age of 13 or younger. The initial incident of abuse occurred at a mean age of 9.6. These findings suggested that adult male offenders report a high percentage of sexual abuse victimization during childhood (Johnson, Ross, Taylor, Williams, Carvajal, & Peters, 2006). Johnson et al. suggested that the majority of studies examining abuse histories of incarcerated offenders have focused on sex offenders. For example, research indicated that serial rapists reported the highest prevalence rates of history of sexual abuse (76%), with rates ranging from 41-43% for other sexual offenders (Holmes & Slap, 1998). Romano and De Luca (1997) reported that 75% of adult child sexual abuse perpetrators report being victims of sexual abuse during their own childhood.

Taken together, these studies provide support for the idea that many perpetrators of sexual abuse have a history of sexual victimization, and that for many, this abuse began in early childhood.

Condition #2: The nature of the victim's relationship with their main support system is significantly altered due to the victimization

In addition to an altered relationship with the support system, it is likely that there were problems with the support system prior to the abuse, particularly if the perpetrator was a parent, caregiver, or family member. If the trauma or abuse involved the main attachment system, the relationship may have become contaminated, and these children would suffer consequences unique to and which corresponded to the damage and loss that has occurred in the relationship. There is a literature base concerning effects of incest as well as attachment which addresses this condition.

Dubner and Motta (1999) performed an analysis with a group of children placed in foster care due to an incident of sexual abuse or physical abuse. Both the groups of children with sexual abuse and physical abuse, related to their being placed into foster care, exhibited significant levels of posttraumatic stress disorder.

According to Cole and Putnam (1992), incest is a particularly traumatic and detrimental type of sexual abuse which seems to occur within a broad environment of general family dysfunction. Victims in incestuous relationships experience not only physical and psychological trauma but the damage of a significant relationship with an emotionally important and previously trusted individual. Particularly when the perpetrator was a parent or primary caregiver, Cole and Putnam indicated that the abuse is a major violation of the victim's core assumptions about trust and safety in important relationships. They indicated that the child's primary source of support also profoundly becomes his/her primary source of distress. In this context, understanding becomes clearer as to how the victim's meaning of close and personal relationships would be

negatively altered, and the long-term impact of this change would be significantly detrimental, leading to unsuccessful relationships, lack of trust, and possible future victimization in relationships.

Cole and Putnam (1992) conducted a literature review and found the following to be long-term effects of incestuous relationships, particularly those of father and daughter: borderline personality disorder, multiple personality disorder, somatoform disorder, eating disorder, and substance abuse disorders. They cited the following as effects of child sexual abuse in general: low self-esteem, anxiety, and depression.

It appears that incest occurs most often between a parent/caregiver and a child when there was a problematic attachment. Erikson indicated that a secure attachment, established early was associated with avoidance of incestuous behavior (as cited in Alexander & Anderson, 1997). When attachment fails, and a child is reared in an abusive family, incest may occur. Disruptions in attachment relationships occur with the perpetrator as well as the non-abusing parent in many cases due to the non-abusing parent being perceived as non-protecting (Alexander & Anderson).

Another interesting finding in the literature pertains to the extended family of sexual abuse victims and perpetrators, lending support to the idea that those family relationships are altered, sometimes for generations. Gray et al. (1999) examined the extended family of 127 victims. They found that in families with one victim, 66% had at least one other victim of sexual abuse, with a mean of 1.6 additional victims per family. Forty-five percent of these families contained at least one additional sexual abuse perpetrator, with a mean of two additional perpetrators per family. Ninety-four percent of the victims came from the extended family network, and 36% of the abusers abused their

own biological child, with this relationship being the most common. In summary, in families with one victim or one perpetrator, there was a likelihood of additional victims and perpetrators within the family system.

It has also been shown that perpetration by a parent or caretaker, along with other characteristics of the abuse will contribute to negative outcomes for the young victim. For example, Friedrich, Urquiza, & Beilke (1986) reported that sexual behavior problems appearing in sexually abused children appeared to be related to the child's age at victimization, the relationship of the perpetrator to the victim, the number of perpetrators, characteristics of the abuse such as frequency and duration, and the length of time since last abuse. Specifically, when younger children were recently abused by a parent, someone close to the child, or numerous perpetrators, and the nature of the abuse was more chronic and long-term, as well as invasive, these children were more likely to exhibit sexualized behavior.

Taken together, these studies contributed to the hypotheses that impaired attachment relationships may be included among the causes and consequences of childhood sexual abuse. Sexual abuse perpetrated by a parent, caregiver, or family member likely impacts attachment as well as the victim's ideas about relationships, trust, and intimacy. The developmental implications of this outcome are profound.

Condition # 3: The victimization has an additive effect when combined with other serious stressors.

Over the years, various researchers have studied abuse, stress, and trauma on children and considered these variables in terms of cumulative effects rather than as presence or absence of stressors. Different labels have been presented by various

researchers including polyvictimization (Finkelhor, Ormrod, & Turner, 2007), multi-type maltreatment (Higgins & McCabe, 2001), and complex trauma (van der Kolk, 2005).

Recent research by Finkelhor and colleagues (2005) revealed that previous studies have likely missed the pervasive level of abuse suffered by many children, by focusing on only one type of abuse. In their research, they found that children suffering from multiple victimizations are the norm, and that 97% of the children in their study with a history of sexual abuse also experienced additional types of victimization. They considered victimization in childhood to be more of a chronic condition than as a single incident of trauma. This research led to current research by Finkelhor, Ormrod, and Turner (2007) on poly-victimization, a term used to describe the experiences of children who have been subjected to at least four different types of victimization in a single year. They argued that most studies overestimated the impact of a single type of trauma in children and failed to take into account numerous other types of trauma which also may exist. In a sample of 2,030 children ages 2-17, 22% met criteria for poly-victimization which may include exposure to 1) violent and property crimes, 2) violations of child welfare, 3) warfare and civil disturbance violence, and 4) bullying, resulting in a possibility of 33 different victimization types. The researchers found that 71% of the children experienced at least one victimization, and 69% of those experienced at least one other type within the same year. The range of victimizations was 0-15, and the mean was three different types within a single year. As expected, they also found that children who were poly-victims reported more psychiatric/psychological symptoms than those experiencing only one type of victimization (Finkelhor, Ormrod, & Turner). This research did not provide conclusions about which type of victimizations were the most

damaging, but rather, that a combination of abusive experiences was the most important thing to consider when evaluating children and young people.

Previous research has focused on multiple types of abuse occurring in various combinations, without specifying a certain number of stressors or traumas must be present for a certain outcome as indicated by Finkelhor and poly-victimization. For example, Higgins and McCabe (2001) used the term *single-type* maltreatment to refer to the experience of only one type of maltreatment (i.e., physical, sexual, emotional, or neglect), and the term *multi-type* maltreatment to refer to the experience of more than one type of abuse. Higgins and McCabe indicated being among only a few who had considered multiple experiences of abuse whereas there were a multitude of studies focusing on only one type of maltreatment. The researchers proposed that "the comorbidity of maltreatment types may have either a cumulative or an interactive effect" (p.548).

According to Valle and Silovsky (2002), the combination of childhood sexual abuse and physical abuse has been linked to the presence of externalizing behavior problems to include aggression and oppositional behavior, as well as conduct problems, delinquent behavior, low self esteem, deficits in social competency and interpersonal relationships in children.

Bagley and colleagues (1994) found that males reporting a history of both sexual and emotional abuse, reported significant mental health symptoms including depression, anxiety, suicidal feelings and actions, posttraumatic stress, and experiences of dissociation. They also found that the strongest predictor of sexual behavior and interest

in male adolescents as well as either male or female children was when multiple episodes of both sexual and emotional abuse occurred to the same individual.

Some researchers have shown that regardless of whether maltreatment is present, children exposed to numerous environmental vulnerability factors (i.e. low parental monitoring, low paternal knowledge, low early social competence, low early and adolescent SES) experienced an additive effect from the negative experiences and were likely to exhibit both externalizing and internalizing problems (Lansford et al., 2006). An increasing number of traumatic events or stressors increased the likelihood of negative outcomes for a child/adolescent (Cicchetti & Rogosch, 2002). The term *complex trauma* is often used to describe "the experience of multiple, chronic, and prolonged, developmentally adverse traumatic events" (p.402), and particularly includes trauma beginning at an early age and consisting of interpersonal violations such as physical, sexual, and emotional abuse (van der Kolk, 2005).

Younger age of victimization has also been demonstrated to be associated with future victimization. In a sample of 396 adolescent males who were victims of both physical and sexual abuse, the risk for being victimized multiple times was associated with alcohol problems within the family, being Native American, and having an earlier age of onset of sexual victimization. Limits of this study included the retrospective nature of the study and self-reports of the victims (Stevens, Ruggiero, Kilpatrick, Resnick, & Saunders, 2005).

Taken together, this research suggested that when multiple types of trauma or victimization, or even multiple serious stressors occur in childhood, there is an additive

effect. Outcomes appear particularly poor for this group as evidenced by the large variety of psychopathology which may appear in this group.

Condition # 4: The victimization occurs during a critical period of developmental task and interrupts successful navigation of the stage.

In looking at the fourth condition, there is not only a focus on the stage-salient developmental tasks, but also a focus on the timing of victimization. Finkelhor referred to the timing of victimization on developmental tasks as "Developmentally Specific Effects" (Finkelhor, 1995, p.185). Trickett and Putnam (1993) indicated that one of the challenges in this area of research is the documentation of the way victimization can have different effects depending upon the various stage of development that an individual is in (as cited in Finkelhor, 1995).

Cicchetti and Cohen, (1995) indicated that some intricate expressions of symptomatology are deeply rooted in an individual's childhood, and that for some symptoms, psychopathology, and traumatic experiences, there is a sense of "time frozen…creating a constriction and rigidity that defends against further growth" (p. 438). Along these lines, Rutter (1989a) has proposed that experiences of maltreatment will impact people differently depending on the timing and nature of the abusive experience (as cited in Cicchetti & Toth, 1995). Finkelhor's model of victimization focused on the developmental context of the victimization and proposed several areas of research which are important from a developmental perspective: an analysis of how various symptoms and reactions occur and differ according to the stage of development an individual is in, an analysis of victim reactions as they change over the range of development, and an analysis of critical periods and the possibility that an extraordinary reaction may occur if

victimization occurs during a critical phase of development (Finkelhor & Kendall-Tackett, 1997). Subsequent to Finkelhor's recognition of the need for a developmentally-oriented focus, several researchers have attempted to conduct such research.

Early Maltreatment

Manly, Kim, Rogosch, and Cicchetti (2001) found that earlier and more chronic maltreatment was associated with more deleterious effects, as the effects of abuse and maltreatment appear to have a cumulative effect through subsequent years and continuing abusive conditions. Children with adequate care and treatment during the infancy and preschool years are thought to possess a protective factor due to the relative successful mastery of their initial developmental tasks. The theory that earlier abuse is more detrimental to children than later abuse is further supported in a study by Hunter and Figueredo (2002) who reported that children with sexual acting out problems were more likely to have experienced a history of sexual victimization at an earlier age, to be more severely maltreated, and their family members to be more unsupportive than sexually abused children who did not act out sexually. Once again, there are developmental implications for the above findings. Early abuse may prevent mastery of attachment, establishment of sense of self, and other early developmental tasks, and this likely harms the foundation upon which further developmental tasks are based. Unsupportive family members are likely indicative of an impaired attachment system as well. These studies, which supported the detrimental outcomes of early maltreatment, highlight the systemic damage which occurs when early developmental tasks are impaired.

Other research has shown that a history of maltreatment prior to the age of three increases the likelihood of insecure attachments with others as well as lays the foundation

for future abuse and future maladaptive adjustment. Furthermore, the researchers concluded that maltreatment during the early years does not "inoculate the child from the effects of subsequent maltreatment" (Manly et. al. 2001).

Recent research by Chromy (2007) found a relationship between age of onset of sexual victimization and sexual behavior problems with children exhibiting sexual behavior problems being sexually abused at a younger age than those not exhibiting such problems. This research supported findings of McClellan et al., (1996) which indicated that early sexual abuse is predictive of subsequent sexual behavior problems. In their study of 499 psychiatrically hospitalized youths aged 5 to 18, a history of sexual victimization with onset prior to age seven was significantly associated with a variety of sexual behaviors including hypersexuality, exposing, and victimization of others. In addition, 79.5% of the group sexually abused prior to the age of three exhibited sexual behavior problems as well as were more likely to have experienced multiple types of abuse (physical, sexual, neglect), to have had more abusers, to experience more chronic abuse, to be abused by a parent/stepparent, and to have come from more generally disruptive family settings.

Manly et al., (2001) conducted a study with 814 children of which 492 had a history of maltreatment and 322 had no reported history of maltreatment. They were able to draw conclusions about the differential effects that abuse occurring during different developmental stages may have on the victim. Results of their study indicated that the severity of emotional maltreatment in infancy and toddlerhood and physical abuse during preschool predicted future aggressive and externalizing behaviors, particularly in middle childhood. In addition, after a history of earlier maltreatment was controlled for,

maltreatment during the school-age period continued to predict externalizing behavior, indicating that these children, when compared to nonmaltreated children, still displayed more aggression, withdrawal, and less cooperative behavior. In addition, these children exhibited lower levels of ego resiliency and more ego undercontrol. Furthermore, the authors concluded that conditions of poverty combined with adverse caregiving "may present an accumulation of risk factors that exacerbates the negative effects of each" (p.776). Maltreatment occurring on a chronic basis, particularly with onset occurring in infancy, toddlerhood or preschool, was linked with more maladaptive outcomes. In addition, internalizing problems and withdrawal were predicted by physical neglect, especially when it occurred during the preschool years. In cases of sexual abuse, links were made between a history of sexual victimization and externalizing symptomatology and aggression. When sexual abuse was present only during the school-age years, children exhibited less aggression and increased withdrawal as compared to the preschool-limited abuse group. In conditions of both physical and sexual abuse, children had lower levels of ego resiliency and ego undercontrol which suggested that "this extensively maltreated group of children may be at highest risk for future maladaptation" (p.779). Overall, the researchers concluded that "very early maltreatment signifies extreme risk for later successful adaptation" (p.776).

Middle Childhood

Regarding the middle childhood period, Manley et al. (2001) found that when maltreatment was limited to the school-age (middle childhood) period, these children demonstrated impaired peer interactions. This is likely because development of functional peer interactions and friendships is a primary developmental task of this

period; however, when compared to the group of children who were maltreated on a more chronic basis, there were fewer overall deleterious effects on personality and psychological functioning. Wolfe and McGee (1994) indicated that with females, higher levels of present adjustment problems existed when neglect or psychological abuse occurred during middle childhood as compared to early childhood (as cited in Cicchetti & Toth, 1995).

In a study of individuals with dissociative disorder, Putnam (1991) found that serious sexual and physical victimization, prior to the victim being eight years old, was a common factor. According to this study, it appears that the age of eight may be a critical age for serious sexual and physical abuse. It may be that children of this age do not have a well developed repertoire of coping mechanisms, and thus they rely on dissociation. Weeks and Widom (1998) report 68% of adult male offenders were victims of physical or sexual abuse or neglect prior to age 12 as found in a study completed in 1998 by the National Institute of Justice on a New York prison population.

Adolescence

As earlier indicated, there are stage-salient tasks specific to adolescents who are involved in numerous ongoing developmental stages. The issues surrounding adolescent and adult sexual offenses are different, and it is important to understand these differences when examining adolescent sexual offending (Harnett and Misch, 1993). The developmental tasks of adolescence include the formation of intimate relationships, peer relationships, and psychosexual development. In situations where children and adolescents have a history of sexual victimization, there is likely exposure to deviant sexual experiences and a lack of normative sexual experiences. In some cases, according

to Coie (1990), several variables including this exposure to deviant sexual activity, lack of correct knowledge about sexual matters, low self-esteem, poor confidence in social situations, peer rejection, and being in an overprotective family combine to further hinder the possibility the adolescent will successfully foster and maintain intimate relationships with others. Harnett and Misch (1993) indicated that if adolescents are not able to form normative intimate relationships with peers, the opportunity to develop normal and appropriate ideas and experiences about sexual behavior will be harmed, and therefore the individual's sexual repertoire will only contain deviant and nonnormalizing experiences.

Another developmental task of adolescence is the development of self-concept. "As predicted by the Focal Theory, adolescents who lose control over the pace of changes and the course of events in their lives, are at risk of developing a lowered sense of personal efficacy" (Harnett & Misch, 1993, p. 403). Adolescents engaging in sexually abusive behavior may label themselves as a "sexual pervert" or may deny responsibility for their behavior. Both cognitions may have deleterious effects on self-esteem. In addition, as earlier reported, Eckenrode et al., (2001) found that when maltreatment was limited to adolescence or persistent throughout childhood and adolescence, more negative outcomes occurred than with children and adolescents with no history of maltreatment.

What does this all mean?

Although being a victim of sexual abuse does not mean that the victim will go on to commit a sexual offense, abuse studies suggested that being a victim of sexual abuse prior to adolescence (likely in the presence of other risk factors as well) is a significant risk factor for perpetration of sexual offending behavior or sexually inappropriate

behavior. These studies provided support for a critical age of impact as well. While one study reported that a critical age was as young as age four (Gray et al., 1999), other studies reported ages 12 (Weeks and Widom, 1998) and 13 (Johnson et al., 2006) as critical ages. Taken together, there is an empirical basis for hypothesizing that being a victim of sexual abuse by age 13 is a significant risk factor for perpetration of future sexual offending behavior. This literature base provided significant support for a further analysis into the impact that developmental stage plays on both short-term and long-term effects of victimization.

Researchers have attempted to make a connection between victimization at specific ages and stages and specific developmental outcomes. A substantial effort has been placed on identifying consequences of childhood abuse from a developmental perspective. There are few findings, however, which offer specific and distinctive results as many studies provided non-specific results including a large number of symptoms and outcomes. There are also vague and non-specific results regarding age ranges impacted, such as childhood in general rather than specifically early or late childhood. There is a need for more precision of predictors as well as for distinct and specific conceptual links. Although the need for this type of research has been specified in the literature, many questions regarding links between age of abuse and developmental consequences remain. This paper sought to provide more precise information concerning how detrimental effects of abuse are likely to vary depending on the child's developmental stage and sought to test some of these previous hypotheses and results and to provide a more precise picture of specific stressors, such as physical and sexual abuse, and the specific outcomes which may be associated with the particular period of development during

which the maltreatment occurred. Also, this dissertation addressed some of the methodological problems which have plagued research in this area including small sample sizes, lack of control groups, design flaws, studies conducted with no specific hypothesis or theory as a foundation, and problems with measures.

The best foundation for such a project is to start with a strong conceptual model. At this point, the strongest, most operationalized model is David Finkelhor's analysis of the developmental consequences of victimization and trauma in the lives of children. His four conditions of this model provide a framework of testable hypotheses following from the examination of stress, trauma, and victimization as antecedents of maladjustment and offending behavior. Using his general outline, specific hypotheses drawn from each of the four conditions were evaluated using a population of high-risk, highly traumatized adolescents.

Hypotheses

Condition 1: Juveniles who have been victims of repetitive and ongoing conditions of victimization will have more negative outcomes than juveniles who have no history or minimal history of such victimization.

1a. Juvenile sexual offenders with a history of sexual abuse will have more sexual victims of their own than subjects without a history of their own victimization. Juvenile sexual offenders will be compared on history of sexual abuse, and the dependent variable will be the total number of sexual abuse victims reported by the juvenile sexual offender.

1b. Repetitive and ongoing conditions of victimization will result in more victimization of others. Juvenile sexual offenders will be divided into three groups based on their total number of sexual abuse victimizations and compared on the total number of their own sexual abuse victims.

1c. Juvenile sexual offenders with a history of repetitive episodes of sexual victimization are more likely to offend sexually against under age victims and to have sexual interest in children. Juvenile sexual offenders will be divided into two groups based on history (or no history) of sexual abuse and compared on the age of their own victims (younger by four years, peer age or older, mixed pattern).

1d. Juvenile sexual offenders with a history of repetitive sexual victimization will have greater levels of internalizing symptoms than juvenile sexual offenders with

no history of sexual victimization. Juvenile sexual offenders will be divided into three groups based on their total number of sexual abuse victimizations and compared on the variables of the internalizing variable group (MACIANX-MACI anxiety, MACIDEPR-MACI depression, MACISUIC-MACI suicidal tendency, JISOCANX-Jesness social anxiety, and JIWITHD-Jesness withdrawal).

1e. Juvenile sexual offenders with a history of repetitive sexual victimization will have greater levels of externalizing symptoms than juvenile sexual offenders with no history of sexual victimization. Juvenile sexual offenders will be divided into three groups based on their total number of sexual abuse victimizations and compared on the variables of the externalizing variable group (MACIUNRU-MACI unruly, MACIFORC-MACI forceful, MACIOPPO-MACI oppositional, MACIDELI-MACI delinquent predisposition, JIMANIF-Jesness manifest aggression, and HARE10-poor anger control).

Condition 2: Juveniles whose relationship with their main support system is significantly altered due to the victimization will suffer more detrimental effects than those who have a supportive system/environment.

2a. Juvenile sexual offenders with a history of an incestuous sexual victimization will exhibit depression, suicidal thoughts/behaviors, and internalizing problems. Juvenile sexual offenders will be divided into three groups based on their history of incest (no sexual abuse, non-incestuous sexual victimization, incestuous sexual victimization) and compared on the variables of the internalizing variable group.

2b. Juvenile sexual offenders with a history of an incestuous sexual victimization will exhibit externalizing problems. Juvenile sexual offenders will be divided into

three groups based on their history of incest (no sexual abuse, non-incestuous sexual victimization, incestuous sexual victimization) and compared on the variables of the externalizing variable group.

2c. Juvenile sexual offenders with a history of an incestuous sexual victimization will show poor relationships with others, lack of trust, and poor relationships with both parents. Juvenile sexual offenders will be divided into three groups based on their history of incest (no sexual abuse, non-incestuous sexual victimization, incestuous sexual victimization) and compared on the variables: Jesness Alienation Scale, number of trusted friends, IPPA Parent Trust Total, IPPA Peer Trust Total, PBI Mother Care Total, and PBI Father Care Total.

2d. Juvenile sexual offenders with a history of an incestuous sexual victimization will report substance use. Juvenile sexual offenders will be divided into three groups based on their history of incest (no sexual abuse, non-incestuous sexual victimization, incestuous sexual victimization) and compared on the variables: SASSI2 Face Valid Alcohol, SASSI2 Face Valid Drugs, SASSI Face Valid Alcohol, and SASSI Face Valid Drugs.

2e. Juvenile sexual offenders with a history of an incestuous sexual victimization will exhibit traumatic stress. Juvenile sexual offenders will be divided into three groups based on their history of incest (no sexual abuse, non-incestuous sexual victimization, incestuous sexual victimization) and compared on the variables: K-SADS Posttraumatic Stress Current, and K-SADS Posttraumatic Stress Past.

2f. Juvenile sexual offenders with a history of physical abuse by a family member will exhibit depression, suicidal thoughts/behaviors, and internalizing problems.

Juvenile sexual offenders will be divided into three groups based on their history of physical abuse (no physical abuse, non-family member physical abuse, physical abuse by a family member/relative) and compared on the variables of the internalizing variable group.

2g. Juvenile sexual offenders with a history of physical abuse by a family member will exhibit externalizing problems. Juvenile sexual offenders will be divided into three groups based on their history of physical abuse (no physical abuse, non-family member physical abuse, physical abuse by a family member/relative) and compared on the variables of the externalizing variable group.

2h. Juvenile sexual offenders with a history of physical abuse by a family member will show poor relationships with others, lack of trust, and poor relationships with both parents. Juvenile sexual offenders will be divided into three groups based on their history of physical abuse (no physical abuse, non-family member physical abuse, physical abuse by a family member/relative) and compared on the variables: Jesness Alienation Scale, number of trusted friends, IPPA Parent Trust Total, IPPA Peer Trust Total, PBI Mother Care Total, and PBI Father Care Total.

2i. Juvenile sexual offenders with a history of physical abuse by a family member will use substances. Juvenile sexual offenders will be divided into three groups based on their history of physical abuse (no physical abuse, non-family member physical abuse, physical abuse by a family member/relative) and compared on the variables: SASSI2 Face Valid Alcohol, SASSI2 Face Valid Drugs, SASSI Face Valid Alcohol, and SASSI Face Valid Drugs.

2j. Juvenile sexual offenders with a history of physical abuse by a family member will exhibit symptoms of traumatic stress. Juvenile sexual offenders will be divided into three groups based on their history of physical abuse (no physical abuse, non-family member physical abuse, physical abuse by a family member/relative) and compared on the variables: K-SADS Posttraumatic Stress Current, and K-SADS Posttraumatic Stress Past.

Condition 3: Juveniles who have experienced more than one type of abuse or abuse in combination with other major stressors will experience an additive effect and have more detrimental outcomes than juveniles with no abuse, one type of abuse, or few major stressors.

3a. Juvenile sexual offenders with a history of both sexual and physical abuse will exhibit internalizing symptoms such as depression, anxiety, withdrawal, social anxiety, and suicidal tendency. Juvenile sexual offenders will be divided into four groups based on history of physical and (or) sexual abuse (no history of abuse of either type, history of sex abuse only, history of physical abuse only, history of both sexual and physical abuse) and compared on the variables of the internalizing variable group.

3b. Juvenile sexual offenders with a history of both sexual and physical abuse will exhibit externalizing behavior problems such as aggression, oppositional behavior, conduct problems, and delinquent behavior. Juvenile sexual offenders will be divided into four groups based on history of physical and (or) sexual abuse (no history of abuse of either type, history of sex abuse only, history of physical

abuse only, history of both sexual and physical abuse) and compared on the variables of the externalizing variable group.

3c. Juvenile sexual offenders with a history of both sexual and physical abuse will exhibit low social competence and problems with relationships with others. Juvenile sexual offenders will be divided into four groups based on history of physical and (or) sexual abuse (no history of abuse of either type, history of sexual abuse only, history of physical abuse only, history of both sexual and physical abuse) and compared on the variables: MACI self-devaluation, Jesness social anxiety, Jesness social maladjustment, and Hare17-unstable interpersonal relationships.

3d. Juvenile sexual offenders with numerous traumatic events and stressors will be at increased risk for negative outcomes (internalizing and externalizing symptoms) in childhood and adolescence. Juvenile sexual offenders will be divided into three groups based on their experiences of various types of stress/trauma/victimization (no stress/trauma/victimization, one to three incidents of stress/trauma/ victimization, and four to seven incidents of stress/trauma/victimization) and compared on the variables of the internalizing and externalizing variable groups.

Condition 4: When victimization occurs during a critical period of the developmental task, successful navigation of the stage will be interrupted and more negative outcomes will occur than if the abuse occurs later and after the developmental tasks are complete.

4a. Juvenile sexual offenders with both physical and (or) sexual abuse during childhood will show increased symptoms on the internalizing symptom

variable group. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no sexual abuse, sexual abuse onset age six or before, and sexual abuse onset after age six) and age of onset of physical abuse (no physical abuse, physical abuse onset age six or before, and physical abuse onset after age six) and compared on the variables of the internalizing variable group.

4b. Juvenile sexual offenders with both physical and (or) sexual abuse during childhood will show increased symptoms on the externalizing symptom variable group. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no sexual abuse, sexual abuse onset age six or before, and sexual abuse onset after age six) and age of onset of physical abuse (no physical abuse, physical abuse onset age six or before, and physical abuse onset after age six) and compared on the variables of the externalizing variable group.

4c. Juvenile sexual offenders with both physical and (or) sexual abuse during childhood will exhibit problems with ego resiliency and self-value. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no sexual abuse, sexual abuse onset age six or before, and sexual abuse onset after age six) and age of onset of physical abuse (no physical abuse, physical abuse onset age six or before, and physical abuse onset after age six) and compared on the variables: MACI identity diffusion and MACI self-devaluation.

4d. Juvenile sexual offenders with an experience of sexual abuse at age six or before are likely to be victims of additional types of abuse or neglect. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse

(no sexual abuse, sexual abuse onset age six or before, and sexual abuse onset after age six) and compared on experience of different types of abuse (cumulative score of physical abuse, sexual abuse, and neglect).

4e. Juvenile sexual offenders with an experience of physical abuse at age six or before are likely to be victims of additional types of abuse or neglect. Juvenile sexual offenders will be divided into three groups based on age of onset of physical abuse (no physical abuse, physical abuse onset age six or before, and physical abuse onset after age six) and compared on experience of different types of abuse (cumulative score of physical abuse, sexual abuse, and neglect).

4f. Juvenile sexual offenders are likely to have a history of their own sexual victimization age 12 or younger. Juvenile sexual offenders will be compared with non-sexually offending juvenile delinquents on age of onset of sexual abuse (no history of sexual abuse, history of sexual abuse prior to age 12, and history of onset of sexual abuse age 12 and after).

4g. Juvenile sexual offenders with a history of sexual abuse or physical abuse prior to the age of 12 will be at increased risk for criminal offending behavior. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no history of sexual abuse, history of sexual abuse prior to age 12, and history of sexual abuse age 12 and after) and age of onset of physical abuse (no history of physical abuse, history of physical abuse prior to age 12, and history of physical abuse age 12 and after). Groups will be compared on level of serious criminal behavior (HARE 18-serious criminal behavior).

4h. Juvenile sexual offenders with a history of sexual abuse or physical abuse prior to the age of 12 will be at increased risk for internalizing symptomatology. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no history of sexual abuse, history of sexual abuse prior to age 12, and history of sexual abuse age 12 and after) and age of onset of physical abuse (no history of physical abuse, history of physical abuse prior to age 12, and history of physical abuse age 12 and after). Groups will be compared on the variables of the internalizing variable group.

4i. Juvenile sexual offenders with a history of sexual abuse or physical abuse prior to the age of 12 will be at increased risk for externalizing symptomatology. Juvenile sexual offenders will be divided into three groups based on age of onset of sexual abuse (no history of sexual abuse, history of sexual abuse prior to age 12, and history of sexual abuse age 12 and after) and age of onset of physical abuse (no history of physical abuse, history of physical abuse prior to age 12, and history of physical abuse age 12 and after). Groups will be compared on the variables of the externalizing variable group.

METHOD

Participants

The subjects for this study were 614 male juveniles, age 10 years and 6 months to 19 years and 2 months, adjudicated delinquent on a variety of offenses and serving various amounts of time in an Alabama Department of Youth Services (DYS) facility. The participants were composed of two groups of offenders; 474 boys adjudicated delinquent on a sexual offense and court ordered to participate in sex offender specific treatment, and 140 boys adjudicated delinquent on non sexual offenses and not participating in sex offender specific treatment, but may have participated in other types of treatment such as substance abuse, anger management, and/or impulse control training. Subjects were 50% Caucasian, 46.3% African-American, 0.6% Hispanic, 1.6% Biracial, and 0.5% other. Grade level distribution was as follows: 7.4% of subjects were in grades 1 through 6, 58.6% were in grades 7 through 9, and 32.7 % of the subjects were in grades 10 through 12. Regarding family of origin, 52.6% of the subjects reported their biological parents were married to each other at some time, and 42.1% of the subjects reported their biological parents were never married. Prior to incarceration, 9.5 % of the subjects lived with both biological parents, 39.8% were living with only one biological parent, 26.7% were living with a biological parent and a step-parent, 3.2% were living with adoptive parents, 9.4% were living with grandparents, 7.6% were living with other relatives, and 2.3% were living with “other”. School problems were common with the subjects as 68%

repeated at least one grade in school, 51.1% had a history of special education, and 88% had one or more suspensions from school.

Abuse was also common for the subjects as 28.6% reported being a victim of sexual abuse, 34% reported being a victim of physical abuse, and 15.4% reported being a victim of neglect. A history of psychological treatment was reported for 64.9% of the subjects, and 26% reported at least one inpatient psychiatric hospitalization. For 46.3% of the juveniles the current incarceration was their first, and for 28.3% of the subjects their incarceration offense was their first arrest.

Measures

Clinical Interview

The pre-treatment clinical interview was a semi-structured document created for the on-going research program after analysis of the empirical literature on juvenile sexual offender assessment and treatment. The interview was designed to collect historical data pertaining to the adolescents' demographics, development, physical and mental health, academics, relationships/social functioning, family, history of abuse/trauma, family history of psychological and criminal difficulties, personality characteristics, and sexual history. The interview took approximately 2-3 hours to complete with each juvenile, and 200 variables are coded from the information collected from the interview.

Diagnostic Interview: Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL): Screening Measure.

According to Kaufman et al., the K-SADS-PL was designed to assist in the assessment of symptoms associated with the major DSM-IV mental disorders applicable to children and adolescents. The K-SADS-PL was not particularly designed to provide a

reliable and valid diagnosis, but to recognize the specific signs and symptoms of DSM-IV mental disorders. The K-SADS-PL represented an improvement over previous versions of the instrument. Interrater reliability is reported to be excellent at 99.7%, and interrater agreement was also high regarding diagnostic decisions. Test-re-test reliability for diagnosis assignments was in the excellent to good range for most present and lifetime diagnoses, and reliability k coefficients were reported in the excellent range for most disorders (present and/or lifetime diagnoses of major depressive disorder, any depression, depressive disorder NOS, any bipolar disorder, generalized anxiety, any anxiety, conduct, and oppositional defiant disorder) and in the good range for present diagnoses of PTSD and ADHD (1997).

Rating Scale: Hare Psychopathy Checklist: Youth Version (PCL:YV)

The PCL:YV is a 20-item rating scale for males and females aged 12-18 developed to assess personality traits/dispositions consistent with the development of a psychopathic personality pattern in adolescents (Forth, Kosson, & Hare, 2003). Empirical literature has linked this pattern with an increased likelihood of future criminal activity, the development of significant interpersonal deficits, and poor occupational and social functioning (Hare, 1991). The PCL:YV was developed from the Hare Psychopathy Checklist – Revised, the adult version used to assess psychopathic tendencies in adults. The Youth Version provides individual item scores, a total score, and two factor scores (First factor - selfish, callous, remorseless use of others; Second factor - chronically unstable/antisocial lifestyle) for two separate patterns of psychopathic personality development (Hare, 1991). Administration of the scale consisted of a detailed clinical interview and thorough review of multiple collateral sources of information to rate items.

Clinicians utilizing the measure received extensive training in order to reliably obtain and score the items (Forth et al., 2003). Regarding psychometric data for PCL:YV, there is a reported significant association between scores from the PCL:YV and recidivism as a juvenile and an adult (Forth et al., 2003). In addition, the PCL:YV has been shown to have Cronbach's alpha indices ranging from .85-.90 indicating high internal consistency and .82-.95 indicating high inter-rater reliability (Brant, Kennedy, Patrick, & Curtin, 1997; Gretton, McBride, Hare, Shaughnessy, & Kumka, 2001).

Self-Report Measures

Millon Adolescent Clinical Inventory (MACI). The MACI is a 160-item self-report inventory for 13-19 year old adolescents. The MACI has 31 scales which provide information pertaining to the adolescent's personality characteristics and clinical syndromes (Millon, Millon, & Davis, 1993). The 31 scales assessed personality patterns, expressed concerns, clinical syndromes, and modifying indices. Test-retest reliability ranged from .57 to .92, internal consistency ranged from a low of .69 to a high of .90, and the median stability coefficient for the scales was .82 (Millon et. al, 1993).

The Jesness Inventory (JI). The JI is a 155-item self-report questionnaire which assesses traits, attitudes, and perceptions consistent with a criminal lifestyle (Jesness, 2002). The measure has had several revisions since 1962 in an effort to provide a tool able to predict future delinquency and adult antisocial behavior. The inventory includes 10 personality scales and 9 subtype scales, and score interpretation permits placement of the adolescent subject into various subtypes of delinquency. Test-retest reliability of individual scales is reported to be acceptable to good, and reliability of the subtypes can be described as adequate. A median test-retest correlation coefficient of .65 was obtained for subtype

scale scores after a one year follow-up (2002). The internal consistency of the Jesness personality scales ranged from adequate to very good, except for the Immaturity scale which featured a Cronbach alpha indicative of low internal consistency (Jesness, 2002).

Parental Bonding Instrument (PBI). The PBI is a 25-item, Likert-style inventory designed to assess bonds between parent and child and parent attitudes as perceived by the child (Parker, Tupling, & Brown, 1979). The inventory consisted of two subscales: the care subscale (12 items) and the overprotection subscale (13 items) which represented two variables shown in the literature to be involved in the development of bonding between parent and child (Parker et. al., 1979). Scores are obtained separately for mother and father. The PBI has been shown to have good to excellent internal consistency, with split-half reliabilities of .74 for overprotection and .88 for care.

Inventory of Parent and Peer Attachment (IPPA). The IPPA is a 53 item, Likert-style scale designed to assess the perceptions of adolescents as pertaining to the positive and negative affective/cognitive relationship dimensions with their close friends and parents (Armsden & Greenberg, 1987). Degree of mutual trust, quality of communication, and level of anger and alienation were assessed with the IPPA through 28 parent items and 25 items about peer relationships. Good internal consistency has been reported for the IPPA with Cronbach's alpha coefficients of .72 to .91 for the subscales, and correlation coefficients of .86 for the peer attachment subscale and .93 for the parent attachment subscales have been reported for test-retest reliability (Armsden & Greenberg).

Substance Abuse Subtle Screening Inventory: Second Edition (SASSI-2). The SASSI-2 is a 100-item self-report instrument used to assess various signs and symptoms associated with abuse and dependence on substances. The SASSI-2 is an improved and revised

version of the SASSI (Miller, Renn, & Lazowski, 1990). No test-retest reliability or alpha coefficients were reported in the instrument manual, but a 94% rate was reported for overall accuracy with identifying substance abuse disorders in a sample of adolescents involved with substance abuse treatment and juvenile justice populations (Miller, Renn, & Lazowski).

Procedure

This dissertation was part of a larger grant-funded research program designed to assess juvenile sexual offenders both prior to and after completion of sex offender specific treatment. As part of the research program every juvenile entering the facility and adjudicated on a sexual offense was required to participate in an assessment protocol which takes approximately nine to ten hours to complete and consists of a comprehensive clinical interview, a standard diagnostic interview, two rating scales (only one will be used in this study), and nine self-report measures (only six will be used in this study). All of the assessment measures and interviews were chosen subsequent to the protocol developers analyzing the empirical literature on juvenile sexual offender assessment and treatment. The protocol and project were started five years ago, and periodic revisions have been made as necessary and appropriate since the project began. Graduate students in a local doctoral program were responsible for administration of the protocol to the juveniles, coding of the data, and entering the data into the research database. Undergraduate students, supervised by the graduate students, participated in administration and scoring of self-report measures. Once each juvenile completed treatment, a post-therapy assessment protocol was administered by graduate students, and caseworkers and group therapists participated in rating each juvenile's progress

throughout the treatment process. The post-therapy assessment protocol consisted of a comprehensive clinical interview and administration of self-report measures as well as review of relevant file information and review of the ratings given by caseworkers and treatment group leaders. In addition to every adjudicated sexual offender participating in this process, the pre-treatment assessment protocol was also administered to as many of the non sexual offender group as possible. This group only received the pre-treatment assessment and acted as a control group for this study. Pre-therapy data alone were presented in this dissertation.

During the first meeting with each juvenile, the assessment process was explained, as well as the research project, the graduate student's role in the process, and an explanation of the information the juvenile would be providing. Limits of confidentiality were explained as well as the juvenile's rights as participants in the research project. It was explained to each juvenile that they must participate in the assessment, but could elect not to allow their information to be used in the research project. They could also withdraw consent and/or request a break if so desired. If they chose to participate in the research project, it was explained that they would be assigned a number to be placed on all research materials so that their names would remain confidential. A detailed assent form was presented to each juvenile explaining the study and providing them an opportunity to consent to participation in the research project. A copy of the form was placed in the juvenile's file, and a copy was given to each participant to keep. At the point of the initial assessment, each juvenile was also informed they would participate in a post-therapy assessment as well. The juveniles were instructed to be honest and candid with their responses, and in cases where inconsistencies or

guardedness were detected, researchers attempted to clarify information the juvenile provided and clear up inconsistencies in the youth's report by reviewing available records and asking clarifying questions.

The order of administration of self-report measures and participation in the structured and semi-structured clinical interviews were balanced so that not all juveniles were interviewed prior to completing the self-report measures and vice versa, and the self-report measures were administered on a different day than the interview was conducted. Almost two-thirds (70.1%) of participants were interviewed prior to the administration of self-report measures, while the remaining 29.1% of our sample completed the self-report battery first. The typical amount of time each juvenile took to complete the entire assessment protocol ranged from 10-14 hours.

Extensive training was required of all students, both graduate and undergraduate who participated in administration of assessment measures. All training was specific to working with incarcerated juveniles. Graduate students' training included building rapport with detained youth, basic interviewing skills, and administration/scoring the K-SADS-PL, Juvenile Sexual Offender Assessment Protocol (not used in this study), and Hare Psychopathy Checklist – Juvenile Version. Graduate and undergraduate students were supervised by a licensed clinical psychologist with specialization in the area of juvenile delinquency and juvenile sexual offenders. In addition, weekly meetings were held for all individuals working on the research project to resolve scoring discrepancies and discuss the experience as a whole. In addition, on several occasions, multiple researchers assessed the participants simultaneously and scored the protocols

independently to ensure researchers were calibrated in their scoring of the protocols and measures and to ensure data was collected and scored in a reliable manner.

The undergraduate students who participated in self-report administration also received training consisting of building rapport with detained youth, detecting reading and/or learning problems which could affect the accuracy of the information collected, and in assisting participants with questions or concerns about the process or items on the self-report measures. Frequently, the undergraduate students read the self-report questions to participants. Training also included procedures for scoring the self-report measures, most of which were scored manually. Computer scoring was available for the Millon Adolescent Clinical Inventory and Jesness Inventory. For manual scoring, undergraduate students were trained on the proper scoring procedure, were asked to score the measures, and a graduate student performed a second scoring procedure to check for accuracy. Discrepancies were corrected both on the measures and in the database.

Finally, in order to ensure information was accurately coded and entered onto a variable coding sheet and was accurately entered in the computer database, Graduate students were double checked on a random basis for accuracy in both stages of recording the information.

Analyses

The current project attempted to replicate findings in the literature on conditions of abuse and victimization related to negative outcomes for children and adolescents. In addition, outcomes were considered from a developmental perspective and represented a recent trend in the literature of examination of the impact of multiple types of victimization on children. The current study provided a contribution to the existing

literature by utilizing a large sample with multiple, standardized measures. All dependent variables are presented in Table 1.

In an effort to create some consistency between the hypotheses, to capture central findings in the literature of consistent internalizing and externalizing consequences of abuse, and to operationally define these symptoms, a set of internalizing and externalizing variables were composed. These variable groups were tested for each of the four conditions proposed by Finkelhor and tested in this study. Due to the database being so large for this project, and there being multiple measures for various symptomatology (for example, depression was measured by the Millon Adolescent Clinical Inventory, Reynolds Adolescent Depression Scale, and K-SADS depression scales), there was a need to simplify and determine which measures were best to use for analyses. In order to find the best variables to use, several correlations were run to determine which group of variables were correlated and would be good measures to represent internalizing and externalizing symptoms. The final variables for the internalizing variable group were MACI anxiety, MACI depression, MACI suicidal tendency, Jesness social anxiety, and Jesness withdrawal (see Table 2). The final variables for the externalizing variable group were MACI unruly, MACI forceful, MACI oppositional, MACI delinquent predisposition, Jesness manifest aggression, and HARE10-poor anger control (see Table 3).

Three types of analyses were conducted for this study and included chi-square, analyses of variance, and multivariate analyses of variance. In cases where the juvenile sexual offender subjects were divided into sexually or physically abused offenders and non-physically abused offenders, and the dependent variables were continuous measures

Table 1

<u>Dependent variables examined through 1-way Analyses of Variance (ANOVA) and Multivariate Analyses of Variance (MANOVA) - (continuous variables)</u>

Victim total – Total number of sexual abuse victims

Age of victim relative to offender – Younger by four or more years, peer age or older, mixed pattern

Internalizing variable group variables

- MACI anxiety
- MACI depression
- MACI suicidal tendency
- Jesness social anxiety
- Jesness withdrawal

Externalizing variable group variables

- MACI unruly
- MACI forceful
- MACI oppositional
- MACI delinquent predisposition
- Jesness manifest aggression

Interpersonal variables

- Jesness alienation
- # of trusted friends
- IPPA parent trust total
- IPPA peer trust total

Table 1 (continued)

Dependent variables examined through 1-way Analyses of Variance (ANOVA) and Multivariate Analyses of Variance (MANOVA) - (continuous variables)

- PBI mother care total
- PBI father care total

Substance abuse scales

- SASSI2 face valid alcohol score
- SASSI2 face valid drug score
- SASSI face valid alcohol score
- SASSI face valid drug score

Trauma symptom scales

- K-SADS posttraumatic stress, current score
- K-SADS posttraumatic stress, past (lifetime) score

Criminal offending measures

- Total number of arrests
- HARE18-Serious criminal behavior

Other

- MACI identity diffusion
- MACI self-devaluation
- Jesness social maladjustment
- HARE17 unstable interpersonal relationships
- Total count of different types of abuse (sexual, physical, neglect)

Table 2

Correlations Between the Variables of the Internalizing Variable Group

Subscale	MACIANX	MACIDEPR	MACISUIC	JISOCANX	JIWITHD
MACIANX	1	.21**	-.00	.25**	.19**
Sig (2 tail)		.00	.927	.00	.00
N	569	569	569	562	562
MACIDEPR		1	.72**	.55**	.57**
Sig (2 tail)			.00	.00	.00
N		569	569	562	562
MACISUIC			1	.44**	.54**
Sig (2 tail)				.00	.00
N			569	562	562
JISOCANX				1	.52**
Sig (2 tail)					.00
N				581	581
JIWITHD					1
Sig (2 tail)					
N					581

Table 3

Correlations Between the Variables of the Externalizing Variable Group

Subscale	MACIUNRU	MACIFORC	MACIOPPO	MACIDELI	JIMANIF	HARE10
MACIUNRU	1	.71**	.48**	.78**	.47**	.39**
Sig (2 tail)		.00	.00	.00	.00	.00
N	569	569	569	569	562	560
MACIFORC		1	.49**	.50**	.47**	.34**
Sig (2 tail)			.00	.00	.00	.00
N		569	569	569	562	560
MACIOPPO			1	.23**	.62**	.33**
Sig (2 tail)				.00	.00	.00
N			569	569	562	560
MACIDELI				1	.30**	.32**
Sig (2 tail)					.00	.00
N				569	562	560
JIMANIF					1	.38**
Sig (2 tail)						.00
N					581	570
HARE10						1
Sig (2 tail)						
N						599

(i.e. scores from the MACI, Jesness, etc.) of either the internalizing or externalizing variable group, multivariate analyses of variance were performed to test for significant differences between the groups of interest. In situations where other continuous variables (i.e. scores from the IPPA or PBI, etc.) were used, but were not part of the internalizing or externalizing variable group of variables, one-way analyses of variance were performed to test for significant differences between the groups of interest. When significant effects were found with analysis of variance testing, Tukey's HSD post hoc analyses were used to determine specific differences between groups. In several cases there were categorical data, such as when the juvenile sexual offenders were broken down based on categorical data, such as abused or not abused, and compared on a categorical variable, such as age of victim relative to the offender. In these cases, chi-square analyses were performed to test for significant differences between the two groups.

RESULTS

The results are presented in order from Hypothesis 1 through Hypothesis 4. Analyses included one-way analyses of variance (ANOVA), multivariate analyses of variance (MANOVA), and chi-square nonparametric tests as needed. Independent variables were defined according to each hypothesis and were specified with each analysis. In general, for each hypothesis, specific dependent variables were tested. In addition, internalizing variable group dependent variables and externalizing variable group dependent variables were analyzed for each of the four hypotheses. The internalizing variable group included MACIANX (MACI anxiety), MACIDEPR (MACI depression), MACISUIC (MACI suicidal tendency), JISOCANX (Jesness social anxiety), and JIWITHD (Jesness withdrawal). Variables in the externalizing variable group included MACIUNRU (MACI unruly), MACIFORC (MACI forceful), MACIOPPO (MACI oppositional), MACIDELI (MACI delinquent predisposition), JIMANIF (Jesness manifest aggression), and HARE10 (Poor anger control).

Condition 1: Juveniles who have been victims of repetitive and ongoing conditions of victimization will have more negative outcomes than juveniles who have no history or minimal history of such victimization.

Hypothesis 1a: Juvenile Sexual Offenders with a History of Sexual Abuse will have more Sexual Victims than Juvenile Sexual Offenders without a History of their own Sexual Victimization.

For this analysis, two groups were formed: juvenile sexual offenders with a history of sexual abuse (n=146) and juvenile sexual offenders with no history of being sexually abused (n=306). A one-way ANOVA was computed comparing history of sexual abuse of juvenile sexual offenders with the number of their own sexual abuse perpetrations/victims. A significant difference was found for number of victims ($F(1, 450) = 7.993$, $p < .01$) with juvenile sexual offenders with a history of sexual abuse having more sexual abuse victims of their own ($m = 1.96$, $sd = 1.61$) than juvenile sexual offenders without a history of sexual abuse ($m = 1.56$, $sd = 1.32$).

Hypothesis 1b: Multiple Sexual Victimizations in the History of a Juvenile Sexual Offender will Significantly Increase the Number of Victims that Offender will Generate through his own Perpetration of Sexual Offenses.

For this analysis, juvenile sexual offenders were divided into three groups based on number of previous sexual victimizations. The three groups included a group with no sexual victimization (n=306), a group with one sexual victimization (n=115), and a group with two or more sexual victimizations (n=31). The number of sexual abuse victimizations for juvenile sexual offenders was compared with the number of their own sexual abuse perpetrations/victims using a one-way ANOVA. A significant difference

was found among the number of victims ($F(2, 449) = 7.114$, $p < .01$). Tukey's *HSD* post hoc analyses were performed to detect specific differences between groups. Significant differences were detected between the groups of juveniles with no sexual abuse victimization ($m = 1.56$, $sd = 1.32$) and the group with two to three victimizations ($m = 2.52$, $sd = 2.67$, $p < .01$) and between the group with one victimization ($m = 1.81$, $sd = 1.15$) and two to three victimizations ($p < .01$) indicating that number of victims for juvenile sexual offenders increased with an increasing number of their own sexual abuse victimizations.

Hypothesis 1c: Juvenile Sexual Offenders with a History of Multiple Episodes of Sexual Victimization are more Likely to Offend Sexually against Under Age Victims.

In order to examine whether sexual victimization had an effect on victim age, two groups were created: juvenile sexual offenders with no history of being sexually abused (n=320) and juvenile sexual offenders with a history of sexual abuse (n=150). A chi-square test of independence was calculated comparing history of sexual abuse (history of no sexual abuse, history of sexual abuse) with age of victim relative to the offender (younger by four years, peer age or older, mixed pattern) for the juvenile sexual offenders. A significant interaction was found ($\chi^2(3) = 9.649$, $p < .05$). The proportion of sexually abused juvenile sexual offenders with victims younger by four or more years ($P = .63$) was greater than the proportion of non-sexually abused juvenile sexual offenders ($P = .58$). The proportion of sexually abused juvenile sexual offenders with victims peer age or older ($P = .20$) was less than the proportion of non-sexually abused juvenile sexual offenders ($P = .32$). Finally, the proportion of sexually abused juvenile sexual offenders with a mixed pattern of victim age ($P = .16$) was greater than the proportion of

non-sexually abused juvenile sexual offenders (*P* = .09). Overall, juvenile sexual offenders with a history of sexual abuse were more likely to choose victims four or more years younger than themselves while the non-sexually abused juvenile sexual offenders were more likely to choose peer age or older victims.

Hypothesis 1d: Juvenile Sexual Offenders with a History of Repetitive Sexual Victimization will have Greater Levels of Internalizing Symptoms than those with no History of Sexual Victimization.

Three groups of juvenile sexual offenders were used for this analysis: juvenile sexual offenders with no sexual victimization (n=298), one episode of sexual victimization (n=107), and two to three episodes of sexual victimization (n=31). A one-way Multivariate Analysis of Variance (MANOVA) was calculated examining the effect of number of sexual abuse victimizations of juvenile sexual offenders on the variables of the internalizing variable group (MACI anxiety, MACI depression, MACI suicidal tendency, Jesness social anxiety, and Jesness withdrawal). A significant effect was found (*Wilks's lambda*(10, 858) = .912, $p < .01$). Follow-up univariate ANOVAs (see Table 4) indicated that significant effects occurred with depression ($F(2, 433) = 6.400$, $p < .01$), suicidal tendency ($F(2, 433) = 16.790$, $p < .01$), social anxiety ($F(2, 433) = 7.416$, $p < .01$), and withdrawal ($F(2, 433) = 6.982$, $p < .01$). Tukey's *HSD* post hoc analyses were performed to detect specific differences between groups. Significant differences were detected for all groups between conditions of no sexual abuse and experience of one episode of sexual abuse and between conditions of no sexual abuse and experience of two or more episodes of sexual abuse. No differences were detected between experience of one episode and two or more episodes. Specifically, depression scores significantly

Table 4

Analysis of Variance for Internalizing Symptoms by History of Sexual Abuse

Source	*df*	*F*	$\eta 2$	*p*
	Between	Subjects		
MACI Anxiety	2	.153	.001	.858
MACI Depression	2	6.400	.029	.002
MACI Suicidal Tendency	2	16.790	.071	.000
Jesness Withdrawal	2	6.982	.031	.001
Jesness Social Anxiety	2	7.413	.033	.001
Error	433			

increased between conditions of no sexual abuse and one episode of sexual abuse ($p < .05$) and between no sexual abuse and experience of two or more episodes of sexual abuse ($p < .01$). Suicidal tendency scores increased between conditions of no sexual abuse and one episode of sexual abuse ($p < .01$), and between no sexual abuse and two or more episodes of sexual abuse ($p < .01$). Social anxiety scores increased between conditions of no sexual abuse and one episode of sexual abuse ($p < .05$), and between no sexual abuse and two or greater episodes of sexual abuse ($p < .01$), and withdrawal scores increased between conditions of no sexual abuse and one episode of sexual abuse ($p < .01$) and between no sexual abuse and experience of two or greater types of sexual abuse ($p < .05$). Mean scores and standard deviations for the variables of the internalizing variable group are presented in Table 5. The anxiety score was not significantly influenced by number of sexual abuse victimizations ($F(2, 433) = .153$, $p > .05$).

Table 5

Mean Scores for Internalizing Scales for Number of Sexual Abuse Victimizations

Variable	Sexual Abuse Victimizations	Mean	SD
MACI Anxiety	.00	66.46	21.04
	1.00	67.53	20.04
	2.00	67.97	22.55
	Total	66.83	20.87
MACI Depression	.00	61.16	26.30
	1.00	68.41	25.45
	2.00	75.58	24.55
	Total	63.97	26.29
MACI Suicidal Tendency	.00	29.80	21.15
	1.00	39.78	27.13
	2.00	51.19	26.42
	Total	33.77	23.96
Jesness Withdrawal	.00	52.07	10.36
	1.00	55.93	10.63
	2.00	56.74	12.04
	Total	53.35	10.69
Jesness Social Anxiety	.00	43.52	10.90
	1.00	46.80	11.37
	2.00	50.10	10.26
	Total	44.80	11.13

Note. The higher the score, the greater the symptom severity. Number of victimizations: 00=no sexual abuse victimizations, 1.00= One sexual abuse victimization, 2.00=Two or three sexual abuse victimizations

Hypothesis 1e: Juvenile Sexual Offenders with a History of Repetitive Sexual Victimization will have Greater Levels of Externalizing Symptoms than Juvenile Sexual Offenders with No History of Sexual Victimization.

The same three groups of juvenile sexual offenders used in the analysis with the internalizing variable group were used for this analysis: juvenile sexual offenders with no sexual victimization (n=297), one episode of sexual victimization (n=105), and two or more episodes of sexual victimization (n=30). Group sizes were slightly different due to missing data for a few subjects. A one-way Multivariate Analysis of Variance (MANOVA) was calculated examining the effect of number of sexual abuse victimizations of juvenile sexual offender subjects on the variables of the externalizing variable group (MACI delinquent predisposition, MACI oppositionality, MACI forceful, MACI unruly, Jesness manifest aggression, and Hare poor anger control). No significant effect was found (*Wilks's lambda*(12, 848) = .952, $p > .05$). Delinquent predisposition, oppositional, forceful, unruly, manifest aggression, and anger control were not significantly influenced by a history of sexual abuse victimizations in the group of juvenile sexual offenders.

In summary, Condition 1 received support across all specific hypotheses, except 1e (externalizing symptoms). Juvenile sexual offenders who were victims of repetitive and ongoing sexual victimization had negative outcomes of depression, withdrawal, social anxiety, and suicidal tendency. In addition being a victim of sexual abuse was linked with having more sexual abuse victims and younger victims than found in juvenile sexual offenders with no history of sexual abuse.

Condition 2: Juveniles whose relationship with their main support system is significantly altered due to victimization will suffer more detrimental effects than those who have a supportive system/environment.

Hypothesis 2a: Juvenile Sexual Offenders with a History of Incestuous Sexual Victimization will Exhibit Depression, Suicidal Thoughts/Behaviors, and Internalizing Problems.

Internalizing Variable Group by Incest

A one-way MANOVA was calculated examining the effect of incestuous sexual victimization on the variables of the internalizing variable group (MACI anxiety, MACI depression, MACI suicidal tendency, Jesness social anxiety, and Jesness withdrawal). Incestuous victimization was defined as sexual abuse perpetrated by any of the following: father, mother, step-mom, step-dad, male sibling, female sibling, male step-sibling, female step-sibling, or other relative. Non-incestuous sexual abuse was defined as sexual abuse perpetrated by a family friend, total stranger, or other. Three groups were formed for this analysis: those with no sexual victimization (n=298), those with non-incestuous sexual victimization (n=74), and those with incestuous victimization (n=64). A significant effect was found (*Wilks's lambda*(10, 858) = .914, $p < .05$). Follow-up univariate ANOVAs (see Table 6) indicated significant effects for all internalizing variables except for anxiety: depression ($F(2, 433) = 6.199$, $p < .01$), suicidal tendency ($F(2, 433) = 15.494$, $p < .01$), withdrawal ($F(2, 433) = 6.986$, $p < .01$), and social anxiety ($F(2, 433) = 6.347$, $p < .01$). Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between the subjects. For each variable, scores significantly increased between conditions of no sexual abuse and conditions of incestuous sexual

Table 6

Analysis of Variance for Internalizing Symptoms by History of Incest

Source	*df*	*F*	η2	*P*
	Between	Subjects		
MACI Anxiety	2	.181	.001	.834
MACI Depression	2	6.199	.028	.002
MACI Suicidal Tendency	2	15.494	.067	.000
Jesness Withdrawal	2	6.986	.031	.001
Jesness Social Anxiety	2	6.347	.028	.002
Error	433			

victimization: depression ($p < .01$), suicidal tendency ($p < .01$), social anxiety ($p < .05$), and withdrawal ($p < .05$) indicating that juvenile sexual offenders with a history of incestuous victimization experienced higher levels of depression, suicidal tendency, social anxiety, and withdrawal than juvenile sexual offenders with no history of sexual abuse. In addition, significant differences were found between no sexual abuse and non-incestuous sexual abuse for withdrawal ($p < .01$) and suicidal tendency ($p < .01$), suggesting that sexual abuse by a non-family member resulted in higher levels of suicidal tendency and withdrawal than found in juvenile sexual offenders with no history of sexual abuse. Mean scores and standard deviations for the variables of the internalizing variable group are presented in Table 7. No significant effect was found for anxiety ($F(2, 433) = .181$, $p > .05$).

Table 7

Mean Scores for Internalizing Scales for History of Incest

Variable	Incest History	Mean	SD
MACI Anxiety	.00	66.46	21.04
	1.00	67.20	17.80
	2.00	68.13	23.46
	Total	66.83	20.87
MACI Depression	.00	61.16	26.30
	1.00	67.55	24.97
	2.00	72.88	25.66
	Total	63.97	26.29
MACI Suicidal Tendency	.00	29.80	21.15
	1.00	38.95	23.27
	2.00	46.27	31.05
	Total	33.77	23.97
Jesness Withdrawal	.00	52.07	10.36
	1.00	56.43	10.18
	2.00	55.73	11.79
	Total	53.35	10.70
Jesness Social Anxiety	.00	43.52	10.90
	1.00	47.81	10.30
	2.00	47.23	12.20
	Total	44.80	11.13

Note. The higher the score, the greater the symptom severity. Number of victimizations: 00=no sexual abuse victimizations, 1.00= non-incestuous sexual victimization, 2.00=Incestuous sexual victimization

Hypothesis 2b: Juvenile Sexual Offenders with a History of Incestuous Sexual Victimization will Exhibit Externalizing Problems.

Externalizing Variable Group by Incest

A one-way MANOVA were calculated examining the effect of incestuous sexual victimization on the variables of the externalizing variable group (MACI delinquent predisposition, MACI oppositionality, MACI forceful, MACI unruly, Jesness manifest aggression, and HARE poor anger control) in the juvenile sexual offenders. The same three incest groups used in the previous analysis were also used for this comparison: no sexual victimization (n=298), non-incestuous sexual victimization (n=74), and sexual incestuous victimization (n=64). No significant effects were found for any of the externalizing variables with the juvenile sexual offenders (*Wilks's lambda*(10, 858.00) = .968, $p > .05$).

Hypothesis 2c: Juvenile Sexual Offenders with a History of an Incestuous Sexual Victimization will Show Poor Relationships with Others, Lack of Trust, and Poor Relationships with Both Parents.

Interpersonal Variables by Incest

A one-way ANOVA (see Table 8) was computed comparing history of incest of juvenile sexual offenders with the following interpersonal variables: number of trusted friends, Jesness alienation score, IPPA parent trust total, IPPA peer trust total, PBI mother care total, and PBI father care total. Three groups were formed for this analysis: those with no sexual victimization, those with non-incestuous sexual victimization, and those with incestuous victimization. Due to measures being introduced into the research

protocol at different times over the several years course of data collection, group sizes varied according to the dependent variable of interest (see Table 9).

Table 8

Analysis of Variance for Interpersonal Variables by History of Incest

Source	*df*	*F*	*p*
	Between Groups		
# of Friends	2	1.363	.257
Within Groups	467		
Alienation	2	.058	.944
Within Groups	449		
Father Care	2	.773	.463
Within Groups	296		
Mother Care	2	1.198	.303
Within Groups	322		
Peer Trust	2	.077	.926
Within Groups	325		
Parent Trust	2	3.294	.038
Within Groups	325		

Table 9

Number of Subjects for Interpersonal Variables by Incest Analyses

Variable	INCEST	N
# Friends	.00	320
	1.00	82
	2.00	68
	Total	470
Alienation	.00	309
	1.00	78
	2.00	65
	Total	452
Father Care	.00	204
	1.00	49
	2.00	46
	Total	299
Mother Care	.00	217
	1.00	56
	2.00	52
	Total	325
Peer Trust	.00	219
	1.00	56
	2.00	53
	Total	328

Table 9
Continued

Number of Subjects for Interpersonal Variables by Incest Analyses

Variable	INCEST	N
Parent Trust	.00	219
	1.00	56
	2.00	53
	Total	328

A significant difference was found with the IPPA Parent Trust Total ($F(2, 325) = 3.294$, $p < .05$). Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between subjects. Juvenile sexual offenders with an incestuous history of sexual victimization had lower levels of parent trust than juvenile sexual offenders with no history of sexual victimization. No other pairwise comparisons were significant. No significant effect was found for any of the other interpersonal variables analyzed according to history of incest: number of trusted friends ($F(2, 467) = 1.363$, $p > .05$); alienation ($F(2, 449) = .058$, $p > .05$); peer trust total ($F(2, 325) = .077$, $p > .05$); mother care total ($F(2, 322) = 1.198$, $p > .05$); and father care total ($F(2, 296) = .773$, $p > .05$). Parent trust was the only peer/parent relationship variable to vary by history of incest in a group of juvenile sexual offenders. Mean scores and standard deviations for the interpersonal variables by history of incest are presented in Table 10.

Table 10

Mean Scores for Interpersonal Variables by History of Incest

Variable	Incest History	Mean	SD
# of Trusted Friends	.00	5.28	7.95
	1.00	6.99	10.97
	2.00	5.18	8.28
	Total	5.57	8.60
Alienation	.00	60.09	9.33
	1.00	60.35	8.51
	2.00	59.82	10.00
	Total	60.10	9.27
Mother Care	.00	28.44	7.40
	1.00	27.27	7.51
	2.00	26.90	8.00
	Total	27.99	7.51
Father Care	.00	21.33	10.88
	1.00	21.27	10.50
	2.00	23.48	11.00
	Total	21.65	10.83

Note. The higher the score, the greater the symptom severity. Type of incest victimizations: 00=no sexual abuse, 1.00= nonincestuous sexual victimization, 2.00=incestuous sexual victimization

Table 10
Continued

Mean Scores for Interpersonal Variables by History of Incest

Variable	Incest History	Mean	SD
Parent Trust	.00	40.85	8.36
	1.00	41.20	7.90
	2.00	37.66	9.75
	Total	40.40	8.59
Peer Trust	.00	38.79	9.56
	1.00	38.46	11.36
	2.00	38.23	10.78
	Total	38.64	10.06

Note. The higher the score, the greater the symptom severity. Type of incest victimizations: 00=no sexual abuse, 1.00= nonincestuous sexual victimization, 2.00=incestuous sexual victimization

Hypothesis 2d: Juvenile Sexual Offenders with a History of Incestuous Sexual Victimization will Exhibit Substance Use.

Substance Abuse by Incest

A one-way ANOVA was computed comparing two substance abuse variables: SASSI2 face valid alcohol score and SASSI2 face valid drug score according to history of incestuous victimization. In addition, the comparable variables from the original SASSI were analyzed: face valid alcohol and face valid drug. There were three incest groups including no sexual victimization (n=139), non-incestuous sexual victimization (n=29), and incestuous sexual victimization (n=23). With the juvenile sexual offender group, a significant effect was found with the SASSI2 face valid alcohol score (F(2, 265)

= 3.838, $p < .05$) indicating that juvenile sexual offenders with a history of incestuous victimization report significantly more alcohol use ($m = 5.00$, $sd = 8.23$) than those with no history of sexual victimization ($m = 2.86$, $sd = 4.39$, $p < .05$); however juvenile sexual offenders sexually abused by a non relative did not report significantly different alcohol use ($m = 4.31$, $sd = 6.93$) than those with no abuse ($p > .05$). In addition, no significant effects were found for SASSI2 drug use with the juvenile sexual offenders ($F(2, 265) = 1.425$, $p > .05$). No significant effects were found using the original SASSI alcohol and drug use variables. In summary, juvenile sexual offenders with a history of incestuous sexual victimization had higher self-reported alcohol use scores than juvenile sexual offenders with no history of sexual abuse.

Hypothesis 2e: Juvenile Sexual Offenders with a History of Incestuous Sexual Victimization will Exhibit Traumatic Stress.

Trauma Symptoms by Incest

A one-way ANOVA was computed comparing trauma symptoms as measured by the K-SADS posttraumatic stress disorder variables including current (recent 6 months) and past (greater than 6 months ago) and history of incestuous victimization based on the three previously defined groups: no sexual victimization (n=316), non-incestuous sexual victimization (n=81), and incestuous sexual victimization (n=67). With the juvenile sexual offenders, a significant result was found with both variables respectively ($F(2, 461) = 8.207$, $p < .01$) and ($F(2, 459) = 10.932$, $p < .01$) indicating a significant effect between symptoms of posttraumatic stress, both currently and in the past, and history of incestuous victimization. Tukey's *HSD* post hoc analyses were used to determine the nature of the differences between the subjects. An increase in current trauma symptoms

was reported between no sexual victimization (*m* = .27, *sd* = .45) and conditions of non-incestuous victimization (*m* = .46, *sd* = .50, $p < .01$) and between conditions of no sexual victimization and incestuous victimization (*m* = .46, *sd* = .50, $p < .01$). An increase in past trauma symptoms was found between conditions of no abuse (*m* = .39, *sd* = .49) and non-incestuous sexual victimization (*m* = .58, *sd* = .50, $p < .01$) and between no abuse and conditions of incestuous victimization (*m* = .66, *sd* = .48, $p < .01$). These results suggest that in juvenile sexual offenders, symptoms of posttraumatic stress increase when sexual abuse of either incestuous or non-incestuous type occurs.

Hypothesis 2f: Juvenile Sexual Offenders with a History of Physical Abuse by a Family Member will Exhibit Depression, Suicidal Thoughts/Behaviors, and Internalizing Problems.

For this hypothesis, parallel analyses were conducted for history of physical abuse by a family member as conducted for the incest variable presented above. For these analyses, three groups were compared for the family abuse variable: no physical abuse, history of physical abuse by a non-family member, and history of physical abuse by a family member. Physical abuse by a family member was defined as physical abuse perpetrated by any of the following: father, mother, step-mom, step-dad, male sibling, female sibling, male step-sibling, female step-sibling, or other relative. Non-family member abuse is defined as physical abuse perpetrated by a family friend, total stranger, or other.

Internalizing Variable Group by Physical Abuse

A one-way MANOVA was calculated examining the effect of physical abuse on the variables of the internalizing variable group (MACI anxiety, MACI depression,

MACI suicidal tendency, Jesness social anxiety, and Jesness withdrawal). For the juvenile sexual offenders, three groups were compared: no physical abuse (n=275), physical abuse by a non-family member/non-relative (n=21), and physical abuse by a family member/ relative (n=140). A significant effect was found (*Wilks's lambda*(10, 858) = .951, $p < .05$). Follow-up univariate ANOVAs (see Table 11) indicated significant effects for suicidal tendency ($F(2, 433) = 5.890$, $p < .01$) and withdrawal ($F(2, 433) = 5.291$, $p < .01$). No significant effects were found for depression ($F(2, 433) = 1.624$, $p > .05$), anxiety ($F(2, 433) = 2.050$, $p > .05$), or social anxiety ($F(2, 433) = 1.602$, $p > .05$).

Table 11

Analysis of Variance for Internalizing Symptoms by History of Physical Abuse

Source	*df*	*F*	η2	*P*
	Between	Subjects		
MACI Anxiety	2	2.050	.009	.130
MACI Depression	2	1.624	.007	.198
MACI Suicidal Tendency	2	5.890	.026	.003
Jesness Withdrawal	2	5.291	.024	.005
Jesness Social Anxiety	2	1.602	.007	.203
Error	433			

Tukey's *HSD* post hoc analyses were used to determine the nature of the differences between the subjects for suicidal tendency and withdrawal. Scores significantly increased between conditions of no abuse and conditions of physical abuse by a family member for suicidal tendency ($p<.01$) and withdrawal ($p<.01$). Juveniles

with no history of physical abuse by a family member scored a mean score of 28.50 (*sd* = 19.92) on suicidal tendency and a mean score of 48.53 (*sd* = 11.40) on withdrawal, and juveniles with a history of physical abuse by a family member scored a mean score of 36.05 (*sd* = 22.33) on suicidal tendency and a mean score of 52.64 (*sd* = 9.81) on withdrawal indicating that juvenile sexual offenders who were physically abused by a family member/relative experienced higher levels of suicidal tendency and withdrawal than juvenile sexual offenders with no history of physical abuse by a family member or relative.

Hypothesis 2g: Juvenile Sexual Offenders with a History of Physical Abuse by a Family Member will Exhibit Externalizing Problems.

Externalizing Variable Group by Physical Abuse

A one-way MANOVA was calculated examining the effect of physical abuse by a relative/family member on the variables of the externalizing variable group (MACI delinquent predisposition, MACI oppositional, MACI forceful, MACI unruly, Jesness manifest aggression, and Hare poor anger control) in the juvenile sexual offenders. The same three incest groups used in the previous analyses were also used for this comparison: no physical abuse (n=273), non-relative physical abuse (n=20), and physical abuse by a relative/family member (n=139). Effects approached significance for this analysis at the multivariate level: (*Wilks's lambda*(12, 848.00) = .953, $p = .055$). At the univariate level, ANOVAs (see Table 12) indicated significant effects for unruly ($F(2, 429) = 4.090$, $p < .05$) and oppositional ($F(2, 429) = 5.103$, $p < .01$); however, these results should be interpreted cautiously and considered to be exploratory results only, due to the non-significant multivariate analysis. No significant effects were found for forceful

($F(2, 429) = .954$, $p > .05$), delinquent predisposition ($F(2, 429) = 1.587$, $p > .05$), manifest aggression ($F(2, 429) = 2.102$, $p > .05$), or poor anger control ($F(2,429) = 1.797$, $p > .05$). Mean scores and standard deviations for the variables of the externalizing variable group are presented in Table 13.

Table 12

Analysis of Variance for Externalizing Symptoms by History of Physical Abuse

Source	*df*	*F*	η^2	*p*
	Between	Subjects		
MACI Delinquent Predisposition	2	1.587	.007	.206
MACI Oppositional	2	5.103	.023	.006
MACI Forceful	2	.954	.004	.386
MACI Unruly	2	4.090	.019	.017
Jesness Manifest Aggression	2	2.102	.010	.124
HARE10-Anger Control	2	1.797	.008	.167
Total	429			

Table 13

Mean Scores for Externalizing Scales for History of Physical Abuse by Family

Variable	Physical Abuse History	Mean	SD
MACI Delinquent Predisposition	.00	59.03	17.96
	1.00	65.45	19.35
	2.00	61.04	17.20
	Total	59.97	17.81
MACI Oppositional	.00	55.45	18.45
	1.00	66.35	15.34
	2.00	59.58	17.27
	Total	57.28	18.12
MACI Forceful	.00	31.44	22.60
	1.00	33.75	22.36
	2.00	34.66	23.02
	Total	32.58	22.72
MACI Unruly	.00	54.93	19.71
	1.00	62.70	20.05
	2.00	59.94	18.02
	Total	56.91	19.33
Jesness Manifest Aggression	.00	52.73	12.63
	1.00	56.95	14.37
	2.00	54.89	12.16
	Total	53.62	12.60

Note. The higher the score, the greater the symptom severity. Number of victimizations: 00=no physical abuse victimizations, 1.00= non-relative physical abuse, 2.00=Physical abuse by relative

Table 13

Mean Scores for Externalizing Scales for History of Physical Abuse by Family

Variable	Physical Abuse History	Mean	SD
HARE Poor Anger Control	.00	1.07	.82
	1.00	1.05	.83
	2.00	1.23	.81
	Total	1.12	.82

Note. The higher the score, the greater the symptom severity. Number of victimizations: 00=no physical abuse victimizations, 1.00= non-relative physical abuse, 2.00=Physical abuse by relative

Hypothesis 2h: Juvenile Sexual Offenders with a History of Physical Abuse by a Family Member will Show Poor Relationships with Others, Lack of Trust, and Poor Relationships with Both Parents.

Interpersonal Variables by Family Abuse

A one-way ANOVA (see Table 14) was computed comparing history of physical abuse perpetrated by a family member on the same interpersonal variables used in the incest analysis above. For the juvenile sexual offenders, three groups were compared: no physical abuse, physical abuse by a non-family member/relative, and physical abuse by a family member/relative. Due to measures being introduced into the research protocol at different times over the several years course of data collection, group sizes varied according to the dependent variable of interest (see Table 15).

Table 14

Analysis of Variance for Interpersonal Variables by History of Physical Abuse

Source	*Df*	*F*	*P*
	Between Groups		
# of Friends	2	.972	.379
Within Groups	467		
Alienation	2	2.888	.057
Within Groups	449		
Father Care	2	5.227	.006
Within Groups	296		
Mother Care	2	.106	.899
Within Groups	322		
Peer Trust	2	.005	.995
Within Groups	325		
Parent Trust	2	1.953	.143
Within Groups	325		

Table 15

Number of Subjects for Interpersonal Variables by Physical Abuse

Variable	FAMABUS	N
# Friends	.00	294
	1.00	22
	2.00	154
	Total	470
Alienation	.00	284
	1.00	21
	2.00	147
	Total	452
Father Care	.00	189
	1.00	10
	2.00	100
	Total	299
Mother Care	.00	205
	1.00	13
	2.00	107
	Total	325
Peer Trust	.00	206
	1.00	13
	2.00	109

Table 15
Continued

Number of Subjects for Interpersonal Variables by Physical Abuse

Variable	FAMABUS	N
Parent Trust	.00	206
	1.00	13
	2.00	109
	Total	328

Significant effects were found for PBI father care ($F(2, 296) = 5.227$, $p < .01$). The Jesness alienation variable approached significance ($F(2, 449) = 2.888$, $p = .057$). For PBI father care, Tukey's *HSD* was used to determine the nature of the differences between the subjects. This analysis revealed that juvenile sexual offenders with a history of physical abuse by a family member/relative perceived less care from their fathers ($p < .01$). No significant effect was found for the other interpersonal variables analyzed: Number of trusted friends ($F(2, 467) = .972$, $p > .05$); parent trust ($F(2, 325) = 1.953$, $p > .05$); peer trust ($F(2, 325) = .106$, $p > .05$); and mother care ($F(2, 322) = .106$, $p > .05$). Mean scores and standard deviations for the interpersonal variables by history of physical abuse by a family member are presented in Table 16. Results indicate that overall physical abuse did not affect a victim's trust in parents or peers, nor perception of care from one's mother.

Table 16

Mean Scores for Interpersonal Variables by History of Physical Abuse by Family

Variable	Physical Abuse History	Mean	SD
# of Trusted Friends	.00	5.97	9.19
	1.00	4.05	5.31
	2.00	5.02	7.77
	Total	5.57	8.60
Alienation	.00	59.29	9.22
	1.00	61.48	7.30
	2.00	61.45	9.50
	Total	60.10	9.27
Mother Care	.00	28.02	7.22
	1.00	28.85	5.16
	2.00	27.84	8.30
	Total	27.99	7.51
Father Care	.00	23.17	10.60
	1.00	18.70	10.14
	2.00	19.07	10.88
	Total	21.65	10.83
Parent Trust	.00	41.06	8.36
	1.00	40.92	7.78
	2.00	39.07	9.00
	Total	40.40	8.59

Note. The higher the score, the greater the symptom severity. Type of physical abuse victimizations: 00=no physical abuse, 1.00= physical abuse by a nonrelative, 2.00=physical abuse by a family member

Table 16
Continued

Mean Scores for Interpersonal Variables by History of Physical Abuse by Family

Variable	Physical Abuse History	Mean	SD
Peer Trust	.00	38.65	9.79
	1.00	38.38	14.00
	2.00	38.67	10.12
	Total	38.64	10.06

Note. The higher the score, the greater the symptom severity. Type of physical abuse victimizations: 00=no physical abuse, 1.00= physical abuse by a nonrelative, 2.00=physical abuse by a family member

Hypothesis 2i: Juvenile Sexual Offenders with a History of Physical Abuse by a Family Member will use Substances.

Substance Abuse by Physical Abuse

A one-way ANOVA was computed comparing two substance abuse variables: SASSI2 face valid alcohol score and SASSI2 face valid drug score according to history of physical abuse for juvenile sexual offenders. In addition, the comparable variables from the original SASSI were analyzed: face valid alcohol and face valid drug. There were three groups analyzed according to condition of physical abuse: no physical abuse (n=165), physical abuse by a non-family member (n=10), and physical abuse by a family member/relative (n=93). With the juvenile sexual offender group, a result approaching significance was found with the SASSI2 face valid alcohol score ($F(2, 265) = 2.923$, $p = .055$). Tukey's HSD post hoc testing was conducted to determine the nature of this result and indicated that juvenile sexual offenders with a history of physical abuse by a family member/relative tend to use more alcohol ($m = 4.41$, $sd = 6.25$) than juvenile sexual offenders with no history of physical abuse ($m = 2.69$, $sd = 5.24$, $p = .056$);

however juvenile sexual offenders physically abused by a non-relative did not report significantly different alcohol use ($m = 4.60$, $sd = 8.09$) than those with no abuse ($p > .05$). In addition, no significant effects were found for SASSI2 drug use with the juvenile sexual offenders ($F(2, 265) = 1.483$, $p > .05$). When using the original SASSI face valid alcohol use score and SASSI face valid drug use scores, significant effects were found ($F(2, 188) = 5.221$, $p < .01$), ($F(2, 188) = 3.796$, $p < .05$) respectively. Tukey's *HSD* post hoc analyses found that both alcohol and drug use increased between conditions of no physical abuse (n = 124, $p < .05$) and conditions of physical abuse by a family member or relative (n = 55, $p = .059$). Juveniles with no physical abuse scored a mean score of 2.81 ($sd = 4.81$) on the SASSI alcohol scale and a mean score of 4.03 ($sd = 7.00$) on the SASSI drug scale. Juveniles physically abused by a family member scored a mean score of 5.49 (*sd* 7.50) on the SASSI alcohol scale and a mean score of 7.00 ($sd = 9.79$) on the SASSI drug scale. These results suggest that both alcohol and drug use increased in juvenile sexual offenders as they were exposed to conditions of physical abuse by a family member/relative.

Hypothesis 2j: Juvenile Sexual Offenders with a History of Physical Abuse by a Family Member will Exhibit Symptoms of Traumatic Stress.

Trauma Symptoms by Physical Abuse

A one-way ANOVA was computed comparing trauma symptoms as measured by the K-SADS posttraumatic stress disorder variables including current (recent 6 months) and past (greater than 6 months ago) and history of physical abuse with three groups of juvenile sexual offenders: those with no physical abuse (n=290), those with physical abuse by a non-family member/non-relative (n=21), and those with physical abuse by a

family member/relative (n=153). With the juvenile sexual offenders, a significant result was found with both variables respectively ($F(2, 461) = 6.413$, $p < .01$) and ($F(2, 459) = 7.936$, $p < .01$) indicating a significant effect between symptoms of posttraumatic stress, both currently and in the past, and history of physical abuse. Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between the subjects. An increase in posttraumatic stress with both current and past trauma symptoms was reported between no physical abuse and physical abuse by a family member/relative ($p < .01$) and ($p<.01$) respectively. Juveniles with no history of physical abuse scored a mean score of .27 ($sd = .45$) for current trauma symptoms and a mean score of .39 ($sd = .50$) for past trauma symptoms. Juveniles with a history of physical abuse from a family member scored a mean score of .42 ($sd = .50$) for current trauma symptoms and a mean score of .58 ($sd = .50$) for past trauma symptoms. No significant increase in symptoms occurred between conditions of no physical abuse and physical abuse perpetrated by a non-family member/non-relative. These results suggested that in juvenile sexual offenders, symptoms of posttraumatic stress increased when physical abuse by a family member/relative occurred and that this increase was unique to the abuse by the family member rather than to physical abuse perpetrated by a non-relative.

In summary, Condition 2 was confirmed as juvenile sexual offenders who experienced incestuous sexual victimization had lower levels of parent trust, higher levels of depression, suicidal tendency, withdrawal, social anxiety, alcohol use, and trauma symptoms. Juvenile sexual offenders who experienced a history of physical abuse from a family member/relative experienced lower levels of perceived care from their father, and a trend towards feelings of alienation. In addition, this group of juvenile sexual offenders

also experienced increased suicidal tendency and withdrawal, and a trend towards unruliness and oppositionality. Finally, this group of offenders also experienced more drug use, alcohol use, and trauma symptoms than are present in juvenile sexual offenders with no history of physical abuse.

Condition 3: Juveniles who have experienced more than one type of abuse or abuse in combination with other major stressors will experience as additive effect and have more detrimental outcomes than juveniles with no abuse, one type of abuse, or few major stressors.

Hypothesis 3a: Juvenile Sexual Offenders with a History of Both Sexual and Physical Abuse Would Exhibit Internalizing Symptoms including Depression, Anxiety, Withdrawal, Social Anxiety, and Suicidal Tendency.

Internalizing Variable Group

For the juvenile sexual offender group, a one-way MANOVA was calculated examining the effects of sexual abuse and physical abuse on the variables of the internalizing variable group (MACI depression, MACI suicidal tendency, MACI anxiety, Jesness withdrawal, Jesness social anxiety). Four groups were created: no history of abuse of either type (n=200); history of sexual abuse, but not physical abuse (n=73); history of physical abuse, but not sexual abuse (n=98); and history of both types of abuse (n=65). A significant effect was found (*Wilks's lambda*(15, 1181.921) = .858). Follow-up univariate ANOVAs (see Table 17) indicated a significant effect between depression ($F(3, 432) = 4.388$, $p < .01$), suicidal tendency ($F(3,432) = 14.346$, $p < .01$), social anxiety ($F(3,432) = 5.337$, $p < .01$), and withdrawal ($F(3,432) = 7.681$, $p < .01$) and condition of sexual and/or physical abuse.

Table 17

Analysis of Variance for Internalizing Symptoms by History of Sexual and Physical Abuse

Source	*df*	*F*	η2	*P*
	Between	Subjects		
MACI Anxiety	3	1.875	.013	.133
MACI Depression	3	4.388	.030	.005
MACI Suicidal Tendency	3	14.346	.091	.000
Jesness Withdrawal	3	7.681	.051	.000
Jesness Social Anxiety	3	5.337	.036	.001
Error	432			

Tukey's *HSD* was used to determine the nature of the differences between the offenders and revealed that for depression and withdrawal, scores significantly increased from conditions of no abuse of any type to conditions of both types of abuse: ($p < .01$) and ($p < .01$), respectively. Suicidal tendency significantly increased between all abuse groups, indicating increased suicidality is expected from any abuse or combination of abuse. Differences were found between the no abuse of any type group and history of both types of abuse group ($p < .01$), and experience of sexual abuse only to experience of both types of abuse ($p < .01$), and experience of physical abuse only condition to experience of both types of abuse ($p < .01$). Social anxiety scores increased from no abuse to the sexual abuse only condition ($p < .01$) and from no abuse to both types of abuse ($p < .05$). Similar to previous analyses, no significant effects occurred for anxiety ($F(3, 432) = 1.875$, $p > .05$). Mean scores and standard deviations for the variables of the

internalizing variable group for history of sexual and physical abuse are presented in Table 18.

Hypothesis 3b: Juvenile Sexual Offenders with a History of Both Sexual and Physical Abuse Would Exhibit Externalizing Behavior Problems Such as Aggression, Oppositional Behavior, Conduct Problems, and Delinquent Behavior.

Externalizing Variable Group

For the juvenile sexual offenders, a one-way MANOVA was calculated examining the effect of sexual abuse and physical abuse on the variables of the externalizing variable group. Four groups were used in this analysis for the externalizing variables: no history of abuse of either type (n=200); history of sexual abuse, but not physical abuse (n=73); history of physical abuse, but not sexual abuse (n=98); and history of both types of abuse (n=65). A significant effect was found (*Wilks's lambda*(18, 1196.91) = .925, $p < .05$). Follow-up univariate ANOVAs (see Table 19) indicated a significant effect between oppositional ($F(3, 428) = 3.529$, $p < .05$), unruly ($F(3,428) = 3.752$, $p < .01$), and manifest aggression ($F(3,428) = 3.470$, $p < .05$) and condition of sexual and/or physical abuse. To determine the nature of the differences between the subjects, Tukey's *HSD* was used. This analysis revealed that oppositionality and unruliness increased from experience of no abuse of any type to experience of both types of abuse: ($p < .05$) for oppositional, ($p < .01$) for unruly. Manifest aggression scores significantly increased from no abuse to experience of both types of abuse ($p < .01$) as well. Thus, juvenile sexual offenders with a history of both physical and sexual abuse exhibited significantly more oppositional behavior, unruliness, and aggression than juvenile sexual offenders with no experiences of physical or sexual abuse. Delinquent

Table 18

Mean Scores for Internalizing Scales for History of Sexual and Physical Abuse

Variable	Type of Abuse	Mean	SD
MACI Anxiety	.00	68.39	21.36
	1.00	62.53	19.91
	10.00	68.21	19.91
	11.00	66.99	21.37
MACI Depression	.00	60.28	26.02
	1.00	62.96	26.89
	10.00	67.45	23.12
	11.00	72.91	27.51
MACI Suicidal Tendency	.00	29.08	20.91
	1.00	31.27	21.66
	10.00	35.40	23.47
	11.00	50.14	29.31
Jesness Withdrawal	.00	51.18	10.28
	1.00	53.89	10.33
	10.00	54.32	10.84
	11.00	58.12	10.73
Jesness Social Anxiety	.00	42.71	11.47
	1.00	45.18	9.45
	10.00	47.58	11.27
	11.00	47.51	11.17

Note. The higher the score, the greater the symptom severity. Type of Abuse: 00=no abuse, 1.00=no sexual, physical; 10.00=sexual abuse, no physical; 11.00=sexual and physical abuse

Table 19

Analysis of Variance for Externalizing Symptoms by History of Sexual and Physical Abuse

Source	*df*	*F*	η2	*P*
	Between	Subjects		
MACI Delinquent Predisposition	3	1.761	.012	.154
MACI Oppositional	3	3.529	.024	.015
MACI Forceful	3	.710	.005	.546
MACI Unruly	3	3.752	.026	.011
Jesness Manifest Aggression	3	3.470	.024	.016
HARE10-Anger Control	3	1.312	.009	.270
Total	428			

predisposition ($F(3, 428) = 3.470$, $p > .05$), forceful ($F(3, 428) = .710$, $p > .05$), and pervasive anger ($F(3, 428) = 1.312$, $p > .05$) were not influenced by history of sexual or physical abuse. Mean scores and standard deviations for the variables of the externalizing variable group by history of sexual and physical abuse are presented in Table 20.

Hypothesis 3c: Juvenile Sexual Offenders with a History of Both Sexual and Physical Abuse Would Exhibit Low Social Competence and Problems with Relationships with Others.

Interpersonal/relationship variables

In the juvenile sexual offender group, one-way ANOVAs (see Table 21) comparing type of abuse experience with self-esteem, social competence, and quality of

Table 20

Mean Scores for Externalizing Scales for History of Sexual and Physical Abuse

Variable	Type of Abuse	Mean	SD
MACI Delinquent Predisposition	.00	59.40	18.25
	1.00	63.40	18.04
	10.00	57.51	16.85
	11.00	59.30	16.62
MACI Oppositional	.00	55.24	18.03
	1.00	59.07	17.17
	10.00	55.49	19.46
	11.00	62.94	17.03
MACI Forceful	.00	31.11	22.59
	1.00	34.99	21.06
	10.00	32.34	22.57
	11.00	33.83	25.54
MACI Unruly	.00	54.48	19.56
	1.00	62.24	18.40
	10.00	55.55	19.62
	11.00	57.91	18.13
Jesness Manifest Aggression	.00	52.16	12.29
	1.00	53.61	12.46
	10.00	53.86	13.27
	11.00	57.94	12.07

Note. The higher the score, the greater the symptom severity. Type of Abuse: 00=no abuse, 1.00=no sexual, physical; 10.00=sexual abuse, no physical; 11.00=sexual and physical abuse

Table 20
Continued

Mean Scores for Externalizing Scales for History of Sexual and Physical Abuse

Variable	Type of Abuse	Mean	SD
HARE Poor Anger Control	.00	1.05	.81
	1.00	1.25	.78
	10.00	1.14	.82
	11.00	1.14	.87

Note. The higher the score, the greater the symptom severity. Type of Abuse: 00=no abuse, 1.00=no sexual, physical; 10.00=sexual abuse, no physical; 11.00=sexual and physical abuse

Table 21

Analysis of Variance for Social Competence Variables by History of Sexual and Physical Abuse

Source	*df*	*F*	*P*
	Between Subjects		
HARE Unstable Interpersonal Relationships	3	1.426	.234
Within Subjects	462		
MACI Self-devaluation	3	5.776	.001
Within Subjects	438		
Jesness Social Anxiety	3	5.002	.002
Within Subjects	449		
Jesness Social Maladjustment	3	4.348	.005
Within Subjects	449		

interpersonal relationships were calculated using the following variables: MACI self-devaluation, Jesness social anxiety, Jesness social maladjustment, and HARE17 – unstable interpersonal relationships. The four groups for this analysis were no history of abuse of either type; history of sexual abuse, but not physical abuse; history of physical abuse, but not sexual abuse; and history of both types of abuse. Group sizes changed with each variable analyzed (see Table 22). Significant effects were found for self-devaluation ($F(3, 438) = 5.78$, $p < .01$), social anxiety ($F(3, 449) = 5.00$, $p < .01$), and social maladjustment ($F(3, 449) = 4.35$, $p < .01$). Tukey's *HSD* post hoc analyses were used to determine the nature of the differences. Greater levels of social maladjustment occurred in the juvenile sexual offenders with experience of both physical and sexual abuse than in the group with no experience of physical or sexual abuse ($p < .01$) indicating juvenile sexual offenders with a history of both sexual and physical abuse experienced more social maladjustment than juvenile sexual offenders without these experiences of abuse. In addition, less self-devaluation was present in juvenile sexual offenders with no experience of physical or sexual abuse ($p < .01$) and in juvenile sexual offenders with only physical abuse ($p < .05$) than in the group with experience of both physical and sexual abuse. This suggests that juvenile sexual offenders with a history of both physical and sexual abuse reported more self-devaluation than juvenile sexual offenders with no history of abuse or history of physical abuse only. In addition, juvenile sexual offenders with no history of abuse of either type had lower social anxiety than the group of offenders with history of sexual abuse only ($p < .01$) or the group with both sexual and physical abuse history ($p < .05$). These results indicated that social anxiety increased as juvenile sexual offenders experienced sexual abuse only and experienced both sexual and

Table 22

Number of Subjects for Social Competence and Relationships

Variable	Sexual Abuse/Physical Abuse	N
Self-devaluation	None	202
	No SA, Yes PA	99
	Yes SA, No PA	73
	SA and PA	68
	Total	442
Social Anxiety	None	207
	No SA, Yes PA	102
	Yes SA, No PA	76
	SA and PA	68
	Total	453
Social Maladjustment	None	207
	No SA, Yes PA	102
	Yes SA, No PA	76
	SA and PA	68
	Total	453
Relationship Stability	None	213
	No SA, Yes PA	103
	Yes SA, No PA	77
	SA and PA	70
	Total	466

physical abuse. No significant effect was found for unstable interpersonal relationships ($F(3, 462) = 1.43$, $p > .05$) indicating that no effect was found for history of physical and/or sexual abuse and stability of interpersonal relationships. Mean scores and standard deviations for the social competence variables by history of sexual and physical abuse are presented in Table 23.

Hypothesis 3d: Juvenile Sexual Offenders with Numerous Traumatic Events and Stressors will be at Increased Risk for Negative Outcomes (Internalizing and Externalizing Symptoms) in Childhood and Adolescence.

For this analysis, four groups were created using a sum count of total trauma/ stress events reported by the juvenile sexual offenders. The four created groups included: no report of abuse/stress/victimization (n=34), report of one incident of abuse/stress/ victimization (n=97), report of two or three incidents of abuse/stress/victimization (209), and report of four or more types of abuse/stress/victimization (n=96). Possible abuse/ stress/victimization included sexual abuse, physical abuse, neglect, natural disaster, incarceration-related stress, automobile or fire accident, witness/victim of a violent crime, death/life threatening illness of a close family member, family/peer/relationship stress, physical/mental health concerns, and school stress.

Internalizing Variable Group Outcomes

A MANOVA was conducted to assess if there were differences between the levels of experience of different types of trauma (no incident of trauma/stress/victimization, one incident, two or three incidents, and four or more incidents) and the symptoms in the internalizing variable group. A significant difference was found, (*Wilks's lambda*(15, 1181.921) = .910, $p < .01$). Follow-up univariate ANOVAs (see Table 24) indicated a

Table 23

Mean Scores for Social Competence Variables by History of Sexual and Physical Abuse

Variable	Type of Abuse	Mean	SD
MACI Unstable Interpersonal Relationships	.00	.84	.82
	1.00	.86	.79
	10.00	.66	.74
	11.00	.71	.76
	Total	.80	.79
MACI Self-Devaluation	.00	46.47	24.95
	1.00	48.61	27.78
	10.00	55.67	28.26
	11.00	60.44	28.03
	Total	50.62	27.07
Jesness Social Anxiety	.00	42.95	11.52
	1.00	44.88	9.42
	10.00	47.50	11.25
	11.00	47.62	11.06
	Total	44.85	11.11
Jesness Social Maladjustment	.00	65.24	16.07
	1.00	69.05	15.45
	10.00	66.58	16.12
	11.00	72.71	14.23
	Total	67.44	15.85

Note. The higher the score, the greater the symptom severity. Type of Abuse: 00=no abuse, 1.00=no sexual, physical; 10.00=sexual abuse, no physical; 11.00=sexual and physical abuse

Table 24

Analysis of Variance for Internalizing Symptoms by History of Traumatic Events

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Anxiety	3	.204	.001	.894
MACI Depression	3	4.384	.030	.005
MACI Suicidal Tendency	3	6.901	.046	.000
Jesness Withdrawal	3	9.549	.062	.000
Jesness Social Anxiety	3	6.861	.045	.000
Error	432			

significant effect for depression ($F(3, 432) = 4.384$, $p < .01$), suicidal tendency ($F(3,432) = 6.901$, $p < .01$), social anxiety ($F(3,432) = 6.861$, $p < .01$), and withdrawal ($F(3,432) = 9.549$, $p < .01$), and experience of various types of trauma. No significant effect was found for anxiety ($F(3,432) = .204$, $p > .05$).

Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between the subjects. For depression, both the group with no experience of abuse/stress/victimization and the group with one experience of abuse/stress/ victimization had less depression than the group with four or more experiences of abuse/stress/victimization ($p < .05$). For withdrawal, scores were significantly higher for the group experiencing four or more types ($p < .01$) and two to three types ($p < .05$) of abuse/stress/victimization than the group with no experience of abuse/stress/ victimization. In addition, the group with only one experience of abuse/stress/

victimization was less withdrawn than those with four or more types of abuse/stress/ victimization ($p < .01$). For social anxiety, scores were significantly higher for the group experiencing four or more types ($p < .01$) and two to three types ($p < .01$) of abuse/stress/ victimization than the group with no experience of abuse/stress/ victimization. In addition, the group with only one experience of abuse/stress/ victimization was less socially anxious than those with four or more types of abuse/stress/ victimization ($p < .05$). Finally, for suicidal tendency, the group with four or more experiences of abuse/stress/ victimization experienced significantly higher levels of suicidal tendency than any other group. All differences were significant ($p < .05$). Mean scores and standard deviations for the variables of the internalizing variable group by history of traumatic events are presented in Table 25.

Externalizing Variable Group Outcomes

For this analysis, the four groups of victimization count were used: no report of abuse/stress/victimization (n=34), report of one incident of abuse/stress/victimization (n=97), report of two or three incidents of abuse/stress/victimization (205), and report of four or more types of abuse/stress/victimization (n=96). Groups were compared on variables of the externalizing variable group (MACI delinquent predisposition, MACI oppositional, MACI forceful, MACI unruly, Jesness manifest aggression, and HARE poor anger control).

A MANOVA was conducted to assess if there were differences between experiencing different levels of victimization (0 incidents, one incident, two or three incidents, and four or more incidents) and symptoms in the externalizing variable group. A significant difference was found, (*Wilks's lambda*(18, 1196.910) = .929, $p < .05$).

Table 25

Mean Scores for Internalizing Scales for History of Traumatic Events

Variable	Number of Events	Mean	SD
MACI Anxiety	0	66.35	19.09
	1	67.93	22.20
	2-3	66.11	20.97
	4 or more	67.45	20.12
MACI Depression	0	55.21	27.91
	1	59.59	24.60
	2-3	64.32	26.24
	4 or more	70.73	26.12
MACI Suicidal Tendency	0	25.53	18.36
	1	29.18	18.90
	2-3	33.31	24.07
	4 or more	42.32	27.62
Jesness Withdrawal	0	48.00	9.88
	1	51.01	10.37
	2-3	53.44	10.58
	4 or more	57.42	10.17
Jesness Social Anxiety	0	38.74	9.73
	1	42.67	11.38
	2-3	45.59	11.37
	4 or more	47.36	9.75

Note. The higher the score, the greater the symptom severity. Number of traumatic events: 0=no event, 1 =one traumatic event, 2-3=two or three traumatic events, 4 or more=four or more traumatic events

Table 26

Analysis of Variance for Externalizing Symptoms by History of Traumatic Events

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Delinquent Predisposition	3	.343	.002	.795
MACI Oppositional	3	3.828	.026	.010
MACI Forceful	3	.359	.003	.783
MACI Unruly	3	.681	.005	.564
Jesness Manifest Aggression	3	2.441	.017	.064
Hare Poor Anger Control	3	1.863	.013	.135
Error	432			

Follow-up univariate ANOVAs (see Table 26) indicated a significant effect between oppositional ($F(3, 428) = 3.828$, $p < .01$) and experience of various types of victimization. Manifest aggression approached significance ($F(3,428) = 2.442$, $p = .064$). Tukey's *HSD* was used to determine the nature of the differences between the subjects. For oppositionality, juvenile sexual offenders with two to three types of abuse/stress/victimization and juvenile sexual offenders with four or more types of abuse/stress/ victimization had more symptomatology than the group with no abuse/stress/victimization ($p < .05$) and ($p < .01$), respectively. No significant effects were found for unruly ($F(3,428) = .681$, $p > .05$), forceful ($F(3,428) = .359$, $p > .05$), delinquent predisposition ($F(3,428) = .343$, $p > .05$) or anger control ($F(3,428) = 1.863$, p

$> .05$). Mean scores and standard deviations for the variables of the externalizing variable group for history of traumatic events are presented in Table 27.

In summary, Condition 3 received support across specific hypotheses, and was confirmed on two levels. First, as juvenile sexual offenders experienced both sexual and physical abuse, more symptoms of depression, suicidal tendency, withdrawal, social anxiety, oppositionality, unruliness, manifest aggression, poor stability of relationships, social maladjustment, and self-devaluation were observed. Second, when multiple types of abuse/stress/victimization were considered, polyvictimization was linked to many detrimental outcomes for juvenile sexual offenders. Four or more types of abuse/stress/ victimization were associated with higher levels of suicidal tendency, withdrawal, social anxiety, oppositionality, and manifest aggression. In addition, suicidal tendency, withdrawal, and social anxiety symptoms increased with each successive level of abuse experiences when compared to conditions of no abuse.

Condition 4: When victimization occurs during a critical period of the developmental task, successful navigation of the stage will be interrupted and more negative outcomes will occur than if the abuse occurs later and after the developmental tasks are complete.

Hypothesis 4a: Juvenile Sexual Offenders with Both Physical and (or) Sexual Abuse During Childhood will Show Increased Symptoms on the Internalizing Symptom Variable Group.

For these analyses three groups of juvenile sexual offenders were formed based on age of onset of sexual abuse victimization: no sexual abuse (n=297), history of sexual abuse with onset age six or before (n=58), and history of sexual abuse with onset after age six (n=78). The groups were compared on the variables of the internalizing variable

Table 27

Mean Scores for Externalizing Scales for History of Traumatic Events

Variable	Number of Events	Mean	SD
MACI Delinquent Predisposition	0	60.62	18.43
	1	60.19	19.50
	2-3	60.52	17.33
	4 or more	58.36	17.00
MACI Oppositional	0	48.91	20.86
	1	56.21	17.80
	2-3	57.54	18.21
	4 or more	60.80	16.33
MACI Forceful	0	31.62	24.48
	1	32.76	22.85
	2-3	33.54	22.93
	4 or more	30.71	21.70
MACI Unruly	0	56.47	21.15
	1	54.57	20.91
	2-3	57.94	19.15
	4 or more	57.21	17.42

Note. The higher the score, the greater the symptom severity. Number of traumatic events: 0=no event, 1 =one traumatic event, 2-3=two or three traumatic events, 4 or more=four or more traumatic events

Table 27
Continued

Mean Scores for Externalizing Scales for History of Traumatic Events

Variable	Number of Events	Mean	SD
Hare Poor Anger Control	0	.91	.75
	1	1.06	.83
	2-3	1.12	.82
	4 or more	1.26	.80
Manifest Aggression	0	49.74	12.49
	1	52.72	13.10
	2-3	53.56	12.24
	4 or more	56.03	12.58

Note. The higher the score, the greater the symptom severity. Number of traumatic events: 0=no event, 1 =one traumatic event, 2-3=two or three traumatic events, 4 or more=four or more traumatic events

group (MACI depression, MACI suicidal tendency, MACI anxiety, Jesness withdrawal, and Jesness social anxiety).

Internalizing Variable Group Outcomes for Sexual Abuse

A MANOVA was conducted to assess if there were differences between ages of onset of sexual abuse and experience of symptoms in the internalizing variable group. Significant effects were found for the juvenile sexual offender group (*Wilks's lambda*(10, 852) = .922, $p < .01$). Follow-up univariate ANOVAs (see Table 28) indicated significant effects between suicidal tendency ($F(2, 430) = 14.261$, $p < .01$), social anxiety ($F(2, 430) = 5.978$, $p < .01$), withdrawal ($F(2, 430) = 6.971$, $p < .01$), and depression ($F(2, 430) = 5.506$, $p < .01$) and age of onset of sexual abuse. Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between the groups. This analysis

Table 28

Analysis of Variance for Internalizing Symptoms by History of Sexual Abuse by Age

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Anxiety	2	.267	.001	.766
MACI Depression	2	5.506	.025	.004
MACI Suicidal Tendency	2	14.261	.062	.000
Jesness Withdrawal	2	6.971	.031	.001
Jesness Social Anxiety	2	5.978	.027	.003
Error	430			

provided significant effects between the group with no sexual victimization and the group with sexual abuse onset after age six for depression ($p < .05$); suicidal tendency ($p < .01$); withdrawal ($p < .01$); and social anxiety ($p < .01$). For each variable, symptoms increased between the condition of no abuse and condition of sexual abuse after age six. In addition, significant effects were present between conditions of no abuse and conditions of sexual abuse age six and before for depression ($p < .05$), suicidal tendency ($p < .01$), and social anxiety ($p < .05$) indicating that sexual abuse onset age six and before is linked with an increase in depression, suicidal tendency, and social anxiety. Mean scores and standard deviations for the variables of the internalizing variable group by history of sexual abuse by age are presented in Table 29.

Internalizing Variable Group Outcomes for Physical Abuse

Three groups of juvenile sexual offenders were formed based on age of onset of physical abuse victimization: no physical abuse (n=275), history of physical abuse with

Table 29

Mean Scores for Internalizing Symptoms by History of Sexual Abuse by Age

Variable	Age of Sexual Abuse	Onset Mean	SD
MACI Anxiety	.00	66.43	21.07
	1.00	68.62	23.77
	2.00	66.95	18.05
	Total	66.82	20.92
MACI Depression	.00	61.28	26.27
	1.00	71.38	26.21
	2.00	69.18	24.87
	Total	64.05	26.29
MACI Suicidal Tendency	.00	29.87	21.15
	1.00	43.83	30.23
	2.00	41.85	25.16
	Total	33.90	23.99
Jesness Withdrawal	.00	52.11	10.35
	1.00	55.26	11.23
	2.00	56.72	10.78
	Total	53.36	10.70
Jesness Social Anxiety	.00	43.58	10.87
	1.00	47.29	11.91
	2.00	47.67	10.73
	Total	44.81	11.12

Note. The higher the score, the greater the symptom severity. Age of Sexual Abuse Onset: 00=no abuse, 1.00=sexual abuse onset age six or before, 2.00=sexual abuse onset after age six

onset age six or before (n=62), and history of physical abuse with onset after age six (n=97). The groups were compared on the variables of the internalizing variable group (MACI depression, MACI suicidal tendency, MACI anxiety, Jesness withdrawal, and Jesness social anxiety).

A MANOVA was conducted to assess if there were differences between age of onset of physical abuse and experience of symptoms in the internalizing variable group. Significant effects were found for the juvenile sexual offenders (*Wilks's lambda*(10, 854) = .939, p = .01). Follow-up univariate ANOVAs (see Table 30) indicated significant effects for suicidal tendency ($F(2, 431) = 6.079$, $p < .01$), withdrawal ($F(2, 431) = 5.497$, $p < .01$), and anxiety (F(2, 431 = 4.834, $p < .01$) and age of onset of physical abuse.

Table 30

Analysis of Variance for Internalizing Symptoms by History of Physical Abuse by Age

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Anxiety	2	4.834	.022	.008
MACI Depression	2	1.521	.007	.220
MACI Suicidal Tendency	2	6.079	.027	.002
Jesness Withdrawal	2	5.497	.025	.004
Jesness Social Anxiety	2	1.544	.007	.215
Error	431			

Tukey's *HSD* post hoc analysis was used to determine the nature of the differences between the groups. An increase in symptoms was found for suicidal tendency ($p < .05$) and withdrawal ($p < .05$) between conditions of no physical abuse and physical abuse onset age six or before for juvenile sexual offenders. In addition, an increase in suicidal tendency was found between no physical abuse and conditions of physical abuse after age six. ($p < .05$). Finally, a decrease in anxiety occurred between conditions of no physical abuse and conditions of physical abuse after age six ($p < .01$) suggesting that anxiety decreases in juvenile sexual offenders with experiences of physical abuse after age six. Mean scores and standard deviations for the variables of the internalizing variable group by history of physical abuse by age are presented in Table 31. In summary, physical abuse onset at age six or before and after six was linked with increased suicidal tendency. Physical abuse onset at age six or before was linked with withdrawal, and decreases in anxiety were linked with physical abuse onset after age six.

Hypothesis 4b: Juvenile Sexual Offenders who Experienced Both Physical and (or) Sexual Abuse during Childhood would Show Increased Symptoms on the Externalizing Symptom Variable group.

Externalizing Variable Group Outcomes for Sexual Abuse

For these analyses with the juvenile sexual offenders, three groups were formed based on age of onset of sexual abuse victimization: no sexual abuse (n=296), history of sexual abuse with onset age six or before (n=57), and history of sexual abuse with onset after age six (n=76). The groups were compared on the variables of the externalizing variable group (MACI unruly, MACI forceful, MACI oppositional, MACI delinquent predisposition, Jesness manifest aggression, and HARE10 – poor anger control).

Table 31

Mean Scores for Internalizing Symptoms by History of Physical Abuse by Age

Variable	Age of Sexual Abuse	Onset Mean	SD
MACI Anxiety	.00	68.60	21.09
	1.00	68.37	19.20
	2.00	61.18	20.05
	Total	66.91	20.79
MACI Depression	.00	62.35	25.41
	1.00	68.21	25.79
	2.00	65.64	29.05
	Total	63.92	26.35
MACI Suicidal Tendency	.00	30.81	21.70
	1.00	39.81	26.48
	2.00	38.51	27.19
	Total	33.81	24.01
Jesness Withdrawal	.00	52.10	10.51
	1.00	56.35	10.97
	2.00	54.95	10.63
	Total	53.35	10.71
Jesness Social Anxiety	.00	44.10	11.61
	1.00	46.65	10.46
	2.00	45.41	10.06
	Total	44.76	11.14

Note. The higher the score, the greater the symptom severity. Age of Sexual Abuse Onset: 00=no abuse, 1.00=sexual abuse onset age six or before, 2.00=sexual abuse onset after age six

A MANOVA was conducted to assess if there were differences between ages of onset of sexual abuse and experience of symptoms in the externalizing variable group. A significant result was not found for the juvenile sexual offender group (*Wilks's lambda*(12, 842) = .968, $p > .05$).

Externalizing Variable Group Outcomes for Physical Abuse

Three groups of juvenile sexual offenders were formed based on age of onset of physical abuse victimization: no physical abuse (n=273), history of physical abuse with onset age six or before (n=62), and history of physical abuse with onset after age six (n=95). The groups were compared on the variables of the externalizing variable group (MACI unruly, MACI forceful, MACI oppositional, MACI delinquent predisposition, Jesness manifest aggression, and HARE10 – poor anger control).

A MANOVA was conducted to test for differences between age of onset of physical abuse and experience of symptoms in the externalizing variable group. Significant effects were found for the juvenile sexual offender group (*Wilks's lambda*(12, 844) = .934, $p < .01$). Follow-up univariate ANOVAs (see Table 32) indicated significant effects between unruly ($F(2, 427) = 6.671$, $p < .01$), forceful ($F(2, 427) = 6.480$, $p < .01$), oppositional ($F(2, 427) = 4.837$, $p < .01$), and delinquent predisposition (F(2, 427 = 4.865, $p < .01$) and age of onset of physical abuse. Tukey's *HSD* post hoc analyses were used to determine the nature of the differences between the groups. An increase in unruliness ($p < .01$) and oppositionality ($p < .01$) was found between conditions of no physical abuse and conditions of physical abuse after age six. Delinquent predisposition increased between conditions of no physical abuse experience and physical abuse after age six ($p < .05$), and between experiences of physical abuse age six or before and after

Table 32

Analysis of Variance for Externalizing Symptoms by History of Physical Abuse by Age

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Delinquent Predisposition	2	4.865	.022	.008
MACI Oppositional	2	4.837	.022	.008
MACI Forceful	2	6.480	.029	.002
MACI Unruly	2	6.671	.030	.001
Jesness Manifest Aggression	2	2.366	.011	.095
HARE10-Anger Control	2	2.811	.013	.061
Total	427			

age six ($p < .05$). Forceful behavior increased between no physical abuse and physical abuse after age six ($p < .01$) and between physical abuse age six or before and after age six ($p < .01$). No significant effects were found for manifest aggression ($F(2, 427) = 2.366$, $p > .05$) or poor anger control $F(2, 427) = 2.811$, $p > .05$). Mean scores and standard deviations for the variables of the externalizing variable group for age of onset of physical abuse are presented in Table 33.

Hypothesis 4c: Juvenile Sexual Offenders who Experienced Both Physical and (or) Sexual Abuse during Childhood Would Exhibit Problems with Ego Resiliency and Self-Value.

For this analysis, the three groups of juvenile sexual offenders based on age of onset of sexual abuse victimization were used: no sexual abuse (n=277), history of sexual abuse with onset age six or before (n=65), and history of sexual abuse with onset after

Table 33

Mean Scores for Externalizing Scales for Age of Onset of Physical Abuse

Variable	Type of Abuse	Mean	SD
MACI Delinquent Predisposition	.00	58.81	17.88
	1.00	57.31	14.53
	2.00	64.79	18.60
	Total	59.91	17.77
MACI Oppositional	.00	55.28	18.48
	1.00	58.69	16.58
	2.00	61.76	17.28
	Total	57.20	18.12
MACI Forceful	.00	31.26	22.53
	1.00	27.27	20.64
	2.00	39.31	23.19
	Total	32.46	22.70
MACI Unruly	.00	54.71	19.55
	1.00	56.47	17.18
	2.00	62.98	18.60
	Total	56.79	19.27
Jesness Manifest Aggression	.00	52.63	12.61
	1.00	54.53	10.97
	2.00	55.74	13.70
	Total	53.59	12.60

Note. The higher the score, the greater the symptom severity. Age of Physical Abuse Onset: 00=no abuse, 1.00=physical abuse onset age six or before, 2.00=physical abuse onset after age six

Table 33
Continued

Mean Scores for Externalizing Scales for History of Sexual and Physical Abuse

Variable	Type of Abuse	Mean	SD
HARE Poor Anger Control	.00	1.07	.82
	1.00	1.11	.81
	2.00	1.29	.80
	Total	1.12	.81

Note. The higher the score, the greater the symptom severity. Age of Physical Abuse Onset: 00=no abuse, 1.00=physical abuse onset age six or before, 2.00=physical abuse onset after age six

age six (n=98). The groups were compared on the MACI self-devaluation and MACI identity diffusion scales. One-way ANOVAs were computed comparing self-devaluation and identity diffusion on the age of onset of sexual abuse. A significant effect was found for self-devaluation ($F(2, 436) = 7.850$, $p < .01$) but not for identity diffusion ($F(2, 436) = 1.926$, $p > .05$). Tukey's *HSD* revealed increases in self-devaluation between conditions of no sexual abuse and conditions of sexual abuse onset age six or before ($p < .01$) and between no sexual abuse history and onset of sexual abuse after age six ($p < .01$). These results indicate that identity self-devaluation increased with any experiences of sexual abuse, regardless of age of onset. Sexual abuse had no significant effect on the development or status of the personal identity elements of juvenile sexual offenders, but had a negative effect on the value juvenile sexual offenders placed on self.

Next, three groups of juvenile sexual offenders based on age of onset of physical abuse victimization: no physical abuse (n=300), history of physical abuse with onset age six or before (n=80), and history of physical abuse with onset after age six (n=59) were compared on the variables of self-devaluation and identity diffusion. One-way ANOVAs

were computed comparing self-devaluation and identity diffusion on the onset of physical abuse. No significant effects were found for this analysis with identity diffusion ($F(2, 437) = .967$, $p > .05$) or self-devaluation ($F(2, 437) = 1.339$, $p > .05$) suggesting that physical abuse, regardless of age of onset has no effect on identity diffusion or self-devaluation.

Hypothesis 4d: Juvenile Sexual Offenders with an Experience of Sexual Abuse at Age Six or before are Likely to be Victims of Additional Types of Abuse or Neglect.

For this analysis with the juvenile sexual offenders, three groups were formed based on age of onset of sexual abuse victimization: no sexual abuse (n=320), history of sexual abuse with onset age six or before (n=62), and history of sexual abuse with onset after age six (n=86). The groups were compared on levels of experience of different types of abuse (0-no abuse, 1-one type of abuse, 2-two types of abuse, and 3-three types of abuse). Types of abuse included physical abuse, sexual abuse, and/or neglect. A one-way ANOVA was computed comparing age of onset of sexual abuse and number of different types of abuse experiences. A significant difference was found among age of onset of sexual victimization and total number of different abuse experiences ($F(2,465) = 189.874$, $p<.01$). To determine the nature of the differences between the groups, Tukey's *HSD* post hoc testing was computed. Significant differences existed between all groups ($p < .05$). The non-sexually abused offenders had fewer different types of abuse experiences than those experiencing sexual abuse age six or before ($p < .01$) and after age six ($p < .01$). Subjects with sexual abuse onset age six or before had more different types of abuse experiences than those reporting sexual abuse onset after age six ($p < .05$). These results suggested that onset of sexual abuse at age six or before had a significant

effect on experience of multiple types of victimization, with earlier sexual abuse resulting in more different types of abuse experiences than sexual abuse onset at a later age.

Hypothesis 4e: Juvenile Sexual Offenders with an Experience of Physical Abuse at Age Six or before are Likely to be Victims of Additional Types of Abuse or Neglect.

Parallel analyses to 4d were performed to examine the effects of physical abuse victimization at different ages. For this analysis with the juvenile sexual offenders, three groups were formed based on age of onset of physical abuse victimization: no physical abuse (n=294), history of physical abuse with onset age six or before (n=71), and history of physical abuse with onset after age six (n=1046). The groups were compared on the level they experienced different types of abuse (0-no abuse, 1-one type of abuse, 2-two types of abuse, and 3-three types of abuse). Types of abuse included physical abuse, sexual abuse, and/or neglect. A one-way ANOVA was computed comparing age of onset of physical abuse and number of different types of abuse experiences. A significant effect was found among age of onset of physical abuse victimization and total number of different abuse experiences ($F(2,466) = 250.374$, $p<.01$). To determine the nature of the differences between the groups, Tukey's *HSD* post hoc testing was computed. Significant differences existed between all groups ($p<.05$). The non-physically abused juvenile sexual offenders had fewer different types of abuse experiences than those experiencing physical abuse age six or before ($p<.01$) and after age six ($p<.01$). Juvenile sexual offenders with physical abuse onset age six or before had more different types of abuse experiences than those reporting physical abuse onset after age six ($p<.05$). These results suggested that onset of physical abuse at age six or before had a significant effect on

experience of multiple types of abuse/victimization, with earlier physical abuse resulting in more different types of abuse experiences than physical abuse onset at a later age.

In summary, abuse of either a sexual or physical nature, with perpetration occurring age six or earlier is associated with future victimization of a different type for the juvenile sexual offender.

Hypothesis 4f: Juvenile Sexual Offenders are Likely to Have a History of Their Own Sexual Victimization Age 12 or Younger.

For this analysis, juvenile sexual offenders (n=468) were compared with non-sexually offending juvenile delinquents (n=136) on age of onset of sexual abuse. A chi-square test of independence was calculated comparing the levels of sexual abuse (no abuse, sexual abuse onset before age 12, and sexual abuse onset at age 12 or after) for the juvenile sexual offenders and non-sexually offending juvenile delinquents. A significant interaction was found (χ^2 (2) = 27.755, p = .01). The proportion of juvenile sexual offenders with no history of sexual victimization (P = .68) was less than the proportion of non-sexually offending juvenile delinquents with no history of sexual abuse (P = .81). The proportion of juvenile sexual offenders sexually abused before age 12 (P = .24) was greater than the proportion of non-sexually offending juvenile delinquents in the sexually abused before age 12 group (P = .05), and the proportion of juvenile sexual offenders in the sexually abused at age 12 or after (P = .08) group was less than the proportion of non-sexually offending juvenile delinquents in the sexually abused at age 12 or after group (P = .15). Overall, a history of sexual abuse was more frequent in the juvenile sexual offender group than in the non-sexually offending delinquent group, and specifically

having a history of sexual abuse prior to age 12 was more frequent for the juvenile sexual offenders than for the non-sexually offending juvenile offenders.

Hypothesis 4g: Juvenile Sexual Offenders with a History of Sexual Abuse or Physical Abuse Prior to Age 12 will be at Increased Risk for Criminal Offending Behavior.

Criminal Behavior by Sexual Abuse

This analysis was conducted with juvenile sexual offenders comparing serious criminal behavior and number of arrests on history of sexual abuse by age. Three groups were formed for comparisons when serious criminal behavior was analyzed: no history of sexual abuse (n=318), history of sexual abuse onset before age 12 (n=108), and history of sexual abuse onset age 12 or after (n=37). When number of arrests was analyzed, the groups were as follows: no history of sexual abuse (n=319), history of sexual abuse onset before age 12 (n=111), and history of sexual abuse onset age 12 or after (n=37). A one-way ANOVA was computed, and a significant effect was found for serious criminal behavior ($F(2, 460) = 4.012$, $p < .05$) and history of sexual abuse by age; however, Tukey's *HSD* post hoc analysis did not reveal a significant comparison. No significant effect was found for number of arrests ($F(2, 464) = 2.424$, $p > .05$).

Criminal Behavior by Physical Abuse

This analysis was conducted with all juvenile sexual offenders and compared serious criminal behavior, and number of arrests on history of physical abuse by age. Three groups were formed for comparisons. When serious criminal behavior was analyzed, the groups were as follows: no history of physical abuse (n=292), history of physical abuse onset before age 12 (n=132), and history of physical abuse onset age 12 or after (n=40). When number of arrests was analyzed, the groups were as follows: no

history of physical abuse (n=294), history of physical abuse onset before age 12 (n=134), and history of physical abuse onset age 12 or after (n=40). A one-way ANOVA was conducted with the juvenile sexual offenders comparing serious criminal behavior, and number of arrests on history of physical abuse by age (no history of physical abuse, physical abuse onset before age 12, and physical abuse onset age 12 or after). No significant effects were found for serious criminal behavior ($F(2,461) = .154$, $p > .05$) or number of arrests ($F(2, 465) = .465$, $p > .05$).

Hypothesis 4h: Juvenile Sexual Offenders with a History of Sexual Abuse or Physical Abuse Prior to Age 12 will be at Increased Risk for Internalizing Symptomatology.

Internalizing by Sexual Abuse

This analysis was conducted with juvenile sexual offenders comparing symptoms in the internalizing variable group (MACI anxiety, MACI depression, MACI suicidal tendency, Jesness social anxiety, Jesness withdrawal) with history of sexual abuse by age. Three groups were used for comparisons: no history of sexual abuse (n=297), history of sexual abuse onset before age 12 (n=101), and history of sexual abuse onset age 12 or after (n=35).

A MANOVA was conducted to assess if there were differences between the age of onset of sexual abuse and extent of experiencing symptoms in the internalizing variable group. A significant effect was found, (*Wilks's lambda*(10, 852) = .916, $p < .05$). Follow-up univariate ANOVAs (see Table 34) indicated a significant effect between depression ($F(2, 430) = 5.418$ $p < .01$), suicidal tendency ($F(2,430) = 14.878$, $p < .01$), social anxiety ($F(2,430) = 5.979$, $p < .01$), and withdrawal ($F(2,430) = 6.983$, $p < .01$) and age of onset of sexual abuse. Tukey's *HSD* post hoc analyses were used to determine

Table 34

Analysis of Variance for Internalizing Symptoms by History of Sexual Abuse by Age (12)

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Anxiety	2	.314	.001	.730
MACI Depression	2	5.418	.025	.005
MACI Suicidal Tendency	2	14.878	.065	.000
Jesness Withdrawal	2	6.983	.031	.003
Jesness Social Anxiety	2	5.979	.027	.001
Error	430			

the nature of the differences between the subjects. Significant differences were identified between the group with no sexual abuse and the group experiencing sexual abuse prior to age 12 on depression ($p < .01$), suicidal tendency ($p < .01$), social anxiety ($p < .01$), and withdrawal ($p < .01$). This indicated that higher levels of depression, suicidal tendency, social anxiety, and withdrawal were found in individuals with sexual abuse onset prior to age 12, as compared to those with no history of sexual abuse. For withdrawal, sexual abuse both prior to age 12 and at age 12 and after resulted in higher levels of withdrawal than among juvenile delinquents with no history of sexual abuse ($p < .05$). No significant effects were found for anxiety ($F(2, 430) = .314$, $p > .05$). Mean scores and standard deviations for the variables of the internalizing variable group by history of sexual abuse by age 12 are presented in Table 35.

Table 35

Mean Scores for Internalizing Symptoms by History of Sexual Abuse by Age (12)

Variable	Age of Sexual Abuse	Onset Mean	SD
MACI Anxiety	.00	66.43	21.07
	1.00	68.25	21.59
	2.00	65.97	17.71
	Total	66.82	20.92
MACI Depression	.00	61.28	26.71
	1.00	70.46	25.90
	2.00	69.14	24.15
	Total	64.05	26.29
MACI Suicidal Tendency	.00	29.87	21.15
	1.00	44.08	28.82
	2.00	38.69	22.47
	Total	33.90	23.99
Jesness Withdrawal	.00	52.11	10.35
	1.00	55.66	11.31
	2.00	57.34	9.92
	Total	53.36	10.70
Jesness Social Anxiety	.00	43.58	10.87
	1.00	47.40	11.97
	2.00	47.83	8.79
	Total	44.81	11.12

Note. The higher the score, the greater the symptom severity. Age of Sexual Abuse Onset: 00=no abuse, 1.00=sexual abuse onset before age 12, 2.00=sexual abuse onset age 12 or after

Internalizing by Physical Abuse

This analysis was conducted with juvenile sexual offenders comparing symptoms of the internalizing variable group (MACI anxiety, MACI depression, MACI suicidal tendency, Jesness social anxiety, and Jesness withdrawal) with history of physical abuse by age. Three groups were used for comparisons: no history of physical abuse (n=275), history of physical abuse onset before age 12 (n=121), and history of physical abuse onset age 12 or after (n=38). A MANOVA was conducted to assess if there were differences between the age of onset of physical abuse and extent of experiencing symptoms in the internalizing variable group. A significant difference was found, (*Wilks's lambda*(10, 858) = .944, $p < .05$). Follow-up univariate ANOVAs (see Table 36) indicated a significant effect between suicidal tendency ($F(2,431) = 7.042$, $p < .01$), and withdrawal ($F(2,431) = 5.359$, $p < .01$) and age of onset of physical abuse. Tukey's *HSD*

Table 36

Analysis of Variance for Internalizing Symptoms by History of Physical Abuse by Age (12)

Source	*df*	*F*	η2	*p*
	Between	Subjects		
MACI Anxiety	2	2.626	.012	.074
MACI Depression	2	2.141	.010	.119
MACI Suicidal Tendency	2	7.042	.032	.001
Jesness Withdrawal	2	5.359	.024	.005
Jesness Social Anxiety	2	2.081	.010	.126
Error	431			

post hoc analyses were used to determine the nature of the differences between the groups. This analysis revealed that higher suicidal tendency and withdrawal scores were found in individuals with history of physical abuse onset prior to age 12 than in those with no history of physical abuse ($p < .01$) and ($p < .01$) respectively. There were no other significant pairwise comparisons. No significant differences were found for anxiety ($F(2, 431) = 2.626$, $p > .05$), depression ($F(2, 431) = 2.141$, $p > .05$), or social anxiety ($F(2,431) = 2.081$, $p > .05$). Mean scores and standard deviations for the variables of the internalizing variable group by history of physical abuse by age 12 are presented in Table 37.

Hypothesis 4i: Victims of Sexual Abuse or Physical Abuse Prior to Age 12 will be at Increased Risk for Externalizing Symptomatology.

Externalizing by Sexual Abuse

This analysis was conducted with juvenile sexual offenders comparing symptoms in the externalizing variable group (MACI delinquent predisposition, MACI oppositional, MACI forceful, MACI unruly, Jesness manifest aggression, and HARE poor anger control) with history of sexual abuse by age of sexual abuse onset. Three groups were used for comparisons: no history of sexual abuse (n=296), history of sexual abuse onset before age 12 (n= 98), and history of sexual abuse onset age 12 or after (n=35). A MANOVA was computed to determine if there were differences between the age of onset of sexual abuse and extent of experiencing symptoms in the externalizing variable group. A significant difference was found, (*Wilks's lambda*(12, 842) = .965, $p < .05$). Follow-up univariate ANOVAs (see Table 38) indicated a significant effect with manifest aggression ($F(2, 426) = 3.71$, $p < .05$). Tukey's *HSD* analysis revealed that level of

Table 37

Mean Scores for Internalizing Symptoms by History of Physical Abuse by Age (12)

Variable	Age of Physical Abuse	Onset Mean	SD
MACI Anxiety	.00	68.60	21.09
	1.00	64.44	19.47
	2.00	62.53	21.69
	Total	66.91	20.79
MACI Depression	.00	62.35	25.41
	1.00	68.12	27.02
	2.00	61.95	29.91
	Total	63.92	26.35
MACI Suicidal Tendency	.00	30.81	21.70
	1.00	40.50	27.27
	2.00	34.29	25.18
	Total	33.81	24.01
Jesness Withdrawal	.00	52.10	10.51
	1.00	55.79	10.96
	2.00	54.55	10.13
	Total	53.35	10.71
Jesness Social Anxiety	.00	44.10	11.61
	1.00	46.50	10.57
	2.00	43.95	8.80
	Total	44.76	11.14

Note. The higher the score, the greater the symptom severity. Age of Physical Abuse Onset: 00=no abuse, 1.00=physical abuse onset before age 12, 2.00=physical abuse onset age 12 or after

Table 38

Analysis of Variance for Externalizing Symptoms by History of Sexual Abuse by Age (12)

Source	*df*	*F*	η2	*p*
	Between Subjects			
MACI Delinquent Predisposition	2	1.553	.007	.213
MACI Oppositional	2	.867	.004	.421
MACI Forceful	2	.131	.001	.877
MACI Unruly	2	.315	.001	.730
Jesness Manifest Aggression	2	3.712	.017	.025
HARE10-Anger Control	2	.115	.001	.891
Total	426			

manifest aggression was significantly lower in individuals with no history of sexual abuse than in subjects with history of sexual abuse age 12 or after ($p < .05$). There were no other significant pairwise comparisons. No significant effects were found for unruly ($F(2,426) = .315$, $p > .05$), forceful ($F(2,426) = .131$, $p > .05$), oppositional ($F(2,426) = .867$ $p > .05$), and delinquent predisposition ($F(2,426) = 1.553$, $p > .05$). Mean scores and standard deviations for the variables of the externalizing variable group by history of sexual abuse by age are presented in Table 39.

Externalizing by Physical Abuse

Juvenile sexual offenders grouped according to history of physical abuse age of onset were compared on symptoms in the externalizing variable group. Three groups were used for comparisons: no history of physical abuse (n=273), history of physical abuse onset before age 12 (n=119), and history of physical abuse onset age 12 or after

Table 39

Mean Scores for Externalizing Symptoms for History of Sexual Abuse by Age (12)

Variable	Age of Sexual Abuse	Mean	SD
MACI Delinquent Predisposition	.00	60.76	18.27
	1.00	57.29	16.75
	2.00	61.63	16.70
	Total	60.04	17.83
MACI Oppositional	.00	56.57	17.74
	1.00	59.08	18.99
	2.00	59.03	19.09
	Total	57.35	18.14
MACI Forceful	.00	32.42	22.17
	1.00	33.72	23.84
	2.00	32.14	24.99
	Total	32.70	22.76
MACI Unruly	.00	57.06	19.51
	1.00	56.03	19.41
	2.00	59.03	18.47
	Total	56.99	19.37
Jesness Manifest Aggression	.00	52.69	12.31
	1.00	55.09	13.19
	2.00	58.09	12.52
	Total	53.68	12.61

Note. The higher the score, the greater the symptom severity. Age of Sexual Abuse Onset: 00=no abuse, 1.00=sexual abuse onset prior to age 12, 2.00=sexual abuse onset age 12 or after

Table 39
Continued

Mean Scores for Externalizing Symptoms for History of Sexual Abuse by Age (12)

Variable	Age of Sexual Abuse	Mean	SD
HARE Poor Anger Control	.00	1.12	.80
	1.00	1.15	.85
	2.00	1.17	.79
	Total	1.13	.81

Note. The higher the score, the greater the symptom severity. Age of Sexual Abuse Onset: 00=no abuse, 1.00=sexual abuse onset prior to age 12, 2.00=sexual abuse onset age 12 or after

(n=38). A MANOVA was conducted to determine if there were differences between the age of onset of physical abuse and extent of experiencing symptoms in the externalizing variable group. No significant effect was found, (*Wilks's lambda*(12, 844) = .953, *p* = .057), but the relationship approached significance. Mean scores and standard deviations for the variables of the externalizing variable group for history of physical abuse by age 12 are presented in Table 40.

In summary, condition four received support for significant age and stage effects of abuse. This study provided empirical evidence for the age of onset of physical and sexual abuse as an important consideration for symptoms outcomes. Through the specific hypotheses tested, strong empirical evidence for the detrimental, longitudinal effects of victimization was shown. An experience of physical abuse or sexual abuse both at age six or before and after age six was associated with internalizing symptoms, and sexual or physical abuse victimization onset age six or before was associated with additional types of victimization in the future. Physical abuse after the age of six was associated with

Table 40

Mean Scores for Externalizing Symptoms for History of Physical Abuse by Age (12)

Variable	Age of Physical Abuse	Mean	SD
MACI Delinquent Predisposition	.00	58.81	17.88
	1.00	61.42	16.41
	2.00	63.13	20.55
	Total	59.91	17.76
MACI Oppositional	.00	55.28	18.48
	1.00	60.61	16.74
	2.00	60.34	18.11
	Total	57.20	18.12
MACI Forceful	.00	31.26	22.53
	1.00	33.61	23.03
	2.00	37.53	22.63
	Total	32.46	22.70
MACI Unruly	.00	54.71	19.55
	1.00	60.24	18.13
	2.00	60.92	18.95
	Total	56.79	19.27
Jesness Manifest Aggression	.00	52.63	12.61
	1.00	56.10	12.73
	2.00	52.63	11.30
	Total	53.59	12.60

Note. The higher the score, the greater the symptom severity. Age of Physical Abuse Onset: 00=no abuse, 1.00=physical abuse onset prior to age 12, 2.00=physical abuse onset age 12 or after

Table 40
Continued

Mean Scores for Externalizing Symptoms for History of Physical Abuse by Age (12)

Variable	Age of Physical Abuse	Mean	SD
HARE Poor Anger Control	.00	1.07	.82
	1.00	1.25	.82
	2.00	1.13	.78
	Total	1.12	.81

Note. The higher the score, the greater the symptom severity. Age of Physical Abuse Onset: 00=no abuse, 1.00=physical abuse onset prior to age 12, 2.00=physical abuse onset age 12 or after

externalizing symptoms such as unruly, forceful, oppositional, and delinquent predisposition. This relationship did not exist with presence of sexual abuse. Sexual abuse onset prior to the age of twelve was more frequent in the juvenile sexual offenders than in the non-sexually offending juvenile delinquents. In addition, sexual abuse onset prior to the age of 12 was associated with internalizing symptoms. Overall, the results provided support for multiple negative outcomes to children who are victimized sexually or physically during childhood, and particularly prior to the age of six when they are negotiating the foundational tasks of childhood.

DISCUSSION

The present study tested predictions derived from developmental psychopathology conceptual models related to outcomes of victimization. The essence of this perspective is that childhood exposure to abuse, trauma, and stress has specific, predictable developmental consequences. A secondary goal was to examine the role of victimization as it related to offending cycles.

Until recently, research pertaining to childhood abuse and victimization and the developmental trajectory/consequences for victims (Cicchetti & Rogosch, 2002; Cicchetti & Toth, 1995; Higgins & McCabe, 2001) was sparse. The current research was designed to provide a more precise understanding of the consequences of childhood abuse and victimization by testing specific hypotheses about the effects of abuse and victimization from a developmental perspective (Eckenrode et al., 2001; Ireland et al., 2002; Smith et al., 2005; Thornberry et al., 2001).

Developmental psychopathology and developmental victimology models provide a framework for understanding the impact that environmental insults play on the development of psychopathology in childhood. From the perspective of the developmental psychopathology model, children and adolescents are presented with a series of developmental tasks, and successful accomplishment of one task contributes to the successful accomplishment of future tasks. Problems resolving an earlier task as a result of insult or abuse may lead to delay in accomplishing the next task (Cicchetti &

Cohen, 1995). Developmental victimology narrows the focus of environmental insults to experiences of abuse and victimization, which were the focus of the current study. Based on his review of the literature, Finkelhor (1995) proposed four conditions, rooted in developmental victimology, which he hypothesized would produce specific detrimental outcomes for victims. These four conditions form the broad theoretical foundation from which the current project was developed. Multiple hypotheses were proposed to test Finkelhor's four conditions according to specific outcomes as well as a standard group of internalizing and externalizing outcome variables.

Examining these hypotheses in a sample of incarcerated juvenile sexual offenders and nonsexual offending juvenile delinquents, groups with high base-rates of victimization and environmental insults, enabled a robust test of the several predictions drawn from other researchers who have examined the effects of abuse on children and adolescents (Bagley et al., 1994; Bromley & Johnson, 2001; Chromy, 2007; Cole & Putnam, 1992; Finkelhor et al., 2007; Gray et al., 1999; Hunter & Figueredo, 2002; Johnson et al., 2006; Manley et al., 2001; McClellan et al., 1996; Stevens et al., 2005; Tyler, 2002; Valle & Silovsky, 2002; Weeks & Widom, 1998).

Furthermore, using a large sample of this at-risk group allowed for creation of several subgroups to test for specific effects of abuse onset at various ages and stages. This division of subjects allowed for more precise tests of the hypotheses and a broader understanding of the specific effects associated with abuse experiences at different ages of onset. In addition, this large sample allowed for a comparison between the juvenile sexual offenders and the non-sexually offending juvenile delinquents to test for differences in terms of their own personal abuse experiences.

In general, multiple significant effects were found which both replicated and extended the work of other researchers and cumulatively provide considerable support for Finkelhor's four conditions. In the following sections, the results of the numerous tests for each of Finkelhor's four conditions will be presented.

Condition 1: Juveniles who have been victims of repetitive and ongoing conditions of victimization will have more negative outcomes than juveniles who have no history or minimal history of such victimization.

Finkelhor's first condition addressed the issue of duration of victimization, with the assumption that victimization of a chronic and repetitive nature was more detrimental to children and adolescents than to those with no history of victimization or a more limited history of victimization (Finkelhor, 1995). Presumably, a long duration of victimization would impact a broader array of developmental tasks and/or transitions thereby creating more downstream developmental consequences. Following from this theoretical presumption, five broad hypotheses were made for this condition: 1) Juvenile sexual offenders with a history of sexual abuse were predicted to have more sexual victims of their own than juvenile sexual offenders without a history of their own victimization. 2) Repetitive and ongoing conditions of victimization would result in more sexual victimization of others. 3) Juvenile sexual offenders with a history of multiple episodes of sexual victimization would be more likely to offend sexually against under age victims and to have sexual interest in children. 4) Juvenile sexual offenders with a history of sexual victimization would have greater levels of internalizing symptoms than juvenile sexual offenders with no history of sexual victimization. 5) Juvenile sexual

offenders with a history of sexual victimization would have greater levels of externalizing symptoms than juvenile sexual offenders with no history of sexual victimization.

Impact of Sexual Abuse History on Sexual Abuse Perpetration

For the first analysis, the juvenile sexual offenders were analyzed according to their own history of sexual victimization; specifically those with their own history of sexual abuse were predicted to have more victims than those without a history of their own sexual victimization. Sexual offenders with a history of their own sexual victimization have been found to have more victims of their own than juvenile offenders who had not been victims of a sexual offense themselves (Bromberg & Johnson, 2001). The current study replicated these previous findings; juvenile sexual offenders with a history of sexual abuse had more victims of their own than juvenile sexual offenders with no such history of sexual victimization.

Impact of Duration of Sexual Abuse History of Sexual Abuse Perpetration

Juvenile sexual offenders with a history of repetitive and ongoing sexual victimization were predicted to have more sexual abuse victims of their own than juvenile sexual offenders with no history of sexual abuse or no history of repetitive sexual victimization (Bromberg & Johnson, 2001). As predicted, the number of sexual abuse victimizations a juvenile sexual offender experienced increased the number of sexual abuse victims produced by the offender. As suggested by learning theory, children often repeat behavior which is modeled for them (Gray et al., 1999; Holmes & Slap, 1998).

Impact of Repetitive Victimization on Victim Age

Sexually abused juvenile sexual offenders, with multiple episodes of sexual victimization were predicted to exhibit sexual interest in children as evidenced by having more underage victims. Supporting research by Bagley et al, (1994) who found that young men with childhood experiences of multiple sexual victimizations were more likely to engage in sexual contact with an underage individual, a main effect between number of episodes of sexual victimization and the age of victims was found. Sexually abused juvenile sexual offenders had more victims younger by four or more years than non-sexually abused juvenile sexual offenders who had more peer-age victims. These findings have considerable implications for the etiology of specific patterns of sex offending behavior. Moreover, if this pattern continues into late adolescence and adulthood, these adolescents are at increased risk of becoming adult persistent offenders. If early and multiple abuse victimizations are a significant risk factor for adult persistent child molestation, then treatment of the juvenile offenders should be focused on this higher risk group, before an entrenched pattern of sexual attraction towards children has been established.

Impact of Repetitive Sexual Victimization on Internalizing Symptoms

Number of sexual abuse victimizations also was analyzed with the variables of the internalizing variable groups, and significant main effects were found for all of the variables of the internalizing variable group, except for anxiety. Increased levels of depression, social anxiety, withdrawal, and suicidal tendency were found with each additional report of a sexual abuse incident. The finding supports previous literature indicating suicidal feelings (Bagley et al. 1994) and depression in victims of repetitive

sexual abuse (Bagley et al., 1994; Bromberg et al., 2001). Moreover, this finding suggests a possible etiological pathway from abuse/victimization through psychological distress, impaired developmental accomplishments, and failure to establish peer appropriate attachments manifested in adult persistent child molestation patterns.

Impact of Repetitive Sexual Victimization of Externalizing Symptoms

Number of sexual abuse victimizations also was analyzed with the variables of the externalizing variable group. Contrary to research indicating victims of childhood sexual abuse experience externalizing symptoms, (Tyler, 2002; Walker et al., 2004), no significant effects were found for the variables of the externalizing variable group in this study. These results were unexpected given the subjects were juvenile delinquents who were incarcerated at the time of the study. It is possible that the generally high levels of externalizing behavior with delinquent samples produced a ceiling effect without much variability, regardless of abuse history. Lane and Lobanov-Rostovsky (1997) reported that only one-fourth of children with sexual behavior problems engaged in nonsexual, delinquent behaviors in addition to their sexual behavior. In addition, children who are victims of childhood sexual abuse are likely to engage in sexualized behavior (Putnam, 2003) and tend to repeat similar behavior on their own victims (Bromberg & Johnson, 2001; Worling, 1995; Weeks & Widom, 1998) suggesting specific perpetration of sexual offending, rather than general delinquency.

In summary, this study provided robust support for Finkelhor's first condition that exposure to repetitive and ongoing abusive conditions and/or personal victimization was linked to increased victimization of others, and higher levels of depression, greater

suicidal tendency, social anxiety, and withdrawal. In addition, history of repetitive sexual abuse contributed to younger victim choice.

Condition 2: Juveniles whose relationship with their main support system is significantly altered due to victimization will suffer more detrimental effects than those who have a supportive system/environment.

Finkelhor's second theoretical condition addressed victimization that results in significant alteration of the juvenile victim's relationship with the main support system. Such victimization may be perpetrated by a family member or leads to discord among the family due to victimization from a non-family member (Finkelhor, 1995). Juveniles with this significant alteration of their main support system would be predicted to suffer more detrimental effects than the juveniles with a supportive system/environment (Finkelhor, 1995). Based on this condition, ten hypotheses were tested in this study; five were drawn from sexual abuse exposure, and five from experiences of physical abuse. First, the hypothesis was made that juvenile sexual offenders with a history of an incestuous sexual victimization would exhibit depression, suicidal thoughts/behaviors, and internalizing problems. Second, juvenile sexual offenders with a history of an incestuous sexual victimization would exhibit externalizing problems. Third, juvenile sexual offenders with a history of an incestuous sexual victimization would show poor relationships with others, lack of trust, and poor relationships with both parents. Fourth, juvenile sexual offenders with a history of an incestuous sexual victimization would exhibit substance use. Fifth, juvenile sexual offenders with a history of an incestuous sexual victimization would exhibit symptoms of traumatic stress.

Hypotheses six through ten examined the correlates of physical abuse by a family member. Sixth, juvenile sexual offenders with a history of physical abuse by a family member would exhibit depression, suicidal thoughts/behaviors, and internalizing problems. Seventh, juvenile sexual offenders with a history of physical abuse by a family member would exhibit externalizing problems. Eighth, juvenile sexual offenders with a history of physical abuse by a family member would show poor relationships with others, lack of trust, and poor relationships with both parents. Ninth, juvenile sexual offenders with a history of physical abuse by a family member would have an increased use of substances. Finally, juvenile sexual offenders with a history of physical abuse by a family member would have increased symptoms of trauma.

Condition 2 is rooted in the developmental psychopathology/developmental victimology literature, and the assumption is that victimization experiences interfere with a child's attainment of the various tasks associated with psychosocial stages of development. Specifically, if a victimization experience interferes with attachment development in young children, or occurs when children are developing attachments or friendships with others, damage is done to a child's ability to attach to and trust others (Lynch & Cicchetti, 1991) and to have effective social interactions with others (Dodge et al., 1990; Haskett & Kistner, 1991; Mueller & Silverman, 1989). Theoretically, as the relationship with attachment figures is important in the development of a young person's internal working models of relationships and of self, impairment in this attachment relationship will lead to impairment in relationships with others.

For this study, effects of an incestuous victimization were the initial focus of attention; however, analyses with physical abuse by a family member were added for

analyses as any type of abuse from a family member was hypothesizd to interfere with attachment and trust of others. Both incest and physical abuse by a family member were analyzed according to internalizing and externalizing symptoms as well as interpersonal effects.

History of Incest

Outcomes for Internalizing Symptoms

The hypothesis was made that juvenile sexual offenders with a history of incestuous sexual victimization would exhibit depression, suicidal thoughts/behaviors and other internalizing problems. Higher levels of depression, suicidal tendency, withdrawal, and social anxiety were found in juvenile sexual offenders with at least one experience of incest than in those with no history of incest. This result was expected and supports previous research about internalizing outcomes in victims of incest (Cole & Putnam, 1992). In addition, in cases of sexual abuse by an unrelated perpetrator, withdrawal and suicidal tendency scores were higher than in individuals with no history of sexual abuse at all. These results suggest that internalizing symptoms were pervasive among juvenile sexual offenders with a history of incest, and moreover, that withdrawal and suicidal tendency were significant effects of sexual abuse, regardless of relationship to perpetrator. These findings provide strong evidence for the presence of significant internalizing symptoms among sexual abuse victims and is consistent with research (Cole & Putnam, 1992) finding internalizing symptoms in sexual abuse victims and other research (Dube et al., 2005) finding that men and women with a history of childhood sexual abuse were two times more likely to attempt suicide than men and women with no history of childhood sexual abuse.

Outcomes for Externalizing Symptoms

No significant effects were found for the variables of the externalizing variable group in the juvenile sexual offenders when compared by history of incest. This finding is consistent with much of the literature on incestuous sexual victimization, which has primarily reported internalizing symptom outcomes for incest victims (Alexander & Anderson, 1997; Cole & Putnam, 1992). When externalizing behaviors have been reported, they tend to be of a sexual nature (Friedrich, Urquiza, & Beilke, 1986).

Outcomes for Interpersonal Variables

Juvenile sexual offenders with a history of incest were predicted to experience poor relationships and lack of trust in others. Analyses conducted with the juvenile sexual offenders revealed that incestuously abused juveniles scored lower on trust in parents than juvenile sexual offenders with no history of incest. Trust would be negatively impacted if the abuse was by the parent or possibly reflected a perceived lack of protection from the parent, even if the perpetrator was not a parent (Alexander & Anderson, 1997), and thus a negative outcome with parental trust is expected. Surprisingly, no significant effects were found for number of trusted friends, alienation from others, peer trust, or level of perceived care from mother and father. It appears that relationship damage from incest experiences may not generalize to peer relationships. These results fail to support literature indicating impaired interpersonal relationships as detrimental effects experienced from incestuous victimization (Alexander and Anderson, 1997; Cole and Putnam, 1992; Friedrich, Urquiza, & Beilke, 1986). Given the unexpected lack of significant results with the parent trust and care variables, perhaps the way incest was defined in this study is problematic. An incestuous victimization was

defined as a sexual victimization by any one of nine perpetrators including step-parents, step-siblings, uncles, grandparents, and parents. No measure was available as to the significance of the relationship with the perpetrator or the severity of the abuse. For example, if the abuse was perpetrated by the parent the child lived with, and the abuse was severe, the outcomes would likely be quite different than those for a child sexually victimized by an uncle, living out of state, and the abuse was not severe. The intent of this analysis was to capture the more serious incestuous experiences, the experiences which violate a child's bond with the perpetrator and represent a betrayal to the victim. The independent variable of incest did not adequately measure and reflect the nature of the incest episode and thus prohibits a more focused analysis of the hypothesis.

Substance Use by Incest

When substance use was considered as a potential negative outcome of incest, a significant effect was found for alcohol use, but not drug use. Individuals with a history of incest were found to have higher levels of alcohol use than those with no history of sexual abuse or sexual abuse by an unrelated perpetrator. The non-significant results for drug use were unexpected given previous research that has shown an outcome of sexual abuse in teenagers to be drug and alcohol abuse (Tyler, 2002; Thornberry et al., 2001).

Trauma Symptoms by Incest

Trauma symptoms were measured with the K-SADS posttraumatic stress variables which provided a measure of both current (6 months) and past (prior to past 6 months) trauma symptoms. With the juvenile sexual offenders, individuals with sexual abuse by an unrelated perpetrator and incest history had higher scores on both the current and past measures than the group of juvenile sexual offenders with no history of sexual

abuse. These results provide support for other literature which has shown trauma symptoms to be consistent outcomes for sexual abuse victims (Cole & Putnam, 1992; Dubner & Motta, 1999; Finkelhor et al., 2007; Higgins & McCabe, 2001; Tyler, 2002; van der Kolk, 2005).

History of Physical Abuse by a Family Member

Outcomes for Internalizing Symptoms

Juvenile sexual offenders with a history of physical abuse by a family member were predicted to exhibit depression, suicidal thoughts/behaviors, and internalizing problems. Similar to the analysis for incest, significant effects were found for suicidal tendency and withdrawal with increased symptomatology found in juvenile sexual offenders with a history of physical abuse by a family member/relative. Previous research also found significant internalizing symptoms in victims of physical abuse (Allen & Tarnowski, 1989; Lansford, 2006).

Outcomes for Externalizing Symptoms

Juvenile sexual offenders with a history of physical abuse by a family member were predicted to exhibit externalizing problems; however, similar to the analysis for externalizing problems and incest, no significant effects were found. The nonsignificant results of this analysis were unexpected given previous research reporting externalizing symptoms in children and adolescents with a history of physical abuse (Lansford, 2006) and specific prediction of aggressive behavior from a history of physical abuse victimization (Dodge et al., 1990).

Outcomes for Interpersonal Variables by Physical Abuse

Next, juvenile sexual offenders with a history of physical abuse by a family member were predicted to have poor relationships with others, lack of trust, and poor relationships with both parents. Similar to the results for the incest analysis with interpersonal variables, limited significant findings occurred. Juvenile sexual offenders with a history of physical abuse by a family member/relative perceived less care from their fathers than the juvenile sexual offenders with no history of physical abuse from a family member.

Substance Use by Physical Abuse

Juvenile sexual offenders with a history of physical abuse by a family member were predicted to be at greater risk for substance abuse. Whereas history of incest was associated with alcohol use, but not drug use, history of physical abuse by a family member was associated with both drug and alcohol use in juvenile sexual offenders. Previous literature has indicated a link between maltreatment of various types (physical, sexual, neglect) with increased drug and alcohol use (Thornberry et al., 2001), and this study provides specific results for physical abuse outcomes in terms of substance use.

Trauma Symptoms by Physical Abuse

Finally, juvenile sexual offenders with a history of physical abuse by a family member were predicted to exhibit symptoms of traumatic stress. A history of physical abuse by a family member/relative was found to be associated with increased trauma symptoms, both currently and in the past. This finding supports previous research which has shown trauma symptoms to be consistent outcomes for physical abuse victims (Dubner & Motta, 1999).

In summary, the current study examined outcomes of experiences of physical and sexual abuse. A history of incest and physical abuse by a parent were associated with impaired parent trust and decreases in perceived level of father care, respectively. No association was found between either type of abuse and peer relationship variables, and as earlier explained, abuse from a family member and associated impairment in family relationships may not generalize into one's peer group. It seems the primary relationship affected is the one in which the abuse occurred. Incest and physical abuse experiences by a family member also were associated with significant internalizing symptoms, alcohol use, and trauma-related symptoms. Finkelhor's second condition, that incestuous victimization and physical abuse by a family member are associated with significantly detrimental outcomes for the victim, was confirmed.

Condition 3: Juveniles who have experienced more than one type of abuse or abuse in combination with other major stressors will experience an additive effect and have more detrimental outcomes than juveniles with no abuse, one type of abuse, or few major stressors.

Finkelhor's third condition addressed the experience of more than one type of abuse or abuse combined with other major stressors and proposed an additive effect leading to more detrimental outcomes than the experience of no abuse or only one type of abuse. Several different analyses were performed to examine combined forms of abuse and victimization in order to gain an understanding of the effects of multiple types of victimization. The first hypothesis was that juvenile sexual offenders with a history of both sexual and physical abuse would exhibit internalizing symptoms such as depression, anxiety, withdrawal, social anxiety, and suicidal tendency. The second hypothesis was

that juvenile sexual offenders with a history of both sexual and physical abuse would exhibit externalizing problems such as aggression, oppositional behavior, conduct problems, and delinquent behavior. The third hypothesis was that juvenile sexual offenders with a history of sexual and physical abuse would exhibit low social competence and problems with relationships with others. Finally, juvenile sexual offenders with numerous traumatic events and stressors were predicted to be at increased risk for negative outcomes (internalizing and externalizing symptoms) in childhood and adolescence.

Effect of Cumulative Victimization on Internalizing Symptoms

The first hypothesis was that subjects with a history of both physical and sexual abuse would experience greater problems of an internalizing nature than subjects with fewer abuse experiences. Comparisons were made between groups with no abuse, only one type of abuse, and experience of both types of abuse. All internalizing symptoms, except anxiety were significant, and suicidal tendency increased significantly with each level of additional abuse experience. Suicidal tendency was present with both forms of abuse indicating the significance of abuse of either type to an individual's risk for suicidal thoughts and possible subsequent behaviors. With the other internalizing variables, except anxiety, scores increased between a history of no abuse and history of both types of abuse. Results support research by Finkelhor and colleagues (2007) and Manley and colleagues (2001) suggesting that children and adolescents experiencing multiple forms of abuse and victimization have more symptoms of internalizing disorders than children and adolescents with no abuse or only one type of abuse experience. Furthermore, an additive effect of multiple forms of victimization was suggested.

Theoretically, in addition to the parsimonious explanation of multiple abuse experiences being more detrimental to victims than single-type abuse experiences simply due to the repeated victimization experience, multi-type abuse experiences increase the likelihood that multiple developmental stages will be impacted resulting in delayed resolution of tasks and probable long-term developmental consequences.

Effect of Cumulative Victimization on Externalizing Symptoms

A significant effect was found for oppositional, unruly, and manifest aggression with significant increases in symptoms between the no abuse group and the group experiencing both physical and sexual abuse. This result is consistent with research by Valle and Silvosky (2002) who found externalizing behaviors in children with experiences of both sexual and physical abuse. Manley et al., (2001) also found that, children with histories of maltreatment including various combinations of sexual abuse, physical abuse, and neglect, exhibited behavior problems and were more aggressive and less cooperative than nonmaltreated children. With this project, conditions one and two addressed single-type abuse experiences, and failed to find significant effects for externalizing symptoms. When abuse experiences were combined in condition three, externalizing symptoms were significant. The presence of these symptoms in cases of multi-type abuse speaks to the importance of conducting a thorough analysis of an individual's abuse history and to the additive effect that occurs when more than one type of abuse occurs. Consideration should be made for the developmental tasks which were potentially impacted, and treatment should address any likely delays or impairments to stage-salient tasks which may occur.

Outcomes for Interpersonal Variables

A history of both sexual and physical abuse was found to predict increased problems with social competence and relationships with others. Valle & Silovsky (2002), also, found deficits in both social competency and interpersonal relationships in children who had a history of both physical and sexual abuse. The current study showed main effects for self-devaluation, social anxiety, and social maladjustment for the juvenile sexual offenders. Significant differences were found between the group with no experiences of abuse and the group with experiences of both types of abuse with an increase in symptomology associated with abuse. Thus, experience of both sexual and physical abuse have significant social implications for these boys and provide a possible explanation for their own sexual offending behavior. Current and previous research has linked a history of physical and sexual abuse with deficits in self-value, social maladjustment, and experiences of social anxiety (Manley et al., 2001). These outcomes likely decrease success in social situations, including romantic relationships with others. As successful negotiation of potentially romantic or sexual situations is one of the core tasks of adolescence, perhaps impaired ability to engage in romantic situations could result in sexual behavior with a young, available victim as the likelihood of successful relationships with peer age partners decreases. In addition to the differences between the history of no abuse and history of both physical and sexual abuse, juvenile sexual offenders, also, experienced increased self-devaluation and social anxiety when only one type of abuse occurred. Single-type abuse did contribute to problems with self-value and social anxiety; however, scores with only one type of abuse were significantly lower than

scores corresponding to experiences of both types of abuse, supporting the theory that multiple forms of abuse result in more negative outcomes than abuse of only one type.

Poly-victimization

In 2007, Finkelhor and colleagues' research on poly-victimization concluded that experience of four or more types of trauma/abuse/victimization was predictive of trauma symptoms in children, and that these children experience more negative symptoms than children with only one type of victimization. The current study extended this work and supported the current trend in developmental victimology and developmental psychopathology to consider multiple sources of trauma and victimization in children's histories. The current study also supported the proposed Developmental Trauma Disorder, currently under consideration for the DSM-V (van der Kolk, 2005). The hypotheses for the current study were that subjects experiencing multiple types of traumatic events and stressors would be at increased risk for negative psychological outcomes as measured by the variables in the internalizing and externalizing variable groups.

Outcomes for Internalizing Symptoms

Significant effects were found on all variables of the internalizing variable group (depression, suicidal tendency, social anxiety, and withdrawal) except anxiety. For each variable, there was a significant increase in symptomatology between no experiences of abuse/stress/victimization and experiences of four or more types of abuse/stress/victimization, clearly supporting Finkelhor's model of poly-victimization as a negative pathogen for internalizing symptoms. In addition, suicidal tendency was again found to be a core negative outcome effect with experiences of abuse. Suicidal tendency increased

as experiences of abuse increased, with the greatest level of suicidal tendency present with experience of poly-victimization. The same pattern of results also was found for social anxiety. These findings suggested that although suicidal tendency and social anxiety were present with fewer types of abuse/stress/victimization, children and adolescents with experiences of four or more types were significantly more burdened with symptoms than those with fewer victimization experiences. Poly-victims should be considered a high risk group in need of identification and treatment to address their symptoms and mitigate problematic outcomes.

Outcomes for Externalizing Symptoms

Conditions of poly-victimization were predicted to be linked to externalizing symptomatology. Higher levels of oppositionality were found in juvenile sexual offenders with experience of four or more types of trauma/stress/victimization and those with experience of two to three types than in those reporting no episodes of victimization. No significant effects occurred on the other variables of the externalizing variable group: unruly, forceful, or delinquent predisposition.

The current project found that experience of multiple types of victimization resulted in increasingly greater symptoms of both an internalizing and externalizing nature. As earlier indicated, externalizing symptoms only became significant when more than one type of abuse was present. With multiple types of abuse/victimization/trauma, particularly four or more episodes (poly-victimization), effects were additive and resulted in increasing levels of symptoms.

Taken together, these findings provided strong empirical support for Finkelhor's third condition. Specifically, the results supported the presence of increased detrimental

effects in victims experiencing multiple types of abuse and/or victimization than in those with fewer types or only one type. Negative outcomes included increased depression, withdrawal, suicidal tendency, social anxiety, oppositionality, unruliness, aggression, sexual aggression, self-devaluation, and social maladjustment.

Condition 4: When victimization occurs during a critical period of developmental task, successful navigation of the stage will be interrupted and more negative outcomes will occur than if the abuse occurs later and after the developmental tasks are complete.

Finkelhor's fourth condition focused on victimization which occurred during a critical period of developmental task. According to Finkelhor, when victimization occurred during a critical period of development, successful navigation of the stage would be interrupted and more negative outcomes would occur than if the abuse occurred after the developmental tasks were complete (1995). Nine hypotheses were formulated based on this condition. The first three hypotheses addressed experiences of physical and sexual abuse with onset age six and before and predicted an increase in internalizing symptoms, externalizing symptoms, and decreased ego resiliency and self-value. Hypotheses four and five considered sexual and physical abuse with onset age six and before and proposed additional future victimizations when such early abuse was present. The sixth analysis predicted that juvenile sexual offenders were more likely to have a history of their own sexual victimization age 13 or younger than subjects with no history of sexual offending. The final three hypotheses proposed that juvenile sexual offenders with a history of sexual or physical abuse prior to the age of 12 would be at increased risk for internalizing symptoms, externalizing symptoms, and criminal behavior.

Effects of Abuse by Type and Age of Onset

Based on Finkelhor's fourth condition and previous research supporting early age of onset of victimization as a risk factor for negative outcomes (Manley et al, 2001; Hunter & Figueredo, 2002; Chromy, 2007; McClellan et al., 1996), the juvenile sexual offenders were divided into three groups reflecting period of onset of sexual abuse (no abuse, onset age six and before, and onset after age six). A separate, parallel analysis was conducted with onset of physical abuse. Birth through age six represents the period of early childhood development and includes the developmental tasks of attachment, affect regulation, development of the autonomous self, development of peer relationships, and early successful adaptation to school. After age six, children continue to master these early tasks, and their level of success will partially depend upon their success or failure with the tasks experienced in early childhood.

Sexual Abuse by Internalizing Symptoms

As with previous analyses, significant effects were found for all internalizing variables, except anxiety. Regardless of age of onset of sexual abuse, increases in suicidal tendency, social anxiety, and depression were significantly greater in sexually abused juvenile sexual offenders than in the juvenile sexual offenders with no sexual abuse. Withdrawal was greater in juvenile sexual offenders with sexual abuse onset after age six, than in those with no sexual abuse. As with the previous analyses, suicidal tendency was a consistent, negative outcome of sexual abuse and likely underscores the feelings of hopelessness victims of abuse experience. These results provide support for previous research identifying increases in internalizing symptoms in children and adolescents with abuse experiences during childhood (Bagley et al., 1994; Chandy et al., 1996), and

increases in withdrawal with school-age sexual abuse victims (Manley et al (2001). Withdrawal during the school-age period would be particularly detrimental to mastery of successful peer relationships and adaptation to the school environment, both critical tasks of this developmental period. Problems with these tasks could lead to social anxiety, depression, withdrawal, and academic failure as success in the school environment requires the ability to interact with others, negotiate with others, and participate in academic and social activities.

Physical Abuse by Internalizing Symptoms

Parallel analyses were performed with physical abuse and internalizing symptoms. Similar to the above analysis for incest, physical abuse, regardless of age of onset, was linked with increased suicidal tendency. Physical abuse onset at age six or before was linked with withdrawal, and decreases in anxiety were linked with physical abuse onset after age six. These analyses provided specific outcomes for various internalizing symptoms by age of onset of physical abuse. As stated above, symptoms of withdrawal would interfere with successful establishment of peer relationships, and such children are likely to experience subsequent isolation, depression, and withdrawal. Pervasive suicidal tendency would also pose significant problems achieving tasks as it is linked to problems with emotional regulation, development of a healthy self-system, and downstream successful interactions with others.

Overall, support was made for physical and sexual abuse victimization, particularly with onset age six or before, contributing to significant internalizing symptoms which may persist into later childhood and adolescence. Results contradicted research (Thornberry et al., 2001) indicating that when abuse was limited to early

childhood and did not continue into later childhood, outcomes were better than in those with longer-term abuse. As previously stated, early abuse interrupts numerous stage-salient developmental tasks. Self-regulation, attachment development, formation of peer relationships, and development of an autonomous self are impacted when abuse occurs early in a child's life, and failure to adequately accomplish these developmental tasks increases the likelihood of internalizing symptoms for victims.

Sexual Abuse by Externalizing Symptoms

No significant effects were found for age of onset of sexual abuse on the symptoms of the externalizing variable group. While unexpected, these results are consistent with other findings from this project which have failed to demonstrate significant externalizing symptoms.

Physical Abuse by Externalizing Symptoms

This analysis provided the strongest evidence for externalizing symptoms in physically abused juveniles as unruliness, oppositionality, delinquent predisposition, and forceful behavior increased in juvenile sexual offenders with physical abuse onset after age six as compared to those with no history of physical abuse. In addition, delinquent predisposition and forceful behavior increased between physical abuse experiences age six and before and after age six. According to Manley et al. (2001) and Dodge, Pettit, & Bates (1994), externalizing and aggressive behavior can be explained by modeling theory whereas children who are physically abused learn aggressive methods of resolving conflict and are likely to employ these methods to resolve their own conflicts with others. In addition, results from this analysis suggested that physical abuse onset after age six had more negative effects than sexual abuse onset during the same time frame, and that

physical abuse in both early and late childhood had a significant impact on delinquent behavior. The developmental task of affect regulation is important when considering such externalizing symptoms. This early childhood task, if not mastered, theoretically will lead to impaired regulation of affect and behavior which would continue into later childhood and potentially result in acting out, aggression, and other externalizing behaviors.

Self-value Outcomes

Juvenile sexual offenders with both physical and (or) sexual abuse were predicted to show decreased levels of ego resiliency and self-value. This was found to be true for self-devaluation, but not identity diffusion. A decrease in self-value for juvenile sexual offenders was found with onset of sexual abuse during either age group. Sexual abuse had no effect on the development or status of the personal identity elements of juvenile sexual offenders, but had a negative effect on the value juvenile sexual offenders have placed on self. Next, the parallel analysis was performed for age of physical abuse onset, and no significant effects were found for either identity diffusion or self-devaluation. Age of onset and type of abuse were found to have significant effects on the value juvenile sexual offenders placed on themselves, but not on the development of various elements of their identity. Sexual abuse was associated with a greater number of negative findings in the self-value domain than was physical abuse. These results support findings by Manley et al., (2001) who found that children with experiences of sexual abuse had significantly low levels of ego resiliency and were at risk for maladaptation in the future. From a developmental perspective, it could be argued that sexual abuse represents a more pervasive and intimate form of maltreatment which impacts a victim's development of self-value in a way that physical abuse does not.

Impact of Age of First Abuse

Sexual Abuse

Next, juvenile sexual offenders with an experience of sexual abuse in early childhood (age six or before) were predicted to be victims of additional types of abuse or neglect. For this analysis, future incidents of physical abuse, sexual abuse, or neglect were considered, and results supported the prediction. Children with early sexual abuse experienced more different types of abuse than children/adolescents with a first incident of sexual abuse after age six suggesting that children sexually abused at a young age are at risk for future victimization. If such abuse is associated with future victimization, early abuse can be considered a risk factor for later abuse. As such, it is important to identify children who are sexually abused at a young age and provide intervention to protect them from future abuse.

Physical Abuse

Juvenile sexual offenders with an experience of physical abuse at age six or before were predicted to be victims of additional types of abuse or neglect. For this analysis, future incidents of physical abuse, sexual abuse, or neglect were considered, and non-physically abused juvenile sexual offenders had fewer different types of abuse experiences than those physically abused age six or before and after age six. Offenders with early onset of physical abuse had more different types of abuse experiences than those with later onset of physical abuse. Results indicated that age of onset of sexual and/or physical abuse in early childhood (age six or before) was associated with future victimization of a different type for juvenile sexual offenders.

These findings compliment and extend the work from the Rochester Youth Development Study (Thornberry, Ireland, & Smith, 2001; Ireland, Smith, & Thornberry, 2002; Smith, Ireland, & Thornberry, 2005) concerning impact of timing of victimization as well as other research linking early age of victimization to future victimization (Stevens et al., 2005). This is not an unexpected finding as children who are abused at an early age likely come from a dysfunctional home environment, where they will be at risk for future victimization due to perpetrators residing in the home or due to lack of supervision. Theoretically, if abuse occurs early and continues, multiple developmental stages and developmental tasks are impacted, thus setting the stage for interpersonal, academic, behavioral, and emotional impairments in the future. Given literature findings on the consistent negative effects associated with multiple victimizations, it is important to identify these children early, at the time of initial victimization and minimize future negative outcomes.

Age 12 as a Critical Age for Sexual Offending

From a review of the literature, the age of 12 was determined to be a critical age for experiences of abuse as research demonstrated that sexual abuse, prior to adolescence, was a risk factor for sexual offending behavior and other delinquent outcomes including criminal activity (Gray et al., 1999; Johnson et al., 2006; Weeks and Widom, 1998). For the current study, a prediction was made that juvenile sexual offenders would include more members with a history of their own sexual victimization age 12 or younger than the group of non-sexually offending juveniles. The prediction was supported as a history of sexual abuse was more frequent in the sexual offender group than in the non-sexually offending delinquent group, and specifically, having a history of sexual abuse prior to age

12 was more frequent for the juvenile sexual offenders than for the non-sexually offending juvenile delinquents. Correspondingly, a history of sexual abuse at age 12 or after was more frequent in the non-sexually offending juvenile delinquents than the juvenile sexual offenders. These findings support the literature findings of sexual victimization prior to age 12 being significant for juvenile sexual offenders and speak to the importance of sexual abuse experienced at a young age, prior to puberty, in the development of sexual offending behavior. Prior to age twelve, a child is navigating several critical developmental periods including: self and affective regulation, attachment development, self-system development, peer relationship development and adaptation to school. Either physical or sexual abuse, age six or prior, was a significant predictor for negative outcomes, particularly internalizing symptoms, for juvenile sexual offenders. This result extends the age to 12 and incorporates several additional developmental tasks. Insult to any one of the tasks has been shown in the literature to have potentially long-term consequences, and the results of the current study support this. Though it is not possible to know precisely what developmental task was impacted, the significant result speaks to the importance of environmental and developmental insults in early and late childhood as a predictor for future negative outcomes.

Age 12 as a Critical Age for Criminal Behavior

Based on research (Weeks & Widom, 1998) in which 68% of adult male offenders reported a history of physical or sexual abuse prior to age 12, the hypothesis was made that victims of sexual or physical abuse prior to age 12, would be at increased risk for criminal offending behavior. In addition, juvenile sexual offenders with physical or sexual abuse prior to the age of 12 were predicted to experience increased internalizing

and externalizing symptoms. These analyses compared groups with no abuse, abuse prior to age 12 and abuse onset age 12 and after.

Criminal Behavior by Sexual Abuse

An overall significant effect was found for serious criminal behavior and age of onset of sexual abuse; however, post hoc analyses did not distinguish between the three age ranges. Research has provided contradictory findings regarding history of sexual abuse and criminal offending behavior, and the current study does not provide clarity to this relationship. For example, Smith and colleagues (2005) and Widom and Ames (1994) found that a history of sexual abuse does not increase a victim's risk for criminal behavior in adolescence. On the other hand, Widom and Ames (1994) found that early sexual abuse placed an individual at risk specifically for runaway behavior resulting in juvenile arrest, and higher risk for perpetration and arrest for sexual crimes as an adult. Weeks and Widom (1998) also found that juvenile sexual offenders with a history of sexual abuse were involved in more criminal behavior than offenders with no history of sexual abuse. The current study indicated a relationship exists between age of onset of sexual abuse and criminal behavior, and future research may provide further examination of this relationship. No significant effects were found for number of arrests; however, given that most of the subjects of this study only had one incarceration, there was little variability in this outcome variable.

Criminal Behavior by Physical Abuse

Juvenile sexual offenders with a history of physical abuse onset prior to age 12 were predicted to engage in more criminal behavior than juveniles with no history of physical abuse or age of physical abuse onset age 12 or after. No significant results were

found relating age of onset of physical abuse to an effect on criminal behavior. This result was unexpected given previous research which showed that persistent maltreatment was associated with criminal behavior (Ireland et al., 2002), and that perpetration of violent crime was associated with a history of physical abuse (Smith et al., 2005). Widom and Ames (1994) also found an association between physical abuse as a child and arrest for violent sexual crimes, and this study found an increase in delinquent and forceful behavior with physical abuse during childhood.

In summary, the non-significant findings for age of onset of physical and sexual abuse were unexpected given the previously cited literature providing consistent links between experiences of physical abuse as a child and criminal behavior. This may be explained by the nature of the subjects of the study as they were juvenile sexual offenders, shown in the literature to engage in less delinquent activity, in general, than non-sexually offending juvenile delinquents (Lane & Lobanov-Rostovsky, 1997). There may also not be enough variability in overall delinquent behavior to gain meaningful differences on levels of criminal behavior and delinquent activity.

Age 12 as a Critical Age for Internalizing Symptoms

Internalizing Symptoms by Sexual Abuse

The hypothesis was made that juvenile sexual offenders with a history of sexual abuse onset prior to the age of 12 would be at increased risk for internalizing symptoms. Depression, suicidal tendency, withdrawal, and social anxiety increased from no history of abuse to sexual abuse onset prior to the age of 12. Withdrawal was also greater in juvenile sexual offenders with onset of sexual abuse age 12 and after than in those with no history of sexual abuse. Early sexual abuse had more negative implications for future

symptomatology than sexual abuse after age 12 (during adolescence). As with the other internalizing analyses, no significant effects were found for anxiety. Results support earlier findings of significant internalizing symptomatology with victims of sexual abuse. For example, Erikson and colleagues (1989) found that school-age children were inattentive, unpopular with their peers, dependent, and withdrawn. It is likely that sexual abuse during early and middle childhood acts as a catalyst for future problems, which then become compounded. For example, sexual abuse may contribute to feelings of depression in children, which lead them to behave in a more withdrawn manner, and thus they become less attractive play-mates and are not included in peer interactions. Being shunned at school likely creates more depression in children and subsequent isolation. A cyclic effect is created in which an environmental insult causes an emotional reaction, which contributes to negative behavior. Consequently, there are increased emotional problems which then contribute to more social problems. Thus, in such scenarios, multiple developmental tasks are impacted and contribute to long-term negative effects for victims of childhood abuse. Moreover, these findings reiterate the importance of considering internalizing symptoms rather than focusing solely on externalizing behavior with juvenile sexual offenders.

Internalizing Symptoms by Physical Abuse

The hypothesis was made that juvenile sexual offenders with a history of physical abuse onset prior to age 12 would be at increased risk for internalizing symptoms. Similar to the above analysis with sexual abuse, significant effects were found for suicidal tendency and withdrawal and age of physical abuse onset. Higher suicidal tendency and withdrawal were associated with a history of physical abuse onset prior to age 12 than

present in juvenile sexual offenders with no history of physical abuse. No significant effects were found for depression, social anxiety, or anxiety. Overall, analyses with internalizing symptoms and sexual and physical abuse support the age of 12 as a critical age for negative outcomes as both physical or sexual abuse to a child prior to age 12 was found to be associated with significant increases in depression, suicidal tendency, social anxiety, and withdrawal.

Externalizing Symptoms by Sexual Abuse

Juvenile sexual offenders with a history of sexual abuse onset prior to age 12 were predicted to be at increased risk for externalizing symptoms. An overall significant effect was found for externalizing symptoms and age of onset of sexual abuse. At the univariate level, manifest aggression alone was found to be significantly lower in individuals with no history of sexual abuse than in juvenile sexual offenders with history of sexual abuse age 12 or after, and this result supports research by Erickson and colleagues (1989) indicating that sexually abused children tended to exhibit more aggressive behavior than their non-sexually abused peers, and this behavior contributed to their being unpopular with their peers. Walker and colleagues (2004) also found externalizing symptoms such as oppositional behavior and aggression to be common in males who were victims of childhood sexual abuse. Similar to the analysis with internalizing symptoms associated with sexual abuse, this analysis also shows sexual abuse was associated with negative behavior (aggression) which may contribute to the victim being unpopular with peers. No significant effects were found for unruly, forceful, oppositional, or delinquent predisposition. As with the above findings for criminal behavior and physical abuse, it appears that, in general, externalizing behavior problems, aside from aggression, are not

the primary symptoms of concern with sexually abused children and adolescents, but internalizing symptoms are more persistent and severe.

Externalizing Symptoms by Physical Abuse

The hypothesis was made that juvenile sexual offenders with a history of physical abuse onset prior to age 12 would be at increased risk for externalizing symptoms. At the multivariate level, no significant effect was found indicating that age of onset of physical abuse was not related to level of externalizing symptoms.

In summary, condition four received support for significant age and stage effects of abuse. Evidence was presented for age of onset of physical and sexual abuse as an important consideration for symptom outcomes. Through the specific hypotheses tested, strong support for the detrimental, longitudinal effects of victimization was provided. An experience of physical abuse or sexual abuse both at age six or before and after age six was associated with internalizing symptoms, and sexual or physical abuse victimization onset age six or before was associated with additional types of victimization in the future. Physical abuse victimization after the age of six was associated with externalizing symptoms such as unruly, forceful, oppositional, and delinquent predisposition.

Sexual abuse onset prior to the age of twelve was more frequent in the juvenile sexual offenders than in the non-sexually offending juvenile delinquents. In addition, sexual abuse onset prior to the age of 12 was associated with internalizing symptoms.

Overall, the results provide support for multiple negative outcomes to children who are victimized sexually or physically during childhood, and particularly prior to the age of six when they are negotiating the foundational tasks of childhood. Hypothetically, if children successfully achieve the tasks of early childhood, they may have greater

understanding of and mastery of relationships due to ability to successfully establish attachments with others. Achievement of this developmental task means that children have the ability to trust others, regulate stress in interactions with others, and have a sense of security with others they experience attachment with (Shonkoff & Phillips, 2000). In addition, achievement of self-regulation symbolizes a child's ability to understand and manage emotions, maintain psychological arousal, and regulate attention (Shonkoff & Phillips, 2000). These skills are all necessary to establish and maintain adequate relationships with others. They also contribute to mastery of the autonomous and effective self-system, a separate developmental task. All of these tasks lay the foundation for establishment of successful peer relationships, academic achievement, and successful romantic relationships and autonomy in adolescence. When children have been victimized subsequent to mastery of the core tasks of childhood, they may be able to more successfully cope with a victimization experience by turning the effects of victimization outward, instead of internalizing them. Achievement of early tasks provides a foundation of ability to regulate emotion, feelings of an effective self, and ability to successfully interact with others and seek out support from others. This may give older children a stronger sense of self. They may be better able to appropriately place blame and project their distress outward, rather than upon themselves. Children who are abused in early childhood likely have negotiated their developmental tasks in an impaired manner and are functioning at a sub-optimal level. They are likely at a disadvantage regarding their ability to cope with subsequent adverse environmental events and daily challenges of childhood. This study found abuse had particular impact on the tasks of affect regulation, attachment development, establishment of peer relationships, and

successful adaptation to school, and that impairment of these tasks contribute to a negative long-term trajectory of emotional and social difficulties for victims as evidenced by significant internalizing, externalizing, interpersonal, and criminal behavior outcomes.

Limitations

Numerous significant results have been presented; however, there are several limitations which should be noted when considering generalizing the results to other populations and prior to making conclusions about the importance of the results.

The first limitation is the self-report nature of the data. Although file information was reviewed, there was little ability to verify self-reports through collateral sources such as a parent or caretaker. In addition, although the juveniles were informed their information would remain confidential, the punitive nature of the setting for the study poses the possibility that they were guarded about symptomatology and offending behavior. In addition, research has shown that children are not good reporters, particularly of externalizing symptoms (Merrell, 2003). It should also be noted that in addition to internalizing symptoms associated with abuse experiences, elevations may be partially due to temporary mood experiences related to adjustment to incarceration.

The retrospective nature of the data also poses a limitation. Anytime adolescents are asked to provide information about their childhood, there are multiple sources of error. As long as the error is equally distributed among sub-groups of the populations, the data can be considered to have sufficient validity to test the predictions. If the data are biased by an interaction with subgroups, then the results are more seriously compromised. In the current project, there was no a priori reason to assume the data were biased.

Some of the measures for variables of interest specific to this study were not ideal. For example, with the incest variable, given the way data was collected, there was no way to determine the severity of the incest episode.

Another limitation is that the juveniles in the sample reside in one southeastern state and may not be representative of juvenile delinquents in other parts of the United States, or in other countries, therefore limiting the generalizability of results. However, one of the strengths of this study is that, given the centralized program for juvenile sex offenders in this state, close to 100% of the adjudicated juvenile sexual offenders in the state came through this project.

In addition, this study was conducted only with juvenile offenders, and there was no comparison with community or hospital samples. Due to the nature of offender populations, there is a high base rate of environmental insults and delinquent behavior. Without a non-delinquent sample for comparison, it is not possible to determine if outcomes are primarily due to abuse and other environmental insults or to unique qualities of offender samples in general.

Future Directions

The current project affirmed the value of the broad conceptual models of developmental psychopathology and developmental victimology as a useful framework to conduct research. Analyses within this framework provided a rich data set for outcomes of child and adolescent abuse victims enabling exploration of associations between experiences of abuse and victimization and outcomes of an internalizing, externalizing, interpersonal, and criminal nature. Beyond these correlational findings, there is a need to examine particular adverse developmental outcomes and to determine

precisely what occurs within a child's cognitive and emotional processes when childhood victimization occurs. The current state of the literature does not provide explanation for what processes exactly are damaged when such abuse and victimization occurs. For example, with attachment development, interference with this task could include alterations of schemas about relationships and/or changes in brain functioning and physiological arousal to abusers and situations triggering memories of the abuse situation. Mechanisms, such as ability to trust and establish intimacy, in general, could be damaged. Perhaps the critical variables are what occur immediately after the abuse, experiences and reactions that help define the nature and severity of the abuse experience for the victim. If the victim is supported and feels protected, the impact is likely better than for a child who is made to feel ashamed or not believed about their abuse report. There are multiple mechanisms which could play a role in outcomes for victims, and future research needs to focus on the proposed mediating mechanisms. In addition, given that developmental processes do not have clear and concrete "start and end" points, or there are limited ways to measure success with tasks, it is currently difficult to determine what developmental process specifically is impacted by abuse and trauma.

Conclusion

That which harms, hurts more when more is what is given. This simple aphorism is, perhaps, profoundly true about children and is pertinent when considering experiences of abuse. Poly-victimization has a strong association with adverse outcomes across types of victimization and kinds of abuse. The current project found what appears to be a multiplicative effect which occurs when multi-types or multi-episodes of victimization occur, and this finding should take center-place in social policy about children.

The results of this project support the direction emerging in the field of child abuse research of considering the impact of multiple forms of victimization on children and adolescents (Finkelhor et al., 2005, Finkelhor et al., 2007). The concept of poly-victimization received strong support in this project as victims of such poly-victimization had significant increased levels of both externalizing and internalizing problems including depression, social anxiety, withdrawal, suicidal tendency, oppositionality, manifest aggression, delinquent predisposition, unruly, and forceful behavior relative to children with fewer experiences of victimization and abuse. The presence of this range of symptoms, above and beyond what was yielded from single-type abuse, reflect the pervasive level of emotional and behavioral disturbance that multiple experiences of victimization had on the children and adolescents in this project. This highly victimized group of children, in general, is under-identified and under-researched. The chronic, diverse, and severe nature of symptoms reflects the importance of identifying these victims and engaging them in effective treatment programs to alleviate symptoms and future emotional and behavioral difficulties.

A second aphorism with considerable support is, that which harms early, harms most. Identification of children at their initial victimization is important as early abuse is linked with later abuse. Similar to research from the Rochester Youth Development Study; abuse which begins early and extends into later childhood is particularly damaging to victims. Such findings provide strong incentive for early intervention paradigms. Waiting and doing nothing is simply bad policy for caretakers, at all levels, of children. Identifying youth, and effectively managing the contexts of abuse, at the initial episode of abuse is critical. The longer abuse occurs, the more developmental stages and tasks are

affected, and the more likely the victim is to experience a long-term trajectory of negative outcomes.

Of particular note, while most children who are sexually abused do not go on to commit sexual offenses, this study demonstrated a strong association between a history of repeated episodes of sexual victimization and perpetration against younger victims. If victims of sexual abuse are not identified early and thus continue to perpetrate against younger children through their adolescence, patterns of deviant sexual arousal towards children may be hardened, and as the perpetrator becomes older, they may continue a pattern of child molesting behavior which has serious consequences for victims and communities. Focusing research and social planning on development of programs for identifying and effectively intervening with children abused at young ages should be a priority in order to minimize negative outcomes both for themselves and any potential children they may victimize.

A third core finding of this project is the consistent significant outcomes for the variable group of internalizing symptoms. The present study provides strong empirical support for a broad array of victimization experiences contributing to consistent and pervasive internalizing symptoms for victims. The victimized juvenile sexual offenders in this project were found to have high levels of depression, suicidal tendency, withdrawal, and social anxiety, symptoms which are often not noticed in youth, particularly those with acting out/delinquent behavior. Nonetheless, problems such as high levels of suicidal tendency, consistently reported for numerous conditions of abuse, have potentially fatal consequences for the affected youth, if not detected and addressed. Furthermore, it is tempting to overlook the emotional lives of children, as their behavior,

particularly when disruptive, draws the most attention from adults and policy makers. The results from this project indicate it is critical to examine the emotional lives of children in order to find evidence of the residue of harm caused by experiences of abuse and victimization. Although, the emotional life of children is often difficult to access and difficult to understand, such examination may be critical, as this symptom complex may mediate the downward development spiral of abused children. In typical assessment procedures, observation of children's behavior is conducted and assessed for the impact of abuse, but the emotional life of the child is not examined. Such an assessment may well be insufficient. Moreover, if the emotional sequelai of abuse are the mediating variables to externalizing behavior, then sensitive, early measurement of these early indicators may be the key to successful, early intervention. The emotional life of a child may well be analogous to the canary in the mine.

Fourth, it is important to emphasize the necessity of measuring multiple outcome dimensions. Assessment of history and functioning of children and adolescents must be comprehensive, multi-modal, and multi-dimensional. Given the awareness, that many children with one type of abuse also experience additional types of abuse, and that children with early onset of abuse often experience additional episodes of abuse, assessment must include probing questions and measures to conduct a full assessment of victimization history (Finkelhor et al., 2007). In addition to a full victimization history assessment, measurement of multiple outcomes is critical with a multi-modal, multi-comprehensive assessment of internalizing and externalizing symptoms along with assessment of other behavioral dimensions. Given limitations with self-report, both the child and pertinent adults, such as parents and educators, should participate in the

assessment process to gain a more complete understanding of the child's symptoms and behavior in multiple settings, as symptoms may appear in one setting, but not another. Both history and outcome needs to be measured across multiples domains.

Next, as juvenile sexual offenders with a history of their own sexual abuse were found to choose younger children to be their own victims, and juvenile sexual offenders with no history of their own abuse tended to choose peer age or older victims, it is important to identify and treat children and adolescents who are victimized. This distinction in victim choice contributes to an understanding of the different types of juvenile sexual offenders, and additional research is necessary to clarify the role victimization experiences, particularly sexual abuse, play in one's own sexual perpetration of others. If these findings are replicated, important insight into child molesting behavior may be gained, and the finding would have critical implications for policy decisions and treatment of juvenile sexual offenders. In addition, as a history of repetitive sexual abuse is linked with more victimization of others, multi-abused sexual offenders are at risk for perpetration against multiple victims, and the importance of identifying and treating these victims is critical in order to avoid a downward spiral of additional abuse and multiple victims.

Finally, the current project affirms the value of broad, rich conceptual models to guide research. One of the previous criticisms of research on child abuse and child victimization is a lack of a theoretical basis upon which research was conducted (Tyler, 2002). This project utilized two prominent theories in the child development literature; developmental psychopathology and developmental victimology (Cicchetti & Cohen, 1995; Finkelhor, 1995). By operationalizing the four conditions outlined by Finkelhor, a

strong set of empirical predictions was generated. Those predictions, in turn, provide a foundation of support for the general theoretical assertion of the developmental victimology model as well as potentiate new research organized by developmental approaches.

REFERENCES

Alessandri, S.M. (1991). Play and social behavior in maltreated preschoolers. *Development and Psychopathology,* 3, 191-205.

Alexander, P.C., & Anderson, C.L. (1997). Incest, attachment, and developmental psychopathology. In D. Cicchetti & S. Toth (Series Eds.), *Rochester symposium on developmental psychopathology: Vol 8. Developmental perspectives on trauma: Theory, research, and intervention* (pp. 343-377) Rochester, NY: University of Rochester Press.

Allen, D.M., & Tarnowski, K.J. (1989). Depressive characteristics of physically abused children. *Journal of Abnormal Child Psychology, 17*, 1-11.

Armsden, G.C., & Greenberg, M.T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16,* 427-454.

Bagley, C., Wood, M., & Young, L. (1994). Victim to abuser: Mental health and behavioral sequels of child sexual abuse in a community survey of young adult males. *Child Abuse & Neglect, 18*, 683-697.

Brant, J.R., Kennedy, W.A., Patrick, C.J., & Curtin, J.J. (1997). Assessment of psychopathy in a population of incarcerated adolescent offenders. *Psychological Assessment, 9*, 429-435.

Bromberg, D.S., & Johnson, B.T. (2001). Sexual interest in children, child sexual abuse, and psychological sequelae for children. *Psychology in the Schools, 38,* 343-355.

Burk, L.R., & Burkhart, B.R. (2003). Disorganized attachment as a diathesis for sexual deviance: Developmental experience and the motivation for sexual offending. *Aggression and Violent Behavior, 8,* 487-511.

Chandy, J.M., Blum, R.W., & Resnick, M.D. (1996). Gender-specific outcomes for sexually abused adolescents. *Child Abuse and Neglect, 20,* 1219-1231.

Chromy, S. (2006). Sexually abused children who exhibit sexual behavior problems: Victimization characteristics. *Brief treatment and crisis intervention, 7*, 25-33.

Cicchetti, D. (2004). An odyssey of discovery: Lessons learned through three decades of research on child maltreatment. *American Psychologist, 59,* 731-738.

Cicchetti, D., & Cohen, D.J. (1995). Perspectives on developmental psychopathology. In D. Cicchetti & D. Cohen (Series Eds.). *Developmental Psychopathology, Vol.1. Theory and methods* (pp. 3-20). New York: John Wiley & Sons, Inc.

Cicchetti, D., & Rogosch, F.A. (2002). A developmental psychopathology perspective on adolescence. *Journal of Consulting and Clinical Psychology, 70*, 6-20.

Cicchetti, D., & Toth, S. (1995). A developmental psychopathology perspective on child abuse and neglect. *Journal of the American Academy of Child and Adolescent Psychiatry, 34,* 541-566.

Coie, J.D. (1990). Towards a theory of peer rejection. In: *Peer rejection in childhood.* (Asher, S. & Coie, J., Eds.). Cambridge: Cambridge University Press.

Cole, P.M., & Putnam, F.W. (1992). Effect of incest on self and social functioning: A developmental psychopathology perspective. *Journal of Consulting and Clinical Psychology, 60*, 174-184.

Dodge, K.A., Bates, J.E., & Pettit, G.S. (1990). Mechanisms in the cycle of violence, (how child abuse affects later aggressive behavior). *Science, 250,* 1678-1683.

Dodge, K.A., Bates, J.E., & Pettit, G.S. (1994). Effects of physical maltreatment on the development of peer relations. *Development and Psychopathology, 6*, 43-55.

Dube, S.R., Anda, R.F., Whitfield, C.L., Brown, D.W., Felitti, V.J., Dong, M., & Giles, W.H. (2005). Long-term consequences of childhood sexual abuse by gender of victim. *American Journal of Preventative Medicine, 28,* 430-438.

Dubner, A.E., & Motta, R.W. (1999). Sexually and physically abused foster care children and posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 67,* 367-373.

Eckenrode, J., Zielinski, D., Smith, E., Marcynyszyn, L.A., Henderson, C.R., Kitzman, H., Cole, R., Powers, J., & Olds, D. (2001). Child maltreatment and the early onset of problem behaviors: Can a program of nurse home visitations break the link? *Development and Psychopathology, 13,* 873-890.

Egeland, B., Sroufe, L.A., Erikson, M. (1983). The developmental consequence of different patterns of maltreatment. *Child Abuse & Neglect,* 7, 459-469.

Erikson, M., Egeland, B., & Pianta, R. (1989). The effects of maltreatment on the development of young children. In: *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (Cicchetti, D., & Carlson, V, Eds). New York: Cambridge University Press, pp. 647-684.

Feiring, C., Taska, L., & Lewis, M. (1999). Age and gender differences in children's and adolescent's adaptation to sexual abuse. *Child Abuse & Neglect, 23,* 115-128.

Finkelhor, D. (1995). The victimization of children: A developmental perspective. *American Journal of Orthopsychiatry,* 65, 177-193.

Finkelhor, D. & Baron, L. (1986). High-risk children. In D. Finkelhor (Ed.), *A sourcebook on child sexual abuse*. (pp.60-88). Beverly Hills, CA: Sage Publications.

Finkelhor, D. & Kendall-Tackett, K. (1997). A developmental perspective on the childhood impact of crime, abuse, and violent victimization. In D. Cicchetti & S. Toth (Series Eds.), *Rochester symposium on developmental psychopathology: Vol 8. Developmental perspectives on trauma: Theory, research, and intervention* (pp. 1-32). Rochester, NY: University of Rochester Press.

Finkelhor, D., Ormrod, R.K., & Hamby, H.A. (2007). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect, 31,* 7-26.

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S.L. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment*, *10,* 5-25.

Forth, A. E., Kosson, D. S., & Hare, R. D. (1991). *Manual for the Hare psychopathy checklist: Juvenile version.* Toronto, Canada: Multi-Health Systems, Inc.

Forth, A.E., Kosson, D.S., & Hare, R.D. (2003). *Manual for the Hare psychopathy checklist: Juvenile version.* Toronto, Canada: Multi-Health Systems, Inc.

Friedrich, W.N., & Luecke, W.J. (1988). Young school-age sexually aggressive children. *Professional Psychology: Research and Practice, 19,* 155-164.

Friedrich, W.N., Urquiza, A.J., & Beilke, R.L. (1986). Behavior problems in sexually abused children. *Journal of Pediatric Psychology, 11,* pp.47-57.

Freund, K. & Kuban, M. (1994). The basis of the abused abuser theory of pedophilia: A further elaboration of an earlier study. *Archives of Sexual Behavior, 23,* 553-563.

Gray, A., Pithers, W.D., Busconi, A., & Houchens, P. (1999). Developmental and etiological characteristics of children with sexual behavior problems: Treatment implications. *Child Abuse and Neglect, 23,* 601-621.

Hamilton, C.E., Falshaw, L., & Browne, K.D. (2002). The link between recurrent maltreatment and offending behavior. *International journal of offender therapy and comparative criminology, 46,* 75-94.

Hare, R.D. (1991). *The Hare Psychopathy Checklist – Revised version.* Toronto, Canada: Multi-Health Systems.

Harnett, P.H., & Misch, P. (1993). Developmental issues in the assessment and treatment of adolescent perpetrators of sexual abuse. *Journal of Adolescence, 16,* 397-405.

Haskett, M.E., Kistner, J.A. (1991). Social interactions and peer perceptions of young physically abused children. *Child Development, 62,* 979-990.

Higgins, D.J., & McCabe, M.P. (2001). Multiple forms of child abuse and neglect: Adult retrospective reports. *Aggression and Violent Behavior, 6,* 547-578.

Hill, J.P., & Holmbeck, G.N. (2002). Attachment and autonomy during adolescence. *Annals of Child Development, 3,* 145-189.

Holmes, W.C., Slap, G.B. (1998). Sexual abuse of boys: Definition, prevalence, correlates, sequelae, and management. *Journal of the American Medical Association, 280,* pp.1855-1862.

Howes, P.W., & Cicchetti, D. (1993).A family/relational perspective on maltreating families: Parallel processes across systems and social policy implications. In D. Cicchetti & S. Toth, (Eds.) *Child abuse, child development and social policy* (pp.249-300). Norwood, NJ: Ablex.

Hunter, J.A., & Figueredo, A.J. (2002). The influence of personality and history of sexual victimization in the prediction of juvenile perpetrated child molestation. *Behavior Modification, 24,* pp. 241-263.

Ireland, T.O., Smith, C.A., & Thornberry, T.P. (2002). Developmental issues in the impact of child maltreatment on later delinquency and drug use. *Criminology, 40,* 359-399.

Johnson, R.J., Ross, M.W., Taylor, W.C., Williams, M.L., Carvajal, R.I., & Peters, R.J. (2006). Prevalence of childhood sexual abuse among incarcerated males in county jail. *Child Abuse & Neglect, 30,* 75-86.

Kaufman, J., Birmaher, B., Brent, D., Rao, U., Flynn, C., Moreci, P., Williamson, M., & Ryan, N., (1997). Schedule for affective disorder and schizophrenia for school-age children-present and lifetime version (K-SADS-PL): Initial reliability and validity data. *Journal of the American Academy of Child and Adolescent Psychiatry, 36,* 980-988.

Kaufman & Cicchetti, (1989). Effects of maltreatment on school-age children's socioemotional development: Assessments in a day-camp setting. *Developmental Psychology, 25,* 516-524.

Kendall-Tackett, K.A., Williams, L.M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113,* 164-180.

Kinsfogel, K.M., Grych, J.H. (2004). Interparental conflict and adolescent dating relationships: integrating cognitive, emotional, and peer influences. *Journal of Family Psychology, 18,* 505-515.

Lane, S., & Lobanov-Rostovsky, C. (1997). Children, females, the developmentally disabled, and violent youth. In Ryan, G. & Lane, S. (Eds.) *Juvenile sexual offending: Causes, consequences, and correction* (pp. 322-359). San Francisco, CA: Jossey-Bass.

Lansford, J.E., Malone, P.S., Stevens, K.I., Dodge, K.A., Bates, J.E., & Pettit, G.S. (2006). Developmental trajectories of externalizing and internalizing behaviors: Factors underlying resilience in physically abused children. *Development and Psychopathology, 18,* 35-55.

Lynch, M. & Cicchetti, D. (1991). Patterns of relatedness in maltreated and nonmaltreated children: Connections among multiple representational models. *Developmental Psychopathology, 3,* 207-226.

MacDonald, K. (1995). Early experience, relative plasticity, and social development. *Developmental Review, 5,* 99-121.

Manly, J.T., Kim, J.E., Rogosch, F.A., & Cicchetti, D. (2001). Dimensions of child maltreatment and children's adjustment: Contributions of developmental timing and subtype. *Development and Psychopathology, 13,* 759-782.

McClellan, M.D., McCurry, C., Ronnei, M., Adams, J., Eisner, A., & Storck, M. (1996). Age of onset of sexual abuse: Relationship to sexually inappropriate behaviors. *Journal of the American Academy of Child and Adolescent Psychiatry, 34,* 1375-1383.

Merrell, K. W. (2003). Assessment of externalizing problems. In K. Merrell (Ed). *Behavioral, social, and emotional assessment of children and adolescents* (pp. 217-245). New Jersey: Lawrence Erlbaum Associates, Inc.

Meuller, E., & Silverman, N. (1989). Peer relations in maltreated children. In D. Cicchetti & V. Carlson (Eds). *Child maltreatment theory and research on the causes and consequences of child abuse and neglect* (pp. 529-578). New York: Cambridge University Press.

Miller, .G., Renn, W.R., & Lazowski, L.E. (1990). *The adolescent substance abuse subtle screening inventory (SASSI): User's guide.* Baugh Enterprises, Incorporated: Bloomington, IN.

Miller, F.G., Renn, W.R., & Lazowski, L.E. (2001). *The adolescent substance abuse subtle screening inventory - Second edition (SASSI-A2): User's guide.* Baugh Enterprises, Incorporated: Bloomington, IN.

Millon, T., Millon, C., & Davis, R. (1993). *Millon adolescent clinical inventory manual.* Minneapolis: National Computer Systems, Inc.

Mullen, P.E., Martin, J.L., Anderson, J.C., Romans, S.E., & Herbison, G.P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child Abuse & Neglect, 20,* 7-21.

Neeman, J., Hubbard, J., & Masten, A.S. (1995). The changing importance of romantic relationship involvement to competence from late childhood to late adolescence. *Development and Psychopathology, 7,* 727-750.

O'Beirne-Kelly, H., & Reppucci, N.D. (1997). The sequelae of childhood sexual abuse: Implications of empirical research for clinical, legal, and public policy domains. In D. Cicchetti & S. Toth (Series Eds.), *Rochester symposium on developmental psychopathology: Vol 8. Developmental perspectives on trauma: Theory, research, and intervention* (pp. 535-552). Rochester, NY: University of Rochester Press.

Office of Juvenile Justice and Delinquency Prevention: United States Department of Justice (2003) *Juvenile Arrests 2001.* Retrieved June 7, 2004, from http://ojjdp.ncjrs.org/enews/04juvjust/040107.html.

Parker, G., Tupling, H., Brown, L.B. (1979). A parental bonding instrument. *British Journal of Medical Psychology, 52,* 1-10.

Parks, G.A., & Bard, D.E. (2006). Risk factors for adolescent sex offender recidivism: Evaluation of predictive factors and comparison of three groups based upon victim type. *Sex Abuse, 18,* 319-342.

Pithers, W.D., & Gray, A. (1998). The other half of the story: Children with sexual behavior problems. *Psychology, Public Policy and Law, 4,* 200-217.

Putnam, F.W. (1991). Dissociative disorders in children and adolescents: A developmental perspective. *Psychiatric Clinics of North America, 14*, 519-532.

Putnam, F.W. (2003). Ten-year research update review: Child sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry, 42,* 269-278.

Renshaw, K.L. (1994). Child molesters: Do those molested as children report larger numbers of victims than those who deny childhood sexual abuse? *Journal of Addictions and Offender Counseling, 15,* 24-32.

Romano, E., De Luca, RV. (1997). Exploring the relationship between childhood sexual abuse and adult sexual perpetrators. *Journal of Family Violence, 12,* 85-98.

Ryan, G. (1997). Theories of etiology. In Ryan, G. & Lane, S. (Eds.) *Juvenile sexual offending: Causes, consequences, and correction* (pp. 19-58). San Francisco, CA: Jossey-Bass.

Shonkoff, J.P. & Phillips, D.A. (Ed.) (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, D.C.: National Academy Press.

Smith, C.A., Ireland, T.O., & Thornberry, T.P. (2005). Adolescent maltreatment and its impact on young adult antisocial behavior. *Child Abuse & Neglect, 29,* 1099-1119.

Sroufe, L.A., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development, 55,* 17-29.

Stevens, T.N., Ruggiero, K.J., Kilpatrick, D.G., Resnick, H.S., & Saunders, B.E. (2005). Variables differentiating singly and multiply victimized youth: Results from the national survey of adolescents and implications for secondary prevention. *Child Maltreatment, 10,* 211-223.

Thornberry, T.P., Ireland, T.O., & Smith, C.A. (2001). The importance of timing: The varying impact of childhood and adolescent maltreatment on multiple problem outcomes. *Development and Psychopathology, 13,* 957-979.

Tyler, K.A. (2002). Social and emotional outcomes of childhood sexual abuse: A review of recent research. *Aggression and Violent Behavior, 7,* 567-589.

Valle, L.A., & Silvosky, J.F. (2002). Attributions and adjustment following child sexual and physical abuse. *Child Maltreatment, 7,* 9-24.

van der Kolk, B.A. (2005). Developmental trauma disorder. *Psychiatric Annals, 35,* 401-408.

Walker, J.L., Carey, P.D., Mohr, N., Stein, D.J., & Seedat, S. (2004). Gender differences in the prevalence of childhood sexual abuse and in the development of pediatric PTSD. *Archives of Womens' Mental Health, 7,* 111-121.

Weeks, R., & Widom, C.S. (1998). Early childhood victimization among incarcerated adult male felons (Report No. FS000204). Washington, DC: US Department of Justice Office of Justice Programs.

White, S., Halpin, B.M., Strom, G.A., & Santilli, G. (1988). Behavioral comparisons of sexually abused children. *Journal of Clinical Child Psychology, 17,* 53-61.

Widom, C.S. (1991). Childhood victimization: Risk factors for delinquency. In M. Colten & S. Gore (Eds.) *Adolescent stress: Causes and consequences* (pp. 201-222). Hawthorne, NY: Aldine de Gruyter.

Widom, C.S., & Ames, M.A. (1994). Criminal consequences of childhood sexual victimization. *Child Abuse & Neglect, 18,* 303-318.

Wilcox, D.T., Richards, F., & O'Keeffe, Z.C. (2004). Resilience and risk factors associated with experiencing childhood sexual abuse. *Child Abuse Review, 13,* 338-352.

Worling, J.R. (1995). Sexual abuse histories of adolescent male sex offenders: Differences on the basis of the age and gender of their victims. *Journal of Abnormal Psychology, 104,* 610-613.