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Object Relations, Object Representations and Social Functioning of Sexually Abused Girls

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OBJECT RELATIONS, OBJECT REPRESENTATIONS AND

SOCIAL FUNCTIONING OF SEXUALLY ABUSED GIRLS

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DEDICATION

To my husband and best friend, Jeffery Hoelzel

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CHAPTER I

INTRODUCTION

In recent years, there has been a growth in interest in the field of child sexual abuse. Statistics suggest that at least 10% of all women and 2% of all men were the victims of some form of childhood sexual abuse. A substantial body of research has documented a variety of short-term and long-term effects of child sexual abuse. Retrospective studies have revealed that a large percentage of adults with psychiatric problems have a history of child sexual abuse. Adult survivors of child sexual abuse have been found to have significant problems in the area of interpersonal functioning. Specifically, they appear more likely than adults without an abuse history to experience low self-esteem, social isolation, an inability to trust, impaired social functioning and revictimization.

Studies of sexually abused children have found that many child victims experience increased feelings of fear, anxiety, anger and depression. Many sexually abused children also experience significant behavioral problems, characterized by increased aggression, a decreased ability to trust, inappropriate sexualized behaviors and impaired interpersonal functioning. A few recent studies have explored the intrapsychic changes that are associated with child sexual

abuse. The studies have found that sexually abused girls experience affective distress, disturbed thinking, increased aggression, immature or distorted views of others and relationships and a damaged sense of self.

Research has also examined the impact of sex abuse-related characteristics, such as the child's relationship to the perpetrator, the length of time the abuse persisted, the use of force and the occurrence of penetration, as moderating variables. The results from this research have been inconsistent, and it is not clear whether these variables are associated with the development of psychological problems in sexually abused children. One moderating variable that has been suggested to have a significant impact on a child victim's post-disclosure psychological adjustment is maternal support.

Although there is considerable evidence that a variety of behavioral and intrapsychic problems are associated with child sexual abuse, little research has offered a clear and comprehensive theoretical explanation for the problems associated with child sexual abuse. It was the purpose of the current study to present object relations theory as a useful conceptual framework for understanding the problems that child sexual abuse may cause, both intrapsychically and behaviorally. Object relations theory also can be used to present an explanation for the moderating effect of maternal support.

Object relations theorists state that the internalization of object (human) relations, primarily of the early relationships with caregivers, leads to the development of internal images of self and others. These internal representations create expectations for interactions, serve to interpret social interactions, and subsequently direct interpersonal behavior. While the very early years are believed to be most important in the development of the representational world, representations do continue to change over the course of development. Therefore, it seems that child sexual abuse, clearly a traumatic event, could result in significant alterations in a child's representational world and, in turn, changes in social behavior. Maternal support might be able to protect against these negative changes in the object world by continuing to provide the child with stable, positive, and nurturing interactions to internalize.

The current study compares the manner in which sexually abused and non-abused girls experience and internally represent the object world, as well as the manner in which they function socially in the "real" world. It was hypothesized that the experience of child sexual abuse would be associated with intrapsychic changes. Specifically, it was hypothesized that the internal representations of self and others would be negatively altered by the experience of sexual abuse. The current study attempts to assess intrapsychic object relational functioning with the Rorschach Inkblot Test

and the Thematic Apperception Test (TAT), two commonly used projective measures. It was also hypothesized that an alteration in the object representational world would have an outward manifestation in the social behavior of the child. Social functioning was assessed using the Achenbach Child Behavior Checklist (CBCL). Finally, it was hypothesized that the presence or absence of maternal support at the time of the disclosure of abuse would moderate object representational changes. Specifically, it was expected that maternal support would serve to "protect" the internal world of the child victim from some of the negative impact of the sexual abuse experience.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

In recent years, there has been a growing interest in the study of child sexual abuse. This increased attention among clinicians and researchers stems, in part, from the dramatic rise in the number of reported cases of child sexual abuse. Incidence figures vary greatly, in large part due to underreporting and to the different ways in which researchers have defined sexual abuse. Conservative figures estimate that 10% of all girls and 2% of all boys in the United States are sexually abused before they reach adulthood (Hartman & Burgess, 1989), but many mental health professionals report these figures to be even higher. Russell (1983) found that 38% of 930 adult women included in a random survey reported having had at least one unwanted sexual experience involving actual physical contact with an adult prior to the age of eighteen. In a national survey of American adults, 27% of women and 16% of men reported some experience of sexual abuse before their eighteenth birthday (Finkelhor, Hotaling, Lewis & Smith, 1990). Child sexual abuse occurs across all socioeconomic levels and among all ethnic and racial groups (Russell, 1986).

The definitions of child sexual abuse used in research differ considerably. Some definitions include only father-daughter incest, some include only abuse by a known perpetrator and others include assaults by unknown perpetrators as well. Some definitions are restricted to sexual intercourse, others include any inappropriate or unwanted physical contact of a sexual nature, and some definitions include even the exposure of a child to pornography or exhibitionism. These varied definitions make it difficult to compare results from different child sexual abuse investigations, and may be responsible for sometimes contradictory findings. The most commonly used definition of child sexual abuse refers to physical contact of a sexual nature committed by a perpetrator who is at least five years older than, and is known to, the child.

For many years, there was very limited examination of the problem of child sexual abuse. In fact, there was significant resistance to this realm of study. In 1896, Freud presented a paper, "The Aetiology of Hysteria," in which he proposed that sexual contact in childhood was the primary etiological factor in hysteria and other psychoneuroses. He explained that an early sexual experience, or seduction, was the core repressed memory responsible for symptom formation in psychoneuroses. This proposition was not well received by Freud's teachers and colleagues in Vienna. Not long after, Freud abandoned the "seduction theory," stating that he had

been too eager to believe the truthfulness of his patients' claims that they had been abused. It has been suggested that Freud abandoned the seduction theory because of a "lack of courage" to face the opposition to his ideas by his colleagues and friends (Masson, 1984).

Freud then suggested that <u>fantasies</u> of sexual contact with adults, occurring as a result of the Oedipal conflict, were at the root of neuroses, rather than <u>actual</u> sexual contact. While most in Freud's circle embraced this theory, a few of Freud's followers were displeased because the new theory ignored the impact of real life experiences. In 1932, Ferenczi, Freud's closest friend in his later years, was rejected by Freud and most of the psychoanalytic community when he presented a paper which proclaimed his reaffirmation of the seduction theory. Ferenczi argued that analysts needed to acknowledge the existence of child sexual abuse and accept its role as an etiological factor in adult psychopathology. Nevertheless, until recently, it was not unusual for adults undergoing psychoanalysis who revealed memories of child sexual abuse to be told that these experiences did not occur, but that they were simply childhood fantasies (Vizard, 1988). Fortunately, it now seems that almost all mental health professionals have come to recognize child sexual abuse as a true problem.

Effects of Child Sexual Abuse

Within the clinical literature, long lists of symptoms have been proposed to result from child sexual abuse. Empirical studies have documented the existence and prevalence of a variety of short-term and long-term effects of child sexual abuse. In a comprehensive review, Browne and Finkelhor (1986) summarize the empirical findings on initial and long-term effects of sexual victimization during childhood. Browne and Finkelhor use the term "initial" rather than "short-term" when referring to reactions which occur within two years of the termination of abuse. They propose that "short-term" implies that the effects do not persist, yet no evidence exists to suggest that these initial effects are short-lived.

Browne and Finkelhor (1986) report that many child victims initially experience feelings of fear, anxiety, depression, anger, hostility, guilt and shame. They also report that child victims may experience poor self-esteem, increased aggression, difficulty in trusting others and impairments in interpersonal relating and social functioning. Children who have been sexually abused exhibit significantly higher levels of inappropriately sexualized behaviors than non-abused children (Cavaiola & Schiff, 1988; White, Halpin, Strom & Santilli, 1988). Teenage incest survivors exhibit more runaway behaviors, delinquency and prostitution than their non-abused peers (Paperny & Deisher, 1983; Silberts & Pines, 1983). These findings suggest that the social and

interpersonal functioning of sexually abused children may be particularly vulnerable to the effects of child sexual abuse.

Long-term effects of child sexual abuse often include poor self-esteem, significant interpersonal difficulties including social isolation and an inability to trust, revictimization and impaired sexual functioning (Browne & Finkelhor, 1986; Herman, Russell & Trocki, 1986). Again, social problems appear to be very prominent. Surveys have shown that a high percentage of clinic or hospital patients present with a history of sexual abuse (Bryer, Nelson, Miller & Kroll, 1987; Surrey, Swett, Michaels & Levin, 1990). Briere and Runtz (1988) suggest that the many adult survivors of sexual abuse who experience dissociative symptoms, sleep disturbances and sexual difficulties, are exhibiting "post sexual abuse trauma." The authors urge caution in the use of more traditional diagnostic categories with these patients. Nevertheless, many retrospective studies suggest that child sexual abuse often plays a role in the development of a variety of emotional disorders later in life, including Borderline Personality Disorder (Gartner & Gartner, 1988; Ogata, Silk, Goodrich, Lohr, Westen & Hill, 1990; Steele, 1986; Westen, Ludolph, Misle, Ruffins, & Block, 1990), bulimia (Parmer, 1991), substance abuse (Miller, Downs, Gondoli & Keil, 1987; Rosenow, Corbett & Devine, 1988) and depression (Briere & Runtz, 1988; Peters, 1988; Sedney & Brooks, 1984).

While these studies of long-term effects are important, there are significant limitations to their interpretation, in light of the retrospective nature of the work. Many are also subject to other serious methodological problems (Kilpatrick, 1987), including lack of control groups, small numbers of cases, and combining of all age and socioeconomic status (SES) groups. These limitations point to the need for more research which examines the impact of child sexual abuse throughout the life cycle, beginning with an exploration of the impact of the abuse on the victim during childhood. A wide variety of studies have examined the effects of child sexual abuse on child victims, as discussed below.

Behavioral Effects of Child Sexual Abuse

Many investigators have examined the impact of child sexual abuse on abused children's behavior. The most commonly used instrument in these studies is the Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1983), which asks parents to rate their children's behavior in terms of a wide variety of emotional and behavioral symptoms of psychopathology. Factor analyses of the CBCL have revealed that there are a number of individual clinical scales, as well as two broad-band factors, Internalizing and Externalizing. The Internalizing Scale taps internally directed experiences such as dysphoria, anxiety, somatization and social withdrawal, while the Externalizing Scale taps outwardly directed maladaptive behaviors, such as aggression,

hyperactivity and delinquency. There is also a Total Behavior Problems scale. Questions on the CBCL also inquire about the child's school performance, participation in activities and social relationships. The Social Competence Scale summarizes the parents' impressions of these domains. A substantial body of research suggests that sexually abused children exhibit increased behavioral problems and lowered social competence as measured by the CBCL.

In a sample of 64 sexually abused boys and girls, Friedrich, Urquiza and Beilke (1986) found a high incidence of elevated Internalizing and Externalizing scales on the CBCL. Friedrich (1988) suggests that elevations in Internalizing and Externalizing symptoms might be the result of adaptations which child victims make as a style of coping with the trauma of abuse. In a separate study, Einbender and Friedrich (1989) report that sexually abused girls received higher scores on the Internalizing and Externalizing scales, and lower scores on the Social Competence scale, than non-abused girls matched for age, race and family income. Higher Internalizing and Externalizing scale scores in sexually abused girls were also reported by Inderbitzen-Pisaruk, Shawchuck and Hoier (1992).

Cohen and Mannarino (1988) compared CBCL reports for 24 sexually abused girls with the published norms for both non-clinical and clinical samples. Sexually abused girls were less socially competent on the School subscale of the Social Competence scale, but not significantly different in total

Social Competence scores from the norms for the non-clinical sample. Abused girls were reported by parents to display significantly greater problems on eight of the individual clinical subscales, as well as on the Internalizing, Externalizing and Total Behavior Problems scales, than would be expected based on the normative sample. When sexually abused girls were compared to girls in the clinical normative sample, abused girls were more socially competent and less maladjusted on three individual clinical subscales as well as on the Internalizing, Externalizing and Total Behavior Problems scale. Notably, on self-report measures of depression, anxiety and self-esteem, completed by the children, sexually abused girls did not differ from the norms. There are two possible explanations for this discrepancy between findings from the child self-report and the parent-report measures. Sexually abused children may be unusually guarded and deny their problems (Shapiro, Leifer, Martone & Kassem, 1990). Alternatively, parents of sexually abused children may view behavior of their children as more pathological because of the abuse experience.

By adding their own comparison groups, rather than relying solely on published norms, Mannarino, Cohen and Gregor (1989) improved on their earlier work. They compared CBCL reports for 94 sexually abused girls with reports from a clinic-referred comparison group and a normal comparison group. Sexually abused girls and the girls in the clinic-

referred group were rated more pathological than the girls from the normal comparison group on the Total Behavior Problem, Internalizing and Externalizing scales. Sexually abused and clinic-referred girls were also less socially competent than the normal controls. The sexually abused and clinic-referred girls did not differ from one another on these scales.

Shapiro, Leifer, Martone and Kassem (1992) found that sexually abused girls received significantly higher scores on both the Internalizing and Externalizing Scales of the CBCL than did girls from a normative sample of low SES children (Achenbach & Edelbrock, 1983). The abused girls also showed significantly lower Social Competence scores than the normative sample. As would be expected, there was a strong negative correlation between the measure of social competence and the broad-band behavior problem scales. Relationships were also noted between intellectual functioning (as measured by a subset of WISC-R scale scores), scores on the Internalizing scale, and self-blame, suggesting that more cognitively active victims experienced more affective distress.

Lipovsky, Saunders, and Murphy (1989) compared the emotional and behavioral functioning of 88 sexually abused children with a group of their non-abused siblings using the CBCL as well as a number of self-report measures. CBCLs were completed by mothers and by perpetrator-fathers, and results

showed extremely high correlations between these reports. Significant differences were found on the Total Behavior Problems, Externalizing and Internalizing scales between the abused children and the non-abused siblings. However, fewer than 13% of the sexually abused children had ratings within the clinically significant range. No differences emerged on the Social Competence scale. The sample used in this investigation is different from most, in that it included only cases in which girls were molested by their natural fathers and in which these fathers admitted to the abuse and sought treatment.

At least one study has documented long-term effects of child sexual abuse using the CBCL. Two and one half years after the disclosure of sexual abuse, significantly poorer social functioning as measured by the Social Competence scale was noted in 39 abused girls when compared to a group of their non-abused peers (Tong, Oates & McDowell, 1987). The sexually abused girls also had significantly higher scores on both the Internalizing and Externalizing scales.

To summarize, consistent findings have emerged suggesting that many sexually abused children demonstrate behavioral and emotional problems as measured by the CBCL soon after the termination of abuse as well as long after its occurrence. Caution in the interpretation of results from CBCL studies might need to be exercised in light of research that has shown that parents' ratings of children's behavior on scales such as

the CBCL can be strongly influenced by the parents' own psychopathology or emotional functioning (Billings & Moos, 1983; Brody & Forehand, 1986; Reid, Kavanaugh & Baldwin, 1987). Because of the potential problems with parent report measures, it seems clear that additional approaches to measuring the effects of child sexual abuse are necessary. A few researchers using projective testing measures have looked more closely at the intrapsychic impact that child sexual abuse has on its victims. These studies are discussed below.

Intrapsychic Effects of Child Sexual Abuse

Projective measures may be a very useful tool for obtaining information about the psychological functioning of sexually abused children. Because of the potentially confounding impact of parental variables on parent-report measures, and the ease in which deception or guardedness can affect most self-report measures for children, it has been suggested that projective measures may provide the least biased measure of personality functioning in child sexual abuse research (Leifer, Shapiro, Martone & Kassem, 1991). Additionally, projective measures allow for an exploration of internal or intrapsychic reactions to child sexual abuse which may be neglected in studies relying solely on parent-report or self-report measures.

In the first published empirical study examining sexually abused children with the Rorschach (Zivney, Nash & Hulsey, 1988), protocols of girls first abused before their ninth

birthday and girls first abused after their ninth birthday were compared. It was predicted that age-related differences in the Rorschach protocols would be found. Early-abused (EA) girls displayed more pre-oedipal psychopathology characterized by deficits in thinking, perception and self-object differentiation than did late-abused (LA) girls. A large percentage of EA girls displayed a pattern characterized by disturbed thinking (as measured by a variable combining the Exner variables of M-, DV and FABCOM), a damaged sense of self (MOR and PER responses) and a predominance of human over animal responses. Only a very small percentage of the LA girls had this pattern. The authors state that age at onset of abuse differentiates these groups, not age at testing, duration of abuse or frequency of abuse. Thus, ignoring the age of onset of abuse in research might potentially obscure important differences.

Using the Thematic Apperception Test (TAT), Stovall and Craig (1990) examined the "mental representations" of sexually abused children, physically abused children, and a control group of children from dysfunctional homes who had not been abused. They scored five TAT stories from each child with the Internalized Object Relations Scale (Taylor & Franzen, 1986). The two groups of abused children did not differ from one another, but did receive scores on the Object Relations scales that revealed significantly less developmentally advanced internal images of self and others than the control group.

Another study using the TAT by Henderson (1990) examined the object relations of 56 sexually abused and 56 non-abused girls. Using an objective scoring system designed by the author to assess the quality of the relationships between characters in the subjects' stories, Henderson found differences between the groups in the number of kind and unkind acts described between mothers and daughters, and in the positive feelings expressed in relationships between fathers and daughters. The author suggests that these differences support the argument that children's disturbed object relations help to "set the stage" for sexual abuse to occur.

It is only recently that researchers have begun to take a more comprehensive, multi-method approach to the examination of the effects of child sexual abuse on child victims. As part of a three year longitudinal study of the impact of child sexual abuse on child psychological functioning, Shapiro, Leifer, Martone and Kassem (1990) took a multi-method assessment approach, using self-report, projective and parent-report measures. Results revealed that sexually abused girls tested within six months of the disclosure of abuse were experiencing significantly greater depression than non-abused girls, as measured by the Rorschach Depression Index (Exner, 1986). As compared to non-abused peers, sexually abused girls also demonstrated a greater preponderance of achromatic color responses, suggestive of constricted affect, and Morbid

responses, suggestive of a greater sense of the self as damaged. Interestingly, the abused girls did not report experiencing depression on a self-report measure, the Children's Depression Index (CDI) (Kovacs & Beck, 1977). The authors suggest that this does not imply that the girls were not experiencing dysphoria, but rather that they had become defensive or guarded about their emotional experiences as a result of the abuse. Therefore, the use of a multi-method assessment approach with sexually abused children is supported. When the same sexually abused girls were examined approximately one year later (Leifer, Shapiro, Martone, Kassem & Lang, 1991), a significant decrease in dysphoria, as measured by the Rorschach, was noted.

In further investigations of the psychological functioning of this group, Rorschach protocols of the sexually abused girls, obtained within six months of the disclosure of abuse, were compared to those of non-abused chronically ill girls matched for age and similar in race and SES to the abused girls (Leifer, Shapiro, Martone & Kassem, 1991). The protocols were scored using Exner's Comprehensive System (1974, 1986), the Mutuality of Autonomy Scale (MOAS) (Urist, 1977), the Elizur (1949) Rorschach Content Anxiety and Hostility Scales and the Barrier and Penetration Scales of Fisher and Cleveland (1968).

Results from this study reveal that abused girls displayed more disturbed thinking (F+%) and experienced

greater stress (D, Adj D) than non-abused girls. The abused girls scored higher on the Exner Depression Index (DEPI) and on the Elizur anxiety scale, which suggests that they were experiencing greater affective distress. In terms of interpersonal relations, no differences were noted between the groups in the number of human percepts offered or in the Isolation Index. However, differences emerged between the abused and non-abused groups on the MOAS. Significant differences in the mean MOAS score, as well as in the lowest level response, suggest that abused girls viewed relationships with others in a more disturbed, primitive fashion than did non-abused chronically ill girls. Furthermore, abused girls displayed greater hostility on the Elizur Hostility Scale. On the Fisher and Cleveland scales, significant differences emerged on the Penetration scale, indicating that abused girls were feeling a sense of personal violation.

In analyses of data from follow-up testing which occurred approximately one year later, Leifer, Shapiro, Martone, Kassem and Lang (1991) found no improvements in the ego functioning or coping skills of the sexually abused girls, as measured by the Rorschach. There were no significant changes in their perceptions of interpersonal relationships, as measured by the MOAS, nor were there improvements in their Hostility scores.

Lang (1991) examined the impact of child sexual abuse on this group of sexually abused girls' tendencies toward aggression using a multi-method approach. She compared girls

with a history of both sexual and physical abuse, girls with a history of sexual abuse only and a comparison group of non-abused girls. Girls with a history of both sexual and physical abuse were rated as more aggressive than non-abused peers on a variety of dependent measures: the CBCL (Externalizing, Aggressive, Cruel scales), the Rosenzweig Picture-Frustration Study (RPFS), and two content measures of aggression on the Rorschach, the Aggressive Movement coding (AG) and the Elizur Hostility Scale. Girls with a history of only sexual abuse showed differences in RPFS scores, as well as on the Externalizing Scale of the CBCL, when compared to girls with no history of abuse. No differences between these two groups emerged on the Rorschach. The two abuse groups did not differ significantly from one another on any of the measures of aggression.

To summarize, the relatively small body of research exploring the intrapsychic effects of child sexual abuse using projective measures suggests that sexually abused children experience affective distress, disturbed thinking, less well developed object representations and interpersonal abilities, increased aggression and a damaged sense of self. This body of research points to the continuing need for more comprehensive and multi-method studies of children who have been sexually abused, in order to understand the impact of child sexual abuse and to increase our ability to predict how a child will adjust after experiencing sexual abuse. Within

the field of child sexual abuse, there have been many attempts to identify variables that might moderate the impact of child sexual abuse. This body of work is discussed below.

Variables Moderating the Effects of Child Sexual Abuse

In the early work in the area of child sexual abuse, clinicians made many assumptions about sex abuse-related characteristics that might contribute to greater or less disturbance in the child victim. For example, based on his clinical experience, Groth (1978) argued that sexual abuse is most traumatic when it continues for a longer period of time, is committed by a closely related person, involves penetration and involves force. However, empirical research has not clearly substantiated the power of these variables to predict greater disturbance.

Browne and Finkelhor (1986) report that there are contradictory conclusions within the literature on the impact of many of these variables. Results from empirical studies have revealed inconclusive results about the impact of duration of abuse, the age of onset of abuse and the closeness of the relationship between the child and the perpetrator. Greater consensus has been reached on the significant impact of the use of force. Penetration has not consistently been shown to be any more damaging that other genital contact.

A small number of the empirical studies discussed above have discovered associations between abuse-related characteristics and the psychological functioning of the child

after sexual abuse. For example, Herman, Russell and Trocki (1986) found that adult women who report long-lasting negative effects from child sexual abuse experienced more forceful, prolonged and highly intrusive sexual abuse, committed by a father or step-father than did women who do not report long-lasting negative effects. Furthermore, Shapiro, Leifer, Martone and Kassem (1992) found that significant relationships emerged between social competence and three abuse-related variables in their study of sexually abused girls. Lower social competence was found in girls who were abused by their mothers' boyfriends (as opposed to their fathers), were abused for a longer period of time, and by perpetrators who lived with the child for a longer period of time.

However, in further investigations of the psychological functioning of this same group of abused girls, no abuse-related characteristics were found to be significantly related to dependent measures of aggression (Lang, 1991), depression (Shapiro, Leifer, Martone & Kassem, 1990) or ego-functioning, dysphoria, penetration scores and least adaptive MOAS score (Leifer, Shapiro, Martone & Kassem, 1991). In their study, Mannarino, Cohen and Gregor (1989) found no differences among sexually abused girls based on abuse-related characteristics on the Total Behavior, Internalizing, Externalizing and Social Competence scales of the CBCL.

In sum, it appears that within the literature reviewed above, there are few consistent associations between abuse-

related characteristics and measures of later psychological adjustment. One moderating variable which has more consistently emerged as significant to a child's adjustment after sexual abuse is the mother's response toward her child after the disclosure of sexual abuse. Some research has suggested that "maternal support" is the best predictor of the child's subsequent psychological adjustment.

Estimates of the percentage of mothers who provide some form of emotional support to their abused children at the time of disclosure range from 27% to 84% (Adams-Tucker, 1982; Lyon & Kouloumpos-Lenares, 1987; Meyer, 1985; Wyatt & Mickey, 1987). Definitions vary in these studies as to what constitutes maternal support. Some studies determine maternal support by examining whether mothers believe their daughters' allegations, others by examining actions taken by the mother on behalf of her daughter, and still others by considering maternal emotional availability. Given these definitions, lack of maternal support is one of the key variables leading to foster placement in child sex abuse cases (Hunter, Coulter, Runyan & Everson, 1990; Leifer, Shapiro, Martone & Kassem, in press; Pellegrin & Wagner, 1990; Tufts, 1984).

Sirles and Franke (1989) found that 78% of mothers in their sample reported believing their children's allegations. Mothers were most likely to believe their child if the alleged perpetrator was an extended family member, and least likely to believe them when the alleged perpetrator was a step-parent or

mother's boyfriend. Mothers were less likely to believe their children if allegations included intercourse. The likelihood of mother's belief in her child's allegations decreased as the child's age increased.

Leifer, Shapiro, Martone and Kassem (in press) report that just fewer than half of the mothers in their sample of 68 sexual abuse cases were supportive of their daughters. To be classified as supportive, a mother needed to report believing her daughter's allegations, take some protective action on her daughter's behalf after disclosure and could not blame her daughter for the abuse. Results showed that 71% of the mothers believed their daughters' allegations, 58% took protective action and 85% avoided blaming their daughters for the abuse. Only 49% of the mothers were rated as supportive in all three of these areas.

Johnson and Kenkel (1991) found that the only variable, out of ten stressor variables, that was able to predict an adolescent victim's level of psychological adjustment following disclosure of abuse was her mother's reaction to the disclosure. Adolescents who were upset by their mothers' reactions to the disclosure of abuse showed poorer adjustment.

Everson, Hunter, Runyon, Edelsohn and Coulter (1989) report that 44% of the mothers of the 88 sexually abused children included in their study were considered "supportive," while 32% were classified as "ambivalent," and the remaining 24% were classified as "unsupportive." Maternal support was

assessed with the Parental Reaction to Incest Disclosure Scale (PRIDS). This measure examines mothers' reactions to disclosure in terms of the emotional support provided to the child, the expression of belief in the child's allegations and action taken toward the perpetrator. Maternal support was highly related to the intensity and recency of the mothers' relationship to the perpetrator. No differences were found on the CBCL between children whose mothers were not supportive and those children whose mothers provided adequate support. However, significant differences were found in child psychopathology when results from the Child Assessment Schedule (CAS), a structured psychiatric interview for children, were analyzed. Of note, a high correlation was found between CBCL and CAS scores in the High Maternal Support group, but there was no correlation between the CBCL and CAS scores in the Nonsupportive group. The authors suggest caution in the use of the CBCL because of this, as it suggests that non-supportive mothers might be out of touch with the emotional experiences of their children or have an investment in portraying these children as either more or less disturbed than they might actually be. This again points to the importance of multi-method assessment approaches in child sexual abuse research.

Leifer, Shapiro, Martone, Kassem and Lang (1991) found that sexually abused girls whose mothers reported experiencing an increase in positive feelings toward their daughters after

the disclosure of abuse showed signs of better adjustment than girls whose mothers reported no change in their feelings or a decrease in positive feelings toward their daughters as a result of disclosure. The girls whose mothers experienced increased positive feelings received higher Social Competence scores on the CBCL. They also had higher Rorschach D scores, which indicate better coping resources, and lower frequency of Rorschach shading responses, which indicates an experience of less dysphoria.

In this same study, sexually abused girls who were placed in foster care but whose mothers were reported to be reliable in their visitations functioned better on two measures than did girls in foster care whose mothers were not reliable visitors. These girls demonstrated lower Total Behavior Problem scores on the CBCL and higher WISC-R scores on the selected subtests that were administered. The authors suggest that maternal behavior may be more important than foster placement itself. These findings are consistent with the findings of the other studies discussed above, in that maternal variables appear to play a significant role in the child's psychological functioning following an experience of sexual abuse and its disclosure. These studies suggest that it is important to consider maternal variables when studying the psychological adjustment of children after disclosure of sexual abuse.

Peters (1988) found that women who have been sexually abused as children demonstrate more substance abuse and depression than women who have not been abused. They note that the best predictor of poor adjustment in abused women is a "lack of maternal warmth" as reported retrospectively by the subjects.

Bagley and McDonald (1984) examined adult outcome in 57 British girls who were removed from their homes for at least one year during their childhoods because of sexual abuse or because of other family dysfunction. The authors hypothesized that the maternal separation due to the foster placement would be as traumatic as the cause for the removal itself. However, results suggested that sexual abuse was more highly correlated with adult depression, sexual maladjustment and poor self-esteem than were either family dysfunction or maternal separation alone. The authors state that "the effects [of child sexual abuse] are intertwined with, but are distinguishable from, the effects of other early trauma" (p. 24). Taken together, these last two studies suggest that maternal support can moderate the effects of child sexual abuse in the long run as well as immediately following disclosure.

Summary

Interest in the phenomena of child sexual abuse has increased dramatically in the last twenty years. The prevalence of child sexual abuse has been found to be much

greater than previously imagined, and this finding has mobilized researchers and clinicians to address the problem. Research has examined the initial and long-term effects of child sexual abuse. Retrospective studies have shown that there is a high incidence of child sexual abuse in the histories of adults diagnosed with depression, Borderline Personality Disorder, eating disorders and other psychopathology. Additionally, adult survivors report difficulties in intimacy, sexual functioning and self-esteem.

Initially, many sexually abused children experience fear, anger, hostility and depression. These children feel socially isolated, have difficulty trusting others and display inappropriate sexual behaviors. Studies using behavioral measures of child functioning suggest that these children demonstrate a greater incidence of behavior problems, both of an internalizing and externalizing nature, as well as deficits in social competence. The more limited body of research examining intrapsychic effects of sexual abuse using projective test measures suggests that sexually abused children may experience significant dysphoria, disturbed thinking, problems with interpersonal relationships, less developmentally advanced internal representations and a damaged sense of self. It appears that emotional distress and social and interpersonal problems are prevalent in children who have been sexually abused, as well as in adults abused as children.

Contradictory findings have emerged regarding the associations between abuse-related characteristics, such as the relation of the perpetrator to the child and the duration of the abuse, and psychological adjustment of child victims. However, one of the stronger findings in the literature is the importance of the moderating variable of maternal support at the time of disclosure of abuse on the child victim's later psychological adjustment. The importance of maternal support again points to the significant interpersonal issues that appear salient in the aftermath of child sexual abuse.

Because of methodological problems, many of the conclusions that can be drawn from the empirical studies within the field of child sexual abuse have been limited. These methodological problems have included an over-reliance on retrospective studies with adult survivors of abuse, the lack of comparison groups or the use of inadequate comparison groups, the use of a single measure of psychological functioning (most often parent-report measures), and the failure to consider events occurring along with the abuse, such as maternal response to the child at disclosure. However, from a theoretical standpoint, the most serious drawback to the research to date has been the lack of a conceptual framework with which to understand the effects of child sexual abuse.

At this stage in the study of child sexual abuse, it has become clear that there is a need for research which explores

the mechanisms by which abuse causes psychological and behavioral problems (Alter-Reid, Gibbs, Lachenmeyer, Sigal & Massoth, 1986; Browne & Finkelhor, 1986). Cole and Putnam (1992) state that "one major difficulty in designing and interpreting child sexual abuse outcome research is the lack of theoretical or conceptual organization" (p. 174). To date, most research has addressed the descriptive questions of "who" and "what," while ignoring the more complex questions of "how" and "why." Object relations theory may provide answers to these more difficult questions by providing the conceptual framework with which to understand and further investigate the impact of child sexual abuse.

<u>Introduction to the Theory of Object Relations</u>

Object relations have been defined as "individuals' interactions with external and internal (real and imagined) other people, and...the relationship between their internal and external object worlds" (Greenberg & Mitchell, 1983, p. 13-14). The internal, or "representational," world consists of unconscious images of self and others which have developed through the internalization of object relations (Sandler & Rosenblatt, 1962).

Object relations theories (Fairbairn, 1952; Guntrip, 1969; Winnicott, 1965) are an offshoot of classical psychoanalytic theory. They represent a move beyond the focus on infantile sexuality and drives of classical Freudian psychoanalysis and beyond a focus on ego functions,

adaptations to reality and defense mechanisms of ego psychology. Instead, object relations theories consider interpersonal relationships and the internal representations of self, others and these relationships to be the central features in psychological development and functioning. They consider serious psychopathology to be the result of deficits in the development of these internal representations in the first few years of life. While there are significant differences between the various object relations theories, for purposes of the present discussion, "object relations theory" will refer to developmental theories which emphasize the important interplay between the external and internal worlds.

Two other approaches to understanding human behavior that utilize many of the core concepts of object relations theory are Bowlby's (1969, 1973) attachment theory and developmental psychopathology. Bowlby (1988) states that "historically, attachment theory... developed as a variant of object relations theory" (p. 29). Attachment behavior is defined as instinctive behavior that has as its goal the maintenance of proximity to the primary caregiver. Bowlby states that attachment behavior is most frequently activated during the first few years of life, but that it persists throughout the life cycle, being activated primarily during times of stress or in frightening situations. Like object relations theories, attachment theory focusses on the development of unconscious

"internal working models" within the context of the mother-child dyad and on the importance of human relationships.

Interest in attachment theory has increased recently, in large part, due to the rise in interest in developmental psychopathology. Developmental psychopathology is "an interdisciplinary perspective that stresses the importance of understanding the relations between normal and pathological development" (Cicchetti & Barnett, 1992, p. 398). Researchers using this approach have examined attachment patterns of maltreated children (e.g., Cicchetti, 1989, Egeland & Sroufe, 1981). This work is compatible with object relations theory as these researchers use the concept of "internal representational models" to explain the effects of maltreatment on attachment, as well as on later adjustment.

Object relations theorists propose that one's early experiences with caregivers lead to the internalization of these experiences and the development of representations of self and others (Bowlby, 1969; Kernberg, 1976; Winnicott, 1965). Over the course of normal development, an infant initially cannot perceive itself as separate from others in its environment, and cannot identify sensations or experiences as good or bad. Gradually, the infant develops the ability to form and hold mental representations of itself as separate from others, and to internally classify experiences as good or bad (Kernberg, 1976; Mahler, Pine & Bergman, 1975). Failure

to accomplish these developmental tasks results in serious psychopathology.

To elaborate on internalization, Harty (1986) summarizes the role of internalization in object relations theory by stating that

> in the course of normal development, the 'internal world' undergoes extensive elaboration and refinement, enrichment and differentiation, through the inclusion within it of increasingly complex and sophisticated representations of originally 'external' figures and relationships. (p. 94)

This process in considered to be most important during the early years of life. Nevertheless, this process continues throughout the life cycle, as children and adults attempt to reconcile their internal worlds with their experiences in the external social and interpersonal worlds (Fritsch & Holmstrom, 1990). It is through this process that trauma may impact the internal world of the child sexual abuse victim.

Object Relations and Child Sexual Abuse

Investigators have pointed out the need for research which attempts to identify the manner in which child sexual abuse often leads to the development of behavioral and emotional problems (Mannarino, Cohen & Gregor, 1989). Object relations theories have the potential to offer an explanation of the mechanism by which sexual abuse can have a deleterious effect on children.

While object relational approaches to treatment with abused children have been presented (Eldridge & Finnican, 1985; Seinfeld, 1989), there have been very few theory-driven

empirical studies focussing on the impact of child sexual abuse on object relational functioning, both socially and intrapsychically.

Westen (1991b) has pointed out that what is currently missing in object relations theories

> is a bridge theory that connects a causal-mechanical explanation of the effects of real events on mental life and behavior with a hermeneutic, or interpretive, understanding of meanings. Such a bridge theory would, for example, include propositions about the way actual events, such as sexual abuse, lead to meanings or constructions of reality that in turn mediate behavior, thought, mood and symptoms. (p. 443)

If we use object relations theory as a conceptual framework, it becomes clear that we must understand the way in which external experiences lead to alterations in the internal world. It is only then that the proposition can be substantiated that child sexual abuse often negatively alters the representations of self and others of the victim. If the child sexual abuse victim is unable to maintain the stability of her/his internal world and representations in the face of the abuse, then the abusive relationship may be internalized. This could negatively alter the internal representations of self, others and interactions that make up the child's inner world and in turn, impact the child's behavior. The question is then raised as to why it is that some negative events seriously impact the representational world, yet some do not.

Discussing the issue of changes in the object world, Blanck and Blanck (1986) suggest that, in normal development,

> alteration in the already acquired self and object
> representations...encompass[es] new experiences as they
> occur. These alterations are qualitative...Normal
> disappointment and disillusionment can be tolerated
> within an organization that has integrated earlier
> frustration in good enough balance with positive
> experience. (p. 60)

Blanck and Blanck suggest that given "good enough" early care
from the mother, most individuals can cope with minor negative
life experiences without dramatically altering the object
world. Blanck and Blanck do not address what happens within
the representational world when particularly intense negative
experiences, like child sexual abuse, occur. It might be
that, while the integration of early frustrations allows the
child to tolerate small hurts and disappointments, no early
experiences are sufficient to prepare the internal world to
accommodate the experience of child sexual abuse.

Harty (1986) explains how the inner world remains stable
in the face of everyday small anxieties and hurts:

> Through...a normal cycle of projection and introjection
> ...the too-painful inner content may be projected into the
> external world...in the expectation that the external
> world...will be able to "hold" and contain what the
> individual is for the moment unable to manage internally
> ...Reintrojection may then occur of a less painful version
> of the previously projected content, thus lessening the
> need for whole-sale reprojection. From a representational
> point of view, it is this process which makes possible, in
> normality, the evolution of an internal world that is
> relatively stable and yet open to continual revision and
> elaboration as new experience dictates. (p. 95)

While this process of projection and reinternalization might
be sufficient to deal with everyday hurts and problems, it
might not be sufficient to lessen the impact of significant

trauma, such as sexual abuse. The external world might not be able to help the victim lessen the "hurt" of the experience sufficiently to prevent the negative thoughts and feelings about self, others and relationships associated with the abuse from being assimilated into the representational world. Thereafter, pathological symptoms and behavior might emerge.

The impact of significant trauma on the representational world was studied by Laub and Auerhahn (1989). Their work addressed the impact of another type of trauma on the internal world. They studied Holocaust survivors to learn how that traumatic experience impinged on the victims' representations of self and others. Generalizing their work to include survivors of many kinds of traumatic victimization (potentially including sexual abuse), they suggest that trauma has a deconstructive effect on the victim's internal world. The failure of the individual to experience empathy from the victimizer, and the disregard for their needs for safety and respect, leads the victim to give up any expectation that someone will meet their needs for empathy. The link in the internal world between self and other is subsequently severed, and the internal representations of other then become damaged and bad. The authors state that

> the destruction of the individual's representational
> matrix may be activated by any massive failure of the
> environment, human or otherwise...Trauma may well be
> recognizable not by quantity of impact but rather by its
> structure-destroying properties. (p. 399)

It seems that sexual abuse, especially by a known and trusted

perpetrator, could have the deconstructive effect on the victim that Laub and Auerhahn (1989) describe. In turn, this process could lead to symptom formation.

An additional body of research is relevant to an exploration of the impact of child sexual abuse on the internal world of victims. Object relations theorists have devoted a great deal of energy to understanding Borderline Personality Disorder (BPD), and some of this work is relevant to the topic at hand. As mentioned earlier, a number of studies have revealed that a large number of individuals diagnosed with BPD have a history of child sexual abuse. This raises questions, relevant to our interest in the intrapsychic impact of child sexual abuse, regarding the etiology and definition of BPD.

Borderline Personality Disorder is presumed, by most psychoanalytic and object relations clinicians and researchers, to be developmental in nature, conceptualized as a pre-oedipal condition, occurring as a result of difficulties during the separation/individuation stage of development. If BPD is strictly a developmental disorder, however, it is unclear how we can account for the significant number of BPD patients with a history of sexual abuse occurring post-oedipally (Ogata et al., 1990; Steele, 1986). It can be argued that a pre-existing BPD puts the child at risk for child sexual abuse, or that child sexual abuse sometimes leads to the development of psychopathology, consistent with a

diagnosis of BPD, in the post-oedipal years. The former argument is consistent with a view of an internal world which is relatively unchanged after the first few years of life, while the latter is consistent with a view of an internal world which continues to change and develop in significant ways across the life cycle.

Gartner and Gartner (1988) state that "no temporal or dynamic relationship between sexual abuse and the emergence of symptomatology or intrapsychic structures associated with BPD has been defined" (p. 102). They go on to propose that incest victims may have a pre-existing borderline condition before the occurrence of abuse which plays a role in setting up the possibility for incest. They suggest that some clinicians mistakenly avoid using the diagnosis of BPD in sexual abuse victims because of a belief that the victims are experiencing a reactive disorder, rather than exploring the possibility that the victim had a pre-existing personality disorder.

Westen (1989, 1991a, b) denies that most child sexual abuse victims have a pre-existing BPD, and suggests an alternative way of understanding the overlap between BPD patients and sexual abuse victims. For Westen, if individuals are to be diagnosed as borderline when it is clear that changes occurred in their personality structures as a result of sexual abuse in post-oedipal years, then the question arises: "is there a difference between a 'true' borderline and a person who meets borderline criteria...that appear to be

related to a history of sexual abuse?" (Westen, Ludolph, Misle, Ruffins & Block, 1990, p. 63). The diagnostic dilemma often is whether to consider the symptoms manifested by sexual abuse victims as characterizing Borderline Personality Disorder or as representative of Post-Traumatic Stress Disorder "that has become chronic and integrated into the victim's personality structure" (Herman, Russell & Trocki, 1986), presumably due to alterations or regressions in the representational world of the victim as a result of abuse.

One might question at this point if there is really a difference between these diagnoses, other than that of the assumed etiologies (Chu & Dill, 1991). Nigg, Silk, Westen, Lohr, Gold, Goodrich and Ogata (1991) examined the relationship between BPD, child sexual abuse and object representations, as assessed through early memories. They found that borderlines who had been sexually abused produced representations that were more malevolent in affect-tone, and had more representations with deliberate injury responses, than borderlines who had never been sexually abused. This suggests that borderlines who were sexual abuse victims may differ in important ways from borderlines without a history of sexual abuse.

The behavioral presentation and psychological assessment of sexually abused children sometimes lead clinicians to make the diagnosis of BPD. In a description of the range of symptoms displayed by borderline children

(Leichtman & Shapiro, 1980), there is significant overlap with symptoms commonly associated with child sexual abuse. Again, the issue is raised as to the possibility of a BPD which develops post-oedipally as a result of trauma.

Viglione (1990) was interested in determining whether character pathology could be clearly differentiated from trauma-induced disturbances on the Rorschach. He proposes that children's inner worlds are more sensitive to environmental stressors than adults', and regress more deeply in the face of these stressors. Viglione concludes that some signs of disturbance on the Rorschach of a child who has experienced significant trauma may be good prognostically, as it might suggest that reparative processes ("working through" the trauma) may be occurring, if the child's behavior during testing is not bizarre or uncontrolled. Thus, it might be expected that some differences between sexually abused and non-abused children may reflect temporary changes in the object representational world, due to the occurrence of the "working through" process.

To summarize, the literature discussed above does not explicitly lay out the manner in which sexual abuse might have a deleterious effect on an individual's functioning. Extending the work on normal reactions to small negative events within the internal world, however, allows some understanding of what might occur in the face of child sexual abuse. The thoughts and feelings associated with abuse may be

too intense to be assimilated into the existing representational world, and thus significant alterations in representations of self, others and relationships may occur. These alterations might, in turn, lead to the development of psychopathology. In some cases, this psychopathology may be diagnosed as, or may resemble, BPD.

The literature discussed below suggests how object relations theories might explain the way in which the impact of trauma (like child sexual abuse) might be lessened through maternal support.

Object Relations, Maternal Support and Child Sexual Abuse

As discussed earlier, the literature on child sexual abuse has examined the impact of maternal support of the child at time of disclosure on the child's later psychological adjustment (e.g., Everson et al., 1989). There has recently been a shift in the focus in this literature from blaming the mother for "collusion" during the abuse to examining the protective role that maternal support seems to play for child victims after the disclosure of the abuse. Cole and Putnam (1992) suggest that "maternal...support can be conceptualized in terms of...affording the [sexual abuse] victim an experience of continuity, stability and security that promotes self and social development" (p. 180). The manner in which maternal support might play a protective role in the child victim's representational world is further explored below.

Blum (1987), discussing the impact of childhood trauma on self and object representations, suggests that the successful resolution of trauma depends on a child's relationship with his parents. The parents help the child maintain a stable personality organization by providing the child with opportunities to identify with helpful, nurturing others during the trauma. This suggests that children who experience the trauma of sexual abuse and who lack a supportive relationship with their parent[s] are more likely to experience negative shifts in their object representational world than are children who have experiences of parental support to internalize.

The important role that maternal support can play is also suggested by Harty's (1986) work, quoted at length above. If the mother of a child sexual abuse victim is supportive, and is "able to 'hold' and contain what the individual is for the moment unable to manage internally" (p. 95), then the child's internal world may not need to be drastically altered by the abuse experience. If, on the other hand, the mother is not available to assume this role for the child, then the intensity of the negative experience of the abuse might negatively color the child's entire internal object world.

The attachment theory work of Crittenden (1988) and others with abused infants suggests that a successful early relationship with mother moderates the impact that sexual abuse has on the internal representations of the victim.

Crittenden's work suggests that a child sexual abuse victim who had an adequate early mother-child relationship might expect her mother to provide her with emotional support at the time of disclosure of sexual abuse, and indeed might receive that support. In turn, it might then be presumed that the child would have a generalized organizational model of the internal object world which could accommodate an anomalous negative experience (abuse) without needing to "deconstruct" the generally positive object world. On the other hand, the victim who had an inadequate early mother-child relationship might not expect that her mother would provide emotional support at the time of disclosure, and in fact, might not receive support. It might therefore be presumed that this child would have an organizational model of the internal world which is single and unitary in its expectations of others to be bad, the world to be dangerous and the self to be damaged. The experience of sexual abuse would not be deemed anomalous to such a child, and would only strengthen the negative internal world. This work suggests that the quality of the pre-abuse mother-child relationship is important, rather than just the maternal reaction to the disclosure of abuse.

Summary

Object relations theories seem well suited to increasing the understanding of the role that maternal support can play in a child sexual abuse victim's later adjustment, since object relations theories propose that development occurs

within the context of the child-mother relationship. Blum has suggested how caring, supportive mothers can help their children maintain the stability of their object worlds in the face of trauma by providing them with benevolent interactions to internalize. The potential importance of the victim's relationship with her mother prior to the occurrence of child sexual abuse is set forth in Crittenden's work. The ideas discussed within provide the theoretical framework with which to interpret the empirical results emerging from investigations of victim adjustment and maternal support.

To date, these ideas have rarely been applied to research with sexually abused children, perhaps in part due to the difficulties involved in the assessment of such an abstract concept as "object relations." However, recent work in the field of object relations has led to the development and application of a number of projective techniques designed to assess the quality of an individual's object representations. These measures will be discussed further below.

The Assessment of Object Relations

_ Mayman's (1967) discussion of the use of projective tests to measure the construct of object relations brought attention in the psychological testing field to the challenge of assessing object representations. Mayman (1967) stated that

> a person's most readily accessible object-representations called up under such unstructured conditions [as the Rorschach] tell much about his inner world of objects and about the quality of relationships with these inner objects toward which he is predisposed. (p. 17)

Other researchers subsequently noted the potential usefulness of projective techniques for assessing object relations.

A comprehensive review of the assessment of object relations using projective tests (Stricker & Healey, 1990) notes that since Mayman's work, object relations have been assessed using dreams (e.g., Krohn & Mayman, 1974), early memories (e.g., Last & Bruhn, 1985), interview data (e.g., Bellak & Goldsmith, 1984), descriptions of relationships with parents and significant others (e.g., Blatt, Wein, Chevron & Quinlan, 1979), the Thematic Apperception Test (e.g., Westen, Lohr, Silk, Kerber & Goodrich, 1990), and the Rorschach (e.g., Blatt, Brenneis, Schimek & Glick, 1976b; Urist, 1977).

Throughout its history, certain variables on the Rorschach test have been interpreted as related to object relational functioning. The Human content response (H) is related to the capacity to invest in social relationships (Phillips & Smith, 1953; Piotrowski, 1957; Rapaport, Gill & Schafer, 1945); to a maturity in social relations (Ames, 1966; Draguns, Haley & Phillips, 1967; Thetford, Molish & Beck, 1951); and to social interest (Fernald & Linden, 1966; Phillips & Smith, 1953).

The interpretation of Human Movement responses (M) involves an assessment of an individual's capacity to participate in relationships (Dana, 1968), psychological maturity and capacity for empathy (Blatt & Ritzler, 1974; Phillips & Smith, 1953; Urist, 1976). Inaccurately perceived

Human Movement responses have been reported to suggest deficits in object relational functioning (Parmer, 1991).

Responses scored for Morbid content (MOR) are interpreted to suggest feelings of the self being damaged or harmed. They are considered (Exner, 1991) to be projections of feelings attached to the self-representation. Responses scored for Aggressive content (AG) are related to issues of self image and interpersonal relations. Exner (1991) has included a new special score for content and a new index in his latest revision of the Comprehensive System which may tap into interpersonal experience. The Cooperative Movement score (COP) is assigned to any movement response where two or more objects are clearly involved in a positive or cooperative action (Exner, 1991). The response "represent[s] a form of projection related to interpersonal style or interest" (p. 19). The Coping Deficit Index (CDI) (Exner, 1991) can assess the likelihood that an individual has impoverished and/or unrewarding social relationships and difficulty coping with the demands of the social world.

Considerable research has gone into the development of alternative Rorschach techniques to assess object relations (Blatt & Ritzler, 1974; Burke, Friedman & Gorlitz, 1988; Krohn & Mayman, 1974; Lerner & Lerner, 1980; Lerner, Sugarman & Barbour, 1985). The two Rorschach approaches to the assessment of object relations which have been shown to be most reliable, valid and popular, and which were used in the

present study, are the Developmental Analysis of the Concept of the Object Scale (DACOS) (Blatt, Brenneis, Schimek & Glick, 1976a, b) and the Mutuality of Autonomy Scale (MOAS) (Urist, 1977; Urist & Shill, 1982).

Object representations are composed of both structural and content/thematic elements (Blatt & Lerner, 1983b). The DACOS examines the structural elements of Rorschach responses, while the MOAS concentrates on thematic and content elements. These approaches utilize the Rorschach to explore object representation based on conceptual models and personality theories, rather than just isolated Rorschach scores (Blatt & Berman, 1984). These alternative scoring systems represent a recent shift in Rorschach psychology away from a view of the test as only a perceptual task and towards a view of the test as an opportunity for individuals to construct meaning from the ambiguity of the stimuli (Blatt, 1990). They also represent a shift in personality testing research, and psychoanalytic work in general, from experience-distant, abstract constructs to more experience-near and therapeutically relevant constructs (Blatt & Lerner, 1983b; Mayman, 1976). The DACOS and the MOAS will be discussed further below.

DACOS

The DACOS is based on a theoretical melding of object relations theory, ego psychology and the developmental cognitive theories of Piaget and Werner (Blatt & Lerner,

1983a, b). The DACOS assumes that the development of object representations progresses along a continuum, as these internalized representations become part of the personality structure (Blatt & Lerner, 1983b). Rorschach responses containing human and quasi-human content are scored along three developmental principles: differentiation (of whole objects from quasi-objects and part-objects), articulation (of physical and functional attributes of the object), and integration (the manner in which the response is integrated into a context of action). Integration is scored in four subcategories: motivation of the action (unmotivated, reactive, intentional), object-action integration (fusion, incongruent, nonspecific, or congruent integration of object and action), the nature of the interaction (active-passive, active-reactive, active-active) and the content of the interaction (malevolent, benevolent). The analysis of responses is conducted separately for human responses that are accurately and inaccurately perceived. Within each of the specified categories, ratings range from developmentally lower to developmentally higher levels.

The initial research project with the DACOS (Blatt et al., 1976b) consisted of three separate studies. Study 1 analyzed developmental changes in DACOS scores of subjects tested five times over a twenty year period, and revealed increasing numbers of accurately perceived whole human figures, well articulated and involved in integrated actions

over time from childhood (age 11) to young adulthood (age 30).
Study 2 analyzed data from disturbed hospitalized adolescents
and young adults. Results revealed no differences between
diagnostic groups in differentiation, articulation and
integration in accurately perceived responses. However, in
inaccurately perceived responses, the severely disturbed
patients had greater functional articulation, a greater amount
of unmotivated and nonspecific activity, and increased
malevolent, benevolent, active-passive and active-reactive
interactions than did less severely disturbed patients.
Study 3 compared DACOS scores on the accurately and
inaccurately perceived responses of the normal sample from
Study 1 at age 18 and the disturbed sample from Study 2.
Results indicated that the severely disturbed patients
perceived more figures of lower level development (quasi-
human, human details, unmotivated, incongruent, nonspecific,
malevolent and passive) than did normals. The patient sample
also perceived a greater number of inaccurate whole human
figures than did the normals.

Overall, the results from these three studies suggest
that the DACOS can measure developmental changes in structural
dimensions of object relations. Also, the DACOS appears able
to differentiate between groups of patients of differing
levels of disturbance. The results indicate that it is
important to apply DACOS scoring criteria to accurate and
inaccurate responses separately.

Since Blatt and his colleagues' initial work, a number of studies have confirmed the usefulness of the DACOS. The DACOS has been shown able to discriminate between psychotics and nonpsychotics (Fritsch & Holmstrom, 1990; Ritzler, Zambianco, Harder and Kaskey, 1980), borderlines and schizophrenics (Spear, 1980; Spear & Lapidus, 1981; Spear & Sugarman, 1984), neurotics, borderlines and schizophrenics (Lerner & St. Peter, 1984), narcissists and borderlines (Farris, 1988) and borderlines, depressives and normals (Stuart, Westen, Lohr, Benjamin, Becker, Vorus & Silk, 1990). The DACOS has also been used with adult children of alcoholics (Hibbard, 1989) and bulimics and anorexics (Piran, 1988; Piran & Lerner, 1988).

Fritsch and Holmstrom (1990) have proposed a modification of the DACOS that would assess both accurate and inaccurate percepts on one continuous scale. They used this continuous DACOS scale to study psychiatrically hospitalized adolescents and found that scores of the modified DACOS scale could differentiate psychotic from non-psychotic patients.

Overall, the results from the DACOS studies suggest that differences emerge most consistently between diagnostic groups on the subscales measuring differentiation, the content of interactions and motivation of action. Furthermore, it has been consistently demonstrated that more disturbed patients elaborate more on inaccurate percepts, while less disturbed patients elaborate more on accurate percepts.

While the DACOS has been used to describe and differentiate adults with varying degrees of psychopathology, it has not often been used with children. The DACOS may be limited in its usefulness with children because it depends on the presence of human responses, which are less frequent in young children than in adults (Stricker & Healey, 1990). Additionally, some of its subscales require the presence of Human Movement, which is also less common in protocols of children than adults. Conceptually, however, the measure should be acceptable for use with children at any age, since it is a developmental measure.

MOAS

The MOAS (Urist, 1977; Urist & Shill, 1982) evaluates Rorschach responses that contain interactions between people, animals and objects, either stated or implied, and is derived from the work of Mayman and the analysis of dreams and early memories (Krohn & Mayman, 1974; Mayman, 1967). The scale is grounded in a developmental perspective of object relations, focusing specifically on the separation/individuation theme (Kernberg, 1976; Mahler et al., 1975). The MOAS measures the degree to which relationships between people, animals and objects on the Rorschach are perceived in terms of mutuality of autonomy. The scale consists of seven points, each scale point referring to developmentally significant gradations in the move toward autonomy. The scale points are briefly

characterized as: 1. Reciprocity - Mutuality; 2. Simple Interaction; 3. Anaclitic - Dependent; 4. Reflection - Mirroring; 5. Magical Control - Coercion; 6. Destruction; and 7. Envelopment - Incorporation. A mean MOAS score is computed, and the range of responses is assessed as well by analyzing the response earning the lowest MOAS score (most adaptive) and the response earning the highest MOAS score (most pathological).

In the initial construct validity study with the MOAS (Urist, 1977), the scale was used to score the Rorschach protocols of 40 patients, ranging in severity of psychopathology from neurotics in acute crisis to severely regressed schizophrenics. Overall MOAS ratings were found to be strongly correlated with ratings by ward staff of the patients' relationship behaviors on the inpatient unit and self-reports of relationship histories included in patients' autobiographies. These results were replicated by Urist and Shill (1982). Taken together, these two studies suggest that the MOAS is capable of measuring an important dimension of object relational functioning.

The MOAS has been used to differentiate between subtypes of borderline patients and a group of schizophrenics (Spear & Sugarman, 1984), restricting anorexics, bulimic anorexics and normals (Strauss & Ryan, 1987), and affective-psychotics, schizophrenics and normals (Harder, Greenwald, Wechsler & Ritzler, 1984). Blatt, Tuber and Auerbach (1990) studied a

group of seriously disturbed inpatients with the MOAS and the DACOS. There was a fair degree of convergence between the MOAS ratings and the DACOS scores. Furthermore, the MOAS correlated strongly with a number of clinical symptom ratings and with two of the interpersonal functioning dimensions measured in the study.

The MOAS has been widely used with children since its introduction. The MOAS may be a very effective measure for the assessment of object-relations in children because it includes responses with animal content as well as human content (Tuber, 1989a, 1992). Since children produce twice as many animal responses as human responses (Levitt & Truumaa, 1972), the MOAS may be very useful when assessing children's object relations. Tuber (1989b) conducted an analysis of a normative sample of children with the MOAS. He reports that nonclinical child subjects "counterbalance malevolent scores with more benign responses, avoid truly toxic or empty interactive representations, and have a modal response indicative of benign parallel interaction" (p. 148). He also reports sex differences, with girls producing more adaptive MOAS scores than boys.

MOAS scores have been shown to correlate with self-esteem and good social relationships as measured by teacher ratings in a nonclinical child population (Ryan, Avery & Grolnick, 1985). Studies using the MOAS with children have demonstrated the MOAS' ability to differentiate between separation anxious

boys and normals (Goddard & Tuber, 1989), boys with Gender Identity Disorder and normals (Coates & Tuber, 1988; Tuber & Coates, 1989) and inner-city girls experiencing different levels of depression (Goldberg, 1989). The MOAS has been used to explore object-relational characteristics of young children who have imaginary playmates (Meyers & Tuber, 1989) and children's psychological reactions to the stress of impending surgery (Tuber, Frank & Santostefano, 1989). In a study examining adult adjustment of former child patients at a residential treatment center, the healthiest single rating and the poorest single rating of the MOAS were significantly related to later rehospitalization and were able to predict outcome (Tuber, 1983).

Summary

Criticisms have been leveled against the DACOS and the MOAS that they may measure the general severity of psychopathology rather than the level of object relational development (Stricker & Healey, 1990). However, object relations theorists conceptualize psychopathology as existing on a developmental continuum, such that poorer psychological functioning by definition implies poorer object relational development. Therefore the DACOS and the MOAS must be able to measure the degree of psychopathology. While there have been a few unpublished studies which have found these measures to be unsuccessful in differentiating patient groups (Gibbons,

1985; Keleher, 1983; Pitts, 1979; Sauer, 1990), most studies have found at least moderate success using these measures.

Clearly, the substantial body of literature published on the DACOS and the MOAS suggests that these measures are indeed capable of measuring some important aspects of object relational functioning in a reliable and valid way. The DACOS and the MOAS represent the most commonly used Rorschach measures to assess object relations. Many authors have called for an object representational assessment approach that would include both an examination of structural and content features (Blatt et al., 1976b; Spear & Sugarman, 1984; Stricker & Healey, 1990). It has been cautioned, however, that not all approaches should be combined, as they have emerged from differing conceptions of object relations. An approach that attempts to capture a number of dimensions of object relations by using the TAT is the Object Relations and Social Cognition Scale (ORSCS) (Westen, Lohr, Silk, Kerber & Goodrich, 1990). This scale is discussed below.

ORSCS

Westen and his colleagues (Westen, Lohr, Silk, Kerber & Goodrich, 1990) have developed the Object Relations and Social Cognition Scale (ORSCS) to measure four dimensions of object relational functioning and social cognition with the TAT. Westen (1991a) has suggested that the TAT is a particularly useful projective measure for assessing object relations

because the stimuli are unambiguously social in nature. The ORSCS has four subscales.

Scale 1, Complexity of Representations of People, measures

> the extent to which the subject clearly differentiates the perspectives of self and others and recognizes the complexity of the personality dispositions and subjective experience of the self and others. (Westen, 1991a, p. 58)

Scale 2, Affect-Tone of Relationship Paradigms, assesses "the extent to which the person expects relationships to be destructive and threatening or safe and enriching" (Westen, 1991a, p. 59). Scale 3, Capacity for Emotional Investment in Relationships and Moral Standards measures

> the extent to which others are treated as ends rather than means, events are regarded in terms other than need-gratification, moral standards are developed and considered, and relationships are experienced as meaningful and committed. (Westen, Lohr, Silk, Kerber & Goodrich, 1990, p. 6)

Finally, Scale 4, Understanding of Social Causality, assesses the logic, complexity and accuracy of attributions of intentions and motivations.

Each scale has five levels, with Level One representing the developmentally lowest level response and Level Five the highest. The Complexity of Representations of People scale is similar to the structural approach of the DACOS, while the Affect-Tone of Relationships Paradigm Scale is similar to Urist's MOAS. The underlying framework for the Capacity for Emotional Investment in Relationships and Moral Standards Scale is Kohlberg's work on moral development. Work from

social psychology on attribution underlies the Understanding of Social Causality Scale. The ORSCS measures multiple dimensions of object relations rather than one single line of development. Westen rejects the premise that all object representations are laid down by the age of five, and thus the dimensions of object relations assessed by the Complexity of Representations, Investment in Relationships and Social Causality Scales are expected to continue to develop post-oedipally.

The ORSCS predicted social adjustment as measured by Weismann's Social Adjustment Scale (Westen, 1991a). Developmental differences on the Complexity of Representations, Investment in Relationships and Social Causality Scales were found in a sample of 2nd and 5th grade children, and in 9th and 12th graders (Westen, Klepser, Ruffins, Silverman, Lifton & Boekamp, 1991). Research has demonstrated significant correlations between the ORSCS and interview data (Barends, Westen, Leigh, Silbert & Byers, 1990), as well as Loevinger's (Loevinger, Wessler & Redmore, 1970) ego development scale, and a measure of the quality of parental representations (Blatt, Wein, Chevron & Quinlan, 1979).

The ORSCS has proven able to discriminate borderline adolescents from non-borderline psychiatric patients and normal adolescents (Westen, Ludolph, Lerner, Ruffins & Wiss, 1990) and borderlines, depressives and normals (Westen, Lohr,

Silk, Gold & Kerber, 1990). Scores from the Affect-Tone Scale and interview data about relationships from normal young adults have also been found to be highly correlated (Barends et al., 1990).

In a study of the developmental histories of a sample of adolescent inpatients (Westen, Ludolph, Block, Wixom & Wiss, 1990), maternal psychopathology and maternal separation were identified as the best predictors of disturbed object relations (as measured by the ORSCS) in the adolescents. These results support the assumption that disrupted mother-child relationships, especially in the pre-oedipal years, are responsible for later life object-relational psychopathology. Furthermore, a developmental history including sexual abuse was shown to relate to the dimension of affect-tone. Longer duration of sexual abuse was associated with very poorly differentiated, egocentric responses on the Complexity of Representations Scale. This suggests that greater attention needs to be paid in object-relational and psychoanalytic theories to the impact of post-oedipal real life experiences.

In sum, the ORSCS seems to be a promising tool for research in the projective assessment of object relations. It has been shown to be capable of differentiating patient groups from normals, and has been shown to correlate with measures of social adjustment. Importantly, maternal variables have also been shown to be important to later adult functioning of children. This link between object relation measures, social

behavior and maternal variables points in the direction of the present study.

The Assessment of Object Relations and Social Behavior

According to object relations theory, impairments in object relations or arrested development at a particular stage in development are often characterized by poor social functioning. Blatt and Lerner (1983b) propose that "the capacity of interpersonal relations depends largely on an individual's array of images...of people and of oneself" (p. 22). Ryan, Avery and Grolnick (1985) state that

> if object representations play an organizing role in interpersonal interactions, then a measure of these representations should correlate with various individual differences in social functioning. (p. 7)

Despite the clear description of this link, only a small body of research discussed in this chapter has directly addressed the relationship between object relational functioning, as measured by projective assessment of object representations, and actual social behavior. Clearly, more research aimed at demonstrating a relationship between object relations, as measured by the various object representation assessment techniques discussed in this chapter, and actual social functioning is needed. For example, attachment theory adherents with an interest in child maltreatment have made recommendations that future research "assess children's internal working models of self, others and relationships in addition to measuring overt [social] behavior" (Mueller & Silverman, 1989, p. 571). Clearly, establishing this link

between the internal world and external events empirically is important to validate the proposition that an individual's representational world directs his/her social behavior, which is a cornerstone of object relational theories.

Westen (1991b) states that "object relations theory and research need to explore the relation between cognitive affective processes in people's minds and actual behavior" (p. 444). The MOAS was initially validated by examining its relation to interpersonal functioning and social behavior (Urist, 1977; Urist & Shill, 1982), and MOAS scores have been shown to correlate with self-esteem and good social relationships in a nonclinical child population (Ryan, Avery & Grolnick, 1985). Only Fritsch and Holmstrom (1990) demonstrated a relationship between DACOS scores and a rating of interpersonal behavior. Westen (1991a) reports that the ORSCS correlates with social adjustment. However, most of the research in object relations has simply assumed a link between intrapsychic and interpersonal functioning (Westen, 1991b).

An excellent example of an attempt to document a relationship between object relations and social behavior is offered by Avery and Ryan (1988). They studied 92 9-12 year-old children, using the Blatt Object Relations Scale (BORS) (Behrends & Blatt, 1985). The BORS is a projective measure that requires subjects to describe their mothers and fathers. These descriptions are then subjected to ratings on a number of dimensions. The dimension of the BORS studied by Avery and

Ryan was that of Parental Nurturance. Children who reported greater Parental Nurturance perceived themselves to be more socially and cognitively competent and better adjusted, and were more popular with their peers than children who reported lower Parental Nurturance. Since the Parental Nurturance ratings assess the quality of the child's representation of parental figures, it seems that the results support the assumption that object representations are related to actual interpersonal functioning.

To summarize, increasing interest in object relations theories led to the development of methods of assessing object relational functioning. A substantial body of research is accumulating which suggests that the abstract concept of "object relations" can be operationalized and measured, using projective tests. Traditional and non-traditional Rorschach methods of assessing object representations appear successful in measuring some aspects of object relations. A method using the TAT also appears promising as a measure of object relational functioning. There may be benefits to combining, or using simultaneously, the variety of object relations assessment techniques, since they may measure different aspects or dimensions of object relational functioning. Westen (1991b) suggests exploring object relations not as "a unitary phenomenon [but as] a congeries of cognitive and affective processes...[which are] interdependent, but...have distinct developmental lines" (p. 440). This suggests a move

present study, sexually abused children were compared to non-abused children matched for sex, race, age and place of residence.

Another problem has been an over-reliance on retrospective studies of adult women seeking treatment who recall childhood experiences of sexual abuse. The present study involved children with a documented history of sexual abuse.

A further problem which has limited the usefulness of some previous research has been the reliance on only one measurement technique. Many studies have relied exclusively on parental report questionnaires, which have been shown to be subject to the influence of parental pathology or distress (e.g., Everson, Hunter, Runyon, Edelsohn & Coulter, 1989). The present study utilized two projective measures as well as parent report measures.

A final problem has been a failure on the part of most investigators to consider events occurring prior to or simultaneous with the abuse (Finkelhor & Browne, 1985). The variable of maternal support at disclosure has already been shown to be important to post-abuse adjustment of victims (Johnson & Kenkel, 1991; Peters, 1988). However, the role of maternal support in the child's object relational and social functioning has not yet been explored, and the present study attempted to do this, by including the variable of maternal support at disclosure in analyses.

An examination of the related theoretical and empirical literature has led to the development of the following hypotheses for the present study:

Hypothesis One: Girls who have been sexually abused were predicted to display more disturbed object relations than non-abused girls on the Rorschach, as measured by traditional Rorschach scores [H, M, MOR, AG, COP, and CDI (Exner, 1974, 1986, 1991)]. Specifically, it was hypothesized that sexually abused girls would have fewer whole human responses, fewer "healthy" human responses, fewer human Movement responses, fewer "healthy" human movement responses, and more Cooperative Movement responses than non-abused girls. Abused girls were expected to have more Morbid and Aggressive Content responses, more "spoiled" human and human movement responses, and more Quasi-human responses than their non-abused peers.

Hypothesis Two: Girls who have been sexually abused were predicted to display more disturbed object relations than non-abused girls as measured by the DACOS (Blatt et al., 1976a, b). Specifically, it was hypothesized that non-abused girls would score higher on DACOS scales based on accurate responses than abused girls, and that abused girls would score higher on DACOS scales based on inaccurate responses than non-abused girls.

Hypothesis Three: Girls who have been sexually abused were predicted to display more disturbed object relations than non-abused girls as measured by the MOAS (Urist, 1977). Specifically, it was hypothesized that non-abused girls would have lower (more adaptive) mean scores, most adaptive and least adaptive scores than abused girls.

Hypothesis Four: Sexually abused girls were predicted to display more disturbed object relations on the TAT than non-abused girls, as measured by the ORSCS (Westen, Lohr, Silk, Kerber & Goodrich, 1990). Specifically, it was hypothesized that sexually abused girls would score lower on all four scales of the ORSCS than non-abused girls, and would be more likely to receive Level One responses (the least adaptive) than non-abused girls.

Hypothesis Five: It was hypothesized that sexually abused girls would display poorer social functioning than non-abused girls, as measured by the following scales from the CBCL:

Hypothesis Five-a: Sexually abused girls were predicted to receive lower Social Competence Scale scores than non-abused girls.

Hypothesis Five-b: Sexually abused girls, 6-11 years old, were predicted to exhibit more symptoms, and thus have higher scores, on the Social Withdrawal scale than non-abused girls within that age range.

Hypothesis Five-c: Sexually abused girls, 12-16 years old, were predicted to exhibit more symptoms and higher scores on the Depressed/Withdrawn scale than non-abused girls within that age range.

Hypothesis Five-d: Sexually abused girls were predicted to show poorer social functioning as measured by the Delinquent scale than non-abused girls.

Hypothesis Five-e: Sexually abused girls were predicted to display greater disturbance as measured by the Aggressive scale than non-abused girls.

Hypothesis Five-f: Sexually abused girls were predicted to display more symptoms on the Cruel scale than non-abused girls.

Hypothesis Six: It was predicted that the measures of object relational functioning from the Rorschach and the TAT would be significantly correlated with the social functioning measures of the CBCL. This finding would lend support to the proposition that object relational deficits lead to social functioning deficits.

Hypothesis Seven: It was predicted that sexually abused girls who received maternal support at the time of disclosure would display more developmentally advanced levels of object relational functioning, as measured by the traditional Rorschach variables, the DACOS, the MOAS and the ORSCS, than sexually abused girls who did not receive maternal support.

Hypothesis Eight: It was predicted that sexually abused girls who received maternal support at the time of disclosure would have higher social functioning scores on the CBCL scales used in this study than sexually abused girls who did not receive maternal support.

CHAPTER III

METHOD

Subjects

Two groups of subjects, a group of sexually abused girls and a non-abused comparison group, were included in this study. The <u>sexually abused group</u> was composed of 87 African-American females, age 6-16 years old, of predominantly low SES with a history of sexual abuse documented by the Illinois Department of Child and Family Services (DCFS). These subjects cannot be considered a random sample of girls experiencing sexual molestation, since all of the cases were serious enough to be reported to, and substantiated by, DCFS. For the present study, the definition of sexual abuse involved only cases in which there was genital contact by a perpetrator who was at least five years older than the victim, and was well-known to the child.

The sexually abused subjects in this study were tested as part of a longitudinal study conducted at La Rabida Children's Hospital in Chicago (Leifer, Shapiro, Martone & Kassem, 1991, in press; Leifer, Shapiro, Martone, Kassem & Lang, 1991; Lang, 1991; Shapiro, Leifer, Martone & Kassem, 1989, 1990). These subjects were referred to participate in the research project through La Rabida's Child Abuse and Neglect Program.

Additional subjects were referred by DCFS. Referral to the study was not based on a perceived need for clinical services. Initially, 145 potential subjects were asked to participate, of which 104 consented and were tested during the first year of the study. The 41 potential subjects who declined participation did so for a variety of reasons, including, in decreasing order of frequency: parental failure to cooperate, a therapist's opinion that participation would be harmful to the child, inability to locate the child and family, the child's refusal to participate and the child running away from home.

The data on the group of sexually abused subjects used in the current study were obtained during the second year of the longitudinal study. The subjects were tested a second time between 9 - 18 months after the initial disclosure of sexual abuse. Eighty-eight of the initial 104 subjects participated in the second evaluation. Data from one of these subjects was excluded from the present study because no verbatim Rorschach protocol was available. The remaining 87 subjects were the focus of the present study.

Characteristics related to the sexual abuse were coded on a number of dimensions. Sexually abused subjects experienced an average of 11.9 sexual abuse incidents. Seventy-eight percent of the girls experienced some form of penile penetration (vaginal, anal or oral). Force was used on 18% of the girls. In 97% of the cases, the perpetrator was male.

The perpetrator lived in the child's home in 71% of the cases. For those girls who lived with the perpetrators, 12% had the perpetrator living with them for less than six months, 15% were living with them between 7 and 12 months, 46% over 13 months, and 27% had always lived with the child. In 28% of the cases, the perpetrator was the girl's father or step-father, while in 32% of the cases the perpetrator was the mother's boyfriend, and in the remaining 40% of the cases, the perpetrator was a relative or friend of the family. Thirty-seven percent of the girls had at least one previous experience of sexual abuse, and 56% were documented as having experienced physical abuse in their past.

The non-abused comparison group consisted of 30 African-American females, age 6-16 years old, with no prior history of sexual or physical abuse, chronic illness or significant psychological problems. These subjects were obtained from two sources. Half of the subjects in the non-abused comparison group were siblings of chronically ill children at La Rabida Children's Hospital. While some research has shown that siblings of chronically ill children may be at an increased risk for behavioral and emotional problems (Lavigne & Ryan, 1979; Wood, Boyle, Watkins, Norgueira, Zimand & Carroll, 1988), a larger body of research suggests that most siblings do not appear to be significantly affected by their siblings' illness (Breslau, Weitzman & Messenger, 1981; Cadman, Boyle & Offord, 1988; Drotar & Crawford, 1985; Tritt & Esses, 1988;

Wood, Boyle, Watkins, Norgueira, Zimand & Carroll, 1988). The
other half of the subjects in the non-abused comparison group
were residents of a government subsidized housing development
located near La Rabida Children's Hospital. The subjects in
the non-abused comparison group were similar to the sexually
abused subjects in sex, race, age, SES and place of residence.
These subjects also served as a comparison group in Lang
(1991).

Demographic characteristics of the two subject groups are
presented in Table 1. The mean age of the subjects in the
sexually abused group was 9.78 (SD = 2.68), while the mean age
of the control subjects was 9.83 (SD = 2.87). Socioeconomic
status (SES) was scored on the Hollingshead and Redlich (1958)
occupation coding scale. The seven-point scale was
transposed, so that 7 represented the highest SES class, and
1 represented the lowest. Unemployed families, and families
dependent on public assistance, were given a coding of 0.
Among the sexually abused girls, 67% came from unemployed
families supported by public assistance, while 50% of the
comparison group girls came from families in this SES class.
The remainder of the subjects were dispersed among classes 1
through 5.

In terms of family composition, 33% of sexually abused
girls came from single parent homes, 52% from homes in which
mother lived with her boyfriend, and 15% from two-parent
families. Among the comparison group, 59% came from single-

Table 1

Demographic Characteristics of Subject Groups

Variable	Sexually Abused Group	Comparison Group	Test Statistic
Age			
M	9.782	9.833	$t(47.7) = -0.087$
SD	2.683	2.866	
SES[a]			
M	0.899	1.300	$t(49.8) = -1.445$
SD	1.473	1.535	
Family Composition	(79)	(29)	
single-parent	33%	59%	
cohabitating	52%	10%	$x^2(2) = 15.251*$
two-parent	15%	31%	
Foster Care	(81)	(30)	
	57%	0%	$x^2(1) = 29.094*$

Note. Figures in parentheses represent the number of subjects for whom data were available for the variable in question. Total N = 117 (Sexually Abused Group n = 87, Comparison Group n = 30).

[a] Mean scores and standard deviations for SES are presented, although the t value is for the test between groups on the logarithmic transformation of the SES variable. These means were not presented as they do not correspond to the Hollingshead scale.

* $p<.001$

parent homes, 10% from homes in which mother lived with her boyfriend, and 31% from two-parent families. While none of the comparison group subjects were in foster care at the time of testing, 57% of the sexually abused girls were in foster care.

To test hypotheses regarding the impact of maternal support, the sexually abused group was split into two sub-groups: <u>maternally supported</u> and <u>maternally unsupported</u>. Information regarding maternal support at time of disclosure was available on 76 of the 87 sexually abused girls. This information was obtained during interviews with the mothers as part of the first testing session of the longitudinal study, which took place soon after the disclosure of abuse. Additional information regarding maternal support behaviors was obtained from the records of the DCFS investigation.

Three interview questions assessed the quality of the mothers' support for their abused daughters after disclosure of abuse. The first question assessed whether the mother believed the abuse allegations made by her daughter. The second question assessed whether the mother took direct protective action on behalf of her daughter, such as reporting the abuse to authorities. The third question assessed whether the mother avoided blaming the daughter for the occurrence of the abuse. Girls whose mothers responded positively to all three of these questions were classified as <u>maternally supported</u>. Girls whose mothers failed to respond positively

to any or all of the three questions were classified as maternally unsupported. Of the 76 sexually abused girls for whom maternal support data were available, fifty-four percent were classified as maternally unsupported, while 46% were classified as maternally supported.

Table 2 presents demographic and sex abuse-related characteristics for the two sub-groups of sexually abused girls. Maternally supported and unsupported girls did not differ in age, SES or family composition. Maternally unsupported girls were significantly more likely to be in foster care than maternally supported girls. Maternally supported and unsupported girls did not differ on 5 of the 9 sex abuse characteristic variables: relationship to the perpetrator, living with the perpetrator, penile penetration, force and past sexual abuse. The maternally supported and unsupported girls did differ in regard to the time they lived with the perpetrator, history of physical abuse, history of neglect and quantity of abuse.

<div align="center">Instruments</div>

The present study employed a variety of measures, each of which is explained in detail below.

<u>Rorschach</u>

The Rorschach Inkblot Test is a commonly used projective measure. The test was administered and scored according to Exner's Comprehensive System (1974, 1986). Exner (1986) and recent meta-analyses (Atkinson, 1986; Parker, 1983; Parker,

Table 2

Demographic and Sex Abuse Related Characteristics of

Maternally Supported and Unsupported Sexually Abused Girls

Variable	Supported Group	Unsupported Group	Test Statistic
Age			
M	9.486	9.878	$t(74) = 0.646$
SD	2.418	2.874	
SES[a]			
M	1.200	0.750	$t(67.2) = -1.2485$
SD	1.641	1.381	
Family			
Composition	(35)	(36)	
single-parent	32%	30%	
cohabitating	54%	53%	$x^2(2) = 0.077$
two-parent	14%	17%	
Foster Care	(34)	(37)	
	21%	84%	$x^2(1) = 28.446$***
Quantity of Abuse			
M	8.750	14.216	$t(58.2) = 3.330$**
SD	7.522	5.855	
Child Lived with			
Perpetrator	(34)	(38)	$x^2(1) = 2.564$
	62%	79%	
Time Lived with			
Perpetrator	(18)	(26)	
< 6 months	22%	08%	$x^2(3) = 11.516$*
7-12 months	0%	19%	
>13 months	28%	58%	
Always	50%	15%	

(Table continues on next page)

Table 2 (Continued)

Variable	Supported Group	Unsupported Group	Test Statistic
Relation to			
Perpetrator	(34)	(37)	
Father/Step	21%	32%	$\underline{x}^2(2) = 4.984$
Mother's			
Boyfriend	26%	41%	
Other	53%	27%	
Penile			
Penetration	(34)	(38)	
	76%	79%	$\underline{x}^2(1) = 0.064$
Force	(30)	(31)	
	23%	13%	$\underline{x}^2(1) = 1.122$
Physical Abuse	(32)	(40)	
History	37%	72%	$\underline{x}^2(1) = 8.882$**
Previous Sexual	(32)	(32)	
Abuse	25%	47%	$\underline{x}^2(1) = 3.326$
Neglect History	(35)	(41)	
	17%	54%	$\underline{x}^2(1) = 10.82$***

Note. Figures in parentheses represent the number of subjects for whom data was available for the variable in question. Total $\underline{N}$ = 76 (Supported $\underline{n}$ = 35, Unsupported $\underline{n}$ = 41).

ᵃ Mean scores and standard deviations for SES are presented, although the $\underline{t}$ value is for the test between groups on the logarithmic transformation of the SES variable. These means were not presented as they do not correspond to the Hollingshead scale.

*$\underline{p}$<.01   **$\underline{p}$<=.005   ***$\underline{p}$<=.001

Hanson & Hunsley, 1988) provide strong support for the reliability and validity of the Rorschach. Traditional Rorschach scores and two alternative Rorschach scoring systems were used in the present study. These are explained in detail below.

Traditional Rorschach Variables. The Comprehensive System variables that were analyzed in the current study are:

1. Human content responses. Whole human responses (H), whole fictional or mythological human responses [(H)], human detail responses (Hd), and fictional or mythological human detail responses [(Hd)], as well as total human movement were scored separately. Human content responses were also analyzed separately as "healthy" responses [no form quality distortion (FQo and FQ+), no special scores, no Morbid (MOR) or Aggressive (AG) content] or "spoiled" responses (FQ-, special scores, or presence of MOR or AG content).

2. Human movement responses (M). Human movement is scored when a human figure is perceived to be engaging in some activity, whether passive ("thinking") or active ("jumping"). Human movement responses were also analyzed separately as "healthy" responses and "spoiled" responses.

3. Morbid content responses (MOR). This score is used for responses in which an object is described as dead, damaged or injured, or in which an object is attributed with a clearly

dysphoric characteristic. Examples of MOR responses include "a hurt butterfly," "a torn leaf," and "a depressed person."

4. Aggressive content responses. This score (AG) is assigned to any movement response (human, animal or inanimate) in which an action is clearly defined as aggressive. Examples of AG responses include "people arguing," "crabs fighting," or "a rocket ship exploding."

5. Cooperative Movement responses (COP). This is scored in any movement response (human, animal or inanimate) when two or more objects are clearly involved in positive or cooperative action. Examples of COP responses include "people dancing together," "two men lifting something" and "two wolves attacking another animal."

6. The Coping Deficit Index (CDI). The 11 variables and 5 tests used are as follows:

    a. EA < 6 or Adj D < 0
    b. COP < 2 and AG < 2
    c. Weighted Sum C < 2.5 or Afr < .46
    d. Passive movement > active movement + 1 or Pure H < 2
    e. Sum T > 1 or Isolation Index > .24 or Food > 0

Scores for the CDI can range from 0 to 5.

Developmental Analysis of the Concept of the Object Scale (DACOS). This scoring system (Blatt et al., 1976a, b) was developed in an attempt to apply structural/developmental principles to the analysis of Human responses on the Rorschach. All human responses are scored according to the principles of differentiation, articulation and integration

within six categories, and are scored within each category along a developmental continuum, as ratings range from developmentally lower to developmentally higher levels. The six categories and the differential weightings for scores are:

1. Differentiation. This refers to the type of human response perceived. Whole human figures are assigned a score of 4, whole quasi-human figures are scored 3, human detail responses are scored 2 and quasi-human detail responses are scored 1.

2. Articulation. This describes the degree to which the figure is described as having manifest physical or functional attributes. A score of 1 is assigned for each perceptual feature reported (size or physical structure, clothing or hairstyle, and posture) and a score of 2 is assigned for each functional feature reported (sex, age, role, specific identity).

3. Motivation of action. This refers to the degree to which the action of a figure is internally determined. A score of 3 is assigned to intentional action, a score of 2 to reactive action and a score of 1 for unmotivated action.

4. Integration of the action. In this category, four levels of integration of the figure with its action are considered. The levels of integration are congruent (scored 4), non-specific (scored 3), incongruent (scored 2) and fused (scored 1).

5. Nature of the interaction. This is scored for all responses involving two or more human figures, either explicitly or implied. It refers to the degree to which the interaction is characterized as active-active (scored 3), active-reactive (scored 2) and active-passive (scored 1).

6. Content of the interaction. This refers to the degree to which the interaction is aggressive or destructive (scored 1 for Malevolent) or neutral or positive in nature (scored 2 for Benevolent).

Summary scores for each of the six categories and composite scores are computed separately for accurately perceived (FQ+ or FQo) and inaccurately perceived (FQu and FQ-) responses. Two different approaches are used to calculate summary scores.

The first approach involves the use of mean scores. A mean score is computed for each of the six categories, and a mean developmental level (MDL) is calculated, as the sum of the standardized mean scores of the six categories. These calculations are done separately for accurate and inaccurate responses. Therefore, a mean developmental level for accurately perceived responses (MDL+) and a mean developmental level for inaccurately perceived responses (MDL-) are derived.

The second approach to calculating summary scores with the DACOS involves the use of residualized weighted sums. Residualized weighted sums are derived by taking the weighted sums for each of the six categories and covarying these with

the total number of responses on the Rorschach. These residualized weighted sums are then standardized and summed to give a total residualized weighted sum score (OR). As before, these summary scores are calculated separately for accurate and inaccurate responses. Therefore, two residualized weighted sums are derived, one for accurately perceived responses (OR+) and one for inaccurately perceived responses (OR-). The MDL+ and OR+ measure the capacity for investing in satisfying interpersonal relationships, while the MDL- and OR- measure the tendency to become involved in autistic fantasies rather than actual relationships (Blatt & Berman, 1984).

A third approach to calculating summary scores with the DACOS used in the present study is the modification of the DACOS proposed by Fritsch and Holmstrom (1990). This modification allows accurate and inaccurate percepts to be assessed on one, continuous scale. The two residualized weighted sum scores (OR+ and OR-) are converted into a single composite score by assigning a weight of -1 to OR- responses, and a weight of +1 to OR+ responses. The authors state that the weighting "is intended to reflect the underlying theoretical principle of the scale, namely that maturation of cognitive structures provides for both a more differentiated world and a more veridical representation of reality" (p. 322). Using this procedure, even a very simple, accurately perceived response would receive a higher score than a highly

differentiated, articulated and integrated response that is inaccurately perceived.

In the published literature on the DACOS, interrater reliability scores have been reported ranging from a low of 75% (for perceptual articulation) to a high of 96% (for differentiation) (Stricker & Healey, 1990). Thus, the measure appears to have acceptable levels of reliability. The validity of the measure appears to have been established through a number of studies documenting the DACOS ability to differentiate between different types of psychopathology (e.g., Blatt et al., 1976b; Fritsch & Holmstrom, 1990; Ritzler, Zambianco, Harder & Kaskey, 1980; Stuart et al., 1990), measure change over the course of psychoanalysis and psychotherapy (Kavanaugh, 1985) and measure developmental changes with increasing age (Blatt et al., 1976b).

Mutuality of Autonomy Scale (MOAS). This scoring system (Urist, 1977) was developed in an attempt to assess thematic elements of object relations in responses on the Rorschach. The MOAS analyzes all responses that contain interactions between people, animals and objects, either stated or implied. The scale consists of seven points, each scale point referring to developmentally significant gradations in the move toward autonomy, from the most developmentally advanced to the least developmentally advanced. The scale points, and brief examples of typical responses (Coates & Tuber, 1988), are as follows:

1. Reciprocity - Mutuality: "two people greeting each other";
2. Simple Interaction: "two ladies cooking something";
3. Anaclitic - Dependent: "two animals clinging to a telephone pole";
4. Reflection - Mirroring: "a girl looking in the mirror and seeing herself because they are identical";
5. Magical Control - Coercion: "a wolf stalking its prey";
6. Destruction: "two people feasting after killing an animal";
7. Envelopment - Incorporation: "this is something being consumed by fire".

In the present study, a mean MOAS score was computed. The most adaptive score and the least adaptive score were also used for analyses.

It has been reported that good reliability among scorers can be achieved (Harder, Greenwald, Wechlser & Ritzler, 1984). Tuber (1989b) reports interrater reliabilities from published studies ranging from 70% to 90% for exact agreement, and above 85% agreement consistently for scores within 1 scale point. The validity of the measure appears to have been established through a number of studies documenting the MOAS ability to discriminate between diagnostic groups in adults (e.g., Harder, Greenwald, Wechsler & Ritzler, 1984; Spear & Sugarman, 1984) and children (e.g., Goddard & Tuber, 1989; Goldberg, 1989; Tuber & Coates, 1989), measure change over the course of psychotherapy (Kavanaugh, 1985), predict adult adjustment in former child psychiatric patients (Tuber, 1983) and correlate with measures of interpersonal functioning (Ryan, Avery & Grolnick, 1985; Urist, 1977; Urist & Shill, 1982). The

validity of the MOAS is discussed further by Stricker and Healey (1990).

Thematic Apperception Test

The Thematic Apperception Test (TAT) is a frequently used projective measure in the assessment of children and adults. Subjects are presented with a series of pictures and are asked to tell stories about them. Subjects are instructed to include a description of what led up the depicted scene, what is currently happening, and what the outcome will be, as well as the thoughts and feelings of the characters. In the present study, a relatively new scoring system for the TAT was used, and is described below.

Object Relations and Social Cognition Scale (ORSCS). The ORSCS (Westen, Lohr, Silk, Kerber & Goodrich, 1990) was developed to measure four dimensions of object relations using TAT responses. The four dimensions are conceptualized as interrelated, but distinct enough to warrant independent assessment. The four scales measure the dimensions of:

1. complexity of representations of people;
2. affect-tone of relationship paradigms;
3. capacity for emotional investment in relationships and moral standards; and
4. understanding of social causality.

Each scale has five levels, with Level One representing the developmentally lowest level response and Level Five representing the developmentally highest level response.

While the scoring manual (Westen, Lohr, Silk, Kerber & Goodrich, 1990) recommends the use of 8 to 10 TAT cards to

insure maximum reliability of measurement, some studies using the ORSCS have used as few as two TAT cards (Bogen, 1982). The present study had only one TAT story to analyze, but it has been suggested that this might still be sufficient to detect significant group differences (D. Westen, personal communication, May, 1991). Furthermore, since the card used in the present study contains more than one figure (Card 7GF, depicting a mother figure and a daughter figure holding a doll), it is likely to have a greater pull for interpersonal content than some of the TAT cards used in previous investigations.

Four scores were obtained by applying the four scales of the ORSCS to the TAT story of each subject. As an additional measure, the absence or presence of Level One (most pathological) responses on each scale was coded and analyzed (Westen, Lohr, Silk, Gold & Kerber, 1990).

In the scoring manual (Westen, Lohr, Silk, Kerber & Goodrich, 1990), reliabilities from 75% to 95% are reported when raters are trained in the manner described within the manual. The validity of the measure has been supported by studies documenting that the ORSCS correlates with a measure of social adjustment (Westen, 1991a) and object relations information obtained through structured interviews (Barends et al., 1990), can detect predictable developmental changes over time in children (Westen et. al., 1991) and can differentiate between different types of psychopathology (Westen, Lohr,

Silk, Gold & Kerber, 1990; Westen, Ludolph, Lerner, Ruffins & Wiss, 1990). Issues of reliability and validity are discussed further in Westen (1991a) and Stricker and Healey (1990).

Achenbach Child Behavior Checklist (CBCL)

The mothers (or foster mothers) of both the abused and the non-abused subjects completed the CBCL. The CBCL is a 118 item parent questionnaire, containing a checklist of a wide variety of emotional and behavioral indicators of psychopathology. Parents respond to each item by choosing the degree to which a symptom applies to their child: 0 (Not True), 1 (Somewhat True or Sometimes True) or 2 (Very True or Often True). Factor analyses resulted in the creation of a number of individual clinical scales, as well as two broad-band factors, the Internalizing and Externalizing scales. The Social Competence Scale score is derived from parents' answers to questions about their children's school performance, participation in activities, and social relationships.

For the present study, individual scales related to social functioning were used. These include the Aggressive, Cruel, Delinquent and Social Withdrawal (Depressed/Withdrawn for 12-16 year-old subjects) Scales, as well as the Social Competence Scale. Issues of reliability and validity of the CBCL are discussed in Achenbach and Edelbrock (1983).

Achenbach and Edelbrock (1983) report interrater reliability correlations of .66, as measured as agreement between separate ratings by mothers and fathers. One-week

test-retest reliabilities for the scales of interest in the current study were reported as follows: Aggressive, .92; Cruel, .92; Delinquent, .92; Social Withdrawal, .91; Depressed/Withdrawn, .85; and Total Social Competence Scale, .89.

Achenbach and Edelbrock (1983) report evidence for criterion-related validity in findings of significant differences across all scales between clinic-referred and non-referred children (matched by important demographic characteristics). They report that research demonstrating significant correlations between the CBCL and other parent-report measures provides evidence for the construct validity of the CBCL.

A summary of the dependent measures used in the current study appears in Table 3.

Interview Data

Interview data were gathered from the sexually abused subjects, and their mothers or guardians. Demographic information was obtained, including the age and foster care status of the child, as well as the SES and family composition of the family in which the child was living at the time of the abuse. Specific questions were asked about the abuse, including questions to ascertain the length of time the abuse occurred, the number of incidents of abuse, the form of abuse, and the relationship of the perpetrator to the child.

Table 3

Dependent Measures Included in the Present Study

Rorschach:
    Traditional Measures:
        Human responses
        Quasi-human responses
        Human detail responses
        Quasi-human detail responses
        "Healthy" human responses
        "Spoiled" human responses
        Total human responses
        Human movement responses
        "Healthy" human movement responses
        "Spoiled" human movement responses
        Morbid responses
        Aggressive responses
        Cooperative movement responses
        Coping deficit index

    Developmental Concept of the Object Scale (DACOS):
    (Scored Separately for Accurately and Inaccurately
      Perceived Responses)
        Mean Scores:
            Differentiation
            Articulation
            Motivation of the action
            Integration of the action
            Nature of the interaction
            Content of the interaction
            Mean Developmental Level (MDL+, MDL-)

        Residualized Weighted Sums:
            Differentiation
            Articulation
            Motivation of the action
            Integration of the action
            Nature of the interaction
            Content of the interaction
            Residualized weighted
               summary score (OR+, OR-)

        Continuous Modification of DACOS Summary Score

Table 3 (Continued)

    Mutuality of Autonomy Scale (MOAS):
        Mean Score
        Most adaptive Score
        Least adaptive Score

TAT:
    Object Relations and Social Cognition Scale (ORSCS):
        Complexity of Representations (Scale 1)
            Scale Score
            Absence/Presence of Level 1 response
        Affect-Tone of Relationships (Scale 2)
            Scale Score
            Absence/Presence of Level 1 response
        Emotional Investment in Relationships (Scale 3)
            Scale Score
            Absence/Presence of Level 1 response
        Understanding of Social Causality
            Scale Score
            Absence/Presence of Level 1 response

Achenbach Child Behavior Checklist (CBCL):
    Social Competence Scale
    Aggressive subscale
    Cruel subscale
    Delinquent subscale
    Depressed/Withdrawn subscale (ages 12-16)
    Social Withdrawal subscale (ages 6-11)

Interview questions were posed to the mothers during the first testing session to address the issue of maternal support at time of disclosure.

Procedure

Testing Procedures

Sexually abused subjects were tested at three points in time as part of a longitudinal study at La Rabida Children's Hospital. For the present study, data from the second testing period, conducted 9 - 18 months after the disclosure of sexual abuse, were used. Sexually abused subjects were tested by a clinical psychologist or an advanced clinical psychology graduate student and were paid for their participation.

Subjects were administered a variety of measures during the evaluations, including interviews with the child and the parent, the Rorschach, a card from the Thematic Apperception Test, selected subscales of the Wechsler Intelligence Scale for Children (WISC-R), the Rosenzweig Picture-Frustration Study and the Achenbach Child Behavior Checklist -- Parent Form.

The comparison group was composed of 30 non-abused girls who were obtained for testing in two different ways. One-half of the subjects in the comparison group were siblings of children attending chronic illness clinics at La Rabida Children's Hospital. During clinic hours, this author or a colleague approached parents in the clinic while they were waiting for their chronically ill child to be seen by the

doctor. The parents were informed that research that was being conducted at the hospital required a non-abused comparison group. The parents were asked if they had any daughters between the ages of 6 and 16 who were not chronically ill and had never been abused that they would be willing to have included in the research. Parents were informed that they would be paid $15 for their participation. If the parent expressed an interest, an appointment was made for them to bring their child back for testing at a later date. At that time, they read and signed an informed consent form. The mother then completed the CBCL while the child was tested by one of two advanced clinical psychology graduate students.

The other one-half of the comparison group subjects were residents of a government subsidized housing development located near La Rabida Children's Hospital. These subjects were recruited by mail. The letter explained that there was a need to collect data from non-abused children to serve as a comparison group for a research project. In addition, the letter stated clearly that no child with a history of physical or sexual abuse, chronic illness or serious psychological problems was eligible to participate in the study and that subjects would be paid for their participation. Interested parents were asked to contact the researchers, and appointments for testing were made.

All girls in the comparison group were administered the same tests: the Rorschach, a TAT card and the Rosenzweig picture-Frustration Test. All of the parents were asked to complete the CBCL. If the parent was unable to read, the questionnaire was read to the parent.

Scoring Procedures

The Rorschach protocols were initially scored by either one of two clinical psychologists or one of two advanced clinical psychology graduate students. This investigator rescored all of the protocols for the variables of interest in the present study. Interrater reliabilities for these variables, computed as percent of agreement, are presented in Table 4. No interrater reliability is presented for the Cooperative Movement response, since this variable was not scored by the initial scorers. Discrepancies between scorings were resolved by an independent clinician who was familiar with the Exner Comprehensive System.

For the scoring of the alternative Rorschach systems, the DACOS and the MOAS, the Rorschach protocols were divided between two independent scorers, experienced in the use of both measures. The scorers were blind to group membership. Twenty-five percent of the protocols were scored independently by both of the scorers in order to establish interrater reliability. Discrepancies in scoring were resolved through conferences between the scorers. The protocols were scored for the DACOS according to the authors' manual for this

Table 4

Interrater Reliabilities for the Rorschach, DACOS, MOAS
and ORSCS

Rorschach Variable	Percent Agreement
Human Responses	.99
Quasi-Human Responses	.87
Human Detail Responses	.98
Quasi-Human Detail Responses	.81
Human Movement Responses	.94
Morbid Content Responses	.92
Aggressive Content Responses	.96

DACOS Subscale	Percent Agreement
Differentiation	.98
Articulation	.70
Motivation of Action	.88
Integration of Action	.86
Content of Interaction	.90
Nature of Interaction	.93

MOAS	Percent Agreement
Exact Agreement	.82
Agreement within One Scale Point	.95

ORSCS Scale	Cohen's Kappa coefficient
Complexity of Representations	.884
Affect-Tone	.896
Investment in Relationships	.873
Social Causality	.912

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instrument (Blatt et al., 1976a). The protocols were scored for the MOAS according to Urist (1977) and a subsequent elaboration on the use of the MOAS with children (Coates & Tuber, 1988).

Interrater reliabilities for the DACOS and the MOAS were computed as the percentage of agreement between the two scorers. These reliabilities are presented in Table 4. For the DACOS, interrater reliability for all of the subscales exceeded .85, except for the Articulation subscale, which was .70. The reliability for the Articulation subscale was substantially lower than those of the other DACOS subscales, and could not be improved even after training, scoring sample protocols and conferencing to reach consensus on scored data. These interrater reliabilities are comparable with those presented in the literature on the DACOS (e.g., Blatt et al., 1976b).

For the MOAS, interrater reliability was computed for exact agreement between raters and as agreement within one scale point. The reliabilities from the present study are within the range reported in the literature on the MOAS (Stricker & Healey, 1990).

TAT stories were typed and new code numbers were assigned so that this investigator and a clinical psychologist could score the stories blind to group membership. All stories were scored using the ORSCS by both coders on all four subscales, so as to compute interrater reliability as recommended by

Westen (1990). To avoid spuriously high correlations between scale scores, all of the stories were scored for one scale at a time. Discrepancies in scoring were resolved through conferences between the coders.

Interrater reliabilities for the TAT scoring system, the ORSCS, are also presented in Table 4. These reliabilities were calculated using Cohen's Kappa coefficient, as suggested in the ORSCS scoring manual (Westen, Lohr, Kerber, Silk & Goodrich, 1990). These reliabilities are within the range reported in the literature on the ORSCS (Westen, Lohr, Kerber, Silk & Goodrich, 1990).

CHAPTER IV

RESULTS

Before conducting analyses, several transformations were performed to adjust for skewedness. A logarithmic transformation was performed on the SES coding scale, as recommended by Winer (1971), to adjust for a skew toward the lower SES classes. The total number of Human responses on the Rorschach and the mean score for the Urist scale were also transformed logarithmically to adjust for skewed distributions.

All but two of the traditional Rorschach variables required conversion from continuous to categorical data, because the skew of these distributions could not be corrected using the logarithmic transformation. Therefore, whole human responses (H), "healthy" human responses, "spoiled" human responses, human detail responses (Hd), quasi-human detail responses (QHd), human movement responses, "healthy" human movement responses, "spoiled" human movement responses, Cooperative Movement (COP), Aggressive (AG) and Morbid (MOR) responses were recoded as "absent" or "present" in each protocol.

Preliminary Analyses

A number of preliminary analyses were conducted before

testing the specific hypotheses of the present study. The first set of preliminary analyses investigated the need to control for response productivity among the Rorschach variables. The second set of analyses investigated differences within the study's non-abused comparison group on demographic and dependent variables. The third set of analyses explored differences between the sexually abused and comparison groups on demographic variables. The final set of preliminary analyses examined the relationships within the sexually abused group between abuse related characteristics and dependent measures.

In all analyses to follow, differences between groups on continuous variables were tested using t-tests and univariate analyses of variance. Because of the unequal numbers of subjects in groups, the separate variances technique for performing t-tests was employed and the degrees of freedom were determined as suggested by Brownlee (1965) (cited in Wilkinson, 1990). When necessary, ANOVAs were followed up with Tukey-Kramer post-hoc analyses. MANOVAs were not used in this study, since the dependent measures were a mixture of continuous and categorical variables, and because of problems with missing data for some of the variables. Differences between groups on categorical variables were tested using chi-square analyses. Two variables, the most adaptive MOAS and least adaptive MOAS scores, were considered to be ordinal in nature (Tuber, 1992), and thus were analyzed using the Mann-

Whitney test (with two levels of independent variable) or the Kruskal-Wallis test (more than two levels of independent variable). In all analyses, an alpha of p < .01 was used to determine statistical significance. This alpha was chosen instead of the traditional p < .05 in order to be more conservative, given the large number of tests conducted. While a Bonferonni-corrected alpha level would be even more conservative, this was not used since it would greatly diminish the statistical power of the tests, which was already diminished by the smaller sample size and unequal groups in this study.

Tests for Impact of Productivity on Rorschach Variables

Given that many of the variables in the present study were derived from the Rorschach, it was necessary to decide upon an approach to manage the potential impact of response productivity ("R") on the Rorschach dependent variables included in this study. The approach taken was that of Kalter and Marsden (1970).

Kalter and Marsden (1970) suggest that before steps are taken to control for productivity, it is important to test to determine if such controls are necessary. When testing whether a particular Rorschach variable (e.g., "W") differs between two groups, the need for a control for productivity can be determined by conducting an analysis of variance on the R-minus-W score, and a correlation between the W and R-minus-W scores. If both of these tests reveal statistically

significant results, then R-minus-W must be used as a covariate in the analysis of variance on the W score.

Following these procedures in the present study, analyses were conducted to determine if controls for productivity would be necessary for any of the Rorschach dependent variables. Results from these analyses of variances and correlations revealed that it would not be necessary to use a productivity covariate in subsequent analyses.

Comparison Group Differences

Analyses were conducted comparing the comparison group subjects who were siblings of chronically ill children with the comparison group subjects who were residents of a housing development on demographic and dependent measures. No significant group differences emerged on any of the demographic or dependent variables. Only one t-test revealed a group difference approaching statistical significance. Siblings of chronically ill children scored higher on the Social Competence scale of the CBCL ($\underline{M}$ = 52.313) than girls from the housing project ($\underline{M}$ = 45.143), $\underline{t}$(25.6) = 2.086, $\underline{p}$ = .047. Given the lack of statistically significant results, it was decided that in all further analyses these two sub-groups would be combined and treated as a single comparison group.

Group Differences Among Demographic Variables

The sexually abused and non-abused girls were compared on demographic variables. Results from these analyses were presented earlier in Table 1. These analyses revealed that

the two groups did not differ in age or socioeconomic status. The groups did differ significantly on the variables of foster care and family composition.

The differences in foster care are not surprising, since one of the criteria for inclusion in the comparison group was a negative history for foster care, and since a large percentage of sexually abused girls are placed in foster care after disclosure. Foster care placement is one of the realities of life for many sexual abuse victims.

Because no comparison group girls were in foster care, there was no method to control for the impact of foster care status on differences between these two groups. However, to examine the impact of foster care placement within the abused group, analyses were conducted comparing sexually abused girls in foster care and sexually abused girls who were not in foster care on all of the dependent measures. These analyses revealed no statistically significant differences between groups on any of the dependent variables, and only one approaching statistical significance. On the modified, continuous DACOS summary score, girls who were not in foster care at the time of testing scored higher ($\underline{M}$ =5.799) than did girls who were in foster care ($\underline{M}$ = -3.410), $\underline{t}$(96) = 2.369, $\underline{p}$ = .020. The lack of significant findings related to foster care suggests that this factor may play a minimal role in any resulting group differences.

Since significant differences between groups were found on the variable of family composition, analyses were conducted to examine whether family composition was significantly related to any of the dependent measures. Only two dependent measures, both from the TAT, achieved significance at the $p <$ .01 level. Girls from married families (M = 2.600) and single-parent families (M = 2.262) scored higher on the Investment in Relationships Scale of the ORSCS than girls from cohabitating families (M = 1.953), $F(2,82)$ = 6.916, p = .002. While 28% of girls from cohabitating families received a Level One score on this scale of the ORSCS, only 10% of girls from single-parent families, and 0% of girls from married families received a Level One score, $x^2(2, N$ = 105) = 10.001, p = .007.

Analyses revealed differences between family composition sub-groups approaching statistical significance on an additional eight dependent variables. From the DACOS, analyses with both the mean scores and residualized weighted sums from the Differentiation subscale with accurate responses approached statistical significance, revealing that girls from single-parent families scored higher (M = 3.571 and M = 2.651, respectively) than girls from cohabitating families (M = 3.287 and M = -1.080, respectively), $F(2,85)$ = 3.42, p = .036 and $F(2,85)$ = 4.284, p = .017, in order. Additionally, group differences were found on the modified, continuous DACOS summary scores, $F(2,95)$ = 4.638, p = .012, and the DACOS summary score computed from the accurate residualized weighted

sums (OR+), $F(2,85)$ = 3.282, p =.042. For both of these measures, girls from single-parent families scored higher (M = 9.031 and 1.044, respectively) than girls from cohabitating families (M = -4.101 and -1.068, respectively).

Group differences nearing statistical significance were found on the CBCL Social Competence scale, $F(2,99)$ = 3.233, p = .044, and Social Withdrawal scale, $F(2,72)$ = 4.776, p = .011. On the Social Competence scale, girls from single-parent families scored higher (M = 44.605) than girls from cohabitating families (M = 39.474), while on the Social Withdrawal scale, girls from married families scored higher (M = 56.714) than girls from cohabitating families (M = 64.593).

Results from analysis of the ORSCS Social Causality Scale scores revealed that girls from married families scored higher (M = 2.550) than girls from cohabitating families (M = 1.953), $F(2,82)$ = 3.315, p = .041. While 0% of girls from married families had Level One responses on this scale, 21% of girls from single-parent families and 30% of girls from cohabitating families had Level One responses, $x^2(2, N = 105)$ = 6.734, p = .034.

In sum, it appears that girls from cohabitating families fared more poorly than girls from single-parent or married families on a few of the dependent measures examined in this study. Because of the relationships between family composition and the dependent measures reported above, the variable of family composition was introduced as a blocking

factor when statistically significant differences emerged between the sexually abused and comparison groups, or between the maternally supported and unsupported groups, on any of the variables which were found to be related to family composition. This was done because it was important to explore the impact that family composition had on the results of further analyses, despite the fact that the categorical nature of the family composition variable did not lend itself to use as a true covariate within parametric analyses.

Relationships between Sex Abuse-Related Characteristics and Dependent Variables

Within the sexually abused group, the relationships between nine sex abuse-related characteristics and the dependent variables were examined. The nine sex abuse-related characteristics examined were: history of past sexual abuse, history of physical abuse, history of neglect, penile penetration, use of force, quantity of abuse, relationship of the perpetrator to the child, whether the child ever live with the perpetrator, and length of time the child lived with the perpetrator.

History of past sexual abuse. No statistically significant differences emerged on tests between sexually abused girls with a previous history of sexual abuse and girls who had no previous history on any of the dependent measures. Analyses revealed one group difference nearing statistical significance on the Rorschach variable of "healthy" Human

Movement responses. While only 28% of sexually abused girls with a previous history of sexual abuse had at least one healthy Human Movement response, 56% of sexually abused girls without a previous history of sexual abuse had at least one healthy Human Movement response, $\underline{x}^2(1, \underline{N} = 65) = 4.93$, $\underline{p} = .026$.

History of physical abuse. One statistically significant difference emerged between sexually abused girls with a history of physical abuse and girls with no previous history, on the DACOS summary score for mean scores with accurate responses (MDL+). Girls without a history of physical abuse scored higher ($\underline{M} = 0.560$) on this measure than girls with a history of physical abuse ($\underline{M} = -0.845$), $\underline{t}(66.5) = -3.256$, $\underline{p} = .002$.

Group differences approaching statistical significance were found on five dependent variables. From the DACOS, group differences approaching statistical significance emerged between the mean scores from the Differentiation subscale with accurate responses, $\underline{t}(65.3) = -2.225$, $\underline{p} = .030$, the Nature subscale with inaccurate responses, $\underline{t}(23.5) = -2.475$, $\underline{p} = .021$, and the Content subscale with inaccurate responses, $\underline{t}(19.7) = -2.728$, $\underline{p} = .013$. Results revealed that girls without a history of physical abuse scored higher ($\underline{M} = 3.499$, 2.857, and 1.869, respectively) than girls with a history of physical abuse ($\underline{M} = 3.271$, 2.228, and 1.478, respectively) on all three of these measures.

On the MOAS, girls without a history of physical abuse were found to have more adaptive MOAS best scores than girls with a history of physical abuse, $\underline{U}$ = 380.00, $\underline{p}$ = .027. On the TAT, 15% of girls without a history of physical abuse received a Level One score on the Complexity of Representations Scale of the ORSCS, while only 2% of girls with a history of physical abuse received a Level One score, $\underline{x}^2$(1, $\underline{N}$ = 79) = 4.301, $\underline{p}$ = .038.

History of neglect. Analyses revealed no statistically significant differences between sexually abused girls with a previous history of neglect and girls who had no previous history of neglect on the dependent measures. Analyses revealed differences approaching statistical significance on two dependent variables, both from the DACOS. Tests with the mean scores from the Differentiation subscale with inaccurate responses revealed that girls with a history of neglect scored higher ($\underline{M}$ = 3.162) than girls without a history of neglect ($\underline{M}$ = 2.820), $\underline{t}$(55.5) = 2.096, $\underline{p}$ = .041. Girls with a history of neglect had higher mean scores ($\underline{M}$ = 2.568) than girls without a history of neglect ($\underline{M}$ = 2.891) on the Integration subscale with inaccurate responses, $\underline{t}$(23.4) = -2.506, $\underline{p}$ =.020.

Penile Penetration. One statistically significant difference was found between girls who experienced penile penetration and those who did not. While 50% of girls who did not experience penile penetration received a Level One score on the Investment in Relationships Scale of the ORSCS, only

15% of girls who did experience penile penetration received a Level One score, $x^2(1, \underline{N} = 75) = 8.669$, $\underline{p} = .003$.

Tests also revealed differences approaching statistical significance on another four dependent measures. Girls who experienced penile penetration scored higher ($\underline{M} = 41.314$) on the Social Competence scale of the CBCL than did girls who did not experience penile penetration ($\underline{M} = 37.00$), $\underline{t}(49.3) = 2.156$, $\underline{p} = .036$. On the TAT, girls who experienced penile penetration scored higher ($\underline{M} = 2.102$) on the Investment in Relationships Scale of the ORSCS than did girls who did not experience penetration ($\underline{M} = 1.625$), $\underline{t}(21.8) = 2.410$, $\underline{p} = .025$. Twenty-five percent of girls who experienced penile penetration received a Level One score on the Affect-Tone Scale of the ORSCS, while only 7% of girls who had not experience penile penetration received a Level One score, $x^2(1, \underline{N} = 75) = 4.385$, $\underline{p} = .036$. On the Social Causality Scale of the ORSCS, 50% of non-penetrated girls received a Level One score, while only 22% of girls who experienced penetration received a Level One score, $x^2(1, \underline{N} = 75) = 4.883$, $\underline{p} = .027$.

Use of force. Analyses revealed only one statistically significant difference between sexually abused girls who experienced force and those who did not. Tests on the modified, continuous DACOS summary score revealed that girls who experienced no force scored higher ($\underline{M} = 5.369$) than did girls who experienced force ($\underline{M} = -11.468$), $\underline{t}(17.6) = 3.066$, $\underline{p}$

= .007. Only one other finding approached statistical significance. On the Affect-Tone Scale of the ORSCS, girls who experienced force scored higher ($\underline{M}$ = 3.250) than did girls who did not experience force ($\underline{M}$ = 2.712), $\underline{t}$(21.6) = -2.510, $\underline{p}$ = .020.

Quantity of abuse. Analyses revealed one statistically significant relationship between the quantity of abuse and the dependent measures, and three approaching significance. A statistically significant negative correlation was found between the quantity of abuse and the residualized sum score from the DACOS for the Articulation subscale from inaccurate responses, $\underline{r}$ = -0.449, $\underline{p}$ = .006. Correlations with DACOS measures also revealed positive correlations between quantity of abuse and the residualized sum scores with accurate responses for the Integration subscale, $\underline{r}$ = -0.334, $\underline{p}$ = .043, and the Content subscale, $\underline{r}$ = -0.385, $\underline{p}$ =.032. Also, a negative correlation approaching statistical significance was found between the quantity of abuse and the Social Competence scale score of the CBCL, $\underline{r}$ = -0.263, $\underline{p}$ = .033.

Relationship of perpetrator to child. Analyses revealed no statistically significant relationships between the relationship of the perpetrator to the child and the dependent measures, and only two approaching significance, both on the TAT. Girls who were abused by their fathers or stepfathers scored higher ($\underline{M}$ = 2.300) on the Social Causality Scale of the ORSCS than girls who were abused by other acquaintances ($\underline{M}$ =

1.767), $\underline{F}$(2,70) = 3.594, $\underline{p}$ = .033. While only 5% of girls who were abused by fathers or stepfathers received a Level One score on this scale of the ORSCS, 35% of girls abused by their mothers' boyfriends, and 37% of girls who were abused by other acquaintances received a Level One score, $\underline{x}^2$(2, $\underline{N}$ = 73) = 6.97, $\underline{p}$ = .031.

Did child ever live with perpetrator. Analyses revealed no statistically significant relationships, nor any approaching significance, based on the child having lived with the perpetrator.

Length of time child lived with perpetrator. Analyses revealed no statistically significant relationships based on the length of time that the child lived with the perpetrator, and only one approaching statistical significance. Results from the DACOS revealed that girls who lived with the perpetrator over 13 months had higher mean scores ($\underline{M}$ = 3.00) on the DACOS Nature subscale with accurate responses than girls who lived with the perpetrator 6 months or less ($\underline{M}$ = 2.00), $\underline{F}$(3,16) = 3.491, $\underline{p}$ = .040.

Summary. Analyses of the sexually abused group revealed very few significant differences on sex abuse-related characteristics. For this reason, and because of the relatively small sample size in this study, it was determined that these variables would not be included in further analyses.

Object Relational Differences Between Sexually Abused

and Non-Abused Girls

The first five hypotheses of the present study predicted
that sexually abused girls would demonstrate poorer object
relational functioning than non-abused girls on the five
groups of dependent measures included in this investigation:
traditional Rorschach variables, the Developmental Analysis of
the Concept of the Object Scale (DACOS), the Mutuality of
Autonomy Scale (MOAS), the Object Relations and Social
Cognition Scale (ORSCS) and the Child Behavior Checklist
(CBCL).

Differences between groups on continuous variables were
tested using t-tests. Because of the unequal numbers of
subjects in groups, the separate variances technique for
performing t-tests was employed and the degrees of freedom
were determined as suggested by Brownlee (1965) (Wilkinson,
1990). Differences between groups on categorical variables
were tested using chi-square analyses. Two variables, the
most adaptive MOAS and least adaptive MOAS scores, were
considered to be ordinal in nature (Tuber, 1992), and thus
were analyzed using the Mann-Whitney test. In all analyses,
an alpha of p < .01 was used to determine statistical
significance, due to the large number of tests conducted.

Traditional Rorschach Variables

Results from analyses of the 14 traditional Rorschach
dependent measures are presented in Table 5. Contrary to

Table 5

Group Differences between Sexually Abused and Non-Abused Girls

on Traditional Rorschach Variables

Variable	Sexually Abused Group	Non-Abused Group	Test Statistic	p
Total H[a]				
$\underline{M}$	3.931	2.500	$\underline{t}(53.9) = 2.414$	.019
$\underline{SD}$	2.964	1.925		
CDI				
$\underline{M}$	3.103	3.400	$\underline{t}(47.7) = -1.224$	>.10
$\underline{SD}$	1.089	1.163		
H	53%	68%	$\underline{x}^2 = 2.033$	>.10
Hd	38%	33%	$\underline{x}^2 = 0.203$	>.10
QH	75%	50%	$\underline{x}^2 = 6.300$	.012
QHd	8%	10%	$\underline{x}^2 = 0.109$	>.10
Healthy H	83%	63%	$\underline{x}^2 = 4.870$	.027
Spoiled H	66%	47%	$\underline{x}^2 = 3.322$	.068
M	64%	43%	$\underline{x}^2 = 4.079$	.043
Healthy M	43%	33%	$\underline{x}^2 = 0.785$	>.10
Spoiled M	43%	17%	$\underline{x}^2 = 6.484$	.011

Table 5 (Continued)

Variable	Sexually Abused Group	Non-Abused Group	Test Statistic	$\underline{p}$
MOR	47%	30%	$\underline{x}^2 = 2.674$	>.10
AG	29%	17%	$\underline{x}^2 = 1.704$	>.10
COP	60%	50%	$\underline{x}^2 = 0.870$	>.10

<u>Note</u>: Percentage figures represent the percent of the group with the variable in question present in their protocols. All analyses based on $\underline{N}$ = 117 (Sexual Abuse Group $\underline{n}$=87, Non-abused Group $\underline{n}$=30).

[a] Mean scores and standard deviations for the Total H are presented, although the $\underline{t}$ value reported is for the test between the logarithmic transformation of this value.

Hypothesis One, none of these analyses reached statistical significance at the $p<.01$ level, although a number of them approached statistical significance. In contrast to the direction predicted in Hypothesis One, abused girls gave more total Human responses ($\underline{M}$ = 3.931) than did non-abused girls ($\underline{M}$ = 2.50), $\underline{t}$(53.9) = 2.414, p =.019. Analyses of the absence or presence of Healthy human responses and Spoiled human responses revealed that abused girls had these responses in their protocols more often than did non-abused girls, $\underline{x}^2$(1, $\underline{N}$ = 117) = 4.870, p =.027 and $\underline{x}^2$(1, $\underline{N}$ = 117) = 3.322, p =.068, respectively. Consistent with Hypothesis One, more of the abused girls had Quasi-human responses (QH) in their protocols than the non-abused girls, $\underline{x}^2$(1, $\underline{N}$ =117) = 6.300, p =.012. Abused girls had Human Movement responses (M) and Spoiled Human Movement responses in their protocols more often than did non-abused girls, x^2(1, $\underline{N}$ = 117) = 4.079, p =.043 and $\underline{x}^2$(1, $\underline{N}$ = 117) = 6.484, p =.011.

DACOS

Results from analyses of the DACOS dependent measures calculated as mean scores are presented in Table 6, and calculated as residualized weighted sums are presented in Table 7. Only one test was statistically significant, and one other test neared significance, lending minimal support to Hypothesis Two.

Consistent with Hypothesis Two, analyses of the residualized weighted sums revealed that sexually abused girls

Table 6

Differences between Sexually Abused and Non-Abused Girls on
Rorschach DACOS Scores Calculated as Mean Scores

Variable	Sexually Abused Group[a]	Non-Abused Group[a]	$\underline{t}$[b]
For accurately perceived responses:			
Differentiation	(76)	(20)	(25.6)
M	3.388	3.572	-1.376
SD	0.438	0.554	
Articulation	(66)	(18)	(23.4)
M	1.490	1.782	-1.125
SD	0.822	1.015	
Motivation	(43)	(12)	(33.2)
M	1.201	1.083	1.020
SD	0.524	0.289	
Integration	(43)	(12)	(16.5)
M	2.967	3.000	-0.241
SD	0.391	0.426	
Nature	(36)	(11)	(12.7)
M	2.889	2.757	0.667
SD	0.398	0.617	
Content	(36)	(11)	(16.4)
M	1.857	1.879	-0.212
SD	0.304	0.308	
MDL+	(76)	(20)	(24.1)
M	-0.101	0.384	-0.709
SD	2.014	2.879	

Table 6 (Continued)

Variable	Sexually Abused Group	Non-Abused Group	$\underline{t}$

For inaccurately perceived responses:

Variable	Sexually Abused Group	Non-Abused Group	$\underline{t}$
Differentiation	(61)	(15)	(20.7)
$\underline{M}$	2.942	2.921	0.104
$\underline{SD}$	0.652	0.687	
Articulation	(44)	(10)	(15.3)
$\underline{M}$	1.316	1.483	−0.561
$\underline{SD}$	0.970	0.822	
Motivation	(33)	(06)	
$\underline{M}$	1.462	1.000	---c
$\underline{SD}$	0.786	0.000	
Integration	(33)	(06)	(06.2)
$\underline{M}$	2.738	2.612	0.595
$\underline{SD}$	0.390	0.491	
Nature	(26)	(05)	(18.7)
$\underline{M}$	2.397	2.866	−2.194*
$\underline{SD}$	0.849	0.300	
Content	(26)	(05)	(05.7)
$\underline{M}$	1.583	1.800	−0.993
$\underline{SD}$	0.477	0.477	
MDL−	(61)	(15)	(21.8)
$\underline{M}$	−0.013	0.054	−0.126
$\underline{SD}$	1.884	1.844	

aNumbers in parentheses represent the number of subjects with scorable responses for the subscale in question that were then included in the analyses.

bNumbers in parentheses represent degrees of freedom.

cTest could not be performed because one of the groups had no variance.

*$\underline{p}$ <.001

Table 7

Differences between Sexually Abused and Non-Abused Girls on

Rorschach DACOS Scores Calculated as Residualized Weighted

Sums

Variable	Sexually Abused Group[a]	Non-Abused Group[a]	$\underline{t}$[b]
For accurately perceived responses:			
Differentiation	(76)	(20)	(26.0)
M	0.524	0.748	−0.145
SD	5.202	6.379	
Articulation	(66)	(18)	(27.8)
M	0.591	1.079	−0.595
SD	3.170	3.060	
Motivation	(43)	(12)	(18.6)
M	1.112	1.168	−0.130
SD	1.379	1.291	
Integration	(43)	(12)	(15.7)
M	2.658	3.156	−0.417
SD	3.188	3.772	
Nature	(36)	(11)	(13.4)
M	2.652	3.310	−0.672
SD	2.187	3.008	
Content	(36)	(11)	(13.1)
M	1.719	2.273	−0.865
SD	1.376	1.984	
OR+	(76)	(20)	(23.7)
M	−0.132	0.501	−0.550
SD	3.255	4.868	

Table 7 (Continued)

Variable	Sexually Abused Group	Non-Abused Group	t
For inaccurately perceived responses:			
Differentiation	(61)	(15)	(42.6)
M	0.082	−0.859	0.831
SD	6.096	3.183	
Articulation	(44)	(10)	(16.1)
M	0.843	1.397	−0.538
SD	3.498	2.796	
Motivation	(33)	(06)	(36.5)
M	1.276	−0.154	4.233*
SD	1.844	0.257	
Integration	(33)	(06)	(08.0)
M	2.439	1.091	1.110
SD	3.213	2.641	
Nature	(26)	(05)	(08.6)
M	2.824	2.150	0.624
SD	3.161	1.975	
Content	(26)	(05)	(05.4)
M	1.774	1.564	0.214
SD	1.903	2.030	
OR-	(61)	(15)	(34.9)
M	0.137	−0.557	0.909
SD	3.751	2.296	
Continuous Summary Score	(80)	(26)	(37.5)
M	0.957	4.977	−0.805
SD	19.485	22.927	

Note. Mean scores and standard deviations for the weighted residualized sums do not correspond with the DACOS scale, due to the residualization process.

[a]Numbers in parentheses represent the number of subjects with scorable responses for the subscale in question that were then included in the analyses.

[b]Numbers in parentheses represent degrees of freedom.

*p = .041

scored higher ($\underline{M}$ = 1.276) than non-abused girls ($\underline{M}$ = -0.154) on the Motivation subscale with inaccurate responses, $\underline{t}$(36.5) = 4.233, $\underline{p}$ <.001. Analyses of the mean scores revealed that non-abused girls scored higher ($\underline{M}$ = 2.866) than abused girls ($\underline{M}$ = 2.397) on the Nature subscale with inaccurate responses, $\underline{t}$(18.7) = -2.194, $\underline{p}$=.041, which is in the opposite direction than that predicted by Hypothesis Two.

MOAS

Results from analyses of the three MOAS dependent measures are presented in Table 8. The group difference on the logarithmic transformation of the MOAS Mean Score was statistically significant, revealing that the non-abused group had lower (more adaptive) mean scores ($\underline{M}$ = 2.245) than did the sexually abused group ($\underline{M}$ = 2.825), $\underline{t}$(58.1) = 3.445, $\underline{p}$ = .001, as predicted in Hypothesis Three. Also, there was a trend for non-abused girls to have lower Most Adaptive Scores ($\underline{M}$ = 1.882) than abused girls ($\underline{M}$ = 2.221), $\underline{U}$ = 468.00, $\underline{p}$ = .061.

ORSCS

Results from analyses of the eight ORSCS dependent measures are presented in Table 9. Five of the eight analyses revealed statistically significant results in the direction predicted by Hypothesis Four. Sexually abused girls received lower scores ($\underline{M}$ = 2.095) than non-abused girls ($\underline{M}$ = 2.600) on the Complexity of Representations Scale, $\underline{t}$(44.9) = -3.965, $\underline{p}$ <.001, on the Investment in Relationships Scale, ($\underline{M}$ = 2.036 and 2.667, respectively), $\underline{t}$(63.6) = -5.061, $\underline{p}$ <.001, and on

Table 8

Group Differences between Sexually Abused and Non-Abused Girls

on Rorschach MOAS Scores

Variable	Sexually Abused Group	Non-Abused Group	Test Statistic	p
Mean Score[a]	(68)	(17)		
M	2.825	2.245	$t(58.1) = 3.445$	.001
SD	1.014	0.358		
Most Adaptive Score				
M	2.221	1.882	$U = 468.00$	.061
SD	0.826	0.332		
Least Adaptive Score				
M	3.824	3.118	$U = 449.50$	>.10
SD	1.736	1.495		

Note: On the MOAS, lower scores correspond with more adaptive responses. Numbers in parentheses represent the number of subjects with scorable responses for the MOAS who were then included in the analyses.

[a] Mean scores and standard deviations for the MOAS are presented, although the t value is for the test between the logarithmic transformation of the mean scores. These means were not presented because they do not correspond to the Mutuality of Autonomy Scale.

Table 9

Group Differences between Sexually Abused and Non-Abused

Girls on TAT ORSCS Scores

Variable	Sexually Abused Group	Non-Abused Group	Test Statistic	p
Complexity of Representations of People Scale:				
Scale Score				
M	2.095	2.600	$t(44.9) = -3.965$	<.001
SD	0.529	0.621		
Level One Score	07%	00%	$x^2 = 2.262$	>.10
Affect-Tone of Relationship Paradigms Scale:				
Scale Score				
M	2.798	3.200	$t(43.4) = -1.810$	.077
SD	0.899	1.095		
Level One Score	10%	10%	$x^2 = 0.006$	>.10
Capacity for Emotional Investment in Relationships Scale:				
Scale Score				
M	2.036	2.667	$t(63.6) = -5.061$	<.001
SD	0.685	0.547		
Level One Score	21%	0%	$x^2 = 7.634$	.006
Understanding of Social Causality Scale:				
Scale Score				
M	1.917	2.533	$t(50.2) = -3.992$	<.001
SD	0.715	0.730		
Level One Score	26%	03%	$x^2 = 7.171$	.007

Note: All analyses are based on N = 114 (Sexually Abused Group n = 84, Comparison Group n = 30).

the Social Causality Scale (M = 1.917 and 2.533, respectively), $t(50.2)$ = -3.992, p <.001.

Preliminary analyses of the family composition variable had revealed a statistically significant difference on the Investment in Relationships Scale, and a marginally significant difference on the Social Causality Scale, between girls from single-parent, cohabitating and married families. Therefore, follow-up analyses of variance with these two scales were necessary using family composition as a blocking factor.

The differences between sexually abused and non-abused girls remained significant on both scales, F (1,99) = 12.667, p =.001 and F (1,99) = 12.810, p =.001, respectively.

Additionally, chi-square analyses revealed that sexually abused girls had significantly more Level One responses than non-abused girls on the Investment in Relationships Scale, $x^2(1, N$ = 114) = 7.634, p = .006, and the Social Causality Scale, $x^2(1, N$ = 114) = 7.171, p = .007. Differences approaching statistical significance on the Affect-Tone Scale were found, showing that abused girls scored lower (M = 2.798) than non-abused girls (M = 3.200), $t(43.4)$ = -1.810, p = .077.

To control for the issue of response productivity, analyses of covariance were conducted, using the number of words in the stories as the covariate. While the sexually abused and non-abused groups differed in the number of words in their stories, $t(52)$ = -3.638, p = .001, the statistically

significant results discussed above on the scale scores for the Complexity of Representations Scale, the Investment in Relationships Scale, and the Social Causality Scale remained significant in the analyses of covariance, $\underline{F}(1,111) = 8.610$, $\underline{p} = .004$, $\underline{F}(1,111) = 13.034$, $\underline{p} < .001$, and $\underline{F}(1,111) = 7.005$, $\underline{p} = .009$, respectively.

CBCL

Results from analyses of the six CBCL scales are presented in Table 10. Consistent with Hypothesis Five, five of the tests revealed statistically significant differences between sexually abused and non-abused girls. On the Social Competence scale, sexually abused girls received lower scores ($\underline{M} = 40.500$), signifying poorer social functioning, than non-abused girls ($\underline{M} = 48.967$), $\underline{t}(51.7) = -4.034$, $\underline{p} < .001$.

Preliminary analyses of the family composition variable had revealed a marginally significant difference between girls from single-parent, cohabitating and married families on Social Competence scale scores. Therefore, a follow-up analysis of variance with Social Competence was necessary, using family composition as a blocking factor. The difference between sexually abused and non-abused girls remained significant, $\underline{F}(1,96) = 9.108$, $\underline{p} = .003$.

On the Aggressive and Cruel subscales, sexually abused girls had higher scores ($\underline{M} = 60.974$ and 63.092, in order), signifying greater symptomatology, than non-abused girls ($\underline{M} = 56.867$ and 58.367, in order), $\underline{t}(97.6) = 3.660$, $\underline{p} < .001$ and

Table 10

Mean Scores for Sexually Abused and Non-Abused Girls on CBCL

Scores

Variable	Sexually Abused Group	Non-Abused Group	t	p
Social				
Competence	(74)	(30)	(51.7)	
M	40.500	48.967	-4.034	<.001
SD	9.396	9.817		
Aggressive	(76)	(30)	(97.6)	
M	60.974	56.867	3.660	<.001
SD	7.617	3.857		
Cruel	(76)	(30)	(69.5)	
M	63.092	58.367	3.913	<.001
SD	6.702	5.102		
Delinquent	(76)	(30)	(87.5)	
M	64.118	59.533	4.258	<.001
SD	6.814	4.058		
Depressed/				
Withdrawn	(21)	(08)	(13.2)	
M	61.619	58.500	1.295	>.10
SD	5.971	5.732		
Social				
Withdrawal	(55)	(22)	(74.4)	
M	62.691	56.500	4.312	<.001
SD	9.277	3.306		

Note. Numbers in parentheses represent the number of subjects with CBCL scores on the scale in question.

$\underline{t}(69.5)$ = 3.913, $\underline{p}$ <.001, respectively. Also, on the Delinquent and Social Withdrawal subscales, sexually abused girls had higher scores ($\underline{M}$ = 64.118 and 62.691, respectively),signifying greater symptomatology, than non-abused girls ($\underline{M}$ = 59.533 and 56.500, respectively), $\underline{t}(87.5)$ = 4.258, $\underline{p}$<.001 and $\underline{t}(74.4)$ = 4.312, $\underline{p}$<.001, in order.

Preliminary analyses of the family composition variable had revealed a marginally significant difference between girls from single-parent, cohabitating and married families on Social Withdrawal scale scores. Therefore, a follow-up analysis of variance with Social Withdrawal was necessary, using family composition as a blocking factor. This decreased the degree of difference between the scores of sexually abused and non-abused girls, although it still approached statistical significance, $\underline{F}$ (1,69) = 4.439, $\underline{p}$=.039.

Summary

The first five hypotheses of the present study predicted that sexually abused girls would perform more poorly on measures of object relational functioning than non-abused girls. The results from the analyses discussed above provide mixed support for these hypotheses. Consistent with Hypotheses Three, Four and Five, statistically significant differences were found between abused and non-abused girls on the MOAS mean score, on five of eight of the ORSCS measures, and on five of the six CBCL scales. Little support was

provided for Hypotheses One and Two, as revealed by analyses of the traditional Rorschach variables and the DACOS.

Relationships between Projective and Behavioral

Dependent Measures

Hypothesis Six of the present study predicted that significant associations would be found between the projective measures of object relational functioning (traditional Rorschach variables, DACOS, MOAS, ORSCS) and the objective social functioning measures (CBCL). Correlations between the continuous projective measures of object relational functioning and the behavioral measures of object relational functioning are presented in Table 11. Associations between the categorical projective measures (scored as presence or absence of responses) and the behavioral measures are presented in Table 12.

For the continuous projective variables, Pearson correlations revealed that three of the TAT measures were significantly associated with CBCL scales. The Investment in Relationships Scale and the Social Causality Scale were positively correlated with the Social Competence scores, $r = 0.279$ and 0.345, in order, $p<.005$, and the Investment in Relationships Scale was negatively correlated with the Social Withdrawal scale, $r = -0.323$, $p<.005$.

A number of other correlations approached statistical significance. The total number of Human responses was negatively correlated with the CBCL Aggressive subscale,

Table 11

Pearson Correlations between Continuous Projective Measures and Behavioral Dependent Measures

	SOCCOMP	AGGR	CBCL Scales CRUEL	DELINQ	DEP/W	SOC/W
Rorschach:						
Total H	0.047	-0.241	-0.107	-0.203[a]	-0.142	-0.532
DACOS:						
OR+	0.148	0.019	-0.097	-0.073	-0.355	0.077
OR-	-0.046	-0.037	-0.106	-0.058	-0.011	0.110
MDL+	0.158	0.006	-0.156	-0.017	-0.096	0.133
MDL-	0.169	-0.072	-0.136	-0.123	-0.176	0.022
Continuous	0.077	-0.119	-0.083	-0.092	-0.341	-0.033
MOAS:						
Mean Score	0.008	0.148	0.089	0.096	-0.266	0.006
TAT:						
Scale 1	0.136	-0.128	-0.197[a]	-0.159	-0.425[a]	-0.076
Scale 2	0.190	-0.023	-0.126	-0.065	-0.047	-0.135
Scale 3	0.279[b]	-0.152	-0.189	-0.206[a]	0.012	-0.323[b]
Scale 4	0.345[b]	-0.194[a]	-0.228[a]	-0.231[a]	-0.127	-0.242[a]

[a] $p<.05$

[b] $p<.005$

Table 12

Associations between Categorical Projective Measures and

Behavioral Dependent Measures

			CBCL Scales			
	SOCCOMP	AGGR	CRUEL	DELINQ	DEP/W	SOC/W
Rorschach:						
H	0.053	-1.967	-1.639	-2.542[b]	-1.400	-0.481
Hd	0.260	-1.235	0.092	-1.277	1.606	-2.120[b]
QH	0.244	-1.320	-0.122	-0.900	-1.540	-0.498
QHd	0.617	-0.193	-0.065	-1.411	3.333[b]	-0.120
Healthy H	1.280	-1.702	-1.807	-1.724	-0.605	-0.251
Spoiled H	-0.373	-0.834	0.973	-1.025	0.498	-0.067
M	-0.027	-0.477	0.275	-1.942	-0.669	0.861
Healthy M	0.474	-0.861	-0.252	-1.961	-1.375	0.578
Spoiled M	-0.249	1.104	1.296	-0.651	0.780	0.766
MOR	-0.534	0.649	0.493	0.703	-1.525	1.031
AG	1.515	-0.446	-0.653	-2.145[b]	-0.682	-2.111[b]
COP	1.325	-1.488	-0.821	-2.470[b]	-1.423	-0.397
TAT:						
Scale 1:						
Level One	2.058	0.009	-0.795	-1.002	---[c]	0.160
Scale 2:						
Level One	1.750	-0.323	-1.722	-0.502	-0.294	-0.627
Scale 3:						
Level One	-2.724[b]	1.161	0.738	0.825	-0.860	1.482
Scale 4:						
Level One	3.886[a]	-1.716	-2.015	-1.090	-0.013	-1.361

Note. Values presented in this table are t values. The variables in the left hand column are scored as present or absent.

[a] $p < .001$

[b] $p < .05$

[c] The test could not be performed because one of the groups had no variance.

r = -0.241 ,p<.05 and the Delinquent subscale, r = -0.203, p<.05. Mean scores from the ORSCS on the Complexity of Representations Scale were negatively correlated with the CBCL Cruel subscale, r = -0.197, p<.05, and the Depressed/Withdrawn subscale, r = -0.425, p<.05. The mean scores from the Investment in Relationships Scale were negatively correlated with scores from the Delinquent scale, r = -0.206, p<.05, and the mean scores from the Social Causality Scale were negatively correlated with scores from the Aggressive, Cruel, Delinquent and Social Withdrawal scales, r =-0.194, -0.228, -0.231 and -0.242, in order, p<.05.

For the categorical projective variables, t-tests were used to test for associations between projective and CBCL variables. A statistically significant association was found between the presence of Level One responses on the Social Causality Scale of the ORSCS and the Social Competence Scale of the CBCL, t = 3.886, p<.001. Associations approaching statistical significance were found between the Rorschach H, AG and COP categories and the CBCL Delinquent subscale, t = -2.542, -2.145, and -2.470, in order, p<.05. Associations approaching statistical significance were also found between the Rorschach Hd and AG categories and the CBCL Social Withdrawal subscale, t = -2.120 and -2.111, in order, p<.05, and the Rorschach QHd category and the CBCL Depressed/Withdrawn subscale, t = 3.333, p<.05. Finally, an association emerged between the presence of Level One

responses on the Investment in Relationships Scale of the ORSCS and the Social Competence scale of the CBCL, t = 3.886, p<.05.

Object Relational Differences between Maternally Supported and Unsupported Sexually Abused Girls

Hypotheses Seven and Eight of the present study predicted that sexually abused girls who received maternal support would demonstrate better object relational functioning than sexually abused girls who did not received maternal support on the five groups of dependent measures included in this investigation: traditional Rorschach variables, the Developmental Analysis of the Concept of the Object Scale (DACOS), the Mutuality of Autonomy Scale (MOAS), the Object Relations and Social Cognition Scale (ORSCS) and the Child Behavior Checklist (CBCL). Results from analyses testing these hypotheses are presented in this section.

Traditional Rorschach Variables

Results from analyses of the fourteen traditional Rorschach dependent measures are presented in Table 13. Contrary to Hypothesis Seven, no statistically significant differences emerged between groups, although two approached significance and were in the predicted direction. Maternally supported girls had Healthy Human Movement responses in their protocols more often than did unsupported girls, $x^2(1, N = 76)$ = 3.117, p =.077. Also, maternally unsupported girls had

Table 13

Group Differences between Maternally Supported and Unsupported

Sexually Abused Girls on Traditional Rorschach Variables

Variable	Supported Group	Unsupported Group	Test Statistic	p
Total H[a]				
M	3.600	4.415	$t(73.6) = 0.606$	<.10
SD	2.366	3.478		
CDI				
M	3.029	3.244	$t(73.4) = 0.891$	<.10
SD	1.014	1.090		
H	63%	73%	$x^2 = 0.930$	<.10
Hd	34%	34%	$x^2 = 0.000$	<.10
QH	80%	76%	$x^2 = 0.210$	<.10
QHd	06%	12%	$x^2 = 0.948$	<.10
Healthy H	86%	83%	$x^2 = 0.110$	<.10
Spoiled H	63%	68%	$x^2 = 0.248$	<.10
M	71%	61%	$x^2 = 0.917$	<.10
Healthy M	54%	34%	$x^2 = 3.117$	.077
Spoiled M	46%	39%	$x^2 = 0.347$	<.10
MOR	37%	59%	$x^2 = 3.459$	.063
AG	31%	32%	$x^2 = 0.001$	<.10
COP	66%	56%	$x^2 = 0.731$	<.10

Note: Percentage figures represent the percent of the group with the variable in question present in their protocols. All analyses based on an N = 76 (Supported Group n = 35, Unsupported Group n = 41).

[a] Mean scores and standard deviations for the Total H are presented, although the t value reported is for the test between the logarithmic transformation of this value.

Morbid responses in their protocols more often than did supported girls, $\underline{x}^2(1, \underline{N} = 76) = 3.459$, $\underline{p} =.063$.

DACOS

Results from analyses of the DACOS dependent measures calculated as mean scores are presented in Table 14, and results calculated as residualized weighted sums are presented in Table 15. Contrary to Hypothesis Seven, there were no statistically significant differences between groups, and only one difference that approached statistical significance. On the residualized weighted sums of the inaccurate Differentiation subscale, maternally unsupported girls scored higher ($\underline{M} = 2.238$) than did maternally supported girls ($\underline{M} = -1.794$), $\underline{t}(45.4) = 2.416$, $\underline{p} =.020$, consistent with the prediction of Hypothesis Seven.

MOAS

Results from analyses of the three MOAS dependent measures are presented in Table 16. Contrary to Hypothesis Seven, no statistically significant differences were found between maternally supported and unsupported girls.

ORSCS

Results from analyses of the eight ORSCS dependent measures are presented in Table 17. Contrary to Hypothesis Seven, no significant differences were found between maternally supported and maternally unsupported girls on these measures.

Table 14

Group Differences between Maternally Supported and Unsupported

Girls on Rorschach DACOS Calculated as Mean Scores

Variable	Supported Group[a]	Unsupported Group[a]	$\underline{t}$[b]
For accurately perceived responses:			
Differentiation	(32)	(35)	(64.2)
M	3.410	3.341	-0.624
SD	0.455	0.447	
Articulation	(25)	(33)	(48.6)
M	1.540	1.455	-0.372
SD	0.899	0.805	
Motivation	(20)	(16)	(30.2)
M	1.174	1.198	0.146
SD	0.457	0.521	
Integration	(20)	(16)	(25.6)
M	3.004	3.031	0.215
SD	0.297	0.431	
Nature	(15)	(15)	(24.7)
M	2.867	2.867	0.000
SD	0.516	0.352	
Content	(15)	(15)	(20.4)
M	1.789	1.933	1.396
SD	0.359	0.176	
MDL+	(32)	(35)	(64.2)
M	-0.105	-0.091	0.029
SD	2.017	1.970	

Table 14 (Continued)

Variable	Supported Group	Unsupported Group	t
For inaccurately perceived responses:			
Differentiation	(26)	(27)	(50.9)
M	2.937	2.979	0.235
SD	0.657	0.657	
Articulation	(15)	(22)	(31.0)
M	1.286	1.402	0.348
SD	0.981	1.019	
Motivation	(13)	(16)	(24.1)
M	1.564	1.495	-0.218
SD	0.896	0.781	
Integration	(13)	(16)	(26.8)
M	2.757	2.729	-0.183
SD	0.376	0.433	
Nature	(10)	(12)	(20.0)
M	2.333	2.250	-0.218
SD	0.816	0.965	
Content	(10)	(12)	(18.6)
M	1.466	1.542	0.385
SD	0.477	0.437	
MDL-	(26)	(27)	(49.1)
M	-0.072	0.011	0.159
SD	1.675	2.127	

Note.   No results in this table are statistically significant.

[a]Numbers in parentheses represent the number of subjects with scorable responses for the subscale in question that were then included in the analyses.

[b]Numbers in parentheses represent degrees of freedom.

Table 15

Group Differences between Maternally Supported and Unsupported

Girls on Rorschach DACOS Calculated as Residualized Weighted

Sums

Variable	Supported Group[a]	Unsupported Group[a]	$\underline{t}$[b]
For accurately perceived responses:			
Differentiation	(32)	(35)	(61.4)
M	-0.057	0.688	0.564
SD	5.781	4.951	
Articulation	(25)	(33)	(50.0)
M	0.492	0.626	0.149
SD	3.493	3.275	
Motivation	(20)	(16)	(33.2)
M	1.271	0.934	-0.727
SD	1.655	1.118	
Integration	(20)	(16)	(28.7)
M	3.032	2.394	-0.644
SD	3.891	1.896	
Nature	(15)	(15)	(23.4)
M	2.988	2.377	-0.748
SD	2.689	1.667	
Content	(15)	(15)	(25.1)
M	1.888	1.636	-0.508
SD	1.572	1.106	
OR+	(32)	(35)	(48.1)
M	0.000	-0.252	-0.308
SD	4.062	2.304	

(Table continues on next page)

Table 15 (Continued)

Variable	Supported Group	Unsupported Group	t
For inaccurately perceived responses:			
Differentiation	(26)	(27)	(45.4)
M	-1.794	2.238	2.416*
SD	4.768	7.183	
Articulation	(15)	(22)	(28.7)
M	0.186	1.712	1.205
SD	3.893	3.615	
Motivation	(13)	(16)	(26.0)
M	1.171	1.579	0.568
SD	1.905	1.953	
Integration	(13)	(16)	(19.9)
M	1.850	2.976	0.967
SD	1.612	4.300	
Nature	(10)	(12)	(17.1)
M	2.212	3.330	0.841
SD	2.087	3.993	
Content	(10)	(12)	(17.8)
M	1.215	2.180	1.242
SD	1.287	2.293	
OR-	(26)	(27)	(39.6)
M	-0.630	1.112	1.675
SD	2.500	4.767	
Continuous Summary Score	(34)	(37)	(69.0)
M	4.093	-3.257	-1.547
SD	18.950	21.086	

Note. Mean scores and standard deviations for the weighted residualized sums do not correspond with the DACOS scale, due to the residualization process.

ᵃNumbers in parentheses represent the number of subjects with scorable responses for the subscale in question that were then included in the analyses.

ᵇNumbers in parentheses represent degrees of freedom.

*p =.020

Table 16

Group Differences Between Maternally Supported and Unsupported

Sexually Abused Girls on Rorschach MOAS Scores

Variable	Supported Group	Unsupported Group	Test Statistic[a]
Mean Score[b]	(30)	(30)	
M	2.794	2.952	$t(55.9) = 0.404$
SD	0.896	1.154	
Most Adaptive Score			
M	2.300	2.267	$U = 449.00$
SD	0.837	0.868	
Least Adaptive Score			
M	3.700	4.000	$U = 492.00$
SD	1.622	1.819	

Note: On the MOAS, lower scores correspond with more adaptive responses. Numbers in parentheses represent the number of subjects with scorable responses for the MOAS that were then included in the analyses.

[a] No results presented in this table are statistically significant.

[b] Mean scores and standard deviations for the MOAS are presented, although the t value is for the test between the logarithmic transformation of the mean scores. These means were not presented because they do not correspond to the Mutuality of Autonomy Scale.

Table 17

Group Differences between Maternally Supported and Unsupported

Sexually Abused Girls on TAT ORSCS Scores

Variable	Supported Group	Unsupported Group	Test Statistic[a]
Complexity of Representations of People Scale:			
Scale Score			
$\underline{M}$	2.088	2.103	$\underline{t}(68.2) = 0.111$
$\underline{SD}$	0.452	0.641	
Level One Score	03%	13%	$\underline{x}^2 = 2.350$
Affect-Tone of Relationships Paradigms Scale:			
Scale Score			
$\underline{M}$	2.765	2.692	$\underline{t}(67.0) = -0.363$
$\underline{SD}$	0.890	0.800	
Level One Score	12%	08%	$\underline{x}^2 = 0.347$
Capacity for Emotional Investment in Relationships Scale:			
Scale Score			
$\underline{M}$	2.029	2.026	$\underline{t}(70.9) = -0.024$
$\underline{SD}$	0.627	0.743	
Level One Score	18%	26%	$\underline{x}^2 = 0.678$
Understanding of Social Causality Scale:			
Scale Score			
$\underline{M}$	1.941	1.897	$\underline{t}(64.6) = -0.247$
$\underline{SD}$	0.814	0.680	
Level One Score	29%	26%	$\underline{x}^2 = 0.130$

Note. All analyses based on $\underline{N}$ = 73 (Maternally Supported $\underline{n}$ = 34, Unsupported $\underline{n}$ = 39).

[a] No results in this table were statistically significant.

CBCL

Results from analyses of the six CBCL scales are presented in Table 18. Contrary to Hypothesis Eight, initial analyses revealed no statistically significant differences between groups, though two analyses yielded results approaching statistical significance. Maternally supported girls scored higher on the Social Competence scale (M = 42.625), and lower on the Delinquent scale (M = 62.625), than maternally unsupported girls (M = 37.912 and 65.528, respectively), t (57.0) = -2.097, p= .040, and t (64.1) = 1.786, p = .079, respectively.

Preliminary analyses of the family composition variable had revealed a marginally significant difference between girls from single-parent, cohabitating and married families on Social Competence scale scores. Therefore, a follow-up analysis of variance with Social Competence was necessary, using family composition as a blocking factor. When the effect of family composition was controlled for, the magnitude of the difference between sexually abused and non-abused girls increased, F (1,59) = 9.269, p =.003.

Summary of Results

The first five hypotheses of the present study predicted that sexually abused girls would perform more poorly than non-abused girls on measures of object relational functioning. Sexually abused and non-abused girls were found to exhibit

Table 18

Mean Scores for Maternally Supported and Unsupported Sexually

Abused Girls on CBCL Scores

Variable	Supported Group[a]	Unsupported Group[a]	t[b]	p
Social Competence	(32)	(34)	(57.0)	
M	42.625	37.912	-2.097	.040
SD	10.320	7.653		
Aggressive	(32)	(36)	(66.0)	
M	61.188	61.167	-0.011	>.10
SD	7.275	8.279		
Cruel	(32)	(36)	(63.7)	
M	63.625	62.944	-0.424	>.10
SD	6.819	6.365		
Delinquent	(32)	(36)	(64.1)	
M	62.625	65.528	1.786	.079
SD	5.690	7.662		
Depressed/ Withdrawn	(07)	(12)	(13.6)	
M	62.571	60.333	-0.785	>.10
SD	5.798	6.315		
Social Withdrawal	(25)	(24)	(46.7)	
M	63.120	62.625	-0.178	>.10
SD	9.519	9.890		

[a]Numbers in parentheses in this column represent the number of subjects with CBCL scores on the scale in question.

[b]Numbers in parentheses in this column represent the degrees of freedom.

statistically significant differences on one scale of the DACOS, on the MOAS mean score, on five of eight of the ORSCS measures and on five of the six CBCL scales analyzed. No statistically significant differences emerged on the traditional Rorschach variables, or on any of the five DACOS Summary Scores. Differences approaching statistical significance were noted on a number of the traditional Rorschach variables, and on the most adaptive MOAS score.

Hypothesis Six predicted that significant associations would be found between projective measures of object relational functioning and objective measures of social functioning. Statistically significant relationships were found between a few of the traditional Rorschach variables and the Delinquent, Social Withdrawal and Depressed/Withdrawn scales of the CBCL, as well as between two of the ORSCS scales and a number of the CBCL scales. This provides partial support for Hypothesis Six.

The final set of hypotheses of the present study predicted that sexually abused girls who were maternally supported would perform better on measures of object relational functioning than sexually abused girls who were not maternally supported. Only one difference between maternally supported and unsupported girls reached statistical significance. On the CBCL Social Competence scale, once the effect of family composition was removed, maternally supported girls were found to score higher than unsupported girls. No

statistically significant differences were found between supported and unsupported girls on the traditional Rorschach variables, the DACOS, the MOAS or the ORSCS.

CHAPTER V

DISCUSSION

Three sets of major hypotheses were tested in this study. First, it was predicted that girls who had been sexually abused would perform more poorly than girls who had not been abused on a variety of projective and objective measures of object relational functioning. Second, it was hypothesized that there would be significant associations between the projective measures of object relational functioning and the objective measures of social functioning. Finally, it was predicted that sexually abused girls who were maternally supported at the time of disclosure of the abuse would perform better than sexually abused girls who were not maternally supported on the same measures of object relational functioning.

The present study improved upon research within the child sexual abuse field by using a comparison group similar to the sexually abused group in sex, age, race, SES and place of residence. Also, a multi-method approach to assessing object relations was taken. Finally, the most important contribution might be the use of a conceptual framework to generate hypotheses and interpret results. The hypotheses of the current study were generated by applying object relations

theory to the study of child sexual abuse. Object relational
functioning was measured using the Rorschach, the TAT and the
Child Behavior Checklist. On the Rorschach, variables from
the Exner system were examined, and two alternative scoring
systems, the Developmental Analysis of the Concept of the
Object Scale (DACOS) and the Mutuality of Autonomy Scale
(MOAS), developed within the realm of object relations theory,
were also used. The Object Relations and Social Cognition
Scale (ORSCS), a scoring system for the TAT which assesses
object relational development along four different lines, was
also included. Finally, socially related scales of the Child
Behavior Checklist were used.

In this chapter, findings and implications related to
these three sets of hypotheses will be discussed. Also, the
limitations of this study will be presented along with
suggestions for the proposed direction of future research.

Object Relational Differences between Sexually Abused
and Non-Abused Girls

Object relational functioning was assessed in the present
study using a number of measures and scoring systems. Results
from analyses comparing sexually abused and non-abused girls
will be discussed for each measure separately below.

Traditional Rorschach Variables

Hypothesis One predicted that sexually abused girls and
non-abused girls would differ on traditional Rorschach
variables. Specifically, it was hypothesized that abused

girls would have fewer Human Responses, fewer Human Movement responses, more "Spoiled" Human and Human Movement responses, and more Morbid and Aggressive content responses. None of these hypotheses were confirmed, since there were no statistically significant differences between groups on the traditional Rorschach variables.

A number of differences between the groups approached significance, and might therefore warrant some brief discussion, although caution must be exercised in the interpretation of these results. Contrary to expectations, sexually abused girls tended to give more Human Responses than non-abused girls. It might be suggested that abused girls are actually preoccupied with people, as they struggle to understand the meaning of the abuse in their internal worlds. Abused girls tended to have "Healthy" Human responses, "Spoiled" Human responses and Quasi-Human responses more often than non-abused girls, again suggesting a greater interest in people, the internal representations of whom are sometimes perceived adequately and sometimes perceived inadequately.

Also, contrary to expectations, sexually abused girls tended to have Human Movement in their protocols more often than non-abused girls, although this finding only approached statistical significance. The adaptiveness of this finding is called into question, though, by the finding that abused girls also tended to have "Spoiled" Human Movement responses in their protocols more often than non-abused girls. Again, this

finding of increased Human Movement might suggest that abused girls spend more time thinking about people and relationships, and the more frequent "Spoiled" responses reflect that this may involve maladaptive or unhealthy representations or fantasies.

While these results might seem to contradict the premise that object relational differences are associated with sexual abuse, it can be suggested that the Rorschach failed to detect group differences because, among other reasons, in the present study many of the Rorschach protocols had fewer than 14 responses. Exner (1991) has cautioned against the use of these "brief" protocols for clinical and research purposes. While different results might emerge if this study, or future investigations, of sexually abused girls excluded brief protocols, this might also bias the results, since sexually abused girls might be more prone to give brief protocols than non-abused girls.

Additionally, information might have been lost when the Rorschach variables had to be converted from continuous to categorical variables. It was necessary to do this because the extreme skew of the distributions of these variables made them inappropriate for use in parametric analyses, but this may have greatly diminished the ability of the traditional Rorschach variables to detect group differences.

Developmental Analysis of the Concept of the Object Scale

(DACOS)

Hypothesis Two predicted that abused girls would score lower on the various DACOS measures for Accurate responses, and higher on the measures for Inaccurate responses, than would non-abused girls. This pattern was predicted because of the work of Blatt et al. (1976b) which revealed that more disturbed individuals embellish inaccurate representations more often than healthier individuals do, while the healthier individuals embellish accurate representations more often than disturbed individuals do. The results from the present study revealed only one statistically significant difference between groups on the 29 DACOS measures examined, and this was in the predicted direction. Analyses of the residualized weighted sums revealed that sexually abused girls scored higher than non-abused girls on the Motivation subscale with inaccurate responses. This suggests that abused girls describe greater intentionality of the motivation of action in inaccurate percepts than do non-abused girls.

While only approaching statistical significance, one other finding from the DACOS revealed that non-abused girls had higher mean scores than abused girls on the Nature subscale with inaccurate responses. This is not in the predicted direction.

One explanation for the failure to find significant differences between abused and non-abused girls on the DACOS

concerns the appropriateness of the use of the DACOS with children. In the present study, only a subset of subjects were included in analyses with the DACOS because many subjects did not include Human and Human Movement responses in their Rorschach protocols, and these are necessary to receive scores for the subscales of the DACOS. Within the literature, the DACOS has rarely been used with children. Therefore, it could be concluded that the DACOS may not be as appropriate for use with children as other assessment techniques might be.

Mutuality of Autonomy Scale (MOAS)

It was predicted in Hypothesis Three that abused girls would perform more poorly, that is, receive higher scores, on the MOAS. This hypothesis was supported by the results from this study. Sexually abused girls had significantly higher mean scores on the MOAS than the non-abused girls, and sexually abused girls tended to have a higher Most Adaptive score than non-abused girls. Thus, it appears that the experience of child sexual abuse is associated with internal representations of self, others and relationships in the object world as more malevolent and destructive. This suggests that some internalization of the abuse experience may have occurred. This is consistent with the findings of poorer MOAS scores for sexually abused girls by Leifer, Shapiro, Martone and Kassem (1991).

Nevertheless, the implications of these findings may be limited because, while statistically significant, the

differences between the two groups were not necessarily of great clinical significance. The mean scores for both groups fell within the adaptive range of scores, and the modal score for both groups seemed to be one of benign, parallel interaction. This modal response has been found in a normative study of healthy school-age children (Tuber, 1989b). The abused girls in the present study did exhibit a somewhat greater range of scores, though, as seen by an examination of the standard deviations of the groups. Thus, it might be suggested that the experience of sexual abuse does not destroy positive object representations in the internal world or eliminate the ability to perceive the object world in a healthy way, but that it introduces the likelihood of also internalizing negative object representations and then sometimes perceiving the object world in a much more malevolent way than would be likely if sexual abuse did not occur.

Object Relations and Social Cognition Scale (ORSCS)

It was predicted in Hypothesis Four that sexually abused girls would receive lower scores on the four dimensions of object relational functioning measured by the ORSCS than would non-abused girls. It was also predicted that a greater percentage of sexually abused girls would receive Level One scores, the least adaptive score, on the four scales of the ORSCS, than would non-abused girls. These hypotheses were largely supported, suggesting that sexually abused girls have

deficits in object relational functioning along a number of lines of development, as measured by the ORSCS.

Sexually abused girls scored significantly lower than non-abused girls on the Complexity of Representations of People Scale. This suggests that sexually abused girls may have deficits in their ability to clearly differentiate the perspectives of self and others, and to perceive themselves and others as "psychological beings with complex motives" who have "stable, enduring, multi-dimensional dispositions" (Westen, 1991a, p. 60). This is consistent with the findings of Westen, Ludolph, Block, Wixom and Wiss (1990), who reported that adolescent inpatients with a long history of sexual abuse had very poorly differentiated, egocentric responses on this scale of the ORSCS.

Sexually abused girls scored significantly lower than non-abused girls on the Capacity for Emotional Investment in Relationships and Moral Standards Scale, and also were more likely to give Level One responses than non-abused girls on this scale. This suggests that they may have a greater tendency to treat others as ends rather than as means, consider primarily their own need gratification, and have more primitive moral standards.

Sexually abused girls also scored significantly lower than non-abused girls on the Understanding of Social Causality Scale and were more likely to give Level One responses than non-abused girls on this scale. This suggests that abused

girls are less likely than non-abused girls to make "attributions about causes of people's actions, thoughts, and feelings [that] are logical, accurate, complex and psychologically minded" (Westen, 1991a, p. 60).

The Complexity of Representations, Investment in Relationships and Social Causality Scales of the ORSCS are believed to be developmental in nature, that is, to change over time. The results from the present study suggest that sexual abuse may cause an arrest or regression in the object relational developmental process along the dimensions measured by these scales.

Significant group differences were not found on the Affect-Tone of Relationship Paradigms Scale, though a trend was detected for sexually abused girls to score more poorly on this scale than non-abused girls. The failure to find significant differences on this scale is surprising, given the robustness of findings on this scale by Westen and his colleagues. For example, Nigg et. al. (1991) found that borderlines with a sexual abuse history displayed more malevolent affect-tone in early memories than borderlines without a sexual abuse history. Also, among adolescent inpatients, a history of child sexual abuse was associated with greater malevolence on the Affect-Tone Scale of the ORSCS (Westen, Ludolph, Block, Wixom & Wiss, 1990). It is not clear why more significant findings on the Affect-Tone Scale were not found in the current study.

Westen, Ludolph, Block, Wixom and Wiss (1990) have suggested that it is important to eliminate productivity (number of words) and vocabulary level as alternative explanations to group differences. The results from analyses with the ORSCS in the present study remained significant even when the number of words in the stories was used as a covariate. It was not possible in the present study to control for vocabulary level. Nevertheless, controlling for productivity lends greater support for the hypothesis that the noted differences on TAT scales are, in fact, associated with the experience of sexual abuse.

While these TAT results point to an association between child sexual abuse and object relational deficits, caution must be exercised in drawing dramatic conclusions from these findings, given that only one TAT story was available for each subject. Westen, Lohr, Silk, Kerber & Goodrich (1990) have stated that the optimal number of stories per subject is eight to ten. However, there have been applications of the ORSCS which have used as few as two TAT cards (Bogen, 1982). Westen has stated that limiting the number of observations to one story would introduce reliability problems that would hamper the detection of group differences (Westen, personal communication, May, 1991). It is therefore surprising that consistent, and statistically significant, differences were noted between groups on the ORSCS. It may be that the TAT card used in the present study, Card 7GF, depicting a mother

and daughter, was a particularly powerful stimuli for this sample of girls.

The present study is the first to use the ORSCS to compare sexually abused and non-abused children, although other TAT measures have recently been used successfully with sexually abused children (Craig & Stovall, 1990; Henderson, 1990). Clearly, the need to replicate this study using a greater number of TAT stories per subject is indicated.

Child Behavior Checklist (CBCL)

It was predicted in Hypothesis Five that sexually abused and non-abused girls would exhibit a number of differences on the CBCL. Specifically, it was predicted that sexually abused girls would be rated more poorly on the Social Competence scale of the CBCL than non-abused girls. This prediction was confirmed. Sexually abused girls were reported to exhibit significantly poorer social competence behaviors than non-abused girls. This finding is consistent with those from a number of other studies (e.g., Einbender & Friedrich, 1989; Mannarino, Cohen & Gregor, 1989; Shapiro, Leifer, Martone & Kassem, 1989).

It was also hypothesized that sexually abused girls would receive higher scores than non-abused girls on five scales measuring dysfunction in socially related areas: Aggressive, Cruel, Delinquent, Depressed/Withdrawn, and Social Withdrawal. This hypothesis was confirmed for all but the Depressed/ Withdrawn scale. These results are consistent with studies

finding greater overall psychopathology in sexually abused girls on the CBCL (e.g., Cohen & Mannarino, 1988; Lipovsky, Saunders & Murphy, 1989).

The observation that the sexually abused girls performed more poorly on almost all of the socially relevant scales of the CBCL can be understood within the object relational framework presented in this study. It can be suggested that changes in the internal world of the victims result in changes in their behavior. Then these changes in the victims' behavior might lead to changes in the way that they are treated by other people, which in turn might lead to further changes in their representational worlds. It is likely that this cycle contributes to the intrapsychic and behavioral changes that are frequently associated with child sexual abuse.

It should be reiterated that the CBCL has been found to be sensitive to parental expectations and parental psychopathology (e.g., Billings & Moos, 1983). It is possible to argue that the sexually abused girls were rated more poorly on the Social Competence and behavior problem scales because their mothers or foster parents expected them to be functioning more poorly due to the abuse, or because they were observed much more closely than the non-abused girls were, although the consistency with which investigators have found differences on the CBCL argues against this interpretation.

Relationships between Projective and Behavioral Measures

of Object Relational Functioning

In an attempt to link intrapsychic changes with behavioral changes, it was predicted in Hypothesis Six that significant associations would be found between the projective (intrapsychic) measures of object relational functioning (Rorschach, DACOS, MOAS and ORSCS) and the objective (behavioral) measures of object relational functioning (CBCL). Significant associations between these measures would provide support for the proposition that changes in the representational world lead to changes in social behavior. The results from the present study provide limited support for Hypothesis Six. While there were no associations between the DACOS or MOAS measures and the CBCL, there were significant or near significant associations between a few of the traditional Rorschach measures and the TAT measures and the CBCL.

Specifically, the total number of Human responses was negatively correlated (though not significantly) with the Aggressive and Delinquent scales of the CBCL. Additionally, marginally significant associations emerged between the presence of Human responses, Aggressive responses and Cooperative Movement responses and the Delinquent scale. The association between Human and Cooperative Movement responses and the Delinquent scale were in the predicted direction, but the association between Aggressive responses and the delinquent scale was not. Rather, the absence of Aggressive

responses was associated with higher scores on the Delinquent scale. Marginally significant associations also were noted between the presence of Quasi-human detail responses and the Depressed/Withdrawn scale, and between the presence of Human detail responses and Aggressive responses and the Social Withdrawal scale, with the absence of these responses being associated with higher scores on the CBCL scales.

On the TAT, girls who received Level One scores on the ORSCS Social Causality Scale had significantly lower Social Competence scores than girls who did not receive Level One scores. A trend in this same direction was observed on the Investment in Relationships Scale of the ORSCS. Additionally, statistically significant correlations were found between scores on the ORSCS Investment in Relationships Scale and the Social Competence and Social Withdrawal scales of the CBCL, as well as a marginally significant correlation with the Delinquent Scale. A statistically significant correlation was found between scores on the ORSCS Social Causality Scale and the Social Competence scale of the CBCL, as well as marginally significant correlations with the Aggressive, Cruel, Delinquent and Social Withdrawal Scales. Finally, marginally significant correlations emerged between scores on the ORSCS Complexity of Representations Scale and the Cruel and Depressed/ Withdrawn scales of the CBCL. The TAT findings can be summarized by stating that girls who had difficulties understanding social causality and had deficits in their

capacity for emotional investment in relationships also tended to exhibit poorer social competence and some increased behavior problems.

Taken together, these results lend some support to the existence of a link between intrapsychic and behavioral functioning in the realm of object relations. It is often the case that projective testing results are not associated with actual behavior, and so the finding of even a few associations between the projective and objective measures of object relational functioning in this study is encouraging. However, the failure to find an association between the CBCL scales and the MOAS, where group differences had been found between sexually abused and non-abused girls, is surprising, and limits the impact of these findings. Additionally, the correlational nature of the findings prohibits making any causal conclusions about the link between the intrapsychic and behavioral manifestations.

One of the complicating factors in attempting to establish a link between the representational world and actual behavior is the fact that deficits in object relational functioning might manifest themselves behaviorally in very different, and perhaps even contradictory, ways. For example, serious problems in the representational world could lead one child to withdraw from all social contact, lead a second child to act aggressively towards peers, and lead a third child to be superficially friendly with everyone. The fact that there

is not an expected one-to-one correspondence between changes in the child's internal world and certain problematic behaviors makes it more difficult to attempt to link intrapsychic changes with behavioral changes.

Object Relations and Child Sexual Abuse

The results from the present study lend solid support to the hypothesis that changes in social functioning are associated with child sexual abuse, and lend partial support to the hypothesis that changes in the object world occur as a result of child sexual abuse. On two measures of object relational functioning (traditional Rorschach measures, DACOS) no statistically significant differences were found between abused and non-abused girls, while on those measures that statistically significant differences were found (MOAS, ORSCS), the impact of child sexual abuse on object relational functioning was not as marked as had been expected. One might be tempted to conclude then that the impact of child sexual abuse on object relational functioning is not as profound as hypothesized. But, given the range of problems exhibited by child victims and adult survivors reported in the literature, particularly within the social and interpersonal realm, it seems unwise or premature to make this conclusion. Instead, it might be useful to look to methodological problems or limitations within the present study for further explanation. In this regard, there are two strong possible explanations for the failure to find more significant results than expected:

issues related to the age of onset of the abuse, and issues related to the measurement of object relations.

It was hypothesized that child sexual abuse would be associated with significant negative changes in the object worlds of victims. Very significant deficits were not found, and this might suggest that the object representational world becomes less malleable with age. It may be that beyond the oedipal stage, only very small changes take place within the representational world, while at a younger age, more profound changes can still occur. It was not possible in the present study to examine the impact of the age of onset of abuse on object relational functioning because the age that the abuse began was not recorded, but it seems that, in future research, examining the age of onset of abuse could be key to understanding whether or not to expect significant object representational changes.

There is some support in the literature to suggest that age of onset is important. Browne and Finkelhor (1986) reported that there are inconsistencies in the literature on age of onset, but that a trend exists for a younger age of onset to be associated with greater trauma. Additionally, as discussed earlier, Zivney, Nash and Hulsey (1988) found differences between girls who were sexually abused before the age of nine and those who were abused after that age. Specifically, girls who were younger at the onset of abuse were reported to experience greater deficits in self-object

differentiation, and more frequent experience of themselves as damaged than girls first abused at an older age. It seems that in future research it would be important to gather data related to the age of onset of abuse.

As mentioned above, issues related to the measurement of object relations might be responsible for the failure to find more striking differences between groups in object relational functioning. Some of these measurement problems have already been addressed: brief Rorschach protocols, the failure of many children to give responses scorable with the DACOS, and the use only one TAT story with the ORSCS. It seems that, while differences between sexually abused and non-abused girls were found on the MOAS and the ORSCS, even more pronounced group differences between sexually abused and non-abused girls might be found if more appropriate methods for assessing object relational functioning in children were employed.

It may be that some of the Rorschach measures used in the present study (traditional Exner variables, DACOS) were not sensitive enough to detect group differences that do exist. In particular, these projective measures, especially the DACOS, might have been inappropriate because they require the children to be articulate enough to put into words that which is necessary to obtain an accurate assessment of their object relational functioning. Differences between groups were found using the MOAS, which has been used extensively with children (Tuber, 1992), so it seems that this is a better Rorschach

measure of object relations for children than the DACOS or the
traditional Rorschach variables. Additionally, the present
study revealed group differences on the ORSCS, a TAT measure
that had also been found previously to be useful with children
(e.g., Westen, 1991a).

Future research might benefit from using other measures
of object relational functioning in addition to those used
successfully in the present study. Non-Rorschach projective
techniques using early memories and dreams might be useful in
assessing object relational functioning in sexually abused
children. Also of interest to future researchers in this area
might be newer projective measures which use subjects'
descriptions of their parents or other significant individuals
to assess their level of object relational functioning
(Behrends & Blatt, 1985; Blatt, Wein, Chevron & Quinlin, 1979;
Diamond, Kaslow & Blatt, in press). These might be promising
tools for future research in the object relational functioning
of child sexual abuse victims. In fact, the Blatt Object
Relations Scale (BORS) (Behrends & Blatt, 1985) has been used
successfully by Avery and Ryan (1988) to establish a link
between the quality of object representations and social
behavior in school-age children.

In addition, research within the field of attachment
theory has introduced methods of measuring the construct of
"attachment" in adults. Previously, all assessment methods
for the attachment construct were applied with infants and

toddlers, using the Strange Situation (Ainsworth, Blehar, Waters & Wall, 1978). Perhaps in the future, some of the newer measures, such as the Adult Attachment Interview (George, Kaplan & Main, 1984) and the Inventory of Adolescent Attachment (Greenberg, Siegel & Lietch, 1983) can be adapted for use with children, and can then be utilized in research on child sexual abuse.

One final issue raised by the fact that differences emerged on some measures of object relational functioning and not others is the possibility that there may be many lines of development within the realm of "object relations," and that problems within one development line might not dictate that there will be problems within all lines. It may be that the differences noted on the ORSCS and the MOAS represent changes which occurred within certain specific developmental lines of "object relations" because of child sexual abuse, while the lack of differences on the DACOS or the traditional Rorschach variables suggests that these lines of development are not impacted by child sexual abuse.

Object Relational Differences between Maternally Supported and Unsupported Sexually Abused Girls

Hypotheses Seven and Eight predicted that sexually abused girls who received maternal support at the time of disclosure of child sexual abuse would perform better on the projective and behavioral measures of object relational functioning than sexually abused girls who did not receive support from their

mothers. These hypotheses received very little support from the findings of the present study. No statistically significant differences emerged between these groups on any of the projective measures, and only one difference was found between groups on the behavioral measures. A few group differences approaching statistical significance were found.

On the traditional Rorschach variables, maternally supported girls were more likely to have Healthy human responses, and less likely to have Morbid responses, than unsupported girls. On the DACOS, maternally unsupported girls scored higher on the residualized weighted sums of the Differentiation subscale with inaccurate responses than supported girls. Finally, on the CBCL, maternally supported girls tended to score higher on the Social Competence scale, and lower on the Delinquent scale, than unsupported girls. In fact, when family composition was controlled for, the group differences between supported and unsupported girls on the Social Competence scale increased in magnitude. Therefore, there seem to be a few nearly significant findings, in the predicted direction, suggesting that maternally supported girls may have better object relational functioning than unsupported girls. However, any interpretation of these results must be made very tentatively, since all but one of them did not attain statistical significance.

Statistically significant differences were found between maternally supported and unsupported girls on a number of the

sex abuse-related characteristics included in this study. Unsupported girls were more likely to have experienced a greater quantity of sexual abuse, a history of physical abuse, a history of neglect, and to have lived with the perpetrator for a long period of time. Maternally unsupported girls were also much more likely to be in foster care than maternally supported girls. These relationships make it all the more surprising that group differences did not emerge between supported and unsupported girls on the object relations measures.

There are a number of possible explanations for the failure to find statistically significant differences between supported and unsupported sexually abused girls. It may be that the experience of child sexual abuse is so disruptive to object relational functioning that not even maternal support can prevent or lessen its deconstructive effect on the victim's representational world. However, since comparisons between abused and non-abused girls did not reveal marked differences on a number of the object relations measures, the present study cannot provide strong support for this explanation. As an alternative explanation, it could be suggested that the positive impact of maternal support might not become observable until later in life. Support for this explanation is found in the work of Peters (1988), who found that "lack of maternal warmth" was the best predictor of significant dysfunction in adult survivors of sexual abuse.

Additionally, it may be that there were object relational differences between the maternally supported and unsupported girls included in the present study that were not assessed because of the limitations related to the measurement of object relations discussed earlier. Since it has been suggested that some of the projective object relations measures used in this study were not sensitive enough to detect differences between the abused and non-abused girls, it is unlikely that they would be sensitive enough to pick up the more subtle differences that might exist between maternally supported and unsupported sexually abused girls. It may be that other measures, like the parental description measures mentioned above (e.g., Behrends & Blatt, 1985), might be more sensitive to the impact of maternal support.

Also, the definition of maternal support used in this study might be responsible for the limited findings. In this study, to be classified as supportive, mothers were required to have responded positively to their children in three ways: believing the child, taking action to protect the child, and not blaming the child. While these seem to be minimal standards of behavior that every mother of a child sexual abuse victim should meet, it may be that requiring the presence of all three of these criteria made the classification of maternal support too stringent. It could be that a mother who believed her child and did not blame the child might be experienced by that child as being just as

"supportive" as mothers who responded positively on all three questions. It was not possible within this study to split the variable of maternal support into more categories than "absent" or "present" because of the limited sample size, but perhaps future research with larger numbers of subjects could examine more carefully the impact of the <u>degree</u> of maternal support. Also, it may be that a definition of maternal support based on the <u>child's perception</u> of being supported or not supported by the mother would be more pertinent to a study of object relational functioning. Future studies should study the impact of behavioral manifestations of maternal support, as well as the internal, subjective evaluation of the child as to the degree to which she perceived herself to be supported.

Finally, it should be noted again that the CBCL has been found to be influenced by parental expectations and parental psychopathology. It could be proposed that the supported and unsupported sexually abused girls did differ in their <u>actual behavior</u> but not in the CBCL parental reports of their behavior. Everson et al. (1989) found no differences between supported and unsupported girls on the CBCL, but found significant differences between groups on child interview data. Further analyses revealed that CBCL's from supportive mothers' were highly correlated with information gathered from their children in clinical interviews, while there was no correlation between CBCL's completed by unsupportive mothers and the child interview data. The authors propose that this

indicates that unsupportive mothers may be "out of touch" with the emotional status of their children, and may try to underestimate or minimize their difficulties. It is possible that in the present study, the unsupportive mothers who completed CBCLs were also out of touch with the experiences of their daughters. It is also important to point out that foster mothers completed the CBCLs for sexually abused girls who were in foster care at the time of testing. A very large proportion of the girls in foster care had failed to receive maternal support, and therefore a confound was introduced if foster mothers were not familiar enough with the child, or were not sensitive enough to the child's emotional status, to accurately complete the CBCL.

Limitations and Directions for Future Research

The present study has improved upon research in the area of child sexual abuse by using object relations theory as a conceptual framework to develop hypotheses and interpret results. The inclusion of multiple dependent measures, and the use of a comparison group similar in age, sex, race, SES and place of residence improves upon the existing body of work in child sexual abuse. It was determined in the present study that sex-abused related characteristics, and foster care status, were not responsible for the differences noted between sexually abused and non-abused girls. However, there are a number of limitations to the present study. Some of the limitations related to the measures used in this study have

already been discussed above. These include the fact that many of the Rorschach protocols were brief and did not contain responses scorable with the DACOS, that only one TAT story was used, and that the CBCL can be influenced by parental expectations.

There are also a number of limitations to this study in terms of the sample. It is important to note that the sexually abused girls included in this study are not representative of all sexually abused children for a number of reasons. These girls might be considered to have experienced more severe abuse than is typical, because these girls all experienced some form of genital contact, and their abuse experience was serious enough to warrant reporting to and substantiation by the Department of Children and Family Services (Briere, 1992).

The children included in the present study were all girls. However, Finkelhor (1980) reports that for every two female child sexual abuse victims, there is at least one male victim, whose abuse is probably never reported. It is not reasonable to expect that boys experience child sexual abuse in exactly the same ways as girls do. Therefore, it would be beneficial to conduct the present study again with a sample of sexually abused boys, rather than simply generalizing the results to boys.

The girls in the present study were all African-American. Research has shown that sexual abuse occurs across all races.

At least one investigator (Russell, 1986) has suggested that African-American females may experience greater subjective distress as a result of child sexual abuse than whites. She suggests that "the trauma of being raised an African-American in a racist and sexist society may compound the effects of the abuse" (p. 133). Therefore, it might be beneficial to replicate the present study using both African-American and white subjects, to allow for comparisons by race. Until then, generalizing the results of the present study to girls of other races must be done cautiously.

The girls in the present study were predominantly from very low SES families. However, the girls from the comparison group were also from low SES families. Therefore, it seems that any group differences noted between abused and non-abused girls can be attributed to issues other than SES. Nevertheless, research which includes subjects from a wider range of SES classes would be useful, since child sexual abuse occurs across all SES groups and social classes.

The inability to assess or control for family dysfunction in the groups is a limitation to this study. The present study was not able to eliminate family dysfunction as an alternative hypothesis to explain group differences (Briere, 1992). While the present study was able to rule out that family composition was responsible for group differences, little was known about the actual family experiences of the two groups of girls, except that there either was or was not

physical or sexual abuse in their histories. Future research should include some assessment of the general functioning of the families of sexually abused and non-abused children, using measures such as the Family Adaptability and Cohesion Evaluation Scale (FACES) (Olson, Russell & Sprenkle, 1979) or the Family Environment Scale (FES) (Moos & Moos, 1981). It might then be possible to form a comparison group of non-abused girls from families judged to be dysfunctional, using these measures.

Given that testing occurred between nine and eighteen months after the disclosure of the abuse, it is possible that some "initial" effects had already occurred and then disappeared in the group of sexually abused girls. For example, it may be that the experience of maternal support after disclosure helped to reverse changes, while for girls who were not maternally supported, foster parents might have helped those girls "recover" from initial changes. On the other hand, it is possible that the impact of the sexual abuse has not yet been felt, or has not yet become entrenched enough in the representational worlds of the victims to be observable using the projective assessment techniques included in this study. It may be that the effects are waiting to emerge in response to developmental transitions such as puberty or young adulthood (Cole & Putnam, 1992). Longitudinal studies examining the impact of child sexual abuse on object

relational functioning at different times after the abuse would be very helpful.

The limited sample size in the present study, in particular of the non-abused comparison group, points to the fact that there may not have been sufficient statistical power to detect group differences that might actually exist. This could be especially true given the use of a more stringent alpha ($\underline{p}$ <.01) in the present study to determine significance (Cohen, 1988). It would be beneficial if the present study could be replicated with a larger number of subjects so as to increase the power of the analyses to detect true group differences.

Despite the limitations elaborated on above, the current study has contributed to the field of child sexual abuse by providing the conceptual framework of object relations theory to understand the impact of child sexual abuse. Results from the study suggest that changes do occur within the representational worlds of sexually abused children, as well as in their behavior. By recognizing that these changes occur, clinicians can design appropriate psychological interventions for the treatment of child sexual abuse victims. It would then be possible to focus not only on the behavioral changes that are associated with sexual abuse, but also on the child's changed views of self and others in the

representational world. Green (1978) states that the goal of treatment with child sexual abuse victims is to modify

> persisting pathological internalized objects and identifications...so that the children can eventually accommodate to an average expectable environment and attain the capacity to love themselves and others. (p. 370)

This can be accomplished in the course of psychotherapy as the child internalizes the positive interactions with the therapist, perhaps supplanting or replacing the negative internalizations that resulted from the experience of child sexual abuse.

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The final copies have been examined by the director of the
dissertation and the signature which appears below verifies
the fact that any necessary changes have been incorporated and
that the dissertation is now given final approval by the
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The dissertation is therefore accepted in partial fulfillment
of the requirements for the degree of Doctor of Philosophy.

October 21, 1992   _Patricia Rupert_
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