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## Aggressive Characteristics of Sexually Abused Girls

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AGGRESSIVE CHARACTERISTICS  
OF SEXUALLY ABUSED GIRLS

by

Adelaide Molaro Lang

A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University of Chicago in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

April

1991

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DEDICATION

To my husband, Henry Zipp Lang, III

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## CHAPTER I

### INTRODUCTION

Based upon reported incidences, it is currently estimated that 10% of all girls and 2% of all boys in the U.S. are sexually abused before the age of 18 (Hartman & Burgess, 1989). However, these figures are considered to be underestimates of the true incidence of child sexual abuse since it tends to be an underreported phenomenon in the general population. In a recent national survey of adults concerning a history of childhood sexual abuse, victimization was reported by 27% of the women and 16% of the men (Finkelhor, Hotaling, Lewis, & Smith, 1990). Given these disturbingly high incidence rates of child sexual abuse, increased attention has been paid in recent years to assessing the psychological consequences of this form of child maltreatment. A comprehensive review of the sexual abuse literature conducted by Browne and Finkelhor (1986) indicates that sexually abused children display elevated levels of a variety of emotional and behavioral difficulties including initial reactions of fear, anxiety, depression, anger, hostility, aggression, and inappropriate sexual behavior. Furthermore, Browne and Finkelhor (1986) review evidence which suggest that effects of child sexual abuse may persist well into adulthood and include depression, self-destructive behavior, feelings of

isolation and stigma, poor self-esteem, interpersonal problems, tendency toward revictimization, substance abuse, and sexual maladjustment.

The present study focused on aggression as one form of disturbance that has been noted as a consequence of sexual abuse and one that is extremely relevant to a child's current and future interpersonal functioning. In a review of the childhood aggression literature, Parke and Slaby (1983) present findings that aggressive children are more disliked by peers and that they often have a series of social skills deficits. These authors propose that if aggressive children are more unpopular with peers, over time their amount of peer contact may decrease and their opportunities to acquire more acceptable social skills through interacting with peers may decrease as well. It is therefore likely that aggressive behavior manifested in childhood and left untreated may negatively affect one's interpersonal functioning throughout life. In fact, there is some research evidence which suggests that aggressiveness is a fairly stable personality trait (Olweus, 1979) and that early aggressiveness is predictive of later antisocial behavior (Farrington, 1978; Robins, 1978).

Heightened levels of aggression have been a common finding in the empirical literature regarding the effects of physical abuse on children's peer relations (for comprehensive reviews see Mueller & Silverman, 1989; Widom, 1989). Much of the research in

this area has employed adequate comparison or control groups of nonabused children matched on key demographic variables and used a multimethod approach to the assessment of aggression. Studies exploring the general effects of child sexual abuse have also reported preliminary findings of heightened aggressive behavior in this population. However, early sexual abuse studies have not always used adequate comparison or control groups and for the most part the studies have relied exclusively on parent-report measures of general behavior problems. Aggression in sexually abused children has not been investigated directly in much depth, and most studies which do comment on aggressiveness in this population of abused children have failed to take into account the role of other relevant life experiences, such as physical abuse, which may have contributed to the development of such tendencies.

The current study directly investigated whether sexually abused children are more aggressive than nonabused peers across several measures of aggression. The possible effects of physical abuse on the development of aggression were controlled for by separating sexually abused children with a history of physical abuse from those with just a known history of sexual abuse in the data analyses. It was expected that sexually abused children would be more aggressive than nonabused peers across behavioral, perceptual, and fantasy measures of aggression, regardless of whether or not they had also experienced physical abuse in their

lifetime. However, it was also expected that children who had experienced both forms of abuse, i.e. sexual and physical, would demonstrate higher levels of aggressive behavior as opposed to aggressive fantasy or percepts than children who had been victims of sexual abuse only.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

Although there are multiple effects of child abuse, aggression is the most commonly reported and most frequently investigated problem in the literature on the effects of child maltreatment (Aber & Cicchetti, 1984). Within this area of research, aggression has been examined from a number of perspectives. At a behavioral level, videotapes and direct observations of abused children's social interactions in home, daycare, school, and free-play settings have been employed. Another common method of assessing aggression has been to obtain parent, teacher, and peer ratings of abused children's behavior. Finally, aggression in abused children's fantasies has also been investigated using projective techniques. Findings of heightened aggression in maltreated children have been reported across these various outcome measures.

Child maltreatment itself may take on many forms, frequently categorized as neglect, physical abuse, and/or sexual abuse. The bulk of the literature regarding maltreated children and aggressive behavior has been conducted with physically abused youngsters. In most studies, the criteria for physical abuse consists of documentation by an independent source of non-accidental physical injury, ranging in severity, inflicted by a

caregiver. Comprehensive reviews of this literature indicate that physically abused children consistently manifest more aggressive and problematic behavior than nonabused peers (Mueller & Silverman, 1989; Widom, 1989). Some of the research studies in this area have also included comparison groups of neglected children, in which neglect is defined as the failure to provide adequate nutrition, clothing, shelter, supervision, and/or medical care. In some cases, although both the abused and neglected children differed from nonabused controls, they were very similar to each other in terms of displaying aggression (Bousha & Twentyman, 1984). In other studies, physically abused children demonstrated significantly higher levels of aggression than neglected children (Hoffman-Plotkin & Twentyman, 1984; Reidy, 1977). Unfortunately, some studies combine abused and neglected children into a single "maltreated" group, obscuring differences which may exist between them (Herrenkohl & Herrenkohl, 1981; Reider & Cicchetti, 1989).

Sexual abuse is often defined in the literature as sexual exploitation involving physical contact (genital, anal, oral, or breast) between a child and another person. Exploitation refers to a power differential between the child and the offender, usually in terms of age or the nature of their relationship. However, not all studies in this area of child maltreatment provide clear definitions of sexual abuse; instead they appear to rely on whatever definition is used by their subject referral

source. Finkelhor and Browne's (1986) review of the sexual abuse literature indicates that sexually abused children also manifest problems with aggression, anger, and hostility. However, aggression in sexually abused children has not been examined in as much depth as in the other groups of maltreated children and thus warrants further investigation.

In the following literature review, the major research studies linking physical abuse and aggression will be presented first, including those studies which have also examined aggression in neglected children. Next, the literature regarding preliminary findings of aggression in sexually abused children will be reviewed and critically evaluated. Studies comparing physically and sexually abused children in terms of aggression will then be discussed. In the final section, a summary of the literature will be presented followed by the hypotheses of the current study.

### Physical Abuse and Aggression

The link between physical abuse and aggression emerged from research exploring the peer relations of maltreated children. According to a review of this literature by Mueller and Silverman (1989), early clinical studies described the social interactions of maltreated children as being characterized by either excessive aggression and provocation or withdrawal and avoidance of peers. However, since clinical studies do not employ control groups, the



conclusions about the effects of child maltreatment in terms of aggression were limited until researchers began to use comparison groups which allowed them to control for important variables relevant to the study of the sequelae of child abuse. The research described below includes only controlled studies which have investigated the link between child maltreatment and aggression.

In one of the first controlled studies to employ behavioral observations of physically abused children's social interactions, George and Main (1979) found that physically abused toddlers displayed significantly more aggressive behavior towards both peers and daycare center staff than a nonabused control group of children well matched on important demographic variables. In an extended and more refined analysis of these data, Main and George (1985) further discovered that physically abused toddlers responded to the distress of age mates with disturbing behavior patterns such as physical attacks, fear, or anger not evidenced by the control group.

Herrenkohl and Herrenkohl (1981) also observed the social behavior of maltreated and nonmaltreated preschool children matched on demographic variables and several family, child, and classroom characteristics. They found that maltreated children behaved more aggressively than nonmaltreated children, especially in response to frustrating situations such as a difficult task or interfering behavior of others.

Bousha and Twentyman (1984) conducted in-home observations of physically abused, neglected, and nonabused preschool-age children interacting with their mothers. Raters' codings of mother-child interactions indicated that both the abused and the neglected children displayed more aggressive behavior, both physical and verbal, than the nonabused control group.

Hoffman-Plotkin and Twentyman (1984) conducted a multimodal assessment of behavioral and cognitive functioning in physically abused, neglected, and a matched control group of nonmaltreated preschoolers. Both classroom behavioral observations and Child Behavior Form ratings made by parents and teachers indicated that the physically abused children were more aggressive than either the neglected or nonmaltreated children.

All of the above studies investigated the social behavior of very young abused children. In one of the few controlled studies examining the peer relations of school-age maltreated children, Kaufman and Cicchetti (1989) obtained both day-camp counselor and peer ratings of social behavior of neglected, emotionally abused, and/or physically abused children and a demographically matched nonmaltreated comparison group. In general, the maltreated children were found to have significantly lower prosocial behavior ratings than the comparison children. When the effects of maltreatment subtype were considered, the children who were physically abused scored significantly higher than the other maltreated children on aggression ratings completed by peers.

Not only do physically abused children manifest more aggressive behavior than nonabused peers, there is also research evidence suggesting that they have more aggressive fantasies as well. Reidy (1977) assessed the overt aggressive behavior and aggressive fantasies of physically abused, neglected, and nonabused children. The results indicated that the physically abused children exhibited significantly more aggressive imagery on TAT stories and aggressive behavior in a free-play environment than the neglected and nonabused children. Kinard (1980) compared school-age physically abused children with a matched control group of nonabused children on psychological tests measuring several areas of emotional development including aggression. Abused children were found to be significantly more extrapunitive aggressive towards peers in their responses on the Rosenzweig Picture-Frustration Study, a semi-projective measure of interpersonal aggression.

The above studies seem to suggest that maltreated children, particularly physically abused children, have difficulty managing their impulses in response to stimuli which arouse aggressive affects within them. Previous work in the area of child maltreatment has not explored the role that cognition may play in response to various types of affect-arousing stimuli. In an attempt to examine the interactive relation between emotion and cognition, Reider and Cicchetti (1989) assessed the cognitive-affective balance maintained by cognitive controls in maltreated

and nonmaltreated children. Cognitive controls are defined by the authors as mechanisms which determine the ways in which an individual uniquely organizes, interprets, and makes use of information. Cognitive-affective balance is conceptualized as a coordinating process balancing the attributes and call for action of external stimuli with those of inner fantasies and affects. According to the authors, when successful, this process fosters adaptation, psychological development, and learning. Reider and Cicchetti (1989) administered several measures of cognitive control functioning to school-age maltreated and nonmaltreated children in situations that did or did not arouse aggressive fantasies and affects. They found that maltreated children exhibited developmentally impaired cognitive control functioning independent of test stimuli in which external stimuli were avoided and memory images of outer information were global and undifferentiated, thereby serving to insulate them from external information. When they examined cognitive-affective balance in relation to the test stimuli, the results indicated that maltreated children assimilated aggressive stimuli more readily and accurately compared to nonmaltreated children. In contrast, in nonmaltreated children the requirements of their aggressive fantasies prescribed a coordination between fantasy and external stimuli resulting in an avoidance of aggressive stimuli. Reider and Cicchetti (1989) suggest that this hypervigilance and ready assimilation of aggressive stimuli found in maltreated children

may have initially developed as an adaptive coping strategy in an abusive home environment. However, it may also lead them to be overly attuned to the potentially aggressive components of other interpersonal situations to such an extent that their peer relationships become fraught with fear, tension, and defensive acting-out.

A variety of other explanations have been offered to account for the findings of heightened aggressiveness in maltreated children. The evidence is consistent with the social learning formulation that children can acquire aggressive behavior by observing aggressive parental models, particularly in the context of disciplinary activities (Bandura, 1977). Sroufe and Fleeson (1986) believe that the nature of one's early relationships has a profound impact upon personality formation and that one's relationship history is carried forward, affecting the quality of later relationships. According to these authors, the nature of learning that occurs from early relationships goes beyond simple modeling effects of behavior. Rather, it is the whole relationship that is learned, along with the relational components and their meanings that are carried forward to recreate basic relational patterns, even though specific behaviors expressed may be different. According to Sroufe and Fleeson (1986, p. 61), "each partner 'knows' all 'parts' of the relationship and each is motivated to recreate the whole in other circumstances, however different the required roles and behavior

might be." They propose that abused children learn not only the role of the exploited but the role of the exploiter as well, citing research findings that abusive parents were frequently abused themselves in childhood.

Mueller and Silverman (1989) speculate about the mechanisms underlying the heightened aggression observed in abused children by drawing upon the ideas of attachment, self, and object relations theories. Similar to Sroufe and Fleeson (1986), these authors also propose that internalized models of the self and of others, which form the initial core of personality, are constructed based on the features of the child's early relationship with caregivers and that in new interpersonal situations the child re-enacts this early relationship. In the process of internalizing the parent-child dyad, the child is said to learn both sides of this relationship. A maltreated child, therefore, will learn the roles of both the abused and the abuser and in re-enacting what they have experienced earlier in new interpersonal situations, they will often take on the more powerful role of the aggressor rather than the victim.

Mueller and Silverman (1989) hypothesize that the motivation underlying this process is basically a defensive one in which the child identifies with the aggressor as a means of decreasing the anxiety and helplessness associated with the trauma of being abused. Other attachment theorists such as Crittendon and Ainsworth (1989) explain the ready aggressiveness of physically

abused children towards peers as motivated by displaced anger or, like Reider and Cicchetti (1989), by increased vigilance in the context of expecting aggression from others. Such vigilance, resulting from internalized models of conflict and dominance, could lead the maltreated child to misinterpret the behavior of others and to respond with aggression. These authors further speculate that the response of others to the abused child's aggressive behavior would then probably only confirm his/her view of others.

In summary, despite various theoretical explanations, the data from controlled investigations of the social and emotional functioning of maltreated children concur in terms of documenting heightened aggression, particularly in physically abused children. Furthermore, such aggression has been demonstrated by abused children of all ages and expressed in their fantasies as well as in their overt behavior with others.

### Sexual Abuse and Aggression

The focus on aggression as a possible consequence of child maltreatment has received less direct attention in the sexual abuse literature than in the physical abuse research. According to Feshbach (1980, p. 48), while child physical abuse is clearly a form of human aggression, "the extent to which aggression is implicated in other types of abuse such as sexual exploitation and neglect of children is a more ambiguous matter." One of the

critical ways in which child sexual abuse differs from physical abuse is that in most cases of sexual abuse there is little physical violence or injury involved. According to Finkelhor (1985), less than one-fourth or one-fifth of the sexual abuse cases at hospital-based treatment programs have any physical manifestations, and concomitant physical abuse is reported in only 5% of the recorded cases of sexual abuse. Because sexually abused children lack the obvious physical injuries of battered children, many believe that aggression and violence are not part of the victimization of these children. However, the above statistics do not include the numerous threats of violence and physical harm made by perpetrators to their victims that occur in some cases of sexual abuse. Conte (1984) suggests that our culturally-bound definition of violence is too narrow and sexually biased in favor of men by not taking into account the psychological violence and force men use against women and children. He further argues:

Coercion, manipulation, force, and violation are inherent any time an adult sexually abuses a child. To regard the weak, inadequate men who abuse children as nonviolent is to fail to see these offenders as their victims see them - as big and powerful adults (p. 260).

Given the psychological violence inherent in sexual abuse, children who have been sexually molested may be just as likely as physically abused children to develop problems with aggression. Finkelhor's (1987) conceptualization of the sources of trauma inherent in sexual abuse can be used as an aid in understanding



the potential mechanisms by which sexually abused children may exhibit symptoms of anger, hostility, and aggressive behavior. According to Finkelhor (1987), a major source of trauma inherent in sexual abuse is the dynamic of powerlessness. Powerlessness, which is central to all forms of sexual abuse, results from the experience of having one's body space repeatedly invaded and violated against one's wishes. Another form of powerlessness is the experience of violence, coercion, and/or threats of physical harm that occurs in some types of sexual abuse. Finkelhor (1987) proposes that the experience of powerlessness may produce a compensatory reaction, an unusual need to control and dominate others, manifested in aggressive behavior or in becoming an abuser or molester. Finkelhor (1987) also proposes that anger and hostility towards others may arise out of a sense of betrayal that sexually abused children sometimes feel, especially when the perpetrator is someone who is emotionally important to them or someone whom they trusted. A sense of betrayal may also occur in response to non-offending family members' failure to protect the child from the sexual abuse or unwillingness to believe that it occurred. The anger and hostility exhibited towards others which may result from a profound sense of betrayal may be a primitive way for sexually abused victims to protect themselves from future betrayals.

Although there have been no studies which specifically have investigated aggression in sexually abused children, empirical

examinations of the general effects of child sexual abuse have provided preliminary information regarding aggressiveness in this population. Several research studies to date have documented heightened levels of aggression in sexually abused children. In a study on the initial effects of sexual abuse, Tufts University (1984) researchers gathered data on 156 families involved in a treatment program for children who had been recently sexually victimized or who had revealed their victimization in the prior six months. Standardized self-report measures were used so that the characteristics of the sexually abused children could be compared with norms for the general population. Breaking down emotional impact into specific reactions, Tufts' (1984) researchers found that 45-50% of their 7-13 year old subjects showed hostility levels that were substantially above the norms on the aggression and antisocial dimensions of the Louisville Behavior Checklist (LBCL), and 35% showed elevations on the Glesser Content Analysis Scales (GCAS), a measure of hostility directed outward. Thirteen to 17% of the 4-6 year old sexually abused subjects scored above the norms for aggression and antisocial behavior on the LBCL, and 25% of the 4-6 year olds and 23% of the adolescents had elevated scores of hostility directed outward on the GCAS.

Gomes-Schwartz, Horowitz, and Sauzier (1985) measured emotional distress in 112 sexually abused children, ages 4-18, using the parent-completed Louisville Behavior Checklist (LBCL).

Overall, the sexually abused school-age children manifested more signs of clinically significant pathology than did either the preschoolers or the adolescents. The sexually abused school-age children showed significantly more difficulties on three LBCL scales measuring aspects of aggression including impulsivity (Aggression), belligerent self-centered behavior (Infantile Aggression), and illegal destructive behavior (Antisocial Behavior) than the norms for the general population sample. However, they scored less than that of the norms for a clinic sample.

Friedrich, Urquiza, and Beilke (1986) studied 64 sexually abused children who had been victimized within 24 months prior to their study. Using the parent-report form of the Child Behavior Checklist (CBCL), they found that 37% of their female sample had significant elevations on the Externalizing Scale of the CBCL, which measures aggression, antisocial behavior, and general impulse control behavior problems, compared to the general population norm of 2%.

Conte, Berliner, and Schuerman (1986) collected data on 369 sexually abused children at or near the time of disclosure as well as 12 months afterwards. A comparison sample of 318 nonabused children from the same community was also recruited. On the parent-completed Child Behavior Profile, developed by the investigators, significant differences were found between the

abused and comparison group on a number of clinical dimensions including aggressive behavior.

Tong, Oates, and McDowell (1987) studied 37 girls and 12 boys who had been sexually abused for an average of 2.6 years prior to their study. Each child was matched on age, sex, SES, and ethnicity with a child with no known history of sexual abuse from the same school or school area. Parents and teachers completed the Child Behavior Checklist (CBCL), as did the 11-18 year old youths themselves. In a structured interview with parents regarding the effects of sexual abuse on the child's behavior at home and at school, 20% of the sexually abused children were reported as being more aggressive since the time of the abuse. The sexually abused subjects scored significantly higher on the Aggressive subscale of the CBCL than did the comparison children on the parent and teacher versions, but not on the self-report form.

Friedrich (1988) studied 155 sexually abused children, ages 3-12, involved in assessment or treatment programs and compared their scores on the Child Behavior Profile, derived from the Child Behavior Checklist, to three different groups of children: normals, psychiatric outpatients with conduct disorders, and psychiatric outpatients with other behavior problems. The investigator found that the sexually abused children exhibited significantly more aggressive behavior than the normal children and the psychiatric outpatients without conduct disorders, but

were less aggressive than the psychiatric conduct disordered outpatients.

White, Halpin, Strom, and Santilli (1988) compared a group of 2-6 year old sexually abused children to a group of nonreferred and neglected children on a modified version of the Minnesota Child Development Inventory, completed by mothers. Both sexually abused girls and boys scored significantly higher than either comparison group in terms of exhibiting aggressive behavior.

Cohen and Mannarino (1988) studied 24 sexually abused girls, ages 6-12, at the time of disclosure. Psychological tests were administered to the child and the parents completed the Child Behavior Checklist (CBCL). The sexually abused subjects were rated by their parents as being significantly more maladjusted than the nonclinical standardization sample on several dimensions including the Aggressive and Cruel subscales. Although the sexually abused subjects were significantly less aggressive than the norms for a clinic sample, there were no differences found between the sexually abused subjects and the clinical norms on the Cruel subscale. Significant relationships were also found between the use of force and type of abuse (i.e. vaginal penetration) and the Cruel subscale scores. These results support the notion that more aggressive sexual assaults may result in more subsequent aggressive behavior demonstrated by the victim.

In a similar study, Mannarino, Cohen, and Gregor (1989) studied 94 sexually abused girls, ages 6-12, within 6 months of their most recent episode of sexual victimization. Sexually abused subjects were compared to 89 clinical controls and 75 normal controls on self-report measures of emotional difficulties and parent ratings of behavior. No significant differences between the groups were found on the self-report measures. However, sexually abused subjects and clinical controls were rated as significantly less socially competent and more pathological than the normal controls on the broad band factors and seven of the nine subscales of the Child Behavior Checklist, including the Aggressive and Cruel subscales. Contrary to previous findings, sexually abused subjects did not differ significantly from clinical controls on the CBCL except in the area of social competence.

A subset of child victims of sexual abuse have also been noted to exhibit sexually aggressive behavior in particular. This behavior is considered to be above and beyond the mutual exploratory sexual behavior normally seen in young children or the acute hypersexualized behavior of a recently sexually abused child. Rather, it more closely resembles the behavior of older sexual offenders in that coercion is often involved. Friedrich and Luecke (1988) evaluated 4-11 year old children who had been referred for a psychological consultation due to sexually aggressive behavior. All sixteen of the children who met the

criteria for sexual aggression had been exposed to physical violence and/or adult sexual behavior, and thirteen of them had definite histories of sexual abuse involving intercourse. Conduct disturbances were evident in the majority of the sexually aggressive children, and with few exceptions the premorbid family functioning was characterized by inconsistent parenting, lack of empathy, and covert reinforcement of aggressive behavior. According to Friedrich and Luecke (1988), the experience of prior sexual abuse served primarily to add a sexualized channel to an aggressive style that was already emerging in these children.

Cavanagh-Johnson (1988) also investigated the background histories of a sample of 47 boys, ages 4-13, who had sexually molested younger children. Sixty-six percent of the sample had a history of physical and/or sexual abuse. Of note was a finding that the children who began perpetrating at younger ages were more likely to have been victims of sexual abuse. In a second study of 13 female child perpetrators, Cavanagh-Johnson (1989) found that 100% of the sample had been previously sexually abused and 31% had also been physically abused. The sexual abuse that these children experienced appeared to be of the most serious kind, in that it occurred with high frequency over an extended period of time, involved a perpetrator who had a close relationship with the child, and upon disclosure little support was provided to the children from their family. Also significant was the finding that all of the girls in the sample had both

physically and sexually abusive models in their families with whom to identify. While not all children who have been sexually abused go on to become perpetrators, the above descriptive studies indicate that a traumatic history of sexual abuse coupled with exposure to violence within an unsupportive family environment may be important risk factors leading to sexually aggressive behavior.

The bulk of the major research studies regarding the consequences of child sexual abuse have suggested a link between sexual abuse and aggression. Furthermore, clinical studies of sexually aggressive children in particular have implicated the role of prior sexual and/or physical abuse in the histories of these children. Unfortunately, many of the available studies to date in the area of child sexual abuse have serious methodological problems which limit the conclusions that can be drawn from their findings. Until recently, some studies lacked adequate comparison or control groups. In lieu of using control groups, investigators compared their findings to the norms available on standardized assessment measures. However, often their subject population did not match the test's standardization sample on important demographic variables such as race and SES.

Another limitation in the sexual abuse research literature is the almost exclusive reliance on parent-report measures of child psychopathology. While these measures provide an assessment of overt symptomatic behavior, there is evidence to



suggest that parental perceptions of maladjustment in their children are closely related to the parent's own level of psychological distress. For example, Griest, Wells, and Forehand (1979) found that maternal depression predicted maternal perception of child behavior better than the child's behavior itself. Christensen, Phillips, Glasgow, and Johnson (1983) discovered that marital discord and parents' negative behavior toward their child were closely related to parental perception of child behavior but not related to the actual behavior of the target child. Brody and Forehand (1986) found that maternal depression combined with child noncompliance predicted maternal perception of child maladjustment. Mash, Johnston, and Kovitz (1983) found that physically abusive mothers perceived their children as having significantly more behavioral problems than non-abusive mothers even though there were no significant differences in the observed behaviors of abused versus non-abused children. Within the area of child sexual abuse, a recent study of maternal support provided to incest victims conducted by Everson, Hunter, Runyon, Edelsohn, and Coulter (1989) demonstrated that the accuracy of maternal responses on the Child Behavior Checklist was related to the degree of support they provided to the child regarding the abuse. Given the potential bias or distortion in parent-report measures of child psychopathology, there is a strong need for a multimethod

approach to the assessment of a sexually abused child's psychological functioning.

A third criticism that can be made, particularly with respect to the studies reporting on the general aggressive characteristics of sexually abused children, is the failure to take into account other factors in the child's life experience that may have contributed to the development of such behavior. One important variable that should be considered is whether or not the sexually abused child also has a history of being physically abused, given the established research findings linking physical abuse to high levels of aggressive behavior, and the documentation of multiple forms of abuse in the history of many child perpetrators. The previous sexual abuse studies have not provided any information as to whether their subjects have experienced other forms of maltreatment.

#### Comparisons of Physical and Sexual Abuse

Only a few studies to date have compared the psychological functioning of children who have been both physically and/or sexually abused. Gale, Thompson, Moran, and Sack (1988) compared sexually abused, physically abused, and nonabused clinical clients under the age of seven in a retrospective community mental health center record survey. Using information obtained from standardized intake data and chart reviews, sexually abused clients were found to exhibit elevated levels of inappropriate

sexual behavior, and sexually and physically abused groups demonstrated higher levels of social withdrawal than the nonabused clinical comparison group. However, no differences between the groups were found on symptoms of aggressive and antisocial behavior.

Cavaiola and Schiff (1988) identified victims of physical and/or sexual abuse in a random survey of admissions to a short-term residential chemical dependency treatment center for adolescents and compared them to nonabused chemically dependent adolescents and nonabused, non-chemically dependent adolescents on self-reported behavior, social, and family history. The abused group as a whole demonstrated a higher incidence of acting-out behaviors, runaways, legal involvement, and sexual promiscuity than the two comparison groups. Within the abused group, comparisons revealed significant differences in relation to homicidal ideation, with the adolescents who had a history of sexual abuse only being least likely to experience homicidal ideation. Sexual acting-out was found to occur least often in the physically abused only group. These findings imply that those who are physically abused may be more likely to demonstrate aggressive impulses or behavior while those who are sexually abused are more likely to act-out in a sexually provocative manner. However, as the authors point out, chemical abuse itself lessens inhibitory control and increases the chances of acting-out behavior. Since the study only involved abused adolescents

who were also chemically dependent, these findings cannot be generalized to all victims of physical and/or sexual abuse.

Kolko, Moser, and Weldy (1988) assessed the psychological symptoms of child psychiatric inpatients using parent ratings of specific symptoms exhibited at home (Sexual Abuse Symptom Checklist) and frequency counts of related symptom categories recorded in the child's daily hospital progress notes. These investigators found that the group of inpatients with only a history of sexual abuse exhibited the greatest deviancy in terms of internalizing symptoms such as fear, depression, and anxiety compared to physically abused, sexually and physically abused, and nonabused psychiatric inpatients. No significant interactions were found between sexual abuse and physical abuse, and none of the groups differed significantly in terms of aggressive symptomatology. The latter finding is not surprising given that many of the children were admitted to the psychiatric unit for reasons of aggressive behavior exhibited towards themselves or others.

Hart, Mader, Griffith, and deMendonca (1989) collected data on a sample of hospitalized adolescents who were physically and/or sexually abused and compared them to other psychiatric inpatients with no known history of abuse. A self-report questionnaire was developed to assess the history and various aspects of the abuse as well as symptom characteristics of the subjects. The Revised Behavior Problem Checklist (RBPC) was also

completed by hospital staff on each patient. The results indicated significant differences between groups, with adolescents who were both physically and sexually abused reporting more symptoms of distress, drug abuse, interpersonal problems, self-destructiveness, and problems with self-esteem. Interestingly, adolescents who were only sexually abused received significantly higher ratings by hospital staff on the socialized aggression scale of the RBPC, suggesting that sexually abused teens may be more likely to act out aggressively in socially defiant ways.

The small literature available comparing physically and sexually abused children has yielded contradictory findings regarding aggression. Some studies have found no differences between the two abused groups, suggesting that sexually abused children are just as likely as physically abused children to demonstrate problems with aggression (Gale et al., 1988; Kolko et al., 1988). One study found that physically abused children were more likely to express their aggressive impulses (Cavaiola & Schiff, 1988), whereas another found that sexually abused youngsters were more likely to exhibit socialized aggression (Hart et al, 1989). However, with one exception (Gale et al., 1988), the above studies examined only chemically-dependent or psychiatrically hospitalized children who, as a group, are likely to be more severely emotionally disturbed. Thus, these findings

cannot be generalized to all victims of physical and sexual abuse.

### Summary and Hypotheses

Review of the literature regarding the effects of child maltreatment suggests a strong link between physical abuse and aggression. To a lesser extent, neglected children have also been found to demonstrate heightened levels of aggression in some cases. The evidence available in the literature regarding the effects of sexual abuse also suggests a link between this form of child maltreatment and aggression. However, the sexual abuse literature suffers from serious methodological problems which limit the conclusions that can be drawn from the findings. These problems include inconsistent use of matched control groups, reliance on parent-report measures of psychopathology, and failure to take into account other experiences of maltreatment in their sexually abused samples which may have contributed to the development of aggression. The few studies available comparing physically and sexually abused youngsters on measures of aggression have produced contradictory results and for the most part have only examined the most severely disturbed victims of abuse.

The current study investigated whether sexually abused children are more aggressive than nonabused peers in a more focused and methodologically sound manner than previous studies.

Differences between children who have been both sexually and physically abused versus those with only a reported history of sexual abuse were examined. A comparison group of nonabused children was used who were similar to the sexually abused subjects in terms of age, sex, race, and SES. Both parent-report measures of aggressive behavior as well as standardized measures administered directly to the child were employed. Furthermore, the measures tapped into the expression of aggression at several levels including overt aggressive behavior, verbal aggressive fantasy, and hostile/aggressive perceptions.

Based upon the theoretical and empirical literature, it was hypothesized that sexually abused children would exhibit significantly more aggressive characteristics than their nonabused peers. Specifically, both sexually abused subject groups were expected to exhibit significantly higher levels of overt aggressive behavior measured by the Child Behavior Checklist, primitive and externally directed verbal aggression measured by the Rosenzweig Picture-Frustration Study, and hostile/aggressive perceptions on the Rorschach.

Differences between children who have been both sexually and physically abused versus those who have been sexually abused only were also explored. Very little research has been done comparing these two groups of abused children upon which to base a hypothesis regarding differences between them. However, based on social learning theory which suggests that children learn and

imitate overt aggressive behavior from parental models, it was hypothesized that the subjects who have been physically abused in addition to being sexually abused would score significantly higher on the behavioral measure of aggression.



## CHAPTER III

### METHOD

#### Participants

The current study included three groups of participants. Two groups of sexually abused subjects were included that differed in terms of whether or not they had also experienced physical abuse. These subject groups are referred to as the physical and sexual abuse group and the sexual abuse only group. A third subject group was included consisting of children who had not experienced any forms of child maltreatment, referred to as the nonabused comparison group. Information about subjects in the two sexually abused groups is presented first, followed by a description of the participants in the nonabused comparison group.

The sexually abused subjects consisted of 64 black females, ages 6-16, of predominantly low SES. History of sexual abuse was established through investigation by the Illinois Department of Children and Family Services. The subjects should be viewed as a readily available sample of children whose victimization warranted enough concern to receive documentation by the state child protection agency and not as a random sample of girls who have experienced some form of sexual molestation.

The definition of sexual abuse in the current study involved only cases in which some form of genital contact occurred and in which the perpetrator was at least five years older than the victim. Only subjects who were molested by persons well known to them were included. However, family membership of the offender was not a necessary criterion.

All sexually abused subjects were part of a larger three-year longitudinal study being conducted at La Rabida Children's Hospital (Leifer, Shapiro, Martone, & Kassem, 1990, in press; Shapiro, Leifer, Martone, & Kassem, 1989, 1990). Subjects from the La Rabida Longitudinal Study were recruited from the hospital's Child Abuse and Neglect Program. All patients who met the above research criteria and were seen for an evaluation of sexual abuse during the study's data collection period were recruited. Only black females were included as subjects because they constituted the greatest majority of the patients seen in the La Rabida Child Abuse and Neglect Program. The Department of Children and Family Services (DCFS) also assisted by referring additional subjects who met the criteria. Fifteen additional subjects were referred by DCFS, eight of which agreed to participate. Recruitment for the study was not related to any perceived need for psychological assessment or intervention. Out of 145 potential subjects who were asked to participate, a total of 104 sexually abused subjects were successfully recruited in the first year of the longitudinal study. Forty-one potential

subjects did not participate in the longitudinal study for a variety of reasons including, in decreasing order of frequency, parental noncooperation, a therapist's opinion that participation would be too stressful for the child, an inability to locate the child and her family, the child's refusal to participate, and the child running away from the home. Thus, a substantial amount of self-selection did occur.

The data on the sexually abused girls used in the current study were collected during the second year of the La Rabida Longitudinal Study, 9-18 months following disclosure of sexual abuse. At that time, a total of 88 subjects remained in the project and received a second evaluation (15% dropped out). Only those subjects with complete data on the dependent variables of interest and those with a clearly documented maltreatment history (i.e. presence/absence of prior physical abuse) were included in the current study. Twelve subjects (14%) were excluded due to incomplete data on the dependent variables and 12 subjects (14%) were excluded due to inconsistent documentation of maltreatment history, yielding a total of 64 sexually abused subjects.

The sexually abused subjects were divided into the following two groups depending on whether or not the girls had a prior history of physical abuse in addition to sexual abuse: the physical and sexual abuse group and the sexual abuse only group. History of physical abuse was determined using indicated reports of physical abuse and/or substantial risk of physical injury

documented by DCFS and ratings of physically abusive disciplinary practices made by the La Rabida Longitudinal Study investigators based on information obtained from interviews with the children's caretakers. Of the 64 sexually abused subjects, 33 also had a documented history of physical abuse and/or substantial risk of physical injury indicated by DCFS. Thirty-one subjects had a history of sexual abuse only.

Abuse characteristics were coded on several dimensions for each of the abused subject groups and appear in Table 1. Subjects in the physically and sexually abused group experienced an average of 14.0 sexual abuse incidents whereas subjects in the sexual abuse only group experienced a mean of 9.7 molestations. Eighty-six percent of the physically and sexually abused subjects compared to 54% of the sexually abused only group experienced some form of penile penetration (vaginal, oral, or anal). Force was involved in the sexual abuse incidents in 23% of the physically and sexually abused subject group and in 17% of the girls with a history of sexual abuse only. In both groups, 97% of the sexual abuse perpetrators were male. The offender lived in the child's household at the time of the abuse in 80% of the physical and sexual abuse cases and in 66% of the sexual abuse only cases. In the physical and sexual abuse group, 28% of the sexual abuse offenders were the natural parent or step-parent, 31% were the mother's boyfriend, and 41% were acquaintances of the family. In the sexual abuse only group, 29% of the offenders

Table 1

Abuse Characteristics of Sexually Abused Subjects

| Abuse Related Variable        | Sexual Abuse Only | Physical and Sexual Abuse | Test Statistic          |
|-------------------------------|-------------------|---------------------------|-------------------------|
| Quantity of Sexual Abuse      | (27)              | (28)                      | $t = 5.719^*$           |
| M                             | 9.704             | 14.036                    |                         |
| SD                            | 6.626             | 6.801                     |                         |
| Penile Penetration            | (28)              | (29)                      | $\chi^2 = 7.249^{**}$   |
|                               | 54%               | 86%                       |                         |
| Force                         | (23)              | (26)                      | $\chi^2 = 0.243$        |
|                               | 17%               | 23%                       |                         |
| Perpetrator                   | (28)              | (29)                      | $\chi^2 = 0.737$        |
| father(step)                  | 29%               | 28%                       |                         |
| boyfriend                     | 21%               | 31%                       |                         |
| acquaintance                  | 50%               | 41%                       |                         |
| Perpetrator lived w/ child    | (29)              | (30)                      | $\chi^2 = 1.565$        |
|                               | 66%               | 80%                       |                         |
| Maternal Support              | (29)              | (29)                      | $\chi^2 = 1.724$        |
|                               | 59%               | 41%                       |                         |
| Prior History of Sexual Abuse | (27)              | (22)                      | $\chi^2 = 3.023$        |
|                               | 26%               | 50%                       |                         |
| Prior History of Neglect      | (30)              | (31)                      | $\chi^2 = 12.721^{***}$ |
|                               | 17%               | 61%                       |                         |

Note. Figures in parentheses are base Ns for the adjacent statistics. Total N=64 (Sexual Abuse Only n=31, Sexual and Physical Abuse n=33). Subjects were required to have complete data on the dependent variables only. Subjects with missing data on the abuse-related variables have been excluded from the data base.

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

were the natural parent or step-parent, 21% were the mother's boyfriend, and 50% were acquaintances. Maternal support for the sexual abuse victim, defined as the mother believing her child's report of abuse, not blaming the child for the abuse, and taking appropriate action to protect the child, was available in 41% of the physically and sexually abused group and in 59% of the sexual abuse only group. Fifty percent of the girls with a history of both physical and sexual abuse had been sexually molested by more than one person in their lifetime, and 61% of them also had a history of neglect documented by DCFS. In the sexual abuse only group, 26% of the girls had been previously molested by multiple offenders and 17% had a documented history of neglect.

Significant differences between the two abused subject groups in terms of abuse characteristics will be reviewed in the Results section.

A group of 30 black females similar to the sexually abused subjects in age and SES and who had no reported history of any forms of child maltreatment were recruited to serve as a nonabused comparison group. These subjects were recruited from two sources. Nonabused comparison group children were recruited from the siblings of the chronically-ill medical patients seen at La Rabida Children's Hospital. Although siblings of chronically-ill children are not considered to be a problem-free group, the available research literature suggests that these children are not significantly different from the siblings of physically

healthy children in terms of acting-out behavior and problems with aggression (Cadman, Boyle, & Offord, 1989; Tritt & Esses, 1989). Nonabused comparison group subjects were also recruited from the residents of a subsidized housing development located near La Rabida Children's Hospital. Only those children with no known history of sexual abuse, physical abuse, chronic illness, or severe psychological problems were included in the study.

Demographic characteristics of all three subject groups appear in Table 2. The mean age of the subjects was 9.5 years (SD = 2.755) in the sexual abuse only group, 9.8 years (SD = 2.264) in the physical and sexual abuse group, and 9.8 years (SD = 2.866) in the comparison group. Socioeconomic status (SES) was scored on the Hollingshead and Redlich (1958) 7-point occupation coding scale. The majority of all subject groups came from predominantly low SES backgrounds with 81% of the physically and sexually abused subjects, 53% of the sexual abuse only subjects, and 50% of the comparison group subjects coming from unemployed families supported by public assistance. The remaining subjects were dispersed among Hollingshead and Redlich's (1958) classes 3 through 7. In the physical and sexual abuse group, 27% of the subjects came from single parent families, 58% came from homes in which the mother lived with her boyfriend, and 15% came from two-parent families. In the sexual abuse only group, 45% came from single-parent households, 36% came from homes in which the mother lived with her boyfriend, and 19% came from two-parent families.

Table 2

Demographic Characteristics of Subject Groups

| Demographic Variable | Sexual Abuse Only | Physical and Sexual Abuse | Comparison Group | Test Statistic        |
|----------------------|-------------------|---------------------------|------------------|-----------------------|
| Age                  | (31)              | (33)                      | (30)             | F=0.151               |
| M                    | 9.484             | 9.758                     | 9.833            |                       |
| SD                   | 2.755             | 2.264                     | 2.866            |                       |
| SES                  | (30)              | (32)                      | (30)             | F=2.945*              |
| M                    | 1.200             | 0.594                     | 1.300            |                       |
| SD                   | 1.562             | 1.365                     | 1.535            |                       |
| Family Composition   | (31)              | (33)                      | (29)             | $\chi^2=15.191^{**}$  |
| single               | 45%               | 27%                       | 59%              |                       |
| cohabit              | 36%               | 58%                       | 10%              |                       |
| married              | 19%               | 15%                       | 31%              |                       |
| Foster Care          | (29)              | (32)                      | (30)             | $\chi^2=48.700^{***}$ |
|                      | 28%               | 84%                       | 0%               |                       |

Note. Figures in parentheses are base Ns for the adjacent statistics. Total N=94 (Sexual Abuse Only n=31, Sexual and Physical Abuse n=33, Comparison Group n=30). Subjects were required to have complete data on the dependent variables only. Subjects with missing data on the demographic variables have been excluded from the data base.

\*p=.058 \*\*p<.01 \*\*\*p<.001



In the comparison group, 59% came from single-parent homes, 10% came from homes in which the mother lived with her boyfriend, and 31% came from two-parent families. Eighty-four percent of the subjects with a history of both physical and sexual abuse were in foster care placement at the time of assessment compared to 28% of the sexual abuse only group. All comparison group subjects were living with their natural families at the time of assessment. Significant differences between all three subject groups in terms of demographic characteristics will be reviewed in the Results section.

### Measures

Demographic Information. The demographic variables of interest in the current study concerned the child's age, family composition, SES level, and foster care status. Socioeconomic status was based on the parents' reported occupation and was scored on Hollingshead and Redlich's (1958) 7-point scale. Demographic information as well as abuse characteristics of all sexually abused subjects were obtained from the La Rabida Longitudinal Study's database of caretaker reports, records of investigative interviews, and medical charts. Demographic characteristics of the nonabused comparison group subjects were obtained from the demographic information provided by parents directly on the Child Behavior Checklist (CBCL). Two additional questions regarding family structure and foster care status of

the child participant were added to the CBCL demographic information section.

Child Behavior Checklist (CBCL). The subjects' caregivers were asked to complete the parent-report form of the Child Behavior Checklist (Achenbach & Edelbrock, 1983) which measures general behavior problems and social competence. The Behavior Problems Scales on the CBCL ask for observations of symptomatic behavior and the items are scored on a 0-2 scale, depending on whether the child exhibits the target behavior "never," "sometimes," or "often." The Behavior Problems Scales consist of 118 items covering multiple symptom areas that have been derived from factor analyses. There are two broad-band factors: (a) Internalizing, which consists of inwardly directed emotional symptoms (e.g. depression, social withdrawal, somatic complaints); and (b) Externalizing, which taps overt maladaptive behaviors (e.g. hyperactivity, aggression, delinquent behaviors). Raw scores on each of the Behavior Problem Scales are converted into normalized T-scores with a  $T \geq 70$  (98th percentile) representing the limit of the normal range of behavior problems. For the purposes of the current study, data from the Externalizing factor, in particular the Aggressive and Cruel subscales, were analyzed in addition to the Externalizing, Internalizing, and Total Behavior Problems scores.

Achenbach and Edelbrock (1983) review evidence supporting the reliability and validity of the CBCL. Interrater

reliability, i.e. correlations between mothers' and fathers' ratings on the CBCL is reported to be .66. Test-retest reliability of scale scores at 1-week intervals is reported to be .89. Test-retest correlations for inpatient scores over a 3-month period have averaged .74 for parent ratings of behavior. Test-retest correlations for outpatients' scores over a 6-month period have been in the .60s for behavior problems. Over an 18-month period, mean correlations have ranged from .46 to .76 for the Behavior Problem Scales. In terms of validity of the CBCL, 116 out of the 118 behavior problem items have been found to be significantly associated with clinical status established independently of the CBCL. The CBCL has been found to correlate significantly with other behavior rating scales and empirically derived syndromes. Using referral for mental health services as a criterion, significant differences have also been found between demographically matched referred and nonreferred children on all CBCL profile scores.

Achenbach and Edelbrock (1983) also provide information on the reliability of the Aggressive and Cruel subscale scores. Interparent agreement on the Aggressive subscale is reported to be .72 for a combined sample of children (i.e. different age/sex groups). Interparent agreement on the Cruel subscale is reported to be .69 for a combined sample of children. Test-retest reliabilities of scores at 1-week intervals is reported to be .92 for both the Aggressive and Cruel subscales in a combined sample

of children. Test-retest correlations for inpatient boys' scores on the Aggressive subscale over a 3-month period were .69 for parent ratings and .84 for child care workers' ratings. The same information regarding the Cruel subscale is not available since only boys were used in this particular reliability study and there is no Cruel subscale on the male version of the CBCL. Test-retest correlations over 6-month and 18-month intervals will be reported for girls aged 6-16 only, as these data are most relevant to the subjects used in the current study. Mean test-retest correlations for outpatients' scores on the Aggressive subscale over a 6-month period is reported to be .75 and over an 18-month period is .61. Mean test-retest correlations for outpatients' scores on the Cruel subscale over a 6-month period is reported to be .71 and over an 18-month period is .77.

In terms of the construct validity of the CBCL subscales, the relations between subscale scores derived from the CBCL and roughly analogous scores from other instruments have been tested and reported by Achenbach and Edelbrock (1983). A Pearson correlation between the CBCL Aggressive subscale and the Conduct Problem scale of the Conners Parents Questionnaire Scale is reported to be .88 for girls aged 6-11. The correlation between the CBCL Aggressive subscale and the Conduct Disorder scale on the Quay-Peterson Revised Behavior Problem Checklist is reported to be .82 for girls aged 6-11. In terms of the construct validity of the Cruel subscale, a Pearson correlation between

this CBCL subscale and the Conduct Problem scale on the Conners Parents Questionnaire Scale is reported to be .68 for girls aged 6-11. Pearson correlations between the CBCL Cruel subscale and the Conduct Disorder and the Socialized Aggression scales on the Quay-Peterson Revised Behavior Problem Checklist is reported to be .68 and .72 respectively for a sample of girls aged 6-11.

Rosenzweig Picture-Frustration Study (RPFS). The Rosenzweig Picture-Frustration Study (Rosenzweig, 1978) was used to assess verbal aggressive response tendencies to frustrating interpersonal situations. The RPFS is a semi-projective measure consisting of 24 cartoon drawings of potentially frustrating situations in which an adult or child is depicted saying something to another child and the subject is asked to give a response that the other child in the picture might give. Examples of RPFS items include a boy calling another boy a "sissy," a woman scolding a girl for picking her flowers, a girl forbidding a boy to play with her scooter, and a teacher reprimanding a child for being late to school. Subjects aged 6-12 were administered the Children's Form of the RPFS and those aged 13-16 received the Adolescent Form.

Responses were scored in two major categories: direction of aggression and type of aggression. Directions of aggression include: (a) Extraggression (E-A), in which aggression is turned toward the external environment; (b) Intraggression (I-A), in which aggression is directed toward the self; and (c)

Imaggression (M-A), in which aggression is avoided in an attempt to minimize the frustration. Types of aggression include: (a) Obstacle-Dominance (O-D), in which some barrier causing the frustration is emphasized in the response; (b) Ego-Defense (E-D), in which the response involves defending the self; and (c) Need-Persistence (N-P), in which the response emphasizes a solution to the problem or goal-directed activity. Each score represents the percentage of items from the total scoreable responses scored for that particular direction or type of aggression.

Some studies (Spache, 1959; Stoltz & Smith, 1959) have found differential responses to the RPPS among children when the pictures were subdivided into those showing adult-child interactions and those portraying child-child interactions. Of particular importance is Kinard's (1980) finding that physically abused children exhibited significantly more extraggressive responses in the child-child situations but not in the adult-child situations on the RPPS compared to control group subjects. Since the sexually abused subjects in the current study were all abused by someone who was at least 5 years older than themselves, they might be expected to show a similar pattern of responses on the RPPS. Accordingly, the RPPS pictures were subdivided into adult-child situations and child-child situations in the data analyses. Furthermore, since the majority of sexually abused subjects in the current study were abused by males, their responses to frustrating interpersonal situations might be

expected to differ according to whether the frustrating agent is male or female. Therefore, the RPFs pictures were also subdivided according to the gender of the frustrator in the data analyses.

Interscorer reliability of the RPFs is satisfactory, ranging from 75% to 85% (LaVoie, 1986). Test-retest correlations are also acceptable, averaging about .50 - .60, depending on the variables being studied, with E-A, M-A, E-D, and N-P being the most reliable (Wagner, 1985). According to Viglione (1985), there is an extensive literature bearing on the validity of the RPFs which tends to be generally positive. Meaningful relationships have been found between RPFs scores and developmental trends, levels of behavior, other personality tests, physiological correlates, and induced frustration which provide support for the construct validity of the RPFs (Rosenzweig & Adelman, 1977; Rosenzweig, 1978).

Rorschach. Aggressive and hostile content on the Rorschach were measured using Exner's (1986) Aggressive Movement coding and the Elizur (1949) Hostility Scale. Although the Elizur (1949) Hostility Scale is a more comprehensive measure of aggressive and hostile percepts on the Rorschach compared to the Exner (1986) Ag coding, the Ag coding was also included because it is currently a more acceptable content measure of aggression with more literature available regarding its use.

The Aggressive Movement (Ag) coding (Exner, 1986) is used for any movement response in which the action is clearly aggressive such as fighting, exploding, arguing, etc. The Ag coding is assigned only to responses in which the aggressive action is occurring and does not include responses in which the object has been subjected to aggression. The percentage of agreement in two interscorer reliability studies for the Ag coding is reported to be 97% and 96% (Exner, 1986). The frequency of Ag responses is thought to be related to issues of self-image and interpersonal relationships. Exner (1986) reviews three studies which have found a positive relationship between Ag responses on the Rorschach and physical and/or verbal aggressive behavior in psychiatric inpatients, psychotherapy outpatients, and normal children. The results of these studies provide some support for the validity of the Ag coding and the notion that elevations in Ag responses on the Rorschach signify an increased likelihood for aggressive behaviors and attitudes towards others that are more hostile than customary.

The Elizur (1949) Hostility Scale scores Rorschach responses as hostility-evincing if they contain the following characteristics: (a) hostility expressed or implied (e.g. an angry face); (b) hostile expressive behavior (e.g. two people fighting; a killed animal); (c) responses symbolizing hostility (e.g. a primitive war mask); or (d) objects of aggression (e.g. guns). A capital letter H is assigned whenever hostility is



expressed obviously and explicitly in the responses. A small letter *h* is assigned to responses which reveal hostility to a lesser degree or in a fairly clear symbolic manner. A capital letter *H* is counted twice as much as a small letter *h*. Final scores are computed by the weighted sum of all *h* and *H* responses.

It should be noted that the Hostility Scale category of hostile expressive behavior includes responses involving aggressive behavior that is occurring, as in the Exner (1986) Ag coding, as well as responses in which the percept has been subjected to aggression. These different types of aggressive responses were analyzed separately and then combined to form a total score on the Hostility Scale.

Aronow and Resnikoff (1976) review the reliability and validity of the Elizur Hostility Scale. Interscorer reliability coefficients reported have been within acceptable limits, ranging between .82 and .94. Test-retest reliability using the Hostility Scale and the standardized Rorschach inkblots has not been evaluated directly. Evidence of validity is supported by findings of the scale's ability to differentiate subjects with a history of aggressive behavior and significant correlations between the hostile content scoring system and ratings of aggression and hostility. However, the Hostility Scale has not been found to correlate well with other objective or projective test measures of hostility.

A summary of the measures and specific subscales which were analyzed in the current study appears in Table 3.

### Procedure

As part of the La Rabida Longitudinal Study of Sexually Abused Children, all sexually abused subjects in the current study were administered the RPFS and Rorschach tests, along with several other psychological tests, by either a clinical psychologist or a clinical psychology graduate student with training in the administration of these measures. The subjects' caregivers completed the CBCL in written form if their reading level was sufficient; if not a social worker read the items aloud to the mothers and noted their responses. Natural families received \$30 and foster care families received \$25 for their participation in the longitudinal study. More money was provided to natural families in order to increase their incentive to participate.

Comparison group subjects were recruited from the outpatient clinics at La Rabida Children's Hospital and from residents of a nearby subsidized housing development. Recruitment letters describing the study and providing a return slip consenting to be contacted by the researcher were distributed directly to outpatients attending hospital clinics. Similar letters were mailed to residents of the housing development along with stamped return envelopes. It was made clear both verbally and in written

Table 3

Dependent Measures and Subscales Included in the Data Analyses

## Child Behavior Checklist (CBCL):

- Total Behavior Problems Score
- Internalizing Scale
- Externalizing Scale
- Aggression subscale
- Cruel subscale

## Rosenzweig Picture-Frustration Study (RPFS)\*:

- Direction of Aggression
  - Extraggession (E-A)
  - Intraggession (I-A)
  - Imaggession (M-A)
- Type of Aggression
  - Obstacle-Dominance (O-D0)
  - Ego-Defense (E-D)
  - Need-Persistence (N-P)

## Rorschach:

- Exner Aggressive Movement Coding (Ag)
- Elizur Hostility Scale
- Total Hostility Score
  - Hostility expressed or implied
  - Hostile expressive behavior
    - active aggression/hostility
    - victim of aggression/hostility
  - Symbols of hostility
  - Aggressive objects

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\*RPFS items were also analyzed divided according to the age (adult vs. child) and sex (male vs. female) of the frustrating agent portrayed.

consent that only children who had no history of sexual and/or physical abuse were eligible to participate in the current study. None of the recruited comparison group subjects reported a current or previous history of maltreatment to the investigator. All nonabused comparison group subjects were administered the RPPS and Rorschach tests by the investigator or another clinical psychology graduate student. While the children were being tested, parents were asked to complete the CBCL. If a parent's reading level was not sufficient to allow them to complete the CBCL independently, the investigator administered the questionnaire orally and recorded the parent's responses, either before or after testing the child. All comparison group subjects were paid \$15.00 for their participation.

All measures were scored by the investigator. In order to establish interrater reliability for the projective measures, a subset of 30 RPPS and Rorschach protocols were scored by a second clinical psychology graduate student who was unaware of the subject's group membership. Interrater agreement was measured using Cohen's kappa ( $k$ ) coefficient for nominal scales (Cohen, 1960). Interrater reliability for the Aggressive Movement coding (Exner, 1986) and for the presence or absence of hostility codings on the Elizur (1949) Hostility Scale was .80. On the RPPS, interrater reliability for direction of aggression was .95 and interrater agreement for type of aggression was .93.

## CHAPTER IV

### RESULTS

Before analyzing the data, several transformations were performed to adjust for skewedness. First, the Hollingshead and Redlich (1958) occupation coding scale used to determine socioeconomic status (SES) was transposed, with 1 representing the lowest SES class and 7 representing the highest SES class on the scale. Unemployed families were given an SES coding of 0. Because the distribution of SES classes was skewed toward the lowest classes in the current study, a logarithmic transformation was performed on these data following a procedure recommended by Winer (1971). Second, the total score on the Elizur (1949) Hostility Scale was also transformed logarithmically due to a positively skewed distribution. Finally, because logarithmic transformations could not adjust for the extreme positive skewedness of the Exner (1986) Aggressive Movement (Ag) coding and the subscales of the Elizur (1949) Hostility Scale, these variables were converted into categorical data. That is, for each protocol, aggressive movement and hostile percepts were coded simply as being "absent" or "present," without taking into account the actual number of times such percepts appeared in the record.

All scores on the Rosenzweig Picture-Frustration Study (RPFS) consisted of proportions, i.e. the number of responses coded for a particular type or direction of aggression divided by the total number of scoreable responses in the protocol. In order to stabilize the variances of these scores, arcsine transformations were performed on all RPFS scores consisting of proportions as recommended by Winer (1971).

### Preliminary Analyses

A number of preliminary analyses were performed prior to testing the specific hypotheses of the current study. The first major set of preliminary analyses addressed the representativeness of the current study's sexually abused sample in comparison to the larger sample from which these subjects were drawn. The second set of preliminary analyses investigated the relationships among demographic variables, abuse characteristics, and dependent variables in the current study's three subject groups.

Representativeness of Sample. Subjects in the current study were drawn from a larger longitudinal study of sexually abused girls conducted at La Rabida Children's Hospital. Subjects from this larger research project were included in the current study only if they had complete data on the dependent measures of interest and, for those in the physical and sexual abuse group, consistent documentation of physical abuse indicated by the state

Department of Children and Family Services and ratings made by the investigators of the La Rabida Longitudinal Study. A total of 64 out of 88 subjects remaining in the second year of the project met these two criteria for inclusion in the current study. In order to determine whether there were major differences between those subjects included in versus excluded from the current study, the two groups were compared in terms of demographic characteristics, abuse-related variables, and performance on outcome measures. The results of these preliminary analyses appear in Tables 4, 5, and 6. There were no significant differences found between these two groups on the demographic variables of age, SES, family composition, or foster care placement. These groups also did not differ significantly in terms of abuse characteristics, with the exception that subjects included in the current study experienced significantly less penile penetration than those who were excluded,  $\chi^2(1, N = 79) = 6.688, p = .010$ . In regard to the dependent measures, subjects included in the current study had significantly lower scores than excluded subjects on the CBCL Total Behavior Problems Score,  $t(80) = 6.897, p = .010$ , and on both the Internalizing Scale,  $t(80) = 6.857, p = .011$ , and the Externalizing Scale,  $t(80) = 4.054, p = .047$ . There were no significant differences between these two groups on the Rorschach or RPFs. The above results indicate that the sexually abused subjects excluded from the current study experienced more serious forms of sexual abuse

Table 4

Differences Between La Rabida Longitudinal Study Subjects (Ss)  
Included In vs. Excluded From the Current Study on Demographic  
Variables

| Variable              | Included Ss | Excluded Ss | Test Statistic |
|-----------------------|-------------|-------------|----------------|
| Age                   | (64)        | (24)        | F(1, 86)=0.608 |
| M                     | 9.625       | 10.125      |                |
| SD                    | 2.498       | 3.125       |                |
| SES                   | (56)        | (18)        | F(1, 72)=1.100 |
| M                     | 0.929       | 0.556       |                |
| SD                    | 1.488       | 1.294       |                |
| Family<br>Composition | (64)        | (22)        | $\chi^2=1.974$ |
| single                | 36%         | 27%         |                |
| cohabit               | 47%         | 64%         |                |
| married               | 17%         | 9%          |                |
| Foster Care           | (61)        | (22)        | $\chi^2=0.356$ |
|                       | 57%         | 50%         |                |

Note. Figures in parentheses are base Ns for the adjacent statistics. Total N=88 (Included Subjects n=64, Excluded Subjects n=24). Included subjects were required to have complete data on the dependent variables only. Subjects with missing data on the demographic variables have been excluded from the data base.



Table 5

Differences Between La Rabida Longitudinal Study Subjects (Ss) Included In  
vs. Excluded From the Current Study on Abuse-Related Variables

| Variable                      | Included Ss | Excluded Ss | Test Statistic   |
|-------------------------------|-------------|-------------|------------------|
| Quantity of Sexual Abuse      | (55)        | (20)        | $F(1,73)=0.546$  |
| M                             | 11.909      | 11.400      |                  |
| SD                            | 7.003       | 7.742       |                  |
| Penile Penetration            | (57)        | (20)        | $\chi^2=6.688^*$ |
|                               | 70%         | 100%        |                  |
| Force                         | (49)        | (18)        | $\chi^2=0.271$   |
|                               | 20%         | 11%         |                  |
| Perpetrator                   | (57)        | (20)        | $\chi^2=4.172$   |
| father(step)                  | 28%         | 25%         |                  |
| boyfriend                     | 26%         | 50%         |                  |
| acquaintance                  | 46%         | 25%         |                  |
| Perpetrator lived w/ child    | (59)        | (20)        | $\chi^2=0.450$   |
|                               | 73%         | 65%         |                  |
| Maternal Support              | (58)        | (20)        | $\chi^2=0.000$   |
|                               | 50%         | 50%         |                  |
| Prior History of Sexual Abuse | (49)        | (20)        | $\chi^2=0.018$   |
|                               | 37%         | 35%         |                  |
| Prior History of Neglect      | (61)        | (22)        | $\chi^2=1.021$   |
|                               | 39%         | 27%         |                  |

Note. Figures in parentheses are base Ns for the adjacent statistics. Total  $N=88$  (Included Subjects  $n=64$ , Excluded Subjects  $n=24$ ). Included subjects were required to have complete data on the dependent variables only. Subjects with missing data on the abuse-related variables have been excluded from the data base.

\* $p<.01$

Table 6

Differences Between La Rabida Longitudinal Study Subjects (Ss)  
Included In vs. Excluded From the Current Study on Dependent  
Measures of Aggression

| <u>Dependent Variable</u>          | <u>Included Ss</u> | <u>Excluded Ss</u> | <u>Test Statistic</u> |
|------------------------------------|--------------------|--------------------|-----------------------|
| CBCL Total Behavior Problems Score | (64)               | (18)               | F(1, 80)=6.897**      |
| M                                  | 59.016             | 66.611             |                       |
| SD                                 | 10.648             | 11.526             |                       |
| CBCL Internalizing Scale           | (64)               | (18)               | F(1, 80)=6.857*       |
| M                                  | 56.328             | 63.722             |                       |
| SD                                 | 10.359             | 11.380             |                       |
| CBCL Externalizing Scale           | (64)               | (18)               | F(1, 80)=4.054*       |
| M                                  | 58.063             | 63.722             |                       |
| SD                                 | 10.332             | 11.261             |                       |
| Hostility Scale Total Score        | (64)               | (24)               | F(1, 85)=0.229        |
| M                                  | 2.578              | 3.042              |                       |
| SD                                 | 2.883              | 3.290              |                       |
| RPFS Extraggression                | (64)               | (18)               | F(1, 80)=2.055        |
| M                                  | 0.527              | 0.469              |                       |
| SD                                 | 0.153              | 0.139              |                       |
| RPFS Intraggression                | (64)               | (18)               | F(1, 80)=1.334        |
| M                                  | 0.196              | 0.222              |                       |
| SD                                 | 0.084              | 0.085              |                       |

(table continues)

Table 6 (continued)

| Dependent Variable | Included Ss | Excluded Ss | Test Statistic |
|--------------------|-------------|-------------|----------------|
| RPFS               |             |             |                |
| Imaggression       | (64)        | (18)        | F(1, 80)=1.149 |
| M                  | 0.278       | 0.309       |                |
| SD                 | 0.114       | 0.096       |                |
| RPFS Obstacle-     |             |             |                |
| Dominance          | (64)        | (18)        | F(1, 80)=0.404 |
| M                  | 0.191       | 0.177       |                |
| SD                 | 0.090       | 0.057       |                |
| RPFS Ego-          |             |             |                |
| Defense            | (64)        | (18)        | F(1, 80)=0.273 |
| M                  | 0.540       | 0.519       |                |
| SD                 | 0.152       | 0.147       |                |
| RPFS Need-         |             |             |                |
| Persistence        | (64)        | (18)        | F(1, 80)=0.802 |
| M                  | 0.269       | 0.304       |                |
| SD                 | 0.144       | 0.159       |                |

Note. Figures in parentheses are base Ns for the adjacent statistics. Total N=88 (Included Subjects n=64, Excluded Subjects n=24). Subjects with missing data on the demographic variables have been excluded from the data base.

\*p<.05; \*\*p<.01

and exhibited a greater number of behavior problems. This suggests that the sexually abused subjects included in the current study may not adequately represent the most severe end of the continuum in terms of abuse characteristics and behavior problems of sexual abuse victims. Results of the main analyses must be cautiously interpreted in light of these findings.

Relationships Among Demographic, Abuse-Related, and Dependent Variables. This section of preliminary analyses begins with an investigation of differences within the study's nonabused comparison group (i.e. chronically-ill siblings vs. other nonabused subjects) on demographic and dependent variables. Differences between the two abused subject groups in terms of abuse characteristics appear next, followed by a comparison of all three subject groups in terms of demographic information. The relationships between key demographic and abuse-related variables and the dependent measures of aggression, as well as between the dependent measures themselves, conclude this section of preliminary analyses.

Since subjects in the current study's comparison group were recruited from two separate populations of children, comparison group subjects who were siblings of chronically ill patients were compared to those who were not on demographic variables and performance on the outcome measures. No significant differences were found among the comparison group subjects on any of the

demographic characteristics or on the outcome measures of aggression.

Differences between the two abused subject groups in terms of abuse characteristics were examined next. A summary of these results regarding differences between the two abused subject groups on abuse-related variables appears in Table 1. Subjects with a history of both physical and sexual abuse experienced significantly greater quantity,  $t(53) = 5.719$ ,  $p = .020$ , and severity, i.e. penile penetration,  $\chi^2(1, N = 57) = 7.249$ ,  $p = .007$ , of sexual abuse compared to subjects with a history of sexual abuse only. Physically and sexually abused subjects also had a significantly higher incidence of being neglected (i.e. deprived of adequate supervision, food, shelter, clothing, education and/or medical care),  $\chi^2(1, N = 61) = 12.721$ ,  $p = .000$ , than the sexual abuse only victims. The two abused subject groups did not differ in terms of the perpetrator's use of force during the sexual abuse, the perpetrator's relationship to the child, whether or not the perpetrator lived with the child at the time of the abuse, maternal support, or history of being sexually molested by multiple offenders. Overall, the pattern of these results indicates that subjects with a history of physical abuse in addition to sexual abuse have also experienced other forms of maltreatment as well as more serious forms of sexual abuse in particular.

Differences between all three subject groups (i.e. sexual abuse only, physical and sexual abuse, and nonabused comparison group) on key demographic variables were also investigated. A summary of these results regarding differences between all three subject groups on demographic variables is presented in Table 2. These groups did not differ significantly from each other in terms of age. An ANOVA between subject group and SES was marginally significant,  $F(2, 89) = 2.945, p = .058$ . Subsequent tests for specific group comparisons on the variable of SES revealed a significant difference between the physical and sexual abuse group and the comparison group,  $F(1, 89) = 4.996, p = .028$ , with the physically and sexually abused subjects being lower in SES than the comparison group. There was a marginal trend for the physical and sexual abuse group to be lower in SES than the sexual abuse only group as well,  $F(1, 89) = 3.644, p = .059$ . However, a follow-up comparison between the sexual abuse only group and the nonabused comparison group was not significant in terms of SES level. Finally, a 3 x 3 chi square analysis to assess differences in family composition across groups was significant,  $\chi^2(4, N = 93) = 15.191, p = .004$ . Subjects in both of the abused groups more frequently came from homes in which their mother lived with her boyfriend whereas the comparison group subjects came from more single-parent and two-parent families. Since there were no children from the comparison group in foster care placement at the time of assessment, both abused

subject groups differed significantly from the nonabused subjects on this variable,  $\chi^2(2, N = 91) = 48.700, p = .000$ . The abused groups also differed from each other on this variable with subjects from the physical and sexual abuse group being in foster care at the time of assessment significantly more than the sexual abuse only subjects.

Because the three groups differed on several demographic and abuse-related variables, further analyses were conducted to examine the relationship between these demographic and abuse characteristics and the dependent measures. Such differences between subject groups could potentially serve as confounding variables in the main analyses regarding aggression. Only those demographic and abuse-related variables which differed across subject groups were investigated. Among the demographic factors, the three subject groups differed in terms of SES, foster care placement, and family composition.

Pearson correlations between SES and the dependent measures were all nonsignificant. Thus, it seems unlikely that any significant group differences found on the dependent measures of aggression would be influenced by SES. However, as an extra precaution, all ANOVAs in the main analyses examining group differences on the dependent variables which yielded significant effects were followed by ANCOVAs in which SES was included as a covariate.

A 2 x 2 chi-square analysis between foster care placement and the Exner (1986) Aggressive Movement coding (Ag) on the Rorschach was significant,  $\chi^2(1, N = 91) = 5.438, p = .020$ , with abused children in foster care placement perceiving more Ag responses on the Rorschach than children living with their natural families. A  $t$ -test between foster care and the total score on the Elizur (1949) Hostility Scale was only marginally significant in the same direction,  $t(89) = 3.710, p = .057$ . The relationship between foster care placement and responses on the RPPFS were also analyzed by  $t$ -tests. Foster care was positively related to Extraggression on the RPPFS (E-A), a measure of externally directed aggression,  $t(89) = 10.268, p = .002$ , and negatively related to Imaggression (M-A), RPPFS responses in which aggression is avoided,  $t(89) = 8.501, p = .004$ . In terms of type of aggression on the RPPFS, placement in foster care was positively related to Ego-Defense (E-D), responses involving self-defense,  $t(89) = 5.399, p = .022$ , and negatively related to Need-Persistence (N-P), responses emphasizing a problem-solving solution to the frustration,  $t(89) = 5.779, p = .018$ .

Despite the significant relationship found between foster care placement and some of the dependent measures of aggression, no attempt was made to control for this variable in the main analyses. There were several reasons for this. First, the foster care placement variable consisted of categorical data which was not suited to a covariance adjustment in the main



parametric analyses. Second, as there were no children in foster care in the nonabused comparison group, there was not a sufficient distribution across the three subject groups on this variable. Third, the group differences found in terms of foster care placement likely reflect the reality of being an abused child. That is, abused children are more likely to be placed in foster care than nonabused children. Furthermore, among abused children, the decision to place a child in foster care is related to a number of negative factors including quantity and previous history of abuse (Leifer et al., 1990). It is not surprising that the two abused subject groups in the current study differed in terms of foster care placement, as one group of children also experienced a previous history of physical abuse and a greater quantity of sexual abuse. These factors, among others, likely influenced decisions made regarding foster care placement. For these reasons, it is very difficult and unrealistic to tease apart foster care and abuse issues in the current study. However, as this variable was found to be significantly related to some of the dependent measures of aggression, the results of the main analyses will need to be interpreted cautiously with consideration given to foster care placement as a possible confounding variable.

Regarding family composition, ANOVAs performed on CBCL variables indicated significant relationships between family structure and the Total Behavior Problems Score,  $F(2, 90) =$

3.315,  $p = .041$ , and the Externalizing Scale,  $F(2, 90) = 3.302$ ,  $p = .045$ . Follow-up comparisons performed on the Total Behavior Problems Score indicated that children from families in which the mother cohabited with her boyfriend exhibited significantly higher levels of general behavior problems than children from two-parent families,  $F(1, 90) = 6.562$ ,  $p = .012$ . Concerning the CBCL Externalizing Scale, a measure of acting-out behavior in particular, subsequent comparisons indicated that children from cohabiting families were significantly higher in terms of exhibiting undercontrolled behaviors than children from families with two parents present in the home,  $F(1, 90) = 5.994$ ,  $p = .016$ . Results of ANOVAs between family composition and RPFS variables yielded only one significant result. Family composition was significantly related to Obstacle-Dominance (O-D), the most primitive type of aggression on the RPFS. Follow-up pairwise comparisons indicated that children from cohabiting families were higher in O-D responses than either single-parent,  $F(1, 90) = 4.841$ ,  $p = .030$ , or two-parent families,  $F(1, 90) = 8.482$ ,  $p = .005$ .

For some of the same reasons stated above in relation to foster care, no attempt was made to use family composition as a covariate in the main analyses. The family composition variable consisted of categorical data (3 categories) with a limited number of subjects in some cells. As there were some important differences between children from cohabiting families and those

from single and two-parent families, there was no conceptual basis for collapsing this variable into two categories in order to increase cell frequencies. Again, group differences on this variable may reflect some real-world differences of being an abused child since many of the mothers' boyfriends in the current study's abused sample were the sexual abuse perpetrators. However, as family composition may be a confounding variable, results of the main analyses must be interpreted with caution. In future research studies in this area, family composition may be an important demographic variable upon which to match abused and nonabused subjects in order to control for its effects on the dependent measures of interest.

As noted earlier, abused subject groups differed in terms of three abuse characteristics: sexual abuse quantity, penile penetration, and history of neglect. An investigation of the relationship between these abuse-related variables and the dependent measures yielded nonsignificant results in general with one exception. A 2 x 2 chi-square analysis between neglect and the Ag coding on the Rorschach indicated that sexually abused children with a prior history of neglect perceived significantly more aggressive movement imagery on the Rorschach than children without a history of neglect,  $\chi^2(1, N = 61) = 3.979, p = .046$ . Once again, no attempt was made to adjust for history of neglect in the main analyses for the same reasons stated above.

Finally, relationships among the dependent measures were explored given that each one assessed aggression but at a different level of expression (i.e. overt aggressive behavior, verbal aggressive fantasy, and hostile/aggressive perceptions). Pearson correlations between the CBCL scales, which measure overt aggressive behavior, and the RPPS variables, which assess verbal aggressive fantasy, were all nonsignificant. A Pearson correlation between the CBCL scales and the Elizur (1949) Hostility Scale total score, a measure of hostile percepts on the Rorschach, was also nonsignificant. However, several CBCL scales were significantly related to the Ag coding on the Rorschach. Since the Ag coding was categorical,  $t$ -tests were performed. The Total Behavior Problems Score,  $t(92) = 6.154$ ,  $p = .015$ , and both the Internalizing Scale,  $t(92) = 5.604$ ,  $p = .020$ , and the Externalizing Scale,  $t(92) = 4.232$ ,  $p = .042$  were all negatively related to aggressive movement percepts on the Rorschach. That is, aggressive movement imagery perceived on the Rorschach was associated with low behavior problem scores. The Ag coding was positively related to the Hostility Scale total score,  $t(92) = 48.663$ ,  $p = .000$ . That is, aggressive movement percepts were associated with high scores on the Hostility Scale. The Ag coding was also significantly related to two RPPS direction of aggression variables. A  $t$ -test between Ag and E-A was significant in a positive direction,  $t(92) = 7.754$ ,  $p = .007$ , indicating that aggressive movement percepts were associated with

high extraggression on the RPPFS. A  $t$ -test between Ag and M-A was significant in a negative direction,  $t(92) = 9.073$ ,  $p = .003$ , indicating that aggressive movement percepts were associated with low imaggression scores. Given that the outcome measures were not all positively correlated and that there were separate hypotheses for each of the dependent measures of aggression, ANOVAs as opposed to MANOVAs were performed in the main analyses regarding group differences in terms of aggression.

#### Group Differences on the Dependent Measures of Aggression

It was hypothesized that sexually abused children would exhibit significantly more aggressive characteristics than their nonabused peers across several measures of aggression. Specifically, both sexually abused groups were expected to exhibit significantly higher levels of overt aggressive and cruel behavior on the Child Behavior Checklist (CBCL), aggressive movement and hostile perceptions on the Rorschach as measured by the Exner (1986) Ag coding and the Elizur (1949) Hostility Scale, and primitive and externally-directed verbal aggression on the Rosenzweig Picture-Frustration Study (RPPFS). In terms of differences between the two abused groups, it was hypothesized that the subjects who have been both physically and sexually abused would score significantly higher in terms of overt aggressive and cruel behavior on the Child Behavior Checklist than subjects who have only experienced sexual abuse.

To test the above hypotheses, ANOVAs were used for all continuous data (e.g. CBCL scales, RPFS scores, Hostility Scale Total Score). If the ANOVA yielded a significant result, then follow-up pairwise comparisons using the Tukey HSD test were conducted to determine which of the groups differed from each other. Categorical data such as the Ag coding and the subscales of the Hostility Scale were analyzed by chi-square analyses.

Since the subject groups tended to differ in terms of SES there was some concern regarding SES as a possible confounding variable. Therefore, in cases where ANOVAs yielded significant results, these analyses were followed by ANCOVAs with SES as a covariate. SES was not a significant covariate in any of these analyses. In all but one case, when the variance due to SES was removed in the ANCOVAs, the main effect remained significant. Therefore, only the results of the ANOVAs will be reported except in the one case where the ANCOVA resulted in a change in the main effect.

Child Behavior Checklist (CBCL). Mean scores on the CBCL scales for each of the subject groups are presented in Table 7. Although the current study was concerned with aggressive and cruel behavior in particular, data from the CBCL Total Behavior Problems Score as well as the broad-band Internalizing and Externalizing Scales were also analyzed in order to obtain a general understanding of group differences in overall behavioral functioning. In the ANOVA regarding general behavior problems,

Table 7

Mean Scores of Subject Groups on the Child Behavior Checklist  
(CBCL)

| CBCL Scale                    | Sexual Abuse Only | Physical and Sexual Abuse | Comparison Group |
|-------------------------------|-------------------|---------------------------|------------------|
| Total Behavior Problems Score |                   |                           |                  |
| M                             | 59.806            | 58.273                    | 50.633ab         |
| SD                            | 9.509             | 11.716                    | 9.561            |
| Internalizing Scale           |                   |                           |                  |
| M                             | 58.419            | 54.364                    | 49.833a(b)       |
| SD                            | 8.362             | 11.726                    | 7.795            |
| Externalizing Scale           |                   |                           |                  |
| M                             | 58.129            | 58.000                    | 50.733ab         |
| SD                            | 9.029             | 11.565                    | 8.530            |
| Aggressive subscale           |                   |                           |                  |
| M                             | 59.355            | 61.212                    | 56.900b          |
| SD                            | 5.345             | 7.944                     | 3.772            |
| Cruel subscale                |                   |                           |                  |
| M                             | 61.903            | 63.606                    | 58.767(a)b       |
| SD                            | 5.793             | 7.335                     | 5.157            |

<sup>a</sup>Significant difference ( $p < .01$ ) between sexual abuse only group and comparison group

(a) Marginal difference ( $.05 < p < .08$ ) between sexual abuse only group and comparison group

<sup>b</sup>Significant difference ( $p < .01$ ) between physical and sexual abuse group and comparison group

(b) Marginal difference ( $.05 < p < .08$ ) between physical and sexual abuse group and comparison group

as measured by the CBCL Total Behavior Problems Score, there was a significant result,  $F(2, 91) = 6.868, p = .002$ . Subsequent pairwise comparisons indicated that there was a significant difference between the physically and sexually abused group and the comparison group,  $F(1, 91) = 8.554, p = .004$ , and between the sexual abuse only group and the comparison group,  $F(1, 91) = 11.966, p = .001$ . The two sexually abused subject groups did not differ significantly from each other on this variable. The above pattern of results indicates that both abused subject groups exhibited significantly higher levels of general behavior problems compared to nonabused children, but the two groups of abused children did not differ significantly from each other in terms of overall behavior problems.

Next, separate analyses were performed on the two scales which make up the CBCL Total Behavior Problems Score. On the Internalizing Scale, a measure of fearful, inhibited, and overcontrolled behaviors, an ANOVA was significant,  $F(2, 91) = 6.195, p = .003$ . Pairwise comparisons revealed a significant difference between the sexual abuse only group and the comparison group,  $F(1, 91) = 12.383, p = .001$ . There was a marginally significant difference between the physical and sexual abuse group and the comparison group,  $F(1, 91) = 3.553, p = .063$ . There was no significant difference between the two abused subject groups on this variable. These results indicate that both sexually abused groups, but particularly the sexual abuse



only subjects, demonstrated higher levels of internalizing symptoms (e.g. depression, anxiety, social withdrawal, somatic complaints) than nonabused children. However, the two abused subject groups did not differ from each other in terms of internalizing behavior problems.

In regard to the Externalizing Scale of the CBCL, a measure of aggressive, antisocial, and undercontrolled behaviors, an ANOVA was significant,  $F(2, 91) = 5.652, p = .005$ . In follow-up comparisons there was a significant difference between the physical and sexual abuse group and the nonabused comparison group,  $F(1, 91) = 8.546, p = .004$ , and between the sexual abuse only group and the comparison group,  $F(1, 91) = 8.589, p = .004$ , but not between the two abused groups. Consistent with the previous CBCL findings, both sexually abused groups demonstrated significantly higher levels of general acting-out behavior problems than the nonabused comparison group children. However, children who have been sexually abused did not differ significantly from children who have been both physically and sexually abused in terms of overall externalizing symptoms.

In order to address the specific hypotheses of the current study regarding aggressive characteristics of sexually abused children, the Aggressive and Cruel subscales of the CBCL Externalizing Scale were examined. There was a significant effect for an ANOVA between subject group and the Aggressive subscale,  $F(2, 91) = 4.053, p = .021$ . Subsequent analyses

indicated that there was a significant difference between the physical and sexual abuse group and the comparison group,  $F(1, 91) = 8.084, p = .006$ . However, the sexual abuse only group did not differ significantly from either the comparison group or the physical and sexual abuse group. These results suggest that it is the children who have experienced physical abuse in addition to being sexually abused who clearly demonstrated significantly higher levels of aggressive behavior compared to nonabused children. The sexual abuse only subjects did not differ from either group significantly on the CBCL Aggressive subscale, but rather fell somewhere in between on the continuum of aggressive behavior.

An ANOVA performed between subject group and the Cruel subscale of the CBCL Externalizing Scale was also significant,  $F(2, 91) = 4.882, p = .010$ . On subsequent analyses, the physical and sexual abuse group differed significantly from the comparison group,  $F(1, 91) = 9.569, p = .003$ . There was a marginal difference between the sexual abuse only group and the nonabused comparison subjects,  $F(1, 91) = 3.900, p = .051$ . Once again, no significant difference was found between the two abused subject groups. As with the results regarding the Aggressive subscale, it appears that it is the children who have experienced both physical and sexual abuse who clearly demonstrated more cruel behavior than nonabused children. On the Cruel subscale, the sexual abuse only group did appear to be slightly higher than the

comparison group, but not to a significant degree. At the same time, however, the sexual abuse only group did not differ much from the physical and sexual abuse group in terms of exhibiting cruel behavior.

Rosenzweig Picture-Frustration Study (RPFS). The mean scores for each of the subject groups on all of the major RPFS variables are presented in Table 8. ANOVAs and ANCOVAs with SES as the covariate were also performed on each of the three RPFS Direction of Aggression and three RPFS Type of Aggression codings. In terms of direction of aggression on the RPFS, the first variable analyzed was Extraggression (E-A), a measure of externally directed aggression in response to frustrating interpersonal situations. An ANOVA between subject group and E-A was significant,  $F(2, 91) = 3.391, p = .038$ . Subsequent analyses indicated that both the physical and sexual abuse group,  $F(1, 91) = 5.783, p = .018$ , and the sexual abuse only group,  $F(1, 91) = 4.397, p = .039$ , were significantly higher in E-A responses than the comparison group. The two abused groups did not differ from each other on this variable. Based upon the results of the ANOVA, as hypothesized both abused subject groups were found to be significantly higher in externally directed aggression on the RPFS than the nonabused comparison children.

As indicated earlier, all significant ANOVAs were followed by ANCOVAs with SES as a covariate. In the previous findings, ANCOVAs did not produce any changes in the significance of the

Table 8

Mean Scores of Subject Groups on the Rosenzweig Picture-Frustration Study (RPFS)

| RPFS Variable      | Sexual Abuse Only | Physical and Sexual Abuse | Comparison Group      |
|--------------------|-------------------|---------------------------|-----------------------|
| Extraggession      |                   |                           |                       |
| M                  | 0.520             | 0.532                     | 0.434 <sup>ab</sup>   |
| SD                 | 0.158             | 0.150                     | 0.168                 |
| Intraggession      |                   |                           |                       |
| M                  | 0.199             | 0.192                     | 0.229                 |
| SD                 | 0.093             | 0.076                     | 0.101                 |
| Imaggession        |                   |                           |                       |
| M                  | 0.281             | 0.275                     | 0.336                 |
| SD                 | 0.113             | 0.116                     | 0.122                 |
| Obstacle-Dominance |                   |                           |                       |
| M                  | 0.179             | 0.200                     | 0.161                 |
| SD                 | 0.078             | 0.101                     | 0.082                 |
| Ego-Defense        |                   |                           |                       |
| M                  | 0.552             | 0.529                     | 0.482                 |
| SD                 | 0.158             | 0.148                     | 0.126                 |
| Need-Persistence   |                   |                           |                       |
| M                  | 0.258             | 0.271                     | 0.356 <sup>a(b)</sup> |
| SD                 | 0.163             | 0.134                     | 0.154                 |

<sup>a</sup>Significant difference ( $p < .05$ ) between sexual abuse only group and comparison group

<sup>b</sup>Significant difference ( $p < .05$ ) between physical and sexual abuse group and comparison group

(<sup>b</sup>)Marginal difference ( $.05 < p < .08$ ) between physical and sexual abuse group and comparison group

main effects. However, the ANCOVA between subject group and E-A did not yield a significant main effect as did the ANOVA. When the variance for SES was removed, the groups differed only marginally,  $F(2, 88) = 2.492$ ,  $p = .089$ , even though the effect for SES was not significant. This result is difficult to interpret, but suggests that SES may exert some moderating influence on E-A responses even though it does not correlate with this variable significantly and it was not found to interact significantly with the independent variable in a test of homogeneity of slopes.

Exploratory analyses of E-A responses on the RPPS divided according to age of the frustrator produced a marginally significant result for items involving a child,  $F(2, 91) = 2.956$ ,  $p = .057$ , but no significant differences between groups on those involving an adult frustrating agent. Follow-up comparisons indicated that physically and sexually abused subjects were significantly higher than the comparison group in terms of E-A responses towards children,  $F(1, 91) = 5.583$ ,  $p = .020$ . No significant difference between the sexual abuse only group and the comparison group emerged in terms of E-A responses towards peers. There was also no significant difference between the two abused groups in terms of E-A responses towards children. Analyses of E-A responses divided according to the sex of the frustrator produced a marginally significant result for E-A responses involving a male frustrator,  $F(2, 91) = 2.992$ ,  $p =$

.055, but no significant differences between groups on those items involving a female frustrator. Subsequent ANOVAS indicated that the physical and sexual abuse group was significantly higher than the comparison groups in terms of E-A responses towards males,  $F(1, 91) = 5.416, p = .022$ . The sexual abuse only group was marginally higher than the comparison group in terms of E-A responses directed towards males,  $F(1, 91) = 3.407, p = .068$ , and there was no difference between the two abused groups on this variable. This pattern of results suggests that physically and sexually abused subjects display higher levels of aggression directed externally towards children and males in particular than nonabused subjects. Sexually abused only subjects tend to display higher levels of externally directed aggression towards males only when compared to nonabused children.

No significant differences were found between subject groups on the RPFS Intraggression (I-A) variable, a measure of aggression directed towards the self, or on the RPFS Imaggression (M-A) coding, responses in which aggression is avoided in an attempt to minimize the frustration. Analyses of these two variables divided according to age and gender of the frustrating agent yielded no significant differences between subject groups.

In terms of the hypothesis regarding type of aggressive responding on the RPFS, ANOVAS yielded no significant results for Obstacle-Dominance (O-D), the most primitive type of aggression on the RPFS in which the barrier causing the frustration is

overemphasized in the response, or for Ego-Defense (E-D), in which the response involves defending the self. Analyses of these two variables divided according to age and gender of the frustrating agent yielded no significant differences between subject groups.

However, a significant result emerged in the ANOVA between subject group and Need-Persistence (N-P), which involves responses in which a solution to the frustrating problem is sought,  $F(2, 91) = 3.479, p = .035$ . Follow-up paired comparisons indicated that the sexual abuse only group was significantly lower in N-P responses than the nonabused comparison group,  $F(1, 91) = 6.349, p = .013$ , and the physical and sexual abuse group was marginally lower in N-P responses than the nonabused comparison group,  $F(1, 91) = 3.877, p = .052$ . There was no significant difference between the two abused groups on this variable. This pattern of results indicates that abused children in general exhibited less problem-solving approaches in response to frustrating interpersonal situations than nonabused children.

Analyses of N-P responses divided according to age of the frustrator produced significant results for items involving a child frustrator on the ANOVA,  $F(2, 91) = 5.043, p = .008$ , but no significant differences between groups on those involving an adult frustrator. Subsequent ANOVAs indicated that both the physical and sexual abuse group,  $F(1, 91) = 8.426, p = .005$ , and the sexual abuse only group,  $F(1, 91) = 6.768, p = .011$ , were

significantly lower in terms of N-P responses towards children than the comparison group. There was no significant difference between the two abused subject groups on this variable. Analyses of N-P responses divided according to gender of the frustrator produced significant results on items involving a female frustrator on the ANOVA,  $F(2, 91) = 3.953, p = .023$ , but no significant differences between groups on those involving a male frustrator. Pairwise comparisons indicated that both the physical and sexual abuse group,  $F(1, 91) = 5.558, p = .021$ , and the sexual abuse only group,  $F(1, 91) = 6.395, p = .013$ , were significantly lower in terms of N-P responses towards females than the comparison group. This pattern of results for N-P responses on the RPPS suggests that both groups of abused children manifested lower levels of problem-solving and conflict resolution in response to child and female frustrators in particular when compared to nonabused children.

Rorschach. Percentages and mean scores on the Rorschach aggressive content scales for each of the subject groups are presented in Table 9. In terms of aggressive movement content on the Rorschach, a 2 x 3 chi square analysis between the Exner (1986) Aggressive Movement coding (Ag) and subject group was marginally significant,  $\chi^2(2, N = 94) = 5.197, p = .074$ , with the physical and sexual abuse group tending to perceive more aggressive movement content on the Rorschach than either the sexual abuse only group or the comparison group of nonabused



Table 9

Percentages and Mean Scores of Subject Groups on RorschachAggressive Content Scales

| <u>Aggressive<br/>Content Scale</u> | <u>Sexual Abuse<br/>Only</u> | <u>Physical and<br/>Sexual Abuse</u> | <u>Comparison<br/>Group</u> |
|-------------------------------------|------------------------------|--------------------------------------|-----------------------------|
| Aggressive<br>Movement Coding       |                              |                                      |                             |
| <u>n</u>                            | 31                           | 33                                   | 30(a)                       |
| <u>%</u>                            | 19%                          | 39%                                  | 17%                         |
| Hostility Scale<br>Total Score      |                              |                                      |                             |
| <u>M</u>                            | 2.742                        | 3.788                                | 2.067                       |
| <u>SD</u>                           | 2.989                        | 3.276                                | 1.701                       |

(a) Marginal difference ( $.05 < p < .08$ ) between physical and sexual abuse group and comparison group

children. An ANOVA between subject group and the Elizur (1949) Hostility Scale total score was not significant. Since there were no significant differences between groups on the total score of the Hostility Scale, the separate subscales were not analyzed. Overall, very few differences between subject groups in terms of aggressive Rorschach content emerged, with only the physical and sexual abuse group tending to perceive more aggressive movement imagery than either the sexual abuse only or the comparison group.

Summary of Results. As expected, both groups of sexually abused subjects exhibited significantly more total behavior problems on the CBCL. Sexual abuse only subjects demonstrated significantly more internalizing problems and both abused groups demonstrated significantly more general externalizing behaviors than the comparison group of nonabused peers. However, on specific subscale measures of overt aggression and cruel behavior, it was only the subjects with a history of both physical and sexual abuse who were significantly deviant from the comparison group. Thus, while sexually abused only subjects were found to exert significantly more general acting-out behavior problems than nonabused peers, no support was found for the hypothesis regarding sexual abuse only and overt aggressive behavior on the CBCL subscales.

On the RPFS, both groups of sexually abused subjects demonstrated significantly more externally-directed aggression

than the nonabused comparison group, as hypothesized. It was also hypothesized that the sexually abused subjects would manifest significantly more primitive types of aggression (O-D responses) on the RPPS compared to the nonabused comparison group. Although this specific hypothesis was not confirmed, both groups of sexually abused subjects demonstrated lower levels of the most sophisticated and constructive type of aggression (N-P responses) on the RPPS.

Finally, no significant differences between the groups were found on the Rorschach content measures of aggression and hostility. However, there was a trend for the physically and sexually abused subjects to perceive more aggressive movement responses on the Rorschach than the nonabused comparison group.

It was also hypothesized that the physically and sexually abused subjects would demonstrate higher levels of overt aggressive behavior compared to subjects with just a history of sexual abuse. This hypothesis was not confirmed by the results. No differences on any of the CBCL scales were found between the two abused groups. Overall, there were no significant differences found between the abused groups on any of the dependent measures of aggression.

CHAPTER V  
DISCUSSION

The main hypothesis of the current study was that sexually abused children would exhibit significantly more aggressive characteristics compared to nonabused peers. Two unique features were included in this investigation of aggression in sexually abused children. First, in order to control for the effects of multiple forms of maltreatment on the development of aggression, the sexually abused subjects were divided into two groups. One group consisted of children with a documented history of both sexual and physical abuse. The second subject group consisted of children with only a documented history of sexual abuse. The central question of interest was how both groups of sexually abused children would compare to a group of nonabused peers on measures of aggression. Of particular concern were the findings regarding aggression in the sexual abuse only group. Another question of interest was whether there were differences in terms of aggression between the two abused subject groups given the addition of physical abuse experienced by one of them.

A second unique feature of the current study involved the use of multiple measures of aggression. Previous studies in the child sexual abuse literature have relied almost exclusively on parent-report measures of aggressive and other maladaptive

behavior problems. The measures used in the current study assessed aggression expressed at different levels. At a behavioral level, the Child Behavior Checklist was used to obtain parent ratings of a child's overt aggressive behavior. In addition, two projective measures of aggression administered directly to the child were employed. The Rosenzweig Picture-Frustration Study assessed interpersonal aggression expressed in fantasy, and two content measures, the Exner (1986) Aggressive Movement coding and the Elizur (1949) Hostility Scale, were used to assess aggressive and hostile perceptions on the Rorschach. The use of these measures provided the opportunity to explore differences in the expression of aggression among abused and nonabused children as well as between the two abused groups.

In the discussion that follows, the differences found between all three subject groups (i.e. physical and sexual abuse, sexual abuse only, nonabused) on the behavioral and projective measures of aggression will be reviewed and their implications in relation to the main hypotheses will be evaluated. Next, a detailed comparison of findings regarding the two sexually abused groups used in the current study will be presented. Finally, the limitations of the current study will be discussed along with implications for future research in the area of child sexual abuse.

### Sexual Abuse and Behavioral Manifestations of Aggression

On the Child Behavior Checklist, a parent-report measure of overt child behavior problems, both groups of sexually abused children were found to exhibit a significantly higher level of overall maladaptive behavior problems compared to nonabused peers. The data was further analyzed according to the broad-band dimensions of internalizing versus externalizing symptomatology. In these analyses, it was found that sexual abuse only victims displayed significantly more internalizing symptoms compared to nonabused peers and that subjects who were both physically and sexually abused also tended to be higher in terms of these general overcontrolled behavioral symptoms. On the CBCL Externalizing Scale, both groups of sexually abused children were significantly higher than nonabused peers in terms of general undercontrolled acting-out behaviors. These results are consistent with the bulk of the research findings on the effects of child sexual abuse in terms of evidence of multiple maladaptive behavioral sequelae.

In terms of the specific areas of aggression and cruelty on the Child Behavior Checklist (CBCL), it was found that children who were both physically and sexually abused were significantly higher than nonabused peers on both of these subscales. Children with a history of sexual abuse only were not found to be significantly higher than nonabused peers on the Aggressive subscale. On the Cruel subscale, they tended to score higher

than nonabused peers but not to a significant degree. This pattern of results seems to indicate that while sexual abuse, in and of itself, is associated with multiple behavioral problems of both an internalizing and externalizing nature, it is not necessarily related to overt aggressive symptomatology in particular. In fact, the results suggest that victims of sexual abuse only may be more prone to exhibit internalizing symptomatology in particular. These findings are somewhat contradictory to the results of other child sexual abuse studies which have found sexually abused children to be higher on the Aggressive and Cruel subscales of the CBCL when compared to norms or nonabused peers. However, previous studies in this area have not controlled for the effects of other forms of maltreatment in their sexually abused sample. According to the results of the current study, it is the children who have experienced direct physical abuse in addition to sexual abuse who evidence significant pathology in terms of overt aggressive behavior. This finding is consistent with the research literature linking the experience of physical abuse in childhood with overt aggressive behavior in social interactions.

It was also hypothesized that children who were both physically and sexually abused would demonstrate significantly higher levels of overt aggressive behavior than children with just a known history of sexual abuse, since they have experienced more direct forms of overt aggression themselves. However, this

hypothesis was not confirmed by the results of the current study. Children who were both physically and sexually abused did not differ significantly from sexually abused only children in terms of aggressive and cruel behavior on the CBCL. Thus, while the experience of overt forms of aggressive abuse appears to result in an elevated expression of aggressive behavior compared to nonabused children, children who have experienced less overt forms of aggressive abuse such as sexually abused children do not evidence dissimilar levels of aggressive and cruel behavior problems as children who have also been physically abused.

#### Sexual Abuse and Projective Measures of Aggression

In addition to the assessment of overt aggressive behavior in sexually abused children, projective measures of aggression were included in the current study. On the Rosenzweig Picture-Frustration Study (RPFs), a semi-projective measure of interpersonal aggression expressed in fantasy, both groups of sexually abused children were found to evidence significantly more extrapunitive aggression (extraggression) than nonabused peers. This finding supports the hypothesis that sexually abused children direct their aggression externally towards others more than nonabused children. While the sexually abused subjects were not found to be higher in terms of the most primitive type of aggression (object-dominance) on the RPFs as hypothesized, both groups of sexually abused children evidenced less problem-solving



and goal-directed activity (need-persistence) in response to frustrating interpersonal situations on the RPFs compared to nonabused peers.

Further analyses of significant RPFs results according to the age and gender of the frustrating agent yielded some interesting findings. In terms of extraggressive responses, children who were physically and sexually abused produced significantly more externally directed aggression on items involving a child frustrator compared to nonabused peers. This finding is consistent with Kinard's (1980) results indicating that physically abused children evidenced more extrapunitive aggression on the RPFs in relation to other children but not towards adult frustrators. This may be due to a displacement of anger towards the adults who abused them to those who are less threatening, namely other children. When extraggressive responses on the RPFs were analyzed according to the gender of the frustrating agent, both groups of sexually abused children evidenced more externally directed aggression towards males compared to nonabused children. Since the majority (98%) of the subjects in both abused groups were sexually abused by males, it makes sense that they would be more prone to directly express their anger towards males as opposed to females.

In terms of further analyses of need-persistence responses on the RPFs according to the age and gender of the frustrating agent, both groups of sexually abused children were found to

demonstrate significantly less problem-solving responses in their interactions with other children as opposed to adults compared to nonabused peers. It appears that abused children demonstrate less constructive forms of aggression (i.e. goal-oriented persistence despite frustration) in their peer interactions than when they interact with adults. As previously suggested, perhaps this is due to the fact that peers are less threatening to them than adults and consequently they express their aggressive impulses in a less appropriate manner when challenged by other peers. Analyses of need-persistence responses according to the gender of the frustrator indicated that both groups of sexually abused children demonstrated less goal directed activity compared to nonabused peers when the frustrator was female. This finding is somewhat inconsistent with the previous finding that abused subjects expressed more externally directed aggression towards males in particular, and is thus difficult to explain. However, once again, females may be perceived as a less threatening frustrating agent by these children resulting in the expression of aggression in a less constructive manner.

The Rorschach was also used as a projective measure of aggression in the current study. In particular, the Elizur (1949) Hostility Scale and the Exner (1986) Aggressive Movement coding were used to code aggressive and hostile content on the Rorschach. No significant differences were found between any of the subject groups on the Hostility Scale. In terms of the

Aggressive Movement coding, children who were both physically and sexually abused tended to perceive more aggressive movement imagery than nonabused peers, but not to a significant degree. There were no differences found between the sexual abuse only group and the nonabused comparison group or between the two abused groups in terms of the aggressive movement coding. One reason for the lack of any significant findings on the Ag coding may be due to the transformation that was performed on the data. That is, because the the distribution of scores on this content measure of aggression was extremely positively skewed, it was converted into categorical data. In doing so, much information was lost as a result of simply coding aggressive movement content as being absent or present. Particularly in the cases where such content was present, no discrimination between the amount of times such content was perceived in each protocol was able to be made.

In summarizing the results of projective testing, both groups of abused children were found to demonstrate significant differences in aggression compared to nonabused peers on the RPFS but not on the Rorschach. There were no differences between the two abused subjects groups on either the RPFS or the Rorschach content measures of aggression. One reason for the lack of consistent differences between abused and nonabused groups on these two projective measures may be due to the nature of the test stimuli. The Rorschach consists of fairly ambiguous test

stimuli whereas the RPFS clearly depicts frustrating interpersonal situations. It may be that differences between abused and nonabused groups in terms of aggression do not emerge until the element of provocation or frustration is introduced. Thus, the situational context in which abused children exhibit aggression appears to be an important factor warranting further investigation.

#### Physical and Sexual Abuse versus Sexual Abuse Only

In doing research on the outcome effects of child abuse, the above results highlight the value in carefully distinguishing children who have experienced multiple forms of child maltreatment from those who have been victims of the specific type of abuse under consideration. The focus of the current study was to investigate whether sexual abuse was associated with childhood aggressiveness. Prior research has already established a link between child physical abuse and subsequent aggressive behavior. In the current study, children who had experienced physical abuse in addition to sexual abuse were separated from children who had just experienced sexual abuse in order to determine whether sexual abuse in and of itself could lead to heightened levels of aggressiveness. In doing so, two discrete groups of sexually abused children emerged who differed not only in terms of physical abuse, but unexpectedly in terms of multiple risk factors. Children in the physical and sexual abuse group

were found to have a significantly higher incidence of neglect, quantity of sexual abuse, and severity of sexual abuse. They also came from lower SES backgrounds in which a large majority of their families were supported by public assistance, and at the time of their assessment they were more often in foster care placement. Some of these demographic and abuse-related variables themselves, e.g. history of neglect and foster care placement, were found to correlate significantly with the study's outcome measures of aggression. Although this group of children did not demonstrate significantly higher levels of overt aggressive behavior compared to the sexual abuse only victims as hypothesized, they were consistently higher than nonabused peers in terms of exhibiting aggressive characteristics across all of the dependent measures. Based on these results, it appears that it is the children who have experienced multiple forms of maltreatment and who come from unstable family environments who seem to be most clearly at risk for developing problems with aggression. Furthermore, based upon the limited data available in the sexual acting-out literature, these children who have traumatic experiences of both physical and sexual abuse who come from neglectful and unstable homes may be particularly at risk for developing sexually aggressive behaviors and perhaps becoming sexual offenders themselves. This speculation awaits further empirical investigation as the current study dealt only with

general aggressiveness and did not include a measure of sexual aggression in particular.

The subjects in the current study's sexual abuse only group did not experience other forms of child maltreatment for the most part. Nor did they experience the quantity or severity of sexual abuse that the children who were both physically and sexually abused did. The majority of these subjects were able to remain in the homes of their natural families after the disclosure of sexual abuse. Although they too came from low SES backgrounds, a significantly higher proportion of them came from working families. The results for this group of sexually abused children in terms of aggressive characteristics were more mixed than for the children who had experienced multiple forms of maltreatment. They did not differ from nonabused peers in terms of perceiving aggressive and hostile imagery on a projective test measure. However, like the children who had experienced multiple forms of child abuse, the sexual abuse only subjects did demonstrate higher levels of aggression directed externally towards others and lower levels of conflict resolution in response to frustrating interpersonal situations when compared to nonabused children. It is noteworthy that they demonstrated significantly more general behavior problems of both an internalizing and externalizing nature than their nonabused peers. However, they did not differ significantly from them on a specific measure of overt aggressive behavior. They tended to exhibit more cruel

behavior than nonabused comparison subjects, but not to a significant degree. Although these results do provide some support for the hypothesis that sexual abuse is associated with heightened aggressiveness in children, they are not as consistent across the dependent measures of aggression as the results for the physical and sexual abuse group compared to nonabused peers.

What the above results do suggest is that child sexual abuse is associated with heightened aggressiveness expressed at a conscious fantasy level but not necessarily in overt behavior. Such findings underscore the importance of using multiple measures of aggression expressed at different levels in order to provide a richer understanding of the correlates of sexual abuse. If only a behavioral measure of aggression were used in the current study, as in most previous research studies in this area, the full range of impact in terms of aggressiveness in sexually abused children would have been missed. Child sexual abuse, in and of itself, may not inevitably result in subsequent aggressive behavior, but it does appear to have an effect on the child's inner experience of aggression which is then expressed in their fantasy in response to frustration. A question that remains to be addressed concerns the fact that both groups of abused youngsters in the current study demonstrated significantly worse aggressive characteristics expressed at a fantasy level compared to nonabused peers, but only the group of physically and sexually abused children demonstrated a significantly higher level of

overt aggressive behavior compared to nonabused peers. It may be that these children who have experienced multiple forms of child maltreatment have poorer affective and impulse control or generally weaker ego functioning and consequently more of their aggressive impulses are directly expressed in their behavior. Future research comparing the overall ego functioning or impulse and affective controls of these different groups of abused children may help to clarify these findings.

Despite the lack of consistent findings across the various aggression measures for the sexual abuse only group, it is important to note that in the current study the group of sexually abused only children did not differ significantly from the group of children who had experienced multiple forms of child maltreatment on any of the dependent measures of aggression. They were more similar to this group of children across the measures of aggression than they were to their nonabused peers. On a continuum of aggression, it appears that sexually abused children lie somewhere in between nonabused children and children who have experienced multiple forms of maltreatment, but they tend to be more similar to the latter group. Thus, being sexually abused does appear to increase one's risk of developing aggressive characteristics, especially if it occurs in combination with other forms of child maltreatment and inadequate family functioning.



The pathway between sexual abuse and subsequent aggressiveness does not appear to be a direct one, however. Abused children differ from nonabused children, as well as from each other, in a number of ways which likely interact with the experience of abuse to account for findings of heightened aggressiveness. In the current study, important variables which differed across subject groups and which were related significantly to the study's dependent measures included foster care placement, family composition, and prior history of neglect. Given these demographic and abuse-related differences, the findings regarding heightened aggressiveness cannot be attributed solely to the effects of abuse, physical or sexual. Some of these variables themselves may have played a causal role in the development of aggressive characteristics. Unfortunately, the design of the current study did not allow for adequate tests of the roles that these factors may have played in relation to the abused children's level of aggression. However, the results of the current study do suggest that children who suffer from multiple negative stressors of any nature (i.e. multiple forms of child maltreatment, unstable family structure, foster care placement, etc.) are likely to evidence more problems in terms of aggression as well as other maladaptive behaviors.

Just as there are likely to be a number of other risk factors which together with sexual abuse produce a negative outcome, there are also likely to be positive attributes,

conditions, and/or experiences in an individual child's life which protects them from such consequences. In the current study, the sexual abuse only group experienced less neglect, quantity of sexual abuse, and severity of sexual abuse compared to the group of children who were both physically and sexually abused. Despite their low socioeconomic status, they were more likely to come from working families as opposed to being supported solely by public assistance. They were also more often able to remain in their natural homes following their disclosure of sexual abuse compared to the physical and sexual abuse group subjects, which may be related to factors such as family stability and overall quality of care provided. Some of these factors may have mitigated the negative impact of sexual abuse in terms of aggression, particularly in terms of the expression of overt aggressive behavior. More research within the field of child sexual abuse needs to be conducted to identify and determine the role of what have been called "protective factors" (Garmezy, 1981) or "compensatory factors" (Cicchetti & Rizley, 1981) which may moderate the negative impact of sexual abuse on children.

#### Limitations and Directions for Future Research

In interpreting the results of the current study, several other points should be kept in mind. The sexually abused subjects evaluated in this research were not representative of all sexual abuse victims, thereby limiting the generalizability

of the results. Results of preliminary analyses indicated that they were better functioning on behavior measures than the larger sample of sexual abuse victims in the La Rabida Longitudinal Study from which they came. Thus, the sexually abused subjects in the current study may not have adequately represented the more extreme end of the continuum of sexual abuse sequelae and this may have tempered the results. Furthermore, only black, low SES, female victims from an urban community were included as they made up the majority of the patients evaluated for abuse at the hospital from which the data was collected. However, sexual abuse of both male and female children occurs in all types of racial and ethnic groups, communities, and levels of social class. Further research needs to be conducted with a wider range of victims so that more can be learned about how sexual abuse affects all children.

At the same time, low socioeconomic status does characterize the largest proportion of abusive families in this country (Straus, Gelles, & Steinmetz, 1980), and the results of the current study are relevant to this population. Because low income families often have multiple problems, e.g. poverty, unemployment, substance abuse problems, or otherwise inadequate social and family functioning, comparison groups matched on SES and other relevant demographic variables are important in order to assess the independent effects of abuse (Widom, 1989). The current study included a comparison group of nonabused children

who were similar to the sexually abused subjects in age, sex, race, and residence within the same urban neighborhood. Although the comparison group consisted primarily of low income families and was similar to the sexual abuse only subjects in terms of SES, it did contain more employed families than the physical and sexual abuse group. For that reason, SES was also co-varied out of the analyses and thus the results are still considered to be valid for this population. Sexual abuse does appear to be associated with an increased risk of developing problems with aggression above and beyond that which may be accounted for by the moderating effects of low SES.

The current study examined aggressive characteristics of only female victims of sexual abuse and found some evidence that they exhibited more aggressive characteristics than nonabused peers. Within the general aggression literature, clear sex differences have been documented with girls of all ages displaying less aggression than boys, possibly due to differences in the way male and female children are socialized (Parke & Slaby, 1983). Given these differences, male victims of sexual abuse may be at even greater risk for developing problems with aggression than females. Within the sexual abuse literature, Friedrich, Urquiza, and Beilke (1986) found girls to be more internalizing in their post-abuse behaviors whereas boys were more externalizing on the CBCL. Further exploration into the aggressive characteristics of male sexual abuse victims needs to

be conducted to determine if they are even more at risk than females for developing serious aggressive tendencies. It may also be interesting to compare male and female victims of child sexual abuse to see if they differ in the types of aggression displayed, i.e. direct aggression towards others versus covert exploitation or self-destructive behaviors.

Although the current study investigated aggression in sexually abused children in a more focused and methodologically sound manner than previous studies by including more carefully defined abused subject groups and multiple measures of aggression, further advancements on these procedures could be made. The primary focus of the current study was to examine aggression in sexually abused populations. However, the addition of a group of subjects who had just been physically abused would have been helpful in comparing the effects of physical abuse versus sexual abuse. In terms of the assessment of aggression, despite the study's use of multiple measures, its only behavioral measure of aggression consisted of parent-report ratings. Given the potential bias inherent in such measures, it would have been better to include an additional source of behavior ratings, perhaps completed by teachers or peers. Furthermore, use of a measure designed more specifically to assess different types of aggressive behavior may have proven to be more useful than a general child behavior problem checklist.

Finally, the results of the current investigation were based on an evaluation of victims conducted 9-18 months following the child's disclosure of sexual abuse. These results regarding heightened aggressiveness in sexually abused children should probably be considered as representing short-term or initial effects. Longitudinal studies regarding the aggressive characteristics of sexually abused children with a longer follow-up period are needed to determine if these effects persist on a more long-term basis. Although the follow-up period of the current study was relatively short, the results do provide serious grounds for concern given the literature which suggests that aggression is a fairly stable trait and that early aggressiveness can be predictive of later antisocial behavior (Widom, 1989). Of particular concern is the risk for a sexually abused child to develop offending behaviors. Evidence of aggression in a sexually abused child should be targeted for immediate intervention to prevent the development of a more stable aggressive personality style and to reduce the risk of victimization of others.

Despite the above limitations, the current study has contributed a richer understanding of aggression in sexually abused children. Sexual abuse was found to be significantly associated with multiple behavior problems of both an internalizing and externalizing nature in general. The experience of sexual abuse, in and of itself, was not found to be

significantly associated with overt aggressive behavior in female victims, whereas children who had been both physically and sexually abused did evidence significant problems with aggressive behavior. However, sexual abuse did exert a negative impact in terms of being associated with heightened externally directed aggression and lower levels of problem solving attempts in the children's fantasies. Further research is needed to discover the moderating factors and conditions under which such aggressiveness is differentially expressed in fantasy versus behavior.

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

April 10, 1991

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