DOES FAMILY COMPOSITION PREDICT MALTREATED CHILDREN'S AGGRESSION?

By

MAUREEN BLANKEMEYER

Bachelor of Science
Bowling Green State University
Bowling Green, Ohio
1990

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1993

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May, 1996

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AGGRESSION?

Thesis Approved:

Thesis Adviser

Laura Hubbs-Tait

Kathleen Bruggeman

Trish Long

Thomas C. Collins

Dean of the Graduate College

ACKNOWLEDGMENTS

I wish to express my gratitude to Dr. Rex Culp, my adviser, for his enthusiastic guidance, support, and encouragement, as well as for allowing me to experience The Children's Place. I would also like to thank him for being a mentor to me throughout my graduate years. I wish to thank Dr. Laura Hubbs-Tait, my committee member, for giving me much more of her time than was expected, for sharing her knowledge with me, and for assisting me with my statistics. My gratitude also goes to my other committee members, Dr. Kathleen Briggs, for her expertise and constant encouragement, and Dr. Trish Long, for her expertise and wonderful suggestions. A special thanks goes to Dr. Anne Culp for the years of support and encouragement, and for being a mentor to me. Thanks also go to Pat Bowen for assisting me with my dissertation overheads.

My gratitude goes to those at The Children's Place who made the data collection process easy and fun. Special thanks go to Harriet Lawrence for opening her home to me during my numerous visits to Kansas City, and to Jenny Hesser for her assistance during data collection, and for the comic relief during the long drives to and from Kansas City.

I am eternally grateful to my family: my mother, Joan Blankemeyer, for her encouragement, and for instilling in me the importance of higher education; my belated father, Gene Blankemeyer, for having the utmost confidence in me; and my siblings, Angie, Elaine, Sam, and Jerome, (and Tracey!) for being supportive of me, and most of all, for giving me a lifetime of laughter and love.

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Does Family Composition Predict Maltreated Children's Aggression?

Maureen Blankemeyer
Department of Family Relations
and Child Development
Oklahoma State University

Funding for this project was provided through the Paul L. Patton Charitable Trust
and the John and Sue Taylor Dissertation Fellowship

Abstract

There were two purposes of this study, which assessed the relationships between family composition and maltreated children's aggression. The first purpose was to investigate the extent to which family composition predicts maltreated children's aggression. Participants were 42 children (18 females, 24 males; 25 African Americans, 17 Caucasians) aged 2.8 to 5.1 years (M = 4.1 years). Aggression was measured using the Child Behavior Checklist (CBCL)/2-3, Preschool Behavior Questionnaire (PBQ), and the Preschool Taxonomy of Problem Situations (PTOPS). Data were analyzed by means of hierarchical multiple regressions, with race and gender controlled by being entered first. Results revealed that family composition variables significantly predicted aggression. First, the number of siblings predicted CBCL aggression. Second, the number of siblings predicted a significant amount of variance in CBCL destructive behavior. Third, the percent of siblings who were abused and the percent of siblings who were neglected predicted PBQ hyperactive-distractible behavior. Finally, whether children resided in a single-parent home or two-parent home predicted PTOPS reactive aggression.

The second purpose of this research was to determine if the patterns of correlations between family composition variables and aggression differ for the different maltreatment groups of neglected children, sexually abused children, and physically abused and neglected children. The results indicated that family composition-aggression relationships differ among these three maltreatment groups. These findings suggest that the pathway to aggression differs as a function of the type of victimization suffered by the child. Implications for future research and practice are discussed.

CHAPTER I

REVIEW OF LITERATURE

Review of Literature

Introduction

Every year over one million children are victims of maltreatment (Besharov, 1990). Public attention had not been given to child maltreatment, however, until 1962 when the "battered child syndrome" was identified as a serious problem warranting attention (Kempe, Silverman, Steele, Droegemeuller, & Silver, 1962). Consequently, an abundance of research has since been conducted which focuses on child maltreatment. Because physicians were the first to identify the problem of child maltreatment, much of the research and clinical work with child maltreatment has, from the earliest efforts, focused on the individual level (Gelles & Maynard, 1987). In particular, most of the child maltreatment studies typically focus on the characteristics of the abusive parent(s) (e.g., Green, 1980) or those of the maltreated child (e.g., Green, 1978). Only in the past two decades have the characteristics of the maltreating family unit, as a whole, been addressed in the professional literature (Yegidis, 1992). Restricting the research focus to either the child maltreatment perpetrator or the child victim fails to acknowledge the role of the family system in child maltreatment outcomes (Kashani, Daniel, Dandoy, & Holcomb, 1992; Yegidis, 1992).

Statement of Problem

The child maltreatment studies which incorporate family system characteristics often address family composition variables. Family composition variables refer to the constituents of the family; for example, the number of family members, the involvement of grandparents with a family, the parents' marital status, and the birth order of the

children. Several family composition variables have been found to be related to the occurrence of child maltreatment, including single parent homes (Gelles, 1989), violence between grandparents (Cantrell, Carrico, Franklin, & Grubb, 1990), number of siblings (Cantrell et al., 1990), and isolation from extended family (Salzinger, Kaplan, & Artemyeff, 1983). In addition, child maltreatment is associated with the occurrence of child aggression (Fatout, 1990; Salzinger, Feldman, Hammer, & Rosario, 1991). However, although family composition is related to the occurrence of child maltreatment, and child maltreatment is related to child aggression, no study has examined the extent to which family composition variables, in turn, predict maltreated children's aggression.

The issue of maltreated children's aggression warrants attention because (a) aggression is a common characteristic of maltreated children, (b) research suggests that maltreated children's behavior becomes more problematic as they age (Haskett & Kistner, 1991), and (c) maltreated children's aggression has implications for others, including peers and teachers (George & Main, 1979), as well as family members (Bousha & Twentyman, 1984), who are typically the targets for the aggression.

Much of the research on maltreated children's aggression evaluates the aggression of children who have been exposed to a particular type of maltreatment. Maltreatment types typically addressed by researchers include physical abuse, neglect, and sexual abuse. Physical abuse is defined by researchers as a caretaker's infliction of injury on an individual under the age of 18 years (Green, 1988). Neglect is referred to as the failure of a caretaker to provide for basic physical needs and supervision for an individual under the

age of 18 years (Green, 1988). Sexual abuse is defined in the literature as the use of a child for sexual gratification by an adult (Green, 1988).

Since numerous family variables, including family composition variables, are related to the occurrence of child maltreatment, and aggression is often the outcome of child maltreatment, family composition is anticipated to predict maltreated children's aggression.

Theoretical Framework

Many researchers have considered family systems theory to be a useful framework in which to understand maltreating families. Stemming from von Bertalannfy's (1968) "General Systems Theory," family systems theory depicts the family as a system of interrelated parts (Whitchurch & Constantine, 1993). The interrelated parts are subsystems, including, but not limited to, the parent, sibling, and parent-child subsystems (Gelles & Maynard, 1987).

A fundamental characteristic of a family system is that it has boundaries. A boundary is a set of redundant patterns of behaviors which identify a system or subsystem (Becvar & Becvar, 1982). Boundaries are rules which dictate when, where, and how a constituent of a system may behave (Simon, Stierlin, & Wynne, 1985). Implicit within the concept of a boundary is that the family is a hierarchy of systems. That is, boundaries demarcate a family from a larger social system; yet boundaries also demarcate the subsystems, or relationships between family members, from the family system (Becvar & Becvar, 1982). A family system, being hierarchical, must have clear boundaries established and maintained or dysfunction will occur (Gelles & Maynard, 1987).

Reversed and blurred boundaries are characteristic of many sexually abusive families (Finkelhor, 1979). Gelles and Maynard provided an example of the detrimental effects to a family which resulted from unclear boundaries between the parental and child subsystems. Instead of the parents confiding in one another and establishing the family rules, the mother confided in her son until he reached adolescence. At that point, the son began to form a coalition with his father, and subsequently became violent toward his mother after she expressed her anger about the new alignment between the son and father.

Other characteristics of maltreating families were reported by Tharinger and Vevier (1987) in their review of child sexual abuse in the context of family systems theory. One feature is the abuse of power, particularly by the father (Tierney & Corwin, 1983). Maltreating families are also characterized as closed systems, isolating themselves from the outside world (Finkelhor, 1979). Moreover, the parental subsystem in these families is often weak and ineffective (Thorman, 1983). Tharinger and Vevier (1987) reported that different types of maltreating families exhibit various combinations of these features and other family characteristics.

Straus (1973) was the first to apply "General Systems Theory" to family violence. From his model, violence is depicted as a family system output rather than a pathological individual's output. Maltreatment arises from diverse sources, such as parents' expectations and personality traits. Maltreatment may then be perpetuated in a family system by certain processes serving as positive feedback, and increasing the spiral of violence. Positive feedback is information in the system which has the potential to change the system. Examples of information which serves as positive feedback include

whether the violence is consistent with the perpetrator's goals, the perpetrator's self concept, the role expectations of the victim, the community's tolerance for violence, and the victim's lack of power. Straus' model also proposed sources of negative feedback. Negative feedback has a corrective function, keeping the family's behaviors the same as they were prior to the maltreatment occurring. Sources of negative feedback include violence being inconsistent with the perpetrator's goals, a low community tolerance for violence, public awareness of the act of violence, and minimal social distance between the perpetrator and social agencies. One of Straus' propositions was that individuals who are labeled "violent" may be encouraged to act in a violent manner. That is, the violence in a family system will increase when there exists positive feedback, such as labeling, reinforcement of the aggressor, and role expectations for the aggressor to be violent and tough. Straus thus suggests that since family violence involves feedback processes, the violence is not a simple linear relationship of cause and effect.

Rather than portraying the family as a unit of subsystems reacting to one another in a linear cause and effect manner, family systems theory emphasizes that a family is a unit of interdependent subsystems whose actions are a function of those of the other subsystems, as well as a function of the context in which the system exists (Montgomery & Fewer, 1988). Not only are family members in interaction with each other, but they are also in interaction with extrafamilial sources, such as mass media's glamorous portrayal of the tough male and social interaction with peers (Straus, 1973). In fact, family systems theory proposes that functional, as well as dysfunctional relationships, are related to

individuals' interpersonal, physical, and organizational environments (Kashani et al., 1992).

Family violence is not viewed in the family systems framework as a simple cause-effect occurrence, but instead is viewed as an outcome of multiple interacting sources. Moreover, actions which occur within the family system, such as the maltreatment of a child, are not viewed as the pathology of only the perpetrator. Instead, they are viewed as one aspect of the family's overall dysfunction (Asen, George, Piper, & Stevens, 1989). Thus, child maltreatment is viewed by family systems theorists as a symptom, not a cause, of family dysfunction (Tharinger & Vevier, 1987).

In addition to addressing how maltreatment arises, family systems theorists have addressed outcomes of child maltreatment. Instead of viewing child maltreatment as having a direct effect on the victim, family systems theorists consider the victim's behaviors and emotions that occurred subsequent to the abuse as being a function of the family context -- the history, roles, behaviors, cognitions, and emotions of all constituents of the family system (Tharinger & Vevier, 1987). Consequently, whereas certain behaviors, such as aggression, may appear to be a direct effect of the child maltreatment, family systems theorists would view the aggression as an outcome from multiple influencing sources, including the maltreatment itself. Furthermore, with multiple sources having the potential to influence maltreatment outcomes, no single behavior is believed to epitomize the maltreated child. Rather, behavioral outcomes of abuse may be influenced by a multitude of factors (Kashani et al., 1992). Family systems theory

predicts that characteristics such as family composition are related to maltreatment outcomes (Cicchetti & Howes, 1991).

In sum, when a maltreated family is viewed from the family systems perspective, the interaction between the perpetrator and maltreated child is not the sole focus. Rather, the focus is on characteristics of the family system and subsystems. Consequently, family systems theory serves as an appropriate framework for the present study which evaluates the family system's and subsystems' composition and the maltreated child's type of aggression.

The current work is not intended to suggest that aggression in maltreated children is solely a product of maltreatment type or family composition, but rather, the goal of the work is to show the relationship between aggression and family composition. Attention given to these issues is intended to add to the existing literature on aggression in maltreated children rather than dispute it.

Family Variables Related to Maltreatment

Numerous family variables have been found to be related to child maltreatment, including low socioeconomic status, marital discord, employment uncertainties, social isolation, parental psychological disturbance, and intergenerational transmission. Implicit within these family variables is that they all are potentially stress-related. Since stress is related to aggression, according to an extensive body of literature (Yegidis, 1992), these family variables may also, then, be related to aggression in the family. Many researchers consider child maltreatment to be a manifestation of family stress (Houck & King, 1989), and studies indicate that, indeed, family stress is correlated with the incidence of child

abuse. Houck and King (1989) suggested that in maltreating families, perceptions of the stress involved in parenting is an important variable to investigate. Starr, Seresnie, and Steinlaus (1978) found that abusive parents had experienced more stressful situations than nonabusive parents. Burgess and Conger (1977) and Straus (1980) reported that the highest rate of child abuse was found in parents who incurred the greatest number of stressful events. However, other studies have concluded that there were no differences in abusive versus nonabusive families' stress (e.g., Egeland, Breitenbucher, & Rosenberg, 1980; Webster-Stratton, 1985).

Several family factors associated with child maltreatment contribute to family stress, including low socioeconomic status, marital discord, and employment uncertainties. There is evidence that child abuse is more prevalent in families of low socioeconomic status (Green, 1988; Lennington, 1981; Webster-Stratton, 1985). Nevertheless, one researcher (Kent, 1976) contends that families with socioeconomic distress are more likely than families who are not socioeconomically depressed to be involved with social reporting agencies in the first place. Consequently, they are more likely than non-socioeconomically distressed families to be reported as being abusive.

Marital discord is another source of family stress which has been addressed in maltreatment research. Abusive mothers were reported by Green (1976) as having a higher incidence of marital difficulties than both neglecting mothers and nonmaltreating control mothers. Wolfe, Jaffe, Wilson, and Zak (1985) reported that there is more likely to be marital conflict in abusive families than in nonabusive families.

Uncertainty regarding employment is yet another family stress variable that is related to child maltreatment. For example, unstable employment is a characteristic commonly attributed to incestuous fathers (e.g., Lukianowicz, 1972). In a study of high school sophomores by Cantrell and colleagues (1990), paternal unemployment was found to be a significant contributor to family violence. Of students whose father was unemployed, 34% reported parent-to-child abuse. Steinberg, Catalano, and Dooley (1981) reported that increases in occurrences of child abuse were evident following periods of high job loss.

Research indicates that maltreating families are more socially isolated than other families (e.g., Crockenberg, 1981; Starr et al., 1978; Wahler, 1980). Having few sources of emotional support and high frequency of negative interactions with social agencies, the impact of parenting stressors may be magnified (Salzinger et al., 1983; Wahler, 1980). Salzinger et al. (1983) compared abusing, neglecting, and nonmaltreating mothers on their social networks. The abusing and neglecting mothers were much more socially isolated than the nonmaltreating control mothers. Their peer networks were smaller, and they spent much less time with their networks than the control mothers did. Maltreating mothers also had less contact with their extended families than the control group had. Seagull (1987) concluded that due to both conceptual and methodological flaws in the maltreatment/ social support research, a direct relationship between child maltreatment and a lack of social support is questionable. However, she found that the research linking child neglect and low social support was more compelling than that of child abuse and low social support.

Social isolation may have serious implications for maltreating parents, although most of the social isolation research focuses on the maltreating mother. The social isolation of maltreating mothers is particularly threatening to them considering that they typically experience psychological symptoms including low self-esteem and depression. Abusive mothers' self-esteem has been found to be significantly lower than that of nonabusive controls (Anderson & Lauderdale, 1982). In Zuravin's (1988) study, neglectful parents were matched with abusing parents on the following criteria: (a) single parent, (b) child under the age of 12, and (c) AFDC recipient. The neglectful parents were found to be significantly more severely depressed than the abusing parents (Zuravin, 1988). In a study by Culp, Culp, Soulis, and Letts (1989), both maternal self-esteem and depression were assessed with physically abusive mothers, neglecting mothers, and a matched control of nonmaltreating mothers. Groups were matched on maternal age, ethnicity, and years of education. Both types of maltreating mothers reported higher levels of depression than the nonmaltreating mothers. However, only the physically abusive mothers had lower self-esteem than the nonmaltreating mothers. Similarly, Kaplan, Pelcovitz, and Salzinger (1983) reported that a higher percentage of maltreating mothers than nonmaltreating mothers were diagnosed as having a major depressive disorder.

In addition to the psychological problems just discussed, evidence suggests that maltreating families have a higher prevalence of serious psychiatric disorders than other families. Smith, Hanson, and Noble (1973) described their sample of abusive mothers as

including 48 percent neurotics and their sample of fathers as consisting of 33 percent psychopaths.

Another family variable pertinent to child maltreatment is the intergenerational transmission of abuse, which suggests that violent behavior is passed down by family members from one generation to the next. Although there is little evidence to suggest that abused children become abuse perpetrators (Widom, 1989), research indicates that often abusing parents were themselves abused as children. Gelles (1987) reviewed studies on the cycle of physical abuse, and concluded that exposure to violence is significantly related to the likelihood of later abuse perpetration. Between 30 and 50 percent of abusive parents were reported by Solomon (1973) as having experienced abuse in their childhood. Court (1974) reported 31 percent of a sample of abusive mothers were abused as children.

Several sexual abuse studies also suggest intergenerational transmission of abuse. Goodwin, McCarthy, and Di Vasto (1982) found that mothers of abused and neglected children were eight times more likely than mothers in the general population to have been the victim of incest. Sexual abusers often have been the victim of sexual abuse as a child. Of 106 child molesters in a study by Groth and Burgess (1979), 32 percent of the group reported being sexually victimized as a child, compared to only 3 percent of a group of 64 nonabusing police officers. Incest offenders were five times more likely to have been the victim of childhood sexual abuse than nonabusing controls (Langevin, 1983). These statistics are unfortunate, particularly for sexually abused victims, because a large portion of the clinical data suggests that a sexually abused child incurs greater trauma when the

perpetrator is more closely related (Burgess, Groth, Holmstrom, & Sgroi, 1978). Friedrich, Urquiza, and Beilke (1986) reported that the relatedness of a child to the sexual abuse perpetrator was a significant predictor of scores on the Externalizing scale (which includes aggression) of the Child Behavior Checklist (Achenbach & Edelbrock, 1983). When a child was sexually abused by a natural parent, the child exhibited greater behavioral sequelae than if perpetrated by someone else. Mrazek and Mrazek (1981) also suggested that the degree of relatedness between the victim and perpetrator of sexual abuse may be related to behavioral outcomes. Consequently, they suggest that relatedness of victim to perpetrator be included in research investigating behavior subsequent to abuse.

In sum, the research indicates that some family variables are more prevalent than others in maltreating families. Those family variables which often characterize maltreating families are low socioeconomic status, marital discord, employment uncertainties, social isolation, low maternal self-esteem, maternal depression and other psychological problems, and the intergenerational transmission of abuse.

Family Composition

A common theme underlying the family variables reported in child maltreatment studies is that of family composition, which includes for example, the number of family members and the constituents of the family subsystems. Stating that family composition is a common theme in maltreatment research is not to imply that the family's composition necessarily directly affects child maltreatment outcomes. Rather, family composition

may interact with other variables, such as family stress to make the family system more vulnerable to child maltreatment and for various maltreatment outcomes to occur.

Cicchetti and Howes (1991) presented a developmental psychopathology framework in which to conceptualize child maltreatment in the family context. They emphasized the importance of family researchers addressing the difficulty of defining the family. They state that most maltreating families have boundaries which frequently change, and a composition which likewise frequently changes. Therefore, researchers investigating maltreated families must address varying family compositions, such as single parent versus two parent families and the size of the sibling subsystem. The following studies of child maltreatment and family composition variables have been organized according to family subsystems: parental, parent-child, child, and intrafamilial-extrafamilial subsystems.

Parental subsystem. Many of the family variables previously mentioned which are related to child maltreatment are also associated with the family's parental composition, or marital status. Marital status in abusive families has been frequently addressed in child maltreatment research. The rate of child abuse has been reported to be nearly twice as high in single-parent homes as in two-parent homes (Sack, Mason, & Higgins, 1985). Gelles (1989) concluded from a study of 6,000 households that single-parent families are at a high risk for abusing their children. Kimball, Stewart, Conger and Burgess (1980) assessed the family interactions (e.g., verbal and physical giving and receiving, affect, commands, and compliance) of single-and intact parent families who were either abusive, neglectful, or control families. The results indicated that within a family setting, children

of single-parent families exhibited more negative interactions than children in intact families, particularly for physically abused and neglected children rather than control children. In a study by Finkelhor (1979), girls whose natural mothers were absent from the home were 200 percent more likely to be the victim of sexual abuse than girls who lived with their natural mother. A recent study (Nash, Hulsey, Sexton, Harralson, & Lambert, 1993) indicated that women who were sexually abused as children reported their parents' marriage as less happy than that reported by nonabused women. Furthermore, a significantly higher number of women in clinical treatment who were sexually abused as children reported having had stepfathers than nonabused women.

Single-parent homes are believed to have higher levels of stress than dual-caretaker homes due to time consuming and stressful demands (Gelles, 1989). Some of the stressful demands are a result of a low income level. Low socioeconomic status is characteristic of many single-parent homes. Researchers have suggested that high rates of child abuse in single-parent homes is the result of economic deprivation which is characteristic of many of those homes (Sack et al., 1985).

In a more recent study of demographic and economic characteristics of families by types of maltreatment, Jones and McCurdy (1992) included a sample of 2,814 children grouped into categories according to type of maltreatment: physically abused, sexually abused, emotionally maltreated, and physically neglected. Fifty-five percent of the families had annual income levels less than $15,000. Only 40% of the sample were two-parent families. The neglected group was characterized as consisting of both the largest percentage of low-income families as well as the largest percentage of female-headed

households. The authors conclude that there is a strong relationship between neglect, low income, and female-headed households.

The composition of the parental subsystem appears to be related to the occurrence of child maltreatment. Single-parent families are at a greater risk for maltreating their children. However, research indicates that rather than the marital status *per se* being the influencing factor in the occurrence of maltreatment, other variables associated with maltreatment status are believed to contribute to the occurrence of maltreatment. For example, single-parent families experience higher levels of stress, in part due to lower socioeconomic status, than two-parent families. Researchers suggest that the stress which is typically found in single-parent homes is a direct contributor to the occurrence of child maltreatment.

Parent-child subsystem. Studies which were previously discussed describe the intergenerational transmission of abuse as a characteristic of maltreating families. The intergenerational transmission of abuse occurs through interactions within the parent-child subsystems of a family. Therefore, family composition is again implied as a mediator of maltreatment outcomes, as it would be expected that children who have been removed from an abusive parent are less likely to experience the effects of intergenerational transmission than children living with a maltreating parent. Reidy (1977) compared the aggression of abused children who were residing in their natural homes with that of abused children who had been placed in foster care. There were no differences between the groups in the amount of overt aggression as scored by teachers on the Behavior Problem Checklist (Quay & Peterson, 1967), nor in the amount of

aggression displayed during free play (Reidy, 1977). However, abused children who were residing in their natural homes showed more fantasy aggression than abused children who were residing in foster care (Reidy, 1977). Although the severity of abuse was not controlled for between the group of children residing in their natural home and the group of children residing in foster care, Reidy (1977) tentatively concluded that in general, there are no differences in aggression between maltreated children in their natural homes and those in foster homes.

Cantrell et al. (1990) found support for the occurrence of intergenerational transmission. Their results indicated that children whose grandparents were abusive among themselves were more likely to be the victims of parent-child violence. One hypothesis for this finding is that the parents who were abusive to their children learned to be abusive from their parents who were abusive with each other. These studies suggest that variables relevant to the parent-child subsystem are related to child maltreatment and outcomes.

Child subsystem. Family size and spacing are other family composition variables which may be related to child maltreatment. Studies suggest that compared to nonmaltreating control families, neglectful families have more children (Polansky, 1981; Zuravin, 1980) whose ages are more closely spaced (Zuravin, 1980). Some studies indicate that abused children also are more typically from large families (Cantrell et al., 1990; Gil, 1970; Lennington, 1981), and are spaced more closely than children from nonmaltreating families (Benedict, White, & Cornely, 1984). However, other research does not find that there are more children in abusive families than in nonabusive families

(e.g., Kotelchuck, 1982; Starr, 1982). Comparison of abusive and neglectful families revealed that neglectful families have more children than abusive families (Russell, 1984). Going one step further, Kurtz, Gaudin, Howing, and Wodarski (1993) in a study which controlled for SES found no significant differences in family size among abusing, neglecting, and nonmaltreating families. Thus, the findings regarding the nature of the relationship between the composition of the sibling subsystem and the occurrence of maltreatment is inconclusive. Most studies indicate that neglectful families have more children than nonmaltreating families and physically abusive families. However, the research by Kurtz et al. (1993) suggests that once SES is controlled, there are no differences in sibling composition in neglecting, abusing, and nonmaltreating families.

Intrafamilial-extrafamilial subsystem. Variables related to family composition have been addressed in the child maltreatment literature which differentiates intrafamilial and extrafamilial individuals. The perpetrator is one such variable. Some studies suggest that in occurrences of child maltreatment where the perpetrator is a family member, the consequences are much more deleterious for the victim than when the perpetrator is extrafamilial (Anderson, Bach, & Griffith, 1981; Groth, 1978; Wind & Silvern, 1994). However, other researchers contend that the impact of abuse by a family member is similar to that of an extrafamilial perpetrator (Seidner & Calhoun, 1984; Tufts, 1984). Perhaps outcome differences are dependent upon the type of maltreatment which is inflicted, as well as whether the perpetrator is intrafamilial or extrafamilial.

Social support involves the emotional interaction of family members with individuals who are either intrafamilial or extrafamilial. Salzinger et al. (1983) reported

that abusive and neglectful mothers isolated themselves not only from their peers, but also from their extended family. Therefore, extended family members are not likely to be part of the family composition of maltreating families. Social support has been shown to mediate stress associated with maternity, and therefore may help prevent child maltreatment (Crnic, Greenberg, Robinson, & Ragozin, 1984). Abusive mothers are typically single (Egeland & Brunnquell, 1979; Spinetta & Rigler, 1972; Webster-Stratton, 1985). This suggests that a condition for abuse is the absence of a partner and consequently the emotional support that would be provided by that partner. Mothers of illegitimate children do not receive the social support that mothers of legitimate children do (Crnic et al., 1984). In a study of abusive mothers who were married, the support received from their partner was lower than that received by a group of control mothers (Egeland & Brunnquell, 1979). However, both the maltreating mothers and the control mothers received equal support from extrafamilial friends. The researchers concluded that friends cannot substitute for a supportive partner in meeting the emotional needs of a maltreating mother. Vondra (1990) reported that maltreating mothers are less satisfied than other mothers with their social support network, and they have less contact with friends.

In an assessment of single-parent families, Gelles (1989) considered that some single-parent families actually live with other adults, including friends, partners, or relatives. However, no significant differences resulted in rates of violence between single-parent families living alone and single-parent families living with other adults. Similar to Egeland and Brunnquell (1979), Gelles concluded that having the presence of

another adult in the home does not compensate for the stress experienced by single parents. Kurtz et al. (1993) reported that neglecting families had less social support than abusing families, but not when SES was controlled.

Whether the perpetrator is intrafamilial or extrafamilial is typically addressed in the sexual abuse literature. The majority of the research findings suggest that a child who is sexually abused by an extrafamilial perpetrator is likely to experience more deleterious consequences of the abuse than are child victims of incest. However, most of the research on maltreating families' intrafamilial-extrafamilial interactions focuses on the issue of social support. The research indicates that maltreating families are typically isolated from extrafamilial sources. Furthermore, social support from friends does not appear to be an adequate substitute for a supportive partner to a maltreating parent.

In summary, studies of family composition and maltreating families have addressed subsystems of the family system. Many have addressed the parental subsystem. The parental issues of marital status and socioeconomic status are related to child maltreatment. Single-parent families are at a greater risk than dual-parent families for maltreating their children. Maltreating families tend to have a lower socioeconomic status than nonmaltreating families. Furthermore, the intergenerational transmission of abuse in the parent-child subsystem has been well-documented in the maltreatment literature. There is a positive correlation between a grandparent-parent subsystem which is characterized by a history of maltreatment, and the occurrence of maltreatment in the parent-child system. In addition, the size and spacing of the child subsystem appears to be positively correlated with the occurrence of child maltreatment. Maltreating families

tend to have larger numbers of children who are spaced more closely than in nonmaltreating families. Moreover, the intrafamilial-extrafamilial subsystem has been the focus of studies which consider the issues of relatedness to the perpetrator and social support in maltreating families. Intrafamilial perpetration is more devastating to the victims than extrafamilial perpetration. The intrafamilial-extrafamilial subsystem has also been the focus of studies which address the social support that family members receive from outside of the family. Specifically, the social support that the family members receive from outside of the family is negatively correlated with the occurrence of child maltreatment.

Aggression in Maltreated Children

Maltreatment within the family system begets violence, according to many researchers (e.g., Asen et al., 1989; Cantrell et al., 1990; Gelles & Maynard, 1987; Goode, 1971; Spinetta & Rigler, 1972; Widom, 1989). Consequently, abused children are likely to display higher levels of aggression than children who have not been abused (Conaway & Hansen, 1989; Dodge, Bates, & Pettit, 1990). Research indicates that, indeed, a primary characteristic of maltreated children is aggression (Fatout, 1990). Many comparison studies have assessed aggression among groups of children who experienced different types of maltreatment. In general, these studies reveal that abused children exhibit significantly more aggression than nonabused children. The studies of aggression in maltreated children can be divided into seven groups. The following are descriptions of several studies which compared aggression in groups of children who had experienced different types of maltreatment. The first group of studies compared

physically abused children with a control or comparison group of nonmaltreated children. The second group includes studies which involved a physically abused group of children and at least one other problem-laden group. A third group of studies all incorporated an abused group, a neglected group, and a nonabused group of children. A fourth group of studies which addressed child aggression included studies that compared a sexually abused group and a nonmaltreated group. A fifth set of studies evaluated sexually abused children and problem-laden children. A sixth group of studies compared sexually abused children to normative samples. A final set of studies which addressed aggression includes a few studies that examined different groups of maltreated children, including those who were sexually abused, physically abused, and neglected.

Physically Abused Children Compared to Nonmaltreated Children

Most maltreatment studies compare physically abused with nonabused children. Examples of such studies are those by George and Main (1979), Klimes-Dougan and Kistner (1990), and Haskett and Kistner (1991), who all used direct observation methods in their assessment of aggression, and Kinard (1980) and Reid, Kavanagh, and Baldwin (1987) who utilized paper and pencil measures of aggression.

In their frequently cited study of physically abused 1 to 3 year olds' social interactions, George and Main (1979) compared 10 abused toddlers with 10 matched control nonmaltreated children whose families were experiencing stress. The two groups consisted of children matched on gender, age, race, parents' marital status, mothers' occupation and education, fathers' education and occupation, and the adult with whom the child was living at the time of the study. The children were observed in day care centers

in which they were enrolled. The results indicated that the abused group used physical aggression against their peers more than twice as often as the control group did. The abused children also aggressed against their caregivers significantly more often than the control group.

In another study of maltreated and nonmaltreated children's aggression, Klimes-Dougan and Kistner (1990) compared observations of abused and nonabused children's responses to distressed peers. A distressed peer was defined by the researchers as a peer who cried or verbalized in response to some aversive event, such as physical pain. Participants were in interaction with their peers on a day care center playground. The sample consisted of 11 abused and 11 nonabused children aged 3 to 5.5 years, who had been enrolled in day care at least four months. Groups were matched on age and IQ. Groups were also matched as closely as possible on parent characteristics including education, marital status, income, and the caretaker at the time of the study. The abused children were more likely than the nonabused group to aggress against distressed peers.

Haskett and Kistner (1991) conducted an investigation with 14 physically abused children and a matched nonmaltreated comparison group, all of whom had been in day care for a minimum of one year. The children's ages ranged from 3 to 6.5 years. Participants were matched on age, gender, IQ, race, caregiver's marital status, living arrangement, consistency of living arrangement, family size, income, and mother's education. Aggression was assessed through live observation of the children playing in a group in a play area of a day care classroom. The researchers focused on the issue of day care because of "the increasing trend toward viewing day care as an appropriate

'intervention,' and often the only intervention, provided to young abused children" (p. 987). However, none of the six day care centers from which the sample was drawn provided specific training in the care of maltreated children. Although all of the children had at least one year of day care experience, abused children demonstrated more instrumental aggression than the nonabused group. Instrumental aggression was defined as aggressive behavior (e.g., bite, kick, hit) involving a struggle over property or territory. However, unlike findings from other studies, Haskett and Kistner did not find higher rates of hostile aggression (not instrumental goal-oriented) in abused children than in the nonabused children.

Older children were involved in a study conducted by Kinard (1980), who compared 30 physically abused 5 to 12 year olds with a matched nonmaltreated control group. Groups in this study were matched on age, gender, race, birth order, number of siblings, parent structure, socioeconomic status, and neighborhood type. At their schools, participants' level of aggression was measured with the Tasks of Emotional Development (Cohen & Weil, 1971) and the Rosenzweig Picture-Frustration Study (Rosenzweig, 1948). The Tasks of Emotional Development test is a projective test designed to evaluate ego functioning in children. Twelve photographs constitute the test. Each photograph depicts an emotional development task to be mastered. One photograph depicts aggression. Participants are asked to tell a story about each photograph. The Rosenzweig Picture-Frustration Study consists of 24 drawings depicting potentially frustrating scenarios. Participants are asked to respond how the person in the drawing would

respond. Responses from all drawings are measured for aggression. The abused children showed significantly more outward aggression than the nonmaltreated children.

Parental report measures were used in the study by Reid et al. (1987) of 21 abusive and 21 matched nonmaltreating comparison families. The mean age for children was 4 years and 3.7 years for the abusive and nonabusive groups, respectively. The groups were matched on family size, father presence, socioeconomic status, gender and age of target child, whether the target child was in school, and the target child's academic and intellectual efficiency. Both mothers and fathers rated their physically abused children on the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) as being more aggressive than did the matched control parents. Another paper and pencil measure, the Becker Bipolar Adjective Checklist (Becker & Krug, 1964) was also administered to the parents in this study. On this scale, mothers of abused children rated their children as being more aggressive than did the comparison mothers. However, the fathers of abused children did not rate their children differently than did fathers of nonabused children.

In sum, studies of physically abused and nonmaltreated children suggest that the physically abused children demonstrate more aggression than do the nonmaltreated children. These findings have been consistent across samples of varying ages, ranging from 1 to 12 years of age. In addition, these results have been found in studies using different instruments and settings. Furthermore, the physically abused children's aggression does not appear to be limited to one target person. Rather, in the studies

presented, peers, caregivers, and characters in a hypothetical vignette were the target of the physically abused children's aggression.

Physically Abused Children Compared to Problem-Laden Children

In addition to studies which examine differences and similarities in physically abused and nonabused children, studies have also focused on physically abused children compared to problem-laden children. Wolfe and Mosk (1983) assessed caregivers' perceptions of aggression in physically abused children, nonmaltreated children from families with parent-child problems (e.g., child out of parental control, child in need of supervision), and a control group of nonmaltreated children from the same community. Groups consisted of 35, 36, and 35 children, respectively, whose ages ranged from 6 to 16 years. Caregivers completed the Child Behavior Profile (Achenbach, 1978; Achenbach & Edelbrock, 1979). Caregivers consisted of natural and foster parents, stepparents, grandparents, and other relatives caring for the child. Similar to the study by Reid et al. (1987), which used an updated version of the Child Behavior Profile, children of the nonmaltreated control group were rated as being less aggressive than the physically abused group. Nonmaltreated children were also rated as being less aggressive than problem-laden children. No differences in aggression existed between the maltreated and problem-laden group.

Kravic (1987) assessed behavior problems in three groups of children -- abused, clinical nonabused, and nonabused children not currently receiving counseling. All participants (a) were from 6 to 12 years of age, (b) had been a child guidance clinic client within the past year, (c) had been living with their current caretaker at least one month

prior to clinic involvement, and (d) did not have severe retardation, autism, or physical handicap. The Child Behavior Checklist (Achenbach & Edelbrock, 1983) was completed by parents or parent substitutes upon beginning treatment with the child guidance clinic. Caretakers rated the abused children as more aggressive than the control group. However, the abused children were not rated as being as aggressive as the clinical nonabused children.

In Downey and Walker's (1992) investigation, aggression was measured in children from maltreating families (n=56), nonmaltreated children from families characterized by parental psychopathology (n=27), maltreated children from families with parental psychopathology (n=23), and a comparison group of nonmaltreated children from a normal family (n=48). The mean age of the participants was 10.17 years for boys and 9.4 years for girls. Groups did not differ by age. Aggression was measured using maternal reports on the Child Behavior Profile (Achenbach, 1979). Children from maltreating families with parental psychopathology were rated as showing the highest levels of aggression, followed closely by children from maltreating families without parental psychopathology. The lowest level of aggression was found in the nonabused children whose parents were psychiatrically disturbed.

In sum, the three studies evaluating aggression in physically abused children and problem-laden children used either the Child Behavior Checklist (Achenbach & Edelbrock, 1983), or the Child Behavior Profile (Achenbach, 1978, 1979). Findings were consistent across the studies in that the physically abused children, whose ages ranged from 6 to 16 years, were more aggressive than the nonmaltreated control children. The

studies differed, however, on findings of aggression in physically abused children relative to that of problem-laden children. One study's problem-laden group consisted of children with parent-child difficulties. No differences in the maltreated and problem-laden groups existed. Another study's problem-laden group, which consisted of children in counseling for reasons other than abuse, showed higher levels of aggression than the maltreated group. The third study had two problem-laden groups, one consisting of children whose parent suffered from psychopathology, and the second group likewise was characterized by parental psychopathology, but also child maltreatment. The least amount of aggression between these three groups was found in the nonmaltreated, parent psychopathology group. The second highest level of aggression was found in the maltreated-only group. Exhibiting the highest level of aggression was the maltreated parent-psychopathology group. Findings from these studies indicate that physically abused children exhibit higher levels of aggression than normal children. However, the findings are inconclusive regarding the relative levels of aggression for problem-laden children versus maltreated children .

Physically Abused, Neglected, and Nonmaltreated Groups

Several studies have compared physically abused, neglected and nonmaltreated children in aggression research. Four of the six studies to be discussed utilized observation techniques and paper and pencil measures, and the other two used only paper and pencil measures. Reidy (1977) studied abused, neglected, and nonmaltreated children by observing the children in a playroom setting. The children's mean age for each group was 6.5, 6.9, and 6.5 years, respectively. Groups were similar on gender, SES, and race.

Measures included the Thematic Apperception Test (Murray, 1943), the Behavior Problem Checklist (Quay & Peterson, 1967), and observation of the occurrence of aggression. Results indicated that abused children expressed more fantasy aggression as measured by the Thematic Apperception Test than either the neglected or nonmaltreated group. Both the abused and neglected groups were rated by their teachers on the Behavior Problem Checklist (Quay & Peterson, 1967) as being more aggressive than the nonmaltreated groups. No difference, however, was found between the abused and neglected groups on this measure. Reidy (1977) did not indicate whether the teachers were aware of the children's nonmaltreated or maltreated status. Observation assessments indicated that abused children used more aggression than either the neglected or nonmaltreated children.

Hoffman-Plotkin and Twentyman (1984) employed direct observations and a paper and pencil measure in their investigation which compared neglected, abused, and nonmaltreated children. Groups were matched on the following variables: (a) child's age, (b) gender, (c) race, (d) family income, (e) mother's education, (f) marital status, (g) employed adult, and (h) time in day care prior to testing. Observations occurred in participants' day care classrooms. The sample consisted of 42 (14 per group) 3 to 6 year olds who were recruited from day care centers. The results from the observations indicated that the abused children showed the highest rate of aggression, while the neglected children not only exhibited less aggression than abused children, but they showed the lowest rate of social interaction, including aggression, with peers. Both parents and teachers in this study rated abused and neglected children on the Child

Behavior Form (Lorion, Barker, Cahill, Gallagher, Parsons, & Kauski, 1981) as being more aggressive than the nonmaltreated comparison group of children.

Bousha and Twentyman (1984) used observation during home visits to assess aggression exhibited by abused, neglected and nonabused children. The sample included 12 participants per group, whose ages ranged from 2 to 8 years. The three groups were matched on age, social class, race, and number of siblings. Both the abused and neglected groups exhibited more verbal and physical aggression directed toward their mothers than the nonabused group. But, the neglected and abused groups did not differ on their level of aggression.

Verbal aggression was measured using an observational/projective technique, and overt aggression was measured using a paper and pencil survey in Prino and Peyrot's (1994) study. The sample consisted of 21 physically abused children, 26 nonabused neglected children, and 21 nonabused nonneglected children, who were matched on IQ, parental income, birth order, gender, race, and parents' marital status. The mean age for the sample was 7.2 years. The Kinetic Group Drawing (KGD; Prino & Peyrot, 1994), which consists of respondents drawing a group of people, comprised the observational/projective method used in the study. The participants were asked to give verbal stories of their KGD during a structured, standardized interview with the investigators, who scored the stories for the presence of aggression. Teacher ratings of overt aggression were obtained from the Pittsburgh Adjustment Survey Scale (Ross, Lacey, & Parton, 1965). The results indicated that there were no significant differences among the groups on verbal aggression. The physically abused children were rated

highest of the three groups on overt aggression, but no differences in aggression were found between the neglected and control groups.

Kent (1976) assessed a "non-accidental trauma" (NAT) group, a neglected group, and a third group of nonabused children from low SES, dysfunctional families. Groups consisted of 219, 159, and 185 families, respectively. Children's ages were not reported by Kent. Results from questionnaires completed by social service workers indicated that the NAT group demonstrated more aggression than both the neglected and nonmaltreated groups at intake. Results from a follow-up procedure indicated that the NAT group improved more with regard to their display of aggression to the point of resembling the neglected group. Follow-up data were not available for the nonmaltreated group.

School-age children and adolescents were the focus of Wodarski, Kurtz, Gaudin, and Howing's (1990) study of maltreated children's aggression. Participants were 22 physically abused children, 47 neglected children, and 70 nonmaltreated control children. Measures of aggression included both the parent and teacher forms of the Child Behavior Checklist (Achenbach & Edelbrock, 1980). Caregivers of the physically abused group rated their children as having more behavior problems than did caregivers of the neglected and nonmaltreated groups. Teachers, however, rated both maltreatment groups higher on behavior problems than the nonmaltreated children. Wodarski et al. divided the groups by gender and age (8 to 11 years and 12 to 16 years). The analyses revealed that caregivers of the younger physically abused boys rated their children higher on externalizing problems than did caregivers of the younger neglected and younger nonmaltreated boys. Caregivers rated the older physically abused girls as having more

externalizing behavior than the older nonmaltreated girls only. Teachers rated younger physically abused girls as having more externalizing problems than younger neglected or younger nonmaltreated girls. Older physically abused girls were reported by teachers to have more externalizing problems than the older neglected or older nonmaltreated girls.

In sum, the studies of aggression in physically abused, neglected, and nonmaltreated children used various measures, including projective, observation, and paper and pencil measures. The studies generally reported that the physically abused children were more aggressive than the nonmaltreated children. Findings differed, however, regarding the physically abused children's level of aggression relative to that of the neglected children. Six measures indicated that the physically abused children were more aggressive than the neglected group, yet five measures showed no differences between the two groups. These findings did not appear to be related to the type of measure used. That is, observation methods indicated differences in the groups in some, but not all studies. None of the studies revealed that the neglected children were more aggressive than the physically abused children. Perhaps this finding is a result of children having learned the interaction patterns their caretakers used with them. The neglected children were not physically abused, and consequently did not display as much aggression against peers as did the children who were physically abused by their caretakers.

Sexually Abused Children Compared to Nonmaltreated Children

A fourth group of maltreatment studies of aggression includes those which compare and contrast sexually abused children with at least one group of nonmaltreated children. For instance, the following four studies conducted by Conte and Schuerman

(1987), Hibbard and Hartman (1992), Inderbitzen-Pisaruk, Shawchuck, and Hoier (1992), and Young, Bergandi, and Titus (1994) compared aggression between sexually abused children and nonabused children. Conte and Schuerman's (1987) investigation of the effects of sexual abuse on children included an unusually large sample of 369 sexually abused children and 318 nonabused children. Although the authors did not provide the children's ages or grade levels, they did report that (a) sexually abused children aged 4 to 17 years were eligible for the study, and (b) the ages of the nonabused group did not significantly differ from those of the sexually abused group. Parents completed the Child Behavior Profile (Achenbach, 1979), a 110-item paper and pencil measure. Significant differences emerged between the groups on a resulting aggression factor. However, the group which scored higher on the aggression scale was not stated by the authors.

Hibbard and Hartman's (1992) study expanded on previous sexual abuse studies which used the Child Behavior Checklist (Achenbach & Edelbrock, 1983) by documenting the resulting frequencies of individual items from the measure. They compared 81 alleged sexually abused victims (ASAV), whose mean age was 5.9 years, with 90 nonabused children, whose mean age was 5.34 years. Groups were matched on age, gender, and race. No differences were found on the aggression subscale between the ASAV and nonabused children. The ASAV group, however, was rated by parents significantly higher than the comparison participants on the Externalizing scale of the Child Behavior Checklist.

The Child Behavior Checklist (Achenbach & Edelbrock, 1983) and the Curtis Center Interview Schedule (CCIS; Hoier, 1986) were two of a battery of measures used in

a study designed to compare sexually abused children and adolescents to a nonabused community sample (Inderbitzen-Pisaruk et al., 1992). Participants were 17 sexually abused youths, whose mean age was 10.72 years, and 17 nonsexually abused youths, whose mean age was 11.67 years. Groups were matched on gender, age (within 6 months), socioeconomic status, and child's current caregiver status (if the child lived with a single parent following a divorce or separation, or with two parents). Results from the Child Behavior Checklist indicated that sexually abused children's caregivers rated their children as having greater levels of externalizing behaviors, including aggression, than was reported by caregivers of the comparison group. Similarly, results from the CCIS, a standardized interview which assesses the intensity and frequency of various child behaviors, revealed that caregivers of sexually abused children reported significantly greater physical aggression exhibited by their children than did caregivers of the nonabused group. This study suggests that aggression is a negative effect of child sexual abuse which cannot be accounted for by socioeconomic status or caregiver status.

Another study comparing sexually abused children with a nonmaltreated control group evaluated both caregivers' perceptions and self-reported perceptions of the children's aggression (Young et al., 1994). The sample consisted of four groups of children; 20 female and 20 male sexually abused children, whose mean ages were 9.65 and 9.45 years, respectively, and 20 female and 20 male nonvictims, whose mean ages were 9.45 and 10 years, respectively. Participants were matched on age, race, education, and monthly income. Self-reported aggression was measured using the Children's Action Tendency Scale (Deluty, 1979), and caregivers' ratings of their children's aggression was

measured using the Louisville Behavior Checklist (Miller, 1981). The results indicated that although maltreated children did not rate themselves as being more aggressive than their nonabused peers, the caregivers of the sexually abused group rated their children as being more aggressive than the nonabused group. There were no gender differences in self-reported aggression, nor caregiver reports of children's aggression. This finding is consistent with previous research which suggests that when considering most outcomes of sexual abuse for boys and girls, there are more similarities than differences (Finkelhor, 1990).

In sum, the results from studies of aggression in sexually abused children compared with aggression in a nonabused control sample of children are inconsistent at best, and inconclusive in at least one study. Although the Child Behavior Checklist (or different versions of it), was used in three of the four studies reviewed, there was no consensus in the results regarding the level of aggression exhibited by sexually abused children relative to nonabused children. These findings suggest that further research is needed to determine if sexually abused children exhibit higher levels of aggression than nonabused children.

Sexually Abused Children Compared to Problem-Laden Children

Some studies, including those conducted by Mannarino, Cohen, and Gregor (1989) and Friedrich, Beilke, and Urquiza (1988), have compared sexually abused children's aggression with that of a comparison group of problem-laden children. In the study by Mannarino et al. (1989), emotional and behavioral difficulties of sexually abused children were investigated. The sample consisted of 94 sexually abused girls who were

compared with 89 clinically referred, nonsexually abused girls, and 75 normal girls. The clinically referred group was described as having a range of emotional and behavioral problems. The normal control group consisted of nonclinical females with similar demographic characteristics to the sexually abused females. The researchers did not ask the normal control participants, nor their parents, whether they had been sexually abused. The mean age of all participants was 9.4 years, with no signficant differences between the three groups. Parents completed the Child Behavior Checklist (Achenbach & Edelbrock, 1979). The results indicated that the sexually abused and clinical groups did not differ from each other on levels of aggression, yet both groups were rated by parents as having higher levels of aggression than the normal controls.

The investigation by Friedrich et al. (1988) of sexually abused children and a comparison group did not include a problem-free control group. The study involved the comparison of a group of 31 sexually abused boys who were 3 to 8 years, and a group of 33 oppositional or conduct disordered boys whose ages ranged from 4 to 8 years. Primary caregivers completed the Child Behavior Checklist (Achenbach & Edelbrock, 1983). Unlike the findings from the study by Mannarino et al. (1989) of sexually abused girls, Friedrich et al. (1988) found that the sexually abused boys were rated as being less externalizing and aggressive than the comparison group.

In sum, the studies which compared the aggression of sexually abused children to problem-laden children yielded inconsistent results. Both studies used the Child Behavior Checklist (Achenbach & Edelbrock, 1979, 1983) to assess aggression. Yet one study found sexually abused children to be similar to the problem-laden group of

children, and the other study suggested that sexually abused children exhibit less aggression than problem-laden children. Perhaps the difference in the studies is a result of a difference in the characteristics which qualified each comparison group as being "problem-laden." The comparison group in the study by Mannarino et al. (1989) consisted of children with emotional and behavioral problems. The comparison group in the study by Friedrich et al. (1988) consisted of oppositional or conduct disordered children. Furthermore, Mannarino et al.'s sample consisted entirely of girls, while Friedrich et al.'s sample consisted only of boys. Although studies which were previously discussed suggested there are no gender differences in sexually abused children's aggression, perhaps the problem-laden boys of Friedrich et al.'s sample were more aggressive than the problem-laden girls of Mannarino et al.'s sample.

Sexually Abused Children Compared to Normative Samples

Other studies of sexually abused children's aggression compared sexually abused children with normal samples from standardized measures. For instance, three of these studies were conducted by Gomes-Schwartz, Harowitz, and Sauzier (1985), Friedrich et al. (1986), and Tufts New England Medical Center (1984). Gomes-Schwartz and colleagues (1985) compared their sample of 112 sexually abused children with a normative group from the Louisville Behavior Checklist. Sexually abused preschoolers showed more aggression than was reported for the pre-established norms of the instrument.

Friedrich and colleagues (1986) used maternal reports on the Child Behavior Checklist (Achenbach & Edelbrock, 1983) in their study of 85 sexually abused children.

Children's ages ranged from 3 to 12 years. Evident in 39% of the females and 36% of the males were scores that were significantly elevated relative to Child Behavior Checklist normative samples for externalizing behaviors, which included aggressive, undercontrolled, and antisocial behaviors. Only 2% of the normative sample would score at this high level.

The study by researchers with the Division of Child Psychiatry at the Tufts New England Medical Center (1984) incorporated the use of the Louisville Behavior Checklist (Miller, 1981). The Checklist was completed for 159 children and adolescents. Relative to standardized norms for the measure, elevated scores on aggression and antisocial behavior were evident in 45% to 50% of the 7- to 13 year old sexually abused children. Also scoring above the norm on aggression and antisocial behavior was 13% to 17% of 4- to 6 year olds.

In sum, each of the studies reviewed, which compare sexually abused children with a normative sample, incorporated a paper and pencil measure. The findings reveal a higher level of aggression to characterize the sexually abused children than normative samples.

Sexually Abused Children Compared to Other Maltreatment Groups

Whereas most sexual abuse outcome research compares a sexually abused group with a control or comparison group, a few studies have investigated aggression among various maltreatment groups (e.g., Fagot, Hagan, Youngblade, & Potter, 1989; Williamson, Borduin, & Howe, 1991). Fagot et al. (1989) addressed three types of maltreatment in their investigation of preschoolers' play behaviors. Groups consisted of

sexually abused children (n=15), physically abused children and neglected children (n=11), and nonmaltreated children (n=10). Children's ages ranged from 2.5 to 5.9 years. Observation of the children in a playroom resulted in findings indicating that the physically abused children and neglected children exhibited the highest levels of aggression compared to the sexually abused and nonmaltreated children. The sexually abused children did not spend a significantly different proportion of time from the nonmaltreated group exhibiting aggressive behavior. The sexually abused children tended to play quietly and alone unless a teacher approached them.

Williamson et al. (1991) included 4 groups of participants in their study of maltreated adolescents. Groups were (a) 15 sexually abused adolescents, (b) 12 physically abused adolescents, (c) 12 neglected adolescents, and (d) 11 nonmaltreated control adolescents who were demographically similar to the maltreated adolescents. Conduct problems and socialized aggression were measured using mothers' ratings on the Revised Behavior Problem Checklist (Quay & Peterson, 1987), an 89-item paper and pencil survey. Mothers of the physically abused group reported greater conduct problems exhibited by their adolescents than did mothers of the other three groups. The sexually abused and neglected groups were rated by their mothers as having more conduct problems than the nonmaltreated control group. The sexually abused and control groups were reported to have lower socialized aggression than the neglected group of adolescents, who had the highest level of socialized aggression among all four groups. Furthermore, consistent with research comparing physically abused children with nonmaltreated controls, findings from this study revealed that mothers of the physically

abused group rated their adolescents significantly higher on socialized aggression than did mothers of the control group.

Studies which evaluate aggression among various groups of maltreatment are in the minority. The two which were reviewed implemented different measurement techniques and different age groups of children, yet arrived at a similar conclusion that sexually abused children display less aggression than physically abused children. However the studies differed with regard to the relative levels of aggression exhibited by the sexually abused, neglected, and nonmaltreated groups.

In sum, the studies of aggression in sexually abused children typically included a group of normative or nonmaltreated children. Most of the studies incorporated paper and pencil measures, often using a version of the Child Behavior Checklist (Achenbach and Edelbrock, 1983). Some of the findings suggest that sexually abused children are more aggressive than nonmaltreated children. However, sexually abused children are not more aggressive than physically abused, neglected, or conduct disordered children.

In general, findings from the sexual abuse studies are consistent with the studies of aggression in child victims of other types of maltreatment. Different respondents, measures, settings, age groups, and maltreatment types were used in the studies. Yet similar results were found. Children who have experienced some form of maltreatment are likely to exhibit aggression at higher levels than nonmaltreated children. This is particularly true for physically abused children. However, some inconsistencies exist in the literature on the relative levels of aggression exhibited by neglected children, sexually abused children, and nonmaltreated children. Some studies report that neglected children

are more aggressive than a nonmaltreated control group of children (e.g., Hoffman-Plotkin & Twentyman, 1984), while other studies report no differences in aggression for neglected children and nonmaltreated control children (e.g., Prino & Peyrot, 1994). Similar inconsistencies are found in the sexual abuse literature. Inderbitzen-Pisaruk et al. (1992) reported that sexually abused children are more aggressive than nonmaltreated control children. However, Williamson et al. (1991) found no differences in the sexually abused and nonmaltreated control groups of children.

The discrepancies in the literature on different maltreatment groups' aggression may be accounted for by the fact that, across studies, there was no consistency in the family variables which were controlled. For example, findings from Reidy's (1977) observations indicated that physically abused children exhibited more aggression than neglected children, who did not differ from the nonmaltreated control children. Yet, findings from Bousha and Twentyman's (1984) observations indicated that the physically abused children's aggression did not differ from that of the neglected children, and both physically abused children and neglected children exhibited more aggression than the control group of nonmaltreated children. Furthermore, Williamson et al. (1991), using paper and pencil measures, found similar results to that of Bousha and Twentyman (1984), who used observation techniques. Whereas Reidy (1977) did not match groups on family variables, the studies by Bousha and Twentyman (1984) and Williamson et al. (1991) did match groups on family variables, including the number of siblings that the target child had. Perhaps if Reidy (1977) had matched groups on similar family variables to those used in the studies by Bousha and Twentyman (1984) and Williams et al. (1991),

Reidy's results may have been similar to those found by Bousha and Twentyman (1984) and Williams et al. (1991).

Aggression in maltreated children needs to be assessed, since it is an outcome of various types of maltreatment, and since aggression has negative long-term correlates such as continued aggressive behavior (Cummings, Iannotti, & Zahn-Waxler, 1989), peer rejection (Coie, Dodge, Terry, & Wright, 1991), aggressive delinquency (Howing, Wodarski, Kurtz, Gaudin, & Herbst, 1990), and in some cases, perpetration of child abuse (Gelles, 1987).

Purpose and Hypotheses

A review of the child maltreatment literature suggests that the occurrence of child maltreatment is related to numerous family variables, in particular, family composition variables which are characteristics of the various family subsystems, such as the parent, parent-child, sibling, and intrafamily-extrafamily subsystems. The parents' marital status, specifically, whether the child lives in a single-parent or dual-parent home, is a family composition variable of the parental subsystem which has been found to be related to the occurrence of child maltreatment. There is also a significant relationship between a grandparent-parent subsystem which is characterized by a history of maltreatment, and the occurrence of maltreatment in the parent-child subsystem. The size and spacing within the sibling subsystem is also correlated with the occurrence of child maltreatment. Large families with many children who are closely spaced are more likely to have maltreated children than other families. The intrafamilial-extrafamilial subsystems are also related to the occurrence of child maltreatment. Specifically, the social support that

the family members receive from outside of the family is negatively correlated with the occurrence of child maltreatment. However, although some studies suggest that family composition variables are related to the occurrence of child maltreatment, no studies have determined how family composition variables are related to maltreatment outcomes, in particular one of the most frequently cited maltreatment outcomes, child aggression. Since family composition variables are related to the occurrence of child maltreatment, and child maltreatment is associated with child aggression, the goal of the current study is to examine the extent to which family composition variables predict maltreated children's aggression.

Furthermore, research indicates that different types of maltreatment appear to be related to the aggression displayed by children. Physically abused children tend to exhibit more aggression than non-maltreated children, non-maltreated problem-laden children, and sexually abused children. Neglected children exhibit more aggression than non-maltreated children. The research, however, diverges with regard to the relative amount of aggression exhibited by sexually abused children and nonmaltreated children. Since it is anticipated that family composition predicts maltreated children's aggression, and aggression differs among different maltreatment groups, it is anticipated that patterns of correlations between family composition and aggression will differ for different maltreatment groups. One limitation of the existing research is that the majority of the studies only compared the aggression of two groups, either one maltreatment type with a control group, or two maltreatment types with each other. Furthermore, the majority of the studies assessing aggression in maltreated children used only one measure and one

respondent per participant. There is a need to evaluate the aggression of different maltreatment types, using multiple measures and multiple respondents, within the same study.

There were two major purposes of this research. The first was to determine if selected family composition variables predict aggression in maltreated preschool-age children. Specifically, the following family composition variables were addressed: whether the child's primary residence was a single-parent or two-parent home, number of siblings, percent of siblings abused, percent of siblings neglected, whether the perpetrator was intra- or extrafamilial, number of foster care placements prior to treatment, and number of months in foster care prior to treatment. The second purpose was to determine if patterns of correlations between family composition variables and aggression differ among children who have been (1) neglected, (2) sexually abused, or (3) physically abused and neglected.

An important point to consider when conducting research with members of the child maltreating population is that maltreating parents typically have unrealistic expectations and distorted perceptions of their child (Bauer & Twentyman, 1985; Wolfe, 1985). For example, maltreating mothers rated their children as exhibiting more behavior problems than comparison groups, yet, these findings were not supported by the results of observation methods (Mash, Johnston, & Kovitz, 1983). Nonetheless, maltreating caregiver perceptions are useful data, as they may reflect the caregivers' interactions with their children, and therefore are important to consider in research of maltreated children (Conaway & Hansen, 1989). Likewise, the perceptions that others, such as teachers and

therapists, have of the child are also important in order to obtain a global assessment of the child (Conaway & Hansen, 1989). The present study used multiple respondents; that is, teachers/therapists, and caretakers. The respondents were selected because they were individuals in the children's lives who had the most contact with the children. The multiple measures of aggression used in the study provided information about the children's aggression as portrayed in situations with the respondents. The hypotheses were as follows.

Hypothesis One

The first hypothesis of the study was that the following family composition variables would be significant predictors of maltreated children's aggression: (a) whether the child's primary residence was a single-parent or two-parent home, (b) number of siblings, (c) percent of siblings abused, (d) percent of siblings neglected, (e) whether the perpetrator was intrafamilial or extrafamilial, (f) number of foster care placements prior to treatment, and (g) number of months in foster care prior to treatment.

Single- versus two-parent home. Maltreating families are more likely to be characterized by single parenthood than are nonmaltreating families (Kurtz et al., 1993). In particular, the stress (e.g., economic stress and social isolation) associated with being a single-parent caregiver is believed to contribute to the likelihood of child maltreatment. Kurtz et al. (1993) suggested that the stress associated with residing in a single-parent home may also contribute to negative child outcomes. Therefore, the present study hypothesized that maltreated children residing in a single-parent home would exhibit more aggression than maltreated children residing in two parent homes.

Number of siblings, percent of siblings abused, and percent of siblings neglected. Number of siblings was hypothesized to predict maltreated children's aggression, because children with several siblings have more opportunities than children with fewer siblings to engage in aggressive behavior on a daily basis (Campbell, Breaux, Ewing, & Szumowski, 1986). Furthermore, since physically abused children and neglected children tend to exhibit more aggression than nonmaltreated children, the percent of siblings abused and percent of siblings neglected were expected to predict maltreated children's aggression. Maltreated children who have a large percent of siblings who were also maltreated were expected to have higher aggression than other children. Aggression is an outcome of maltreatment, therefore, the presence of several maltreated siblings was expected to perpetuate the aggression exhibited by one another.

Intrafamilial versus extrafamilial perpetrator. Whether the perpetrator was intrafamilial or extrafamilial is a variable which is prevalent in the child sexual abuse literature (Finkelhor, 1986; Kendall-Tackett, Williams, & Finkelhor, 1993). Most of the evidence indicates that when the sexual abuse perpetrator is related to the victim, the outcomes are much more deleterious for the child victim with regard to cognitive competence, distress, and externalizing behavior than when the perpetrator is not related to the victim (Black, Dubowitz, & Harrington, 1994; Browne & Finkelhor, 1986; Friedrich et al., 1986; Kendall-Tackett et al., 1993). Researchers suggest that these findings are a result of incest victims experiencing more betrayal and loss of trust in a significant relationship than victims of extrafamilial sexual abuse (Friedrich et al., 1986). Researchers of child physical abuse likewise report a loss of basic trust as an outcome of

the maltreatment (Fatout, 1990). However, the issue of whether the perpetrator was intrafamilial or extrafamilial is addressed primarily in the sexual abuse literature. Therefore, the present study generalized the findings from the sexual abuse research to that of child maltreatment in general. Thus, the current study hypothesized that maltreated children, in general, who were victimized by an intrafamilial perpetrator would exhibit more aggression than maltreated children whose perpetrator was extrafamilial.

Number of foster care placements and number of months in foster care. In their study of mediating factors of child maltreatment, Kurtz et al. (1993) found that the number of foster care placements was related to high levels of aggression in maltreated children. However, the length of time that the child resided in foster care was not related to outcome scores. Hulsey and White (1989) found that foster children had more behavior problems than nonfoster children. Their findings suggested that differences in family characteristics, such as marital stability, accounted for the difference in nonfoster children and foster children's behavior. The present study hypothesized that maltreated children who experienced a large number of foster care placements, and maltreated children who experienced a large number of months in foster care would exhibit more aggression than other children.

Hypothesis Two

The second hypothesis of the present study was that the patterns of correlations between family composition variables and aggression would differ among (a) neglected, (b) sexually abused, and (c) physically abused and neglected children. The research

indicates that some family composition variables are more highly correlated than others with certain types of maltreatment. For example, neglectful families have more children than abusive families (Russell, 1984). Moreover, levels of aggression differ among children of different maltreatment groups (e.g., Fagot et al., 1989).

Furthermore, inconsistencies exist in the literature on the relative levels of aggression exhibited by different maltreatment groups. The inconsistencies may be accounted for by different pathways, or patterns of correlations between family variables and aggression for different maltreatment groups. For example, if single-parent status versus two-parent status predicts aggression in physically abused and neglected children, but not in other children, holding family composition (single- versus two-parent) constant will affect between group comparisons. For those studies with more single-parent families, physically abused and neglected children would score higher on aggression than other children, whereas for those studies with very few single-parent families, physically abused and neglected children might not differ from comparison groups. Therefore, it was anticipated that the patterns of correlations between family composition and aggression would differ among different maltreatment groups.

CHAPTER II

METHODOLOGY

Methodology

Sample

The sample was selected from children enrolled at a Midwestern metropolitan area treatment center which serves maltreated children and their families. Participants consisted of 42 maltreated preschoolers and their caregivers. The mean age was 4.1 years, and the age range was from 2.8 to 5.1 years. All children were in levels of treatment commensurate with the level of maltreatment.

Of the sample, 81% of the children were referred to the treatment center by the state's department of family services, and the remaining 19% were court-referred to the center. The child sample consisted of 57.1% males and 42.9% females; 59.5% of the children were African American and 40.5% were Caucasian children.

The maltreatment status of each participant was obtained from the Family Social History (FSH) form. Since the FSH was completed at enrollment for each participant, therapists of each child participant were asked to provide the researcher with current information on the child's maltreatment status. Based on the therapists information, participants were categorized into four maltreatment groups. Sixteen of the children had been neglected, nine had been sexually abused, and 11 had been physically abused and neglected. The remaining six children had multiple types of maltreatment (e.g., neglect, sexual abuse, and physical abuse; neglect and sexual abuse). All children's data were used to test Hypothesis 1. However, only the data from those children who were neglected only, sexually abused only, or physically abused and neglected only were used to test Hypothesis 2.

Of the participants, 31% resided with their natural parents at enrollment in the treatment center, 40.5% lived in foster care, and 23.8% lived with relatives (voluntary, non-foster care placement). The natural mothers' marital status consisted of 37.1% never married, 37.1% married, and 25.7% divorced. The annual income of the participants' natural families consisted of 55.2% who earned less than $5,000, 20.7% who earned between $5,001 and $10,000, 3.4% who earned between $10,001 and $15,000, 6.9% who earned between $15,001 and $20,000, 3.4% who earned between $20,001 and $25,000, and 6.9% who earned between $25,001 and $30,000.

Instruments

The instruments used in the present study consisted of one paper and pencil demographic form, and three paper and pencil measures of children's behavior. Family composition variables were obtained from the demographic form, and aggression scores were obtained from subscales of the paper and pencil measures of the children's behavior.

The Family Social History Form

The Family Social History (FSH) form is a 60-item information sheet which provides family demographic information, and information about the maltreatment history and the composition of each participant child's family. Each child's maltreatment status was obtained from the FSH form, and then verified by his/her therapist or teacher. Several family composition items from the FSH form were used in the analyses. Those items include: (a) whether the child was from a single-parent or two-parent home, (b) the number of siblings, (c) percent of siblings abused, (d) percent of siblings neglected, (e) whether the perpetrator was intra- or extrafamilial, (f) the number of foster care

placements prior to enrollment, and (g) the number of months in foster care. The FSH form, a standard form employed by the treatment center, was completed by a treatment center social worker for all children upon enrollment at the center (see Appendix A).

In line with recommendations from researchers (e.g., Conaway & Hansen, 1989; Reid et al., 1987), assessment of the children's behavior was not limited to one respondent's ratings on one instrument. Aggression was measured in the following manner: two measures were completed by treatment center teachers/therapists and one measure was completed by caregivers.

Specifically, the measures of aggression which were used in the study included two paper and pencil surveys, the Preschool Behavior Questionnaire (Behar & Stringfield, 1974) and the Preschool Taxonomy of Problem Situations, a revision of the Taxonomy of Problem Situations (Dodge, McClaskey, & Feldman, 1985), which were completed by the treatment center's teachers/therapists. Another paper and pencil survey, the Child Behavior Checklist/2-3 (Achenbach, 1992), was completed by each child's caregiver. The teacher/therapist and caregiver responses on the measures were used to assess children's aggression. In particular, two aggression-related subscales from each of the child behavior instruments were used in the present study. Thus, a total of six aggression-related scores were used in the present research. Standard scoring procedures were used. Scores were calculated by summing subscale items.

The Preschool Behavior Questionnaire

The Preschool Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) is a 30-item paper and pencil instrument which assesses behavioral and emotional problems.

The items are relevant to situations which are likely to occur in the treatment setting, and therefore, may be completed by teachers or therapists. Items are rated on a scale of (0) "doesn't apply," (1) "applies sometimes," and (2) "certainly applies" (see Appendix A). The PBQ consists of three subscales: (a) Hostile-Aggressive, (b) Anxious-Fearful, and (c) Hyperactive-Distractible. Only scores from the Hostile-Aggressive and Hyperactive-Distractible subscales were used for this study. The Hyperactive-Distractible subscale was selected as one of the aggression-related subscales because the research indicates a high positive correlation between hyperactivity and aggression (Campbell et al., 1986). The literature suggests that either (a) hyperactivity and aggression are both symptoms of conduct disorder (Sandberg, Rutter, & Taylor, 1978), or (b) aggression is believed to be a secondary symptom of hyperactivity (Loney & Milich, 1982).

Scores for the PBQ subscales were obtained by summing the responses, which each ranged from 0 to 2, for the items constituting the subscales. Consequently, for the Hostile-Aggressive subscale which consisted of 11 items, the possible range of scores was 0 to 22. The 11 Hostile-Aggressive items were: 3, 4, 5, 8, 12, 16, 20, 22, 24, 26, and 28. High Hostile-Aggressive scores were indicative of behavioral difficulties with regard to hostility and/or aggression which warranted attention. Interrater reliability for the PBQ Hostile-Aggressive subscale was reported by the author of the instrument to be .81, and test-retest reliability was .93 (Behar, 1977). For the present study, Cronbach's alpha was .89 for the Hostile-Aggressive subscale.

The Hyperactive-Distractible score was obtained by summing the responses, which each ranged from 0 to 2, for the 4 items which constituted the subscale. The items

were: 1, 2, 13, and 21. The possible range of scores was 0 to 8. High Hyperactive-Distractible scores are indicative of behavioral difficulties with regard to hyperactivity and/or distractibility which warrant attention. Interrater reliability for the PBQ Hyperactive-Distractible subscale was reported by the author of the instrument to be .67, and test-retest reliability was .94 (Behar, 1977). For the present study, Cronbach's alpha was .89 for the Hyperactive-Distractible subscale.

The PBQ demonstrates sufficient criterion validity, as reported in a study which was designed to determine if teacher ratings on the PBQ differentiated between normal and disturbed children (Behar, 1977). The results indicated that the PBQ scale differentiated beyond the .0001 level of significance between the two groups of children, with the group of children previously diagnosed as disturbed scoring higher on the PBQ.

The Preschool Taxonomy of Problem Situations

The Taxonomy of Problem Situations (TOPS; Dodge et al., 1985) was the instrument originally selected to measure teachers' and therapists' perceptions of the participants' level of aggression. However, several of the TOPS items contained situations which were not age-appropriate to preschoolers (e.g., respondents were asked how often it was a problem for the child when a group of peers started a club or a group and did not include the child.) Consequently, a preschool version of the Taxonomy of Problem Situations was created for the present study by revising the original TOPS with the author's permission (K. A. Dodge, personal communication, December 15, 1993) so that it would be age-appropriate to preschoolers (see Appendix A).

Developing the PTOPS. After establishing that a revision of the TOPS was warranted in order to make it age-appropriate for the present study, telephone contact was made with the author of the TOPS instrument (K. A. Dodge, personal communication, December 15, 1993). The TOPS author, who agreed that a preschool version of the instrument would be more appropriate for working with preschoolers than the original TOPS, indicated that at the time there was no preschool version of the TOPS which had been developed. Nine items were identified by the current researcher as requiring revisions. Those items were: 1, 10, 13, 14, 15, 21, 26, 30, and 33. Six items were inappropriate because they referred to the child's school work or assignments, one item referred to peers starting a club, and one item referred to the situation when the teacher was not in the room. All of these items described situations which would not be likely to occur in preschool classrooms. Based on observations of preschoolers enrolled in a university child development laboratory and knowledge of child development, the researcher developed age-appropriate replacements for the unsuitable TOPS items. In addition, it was decided that examples would be listed to clarify three potentially ambiguous questions, items 1, 10, and 33.

Dodge's initial step in the development of the original TOPS questionnaire consisted of elementary school teachers and clinical psychologists being asked to identify social situations which were likely to eventuate in peer relationship problems among school-age children (K. A. Dodge, personal communication, December 15, 1993). Therefore, in developing the preschool age-appropriate version of the TOPS, preschool teachers were asked to be involved in the development of the preschool version of the

TOPS. Three faculty and classroom teachers associated with a child development laboratory at a university setting were asked to review the researcher's proposed changes, provide examples for items, and make additional suggestions. A common response from all of the faculty returning their suggestions was that the term "games" needed to be replaced since competitive games were not encouraged in a developmentally appropriate preschool classroom. Another suggestion which was implemented was that the words "he," "she," "him," and "her" be changed to "s/he" and "him/her." The faculty suggested examples, which were also included in the revised TOPS, for items 1, 10, and 33. After all revisions were made, the following 19 items were more preschool-age appropriate than those on the original TOPS: 1, 3, 4, 5, 8, 10, 11, 12, 13, 14, 15, 17, 21, 26, 30, 33, 34, 40, and 44. Revisions were then submitted to the author of the original TOPS, who approved use of the revised TOPS version (K. A. Dodge, personal communication, February 27, 1994). The revised TOPS was named the Preschool Taxonomy of Problem Situations (PTOPS).

The Preschool Taxonomy of Problem Situations (PTOPS; Blankemeyer, 1995) is a 60-item paper and pencil questionnaire used to assess children's responses to problem situations. Items are rated on a scale ranging from indicating that (1) the "situation is never a problem for the child" to (5) the "situation is almost always a problem for the child." The PTOPS scale is scored the same as that of the TOPS scale.

Two aggression-related PTOPS subscales were used for the present study: Proactive Aggression, or aggression which was initiated by the child, and Reactive Aggression, or aggressive behavior which was in response to provocation. The Proactive

Aggression score was calculated by summing the following eight items, which each ranged from 1 to 5: 53, 54, 55, 56, 57, 58, 59, 60. Thus, a possible range of scores was 8 to 40. A high score on the Proactive Aggression subscale indicated that the child tended to initiate aggression frequently. The Reactive Aggression score was calculated by summing the following eight items, which each ranged from 1 to 5: 45, 46, 47, 48, 49, 50, 51, 52. The possible range of scores was 8 to 40. A high Reactive Aggression score indicated that the child tended to frequently respond to provocation by using aggression. For the present study, Cronbach's alpha (Cronbach, 1951) was .94 for the Proactive Aggression scale, and .94 for the Reactive Aggression scale. No reliability coefficients were provided by the authors of the TOPS for Proactive and Reactive Aggression subscales. The PTOPS consists of the same subscales, direction of scores, and possible range of scores as the original TOPS measure.

The Child Behavior Checklist/2-3

The Child Behavior Checklist/2-3 (CBCL/2-3; Achenbach, 1992) is a 100-item paper and pencil instrument designed to obtain from caregivers ratings of child behavioral and emotional problems. Respondents rate the child on items with a scale ranging from 0 to 2, indicating a range from "not true" to "very true or often" (see Appendix A). Items from the CBCL/2-3 constitute six syndromes, or problems that tend to occur together. They are (a) Anxious/Depressed, (b) Withdrawn, (c) Sleep Problems, (d) Somatic Problems, (e) Aggressive Behavior, and (f) Destructive Behavior. Items were summed to create each subscale score. Only scores from the Aggressive Behavior and Destructive Behavior subscales were employed in the present study. The 15 items which constituted

the Aggressive Behavior score were: 15, 16, 20, 29, 30, 35, 40, 44, 58, 66, 69, 82, 85, 91, and 97. The possible range in scores was 0 to 30. A high Aggressive Behavior score indicated that the child frequently exhibited aggressive behavior. The Destructive Behavior score was calculated by summing the following 11 items: 5, 9, 14, 17, 18, 31, 36, 42, 59, 63, and 75. The possible range in scores was 0 to 22. A high Destructive Behavior score indicated that the child frequently exhibited destructive behavior.

The author of the CBCL/2-3 (Achenbach, 1992) reported that the Cronbach's alpha (Cronbach, 1951) for the Aggressive Behavior subscale was .92 , and for the Destructive Behavior subscale, Cronbach's alpha was .83. For the present study, Cronbach's alpha was .91 and .78 for the Aggressive and Destructive Behaviors subscales, respectively. Construct validity is evident as the CBCL/2-3 was significantly associated with the Behavior Checklist (Richman, Stevenson, & Graham, 1982) in two separate studies. A correlation of .62 was obtained in a study by Koot and Verhulst (as cited in Achenbach, 1992), and Spiker, Kraemer, Constantine, and Bryant obtained a correlation of .77 (as cited in Achenbach, 1992).

Data Collection

Data for the present study were collected in conjunction with another study being conducted by Drs. Rex E. Culp, Anne M. Culp, and Laura Hubbs-Tait. Data collection occurred in a Midwestern metropolitan area at a treatment center which serves maltreated children and their families.

Parents or legal guardians were given a flyer which briefly described the study and offered financial remuneration to those who participated in the study. A written

solicitation for the study was given to each participating caregiver. After the study was explained to them, they were asked to sign consent forms. Those who signed the consent forms served as participants. Family Social History forms, which were routinely completed for each child at enrollment in the treatment center, were given to the children's therapists to verify that the information was correct and current.

Data collection procedures differed in four ways for extended treatment children (those who attended weekly, hour-long therapy sessions at the center) and day treatment children (children who attended the center five days a week, in the mornings and afternoons). The differences were (a) how the caregivers were approached to participate in the study, (b) when the caregivers completed their questionnaire, (c) the amount of remuneration caregivers received for participating, and (d) whether the children's teachers or their therapists completed the PBQ and PTOPS.

Caregivers of extended treatment clients were asked by their therapist to complete the CBCL/2-3 at their subsequent regularly scheduled therapy session. They were paid $25.00 to participate. However, day treatment child participants took home flyers requesting caregivers to attend a session scheduled a week later which was organized for the sole purpose of completing the instruments. On the day prior to the session, day treatment children took home reminders for their caregivers to attend. Remuneration of $50.00 was paid to the caregivers of day treatment participants in return for completion of the questionnaires. The difference in remuneration for extended treatment and day treatment clients was based on the fact that extended treatment caregivers were already at the treatment center for their therapy session when data were collected; they did not need

to make an extra trip to the treatment center for the study. Day treatment parents and caregivers, however, were required to make a special trip to participate.

Therapists of extended treatment child participants completed the PBQ and PTOPS, since extended treatment children were not enrolled in classes at the treatment center. Treatment center teachers completed the PBQ and PTOPS for participants in the study who were their students in the day treatment program.

Procedures

At the treatment center, caregivers completed the CBCL/2-3. A research assistant was available, when needed, to help caregivers read, understand, and complete the form. The teacher/therapist completed the PBQ and PTOPS measures. A total of four teachers and eight therapists served as respondents. Teachers/therapists were required to return the completed questionnaires within three weeks after receiving them.

For day treatment participants, teachers were given the PBQ and PTOPS to complete for each research participant who was in their class. For extended treatment participants, children's therapists were given the PBQ and PTOPS to complete for their clients who were participants in the present study.

For some analyses, children were classified into three groups based on their maltreatment status as determined by two sources, a state caseworker's investigation and the treatment center's therapist assigned to each child's family. Only children who were classified by both the state caseworker and the center's therapist as neglected, sexually abused, or physically abused and neglected were used in these analyses. Every effort was made to insure that (a) children classified as neglected had not been sexually or physically

abused, (b) children classified as sexually abused had not been neglected or physically abused (other than any physical harm which occurred in conjunction with the sexual abuse), and (c) children classified as both physically abused and neglected had not been sexually abused.

Data Analysis

The data analysis consisted of calculating correlation coefficients, hierarchical multiple regressions, and tests for the significance of the difference between correlations. To test the first hypothesis, that family composition variables predict maltreated children's aggression, hierarchical multiple regressions were conducted. However, in order to reduce the possibility of multicollinearity, Pearson correlation coefficients were first calculated for each of the quantitative family composition variables with each of the aggression subscale scores. Point biserial correlation coefficients were calculated for each of the categorical family composition variables (resided in a single- versus two-parent home, perpetrator intrafamilial or extrafamilial) with each of the aggression subscale scores. Then, only the family variables which were correlated with an aggression subscale at an alpha level of less than or equal to .20 were selected to be entered in the hierarchical multiple regressions for which the aggression subscale was the criterion. Since all six aggression subscales had at least one family composition variable with which they were correlated at an alpha level of .20 or less, a total of six hierarchical multiple regressions were conducted. Each of the six aggression subscales served as a criterion variable for one hierarchical multiple regression; thus a total of six hierarchical multiple regressions were conducted.

The hierarchical multiple regression was selected because two variables, race and gender, were to be entered as covariates in the first block of each regression. The decision to enter race and gender as covariates was based on the literature, which suggests that aggression differs as a function of race and gender. African Americans have been found to be more likely than Caucasians to exhibit physical aggression, whereas the reverse was true in regards to nonphysical aggression (Harris, 1992). Findings from another study revealed that African Americans showed higher levels of social aggression than Caucasians (Fabrega, Ulrich, & Mezzich, 1993). Furthermore, that males are more aggressive than females is well-documented (e.g., Grusec & Lytton, 1988; Sanson, Prior, Smart, & Oberklaid, 1993).

Due to these findings which suggest that aggression differs as a function of race and gender, race and gender were entered as covariates in the first block of the hierarchical multiple regressions. Next, those family composition variables which had been correlated with an aggression subscale at an alpha level of .20 (arbitrarily selected) or less were entered as a second block in the hierarchical multiple regression which consisted of that aggression subscale as a criterion variable.

To test the second hypothesis of the research, that the patterns of correlations between family composition variables and aggression will vary for different maltreatment groups, correlation coefficients were calculated. Specifically, for each of the maltreatment groups, (a) neglected, (b) sexually abused, and (c) physically abused and neglected, Pearson correlation coefficients of family composition variables with aggression subscales were calculated. Therefore, correlation coefficients were calculated

for each of the following variables -- (a) caregiver status (single-parent or two-parent family), (b) number of siblings, (c) percent of siblings abused, (d) percent of siblings neglected, (e) whether the perpetrator was intra- or extrafamilial, (f) number of foster care placements prior to treatment, and (g) number of months in foster care prior to treatment -- with each of the following aggression subscales: CBCL/2-3 Aggressive Behavior, CBCL/2-3 Destructive Behavior, PBQ Hostile-Aggressive Behavior, PBQ Hyperactive-Distractible Behavior, PTOPS Proactive Aggression, and PTOPS Reactive Aggression.

Correlation coefficients which were significant at an alpha level of .05 or less were identified for each maltreatment group to be used in subsequent analyses. Next, the corresponding correlations for the other maltreatment groups were likewise selected for subsequent analyses. Fisher's z_r transformation (Fisher & Yates, 1957) was then used to test for the significance of the difference between the significant correlation coefficients and the other maltreatment groups' corresponding correlation coefficients. Fisher's z_r transformation (Fisher & Yates, 1957) is a statistical technique which is used to compare correlation coefficients when the coefficients have been calculated from independent samples (Wert, Neidt, Ahmann, 1954). One cannot directly compare the correlation coefficients of independent samples, because correlation coefficients' sampling distribution is not normally distributed (Wert, Neidt, Ahmann, 1954). Therefore, the correlation coefficients must be transformed to Z-values. All r's were converted to z_r's using Fisher's z-transformation table (Ferguson, 1959). The following formula was used to calculate the significance of the difference between correlation coefficients for two independent samples (Ferguson, 1959): $z = z_{r1} - z_{r2} / \sqrt{1/(N_1 - 3) + 1/(N_2 - 3)}$.

CHAPTER III

RESULTS

Results

Hypothesis 1

To test the first hypothesis, that family composition predicts maltreated children's aggression, an initial step was to calculate correlation coefficients for the family composition variables with the aggression subscale scores. The following correlations were characterized by an alpha level of .20 or less: CBCL/2-3 Aggressive Behavior and number of siblings (r = .26, p = .11); CBCL/2-3 Destructive Behavior and number of siblings (r = .33, p = .04), percent of siblings neglected (r = .40, p = .03), number of foster care placements prior to enrollment at the treatment center (r = .21, p = .20), and number of months in foster care prior to enrollment at the treatment center (r = .26, p = .13); PBQ Hostile-Aggressive Behavior and number of siblings (r = .27, p = .11); PBQ Hyperactive-Distractible Behavior and percent of siblings abused (r = -.41, p = .03), percent of siblings neglected (r = .42, p = .02), and number of months in foster care prior to enrollment at the treatment center (r = .30, p = .08); PTOPS Reactive Aggression and whether the child resided in a single-parent or two-parent home (r = .34, p = .04), and number of siblings (r = .30, p = .07); and PTOPS Proactive Aggression and whether the child resided in a single-parent or two-parent home (r = .29, p = .08).

Insert Table 1 about here

Based on the findings of the correlation analyses, six multiple regressions were conducted: (a) CBCL/2-3 Aggressive Behavior was the criterion variable that was

regressed on number of siblings, (b) CBCL/2-3 Destructive Behavior was regressed on number of siblings, percent of siblings neglected, number of foster care placements, and number of months in foster care, (c) number of siblings was the predictor entered in the regression which consisted of PBQ Hostile-Aggressive Behavior as the criterion, (d) percent of siblings abused, percent of siblings neglected, and number of months in foster care were entered as predictors for PBQ Hyperactive-Distractible Behavior, (e) PTOPS Reactive Aggression was the criterion variable for the multiple regression which consisted of the predictors, whether the child resided in a single-parent or two-parent home and number of siblings, and (f) whether the child resided in a single-parent or two-parent home was the sole predictor for the criterion variable, PTOPS Proactive Aggression.

Significant results were found in four of the six multiple regressions. The multiple regressions for which there were no significant findings were those which predicted PBQ Hostile-Aggressive Behavior and PTOPS Proactive Aggression. The

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Insert Tables 2 - 7 about here

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number of siblings explained a significant amount of variance (11%) in CBCL/2-3 Aggressive Behavior beyond that which was accounted for by race and gender. The significant positive beta weight for number of siblings (.40) indicates that as the number of siblings increases, so does the CBCL/2-3 Aggressive Behavior score.

As a block, the number of foster care placements, number of months in foster care, percent of siblings who were neglected, and number of siblings accounted for a significant amount of variance (25%) in CBCL/2-3 Destructive Behavior. However, examination of the beta weights indicates that the number of siblings was the only significant predictor in the regression equation. The significant positive beta weight for number of siblings (.50) indicates that as the number of siblings increases, so does the CBCL/2-3 Destructive Behavior score.

The percent of siblings who were neglected and the percent of siblings who were abused together accounted for 40% of the variance in PBQ Hyperactive-Distractible Behavior beyond that which was accounted for by race and gender. Both predictors significantly contributed to the regression equation. The significant positive beta weight for percent of siblings neglected (.52) suggests that as the percent of siblings neglected increases, so does the hyperactivity-distractibility. However, the negative beta weight for percent of siblings abused (-.56) indicates that as the percent of siblings abused increases, the hyperactivity-distractibility decreases.

Whether the child resides in a single-parent versus a two-parent home and the number of siblings together accounted for a significant amount of variance (17%) in PTOPS Reactive Aggression scores. Examination of the beta weights indicated that single-parent versus dual-parent status was the only significant predictor in the regression equation. The positive beta weight (.35) associated with this variable suggests that children residing in two-parent homes were more likely to show reactive aggression than children in single-parent homes.

The results supported the first hypothesis, that family composition variables would predict maltreated children's aggression. In particular, the number of siblings predicted CBCL/2-3 Aggressive Behavior and Destructive Behavior. The percent of siblings who were abused and the percent of siblings who were neglected predicted PBQ Hyperactive-Distractible Behavior. Whether the child resided in a single-parent versus a two-parent home significantly predicted PTOPS Reactive Aggression.

Hypothesis 2

Correlation coefficients were calculated to test the second hypothesis, that the patterns of correlations between family composition variables and maltreated children's aggression would differ among neglected, sexually abused, and physically abused and neglected children. For the neglected children, the correlation coefficient for PBQ Hyperactivity-Distractibility and whether the perpetrator was intrafamilial or extrafamilial was not calculated since all of the neglected children's perpetrators were intrafamilial.

Insert Table 8 about here

For the sexually abused children, there was a significant positive correlation (r = .76, p = .03) between PBQ Hyperactivity-Distractibility and whether the perpetrator was intrafamilial or extrafamilial. The sexually abused children who were victimized by an extrafamilial perpetrator were more likely than those victimized by an intrafamilial perpetrator to exhibit hyperactive-distractible behavior.

For physically abused and neglected children, a significant positive correlation (r = .79, p = .03) resulted between PBQ Hyperactive-Distractible Behavior and the percent of siblings neglected. For the physically abused and neglected children, as the percent of siblings neglected increases, so did their hyperactivity-distractibility.

A significant negative correlation (r = -.88, p = .001) was evident for the physically abused and neglected children between CBCL/2-3 Aggressive Behavior and whether the child resided in a single-parent or two-parent home. Physically abused and neglected children who resided in a single-parent home were more likely to exhibit aggressive behavior than physically abused and neglected children who resided in a two-parent home.

For the physically abused and neglected children, a significant negative correlation (r = -.77, p = .04) resulted between PTOPS Reactive Aggression and the percent of siblings abused. For the physically abused and neglected children, as the percent of siblings who were abused increased, so did their reactive aggression.

The four significant correlation coefficients were then compared with the corresponding nonsignificant correlation coefficients associated with the other maltreatment groups. Fisher's z_r transformation (Fisher & Yates, 1957) was used to test for the significance of the difference between each significant correlation coefficient and the corresponding correlation coefficients for the other maltreatment groups.

For the relationship between PBQ Hyperactive-Distractible Behavior and whether the perpetrator was intrafamilial or extrafamilial, the correlation coefficients differed between the sexually abused children (r = .76) and the physically abused and neglected

children (r = -.38). For sexually abused children, the correlation was significant and positive, indicating that sexually abused children who had extrafamilial perpetrators were more likely to display hyperactive-distractible behavior than children who were incestuously victimized. However, this was not true for the physically abused and neglected children.

The correlation between PBQ Hyperactive-Distractible Behavior and the percent of siblings who were neglected differed significantly for physically abused and neglected versus purely neglected children. For the physically abused and neglected group, the correlation was positive and significant (r = 79); however, for the neglected group, the correlation was negative (r = -.11). These findings indicate that for physically abused and neglected children, a greater percentage of siblings who were neglected is associated with higher hyperactivity-distractibility scores. However, this pattern was not found to be true for neglected children.

Differences in patterns were found in the relationship between CBCL/2-3 Aggression and whether the children resided in single- parent versus two-parent homes. The correlation for the physically abused and neglected group was significant and negative (r = -.88), and differed significantly from both the sexually abused (r = .04) and neglected (r = .39) groups. Physically abused and neglected children from single-parent homes tended to have higher CBCL/2-3 Aggressive Behavior scores than those from dual-parent homes. This was not true for the other two groups of children, though.

The results supported the second hypothesis, that patterns of family composition-aggression relationships would differ for different maltreatment groups. In particular,

sexually abused children who had extrafamilial perpetrators were more likely to display hyperactive-distractible behavior than children who were incestuously victimized. However, this relationship differed significantly from that of the physically abused and neglected children. For physically abused and neglected children, a greater percentage of siblings who were neglected is associated with higher hyperactivity-distractibility scores. However, this relationship is not evident in neglected children. Physically abused and neglected children in two-parent homes were rated lower on CBCL/2-3 Aggressive Behavior than those in single-parent homes. This relationship differed significantly from that of the sexually abused children and the neglected children.

CHAPTER IV

CONCLUSIONS

Conclusions

There were two goals of this study: (a) to examine the extent to which family composition variables predict maltreated children's aggression, and (b) to determine if patterns of correlations between family composition variables and aggression differ for different maltreatment groups.

In the process of meeting the proposed goals of the study, the Preschool Taxonomy of Problem Situations (PTOPS) was developed by making revisions to the Taxonomy of Problem Situations (Dodge et al., 1985). The PTOPS is an instrument which is appropriate for measuring not only preschoolers' aggression, but also preschoolers' other behavioral responses to problem situations as well. Most of the instruments which measure children's behavior are appropriate for use only with children who are older than preschool-age (Behar & Stringfield, 1974). Furthermore, most instruments which measure behavior in children do not contribute to intervention strategies for the children, because they do not identify the social context in which the children exhibit behavior problems (Dodge et al., 1985). The PTOPS is thus a valuable contribution to research on children's behavior, because it was developed specifically to be preschool-age appropriate, and PTOPS items identify social contexts in which children may potentially exhibit behavior problems.

The results of the present study provided support that family composition predicts maltreated children's aggression, and patterns of family composition-aggression correlations differ among different maltreatment groups of children. A common theme in several of the predictors of maltreated children's aggression was sibling characteristics.

The number of siblings that a maltreated child had predicted aggressive and destructive behavior. These findings are consistent with those of researchers who suggest that caregivers of preschoolers and other children have more demands than other caregivers, and therefore, they rate their children's aggression as more problematic than do caregivers who do not have preschoolers and other children (Campbell et al., 1986). Although numerous studies suggest that maltreated children, in particular neglected children, tend to have more siblings than nonmaltreated children (Zuravin, 1988), the role that siblings play in the outcomes of child maltreatment has not been addressed in the research. Two additional sibling variables, the percent of siblings who were abused and the percent of siblings who were neglected, both predicted hyperactive-distractible behavior. The present study suggests that siblings influence a maltreated child's aggressive and destructive behavior. Future research should examine the dynamics of the sibling relationships of maltreated children to determine the nature of the role of the sibling relationship on maltreatment outcomes. Furthermore, sibling maltreatment status should also be considered in research on maltreated children's sibling relationships.

Caregiver status also predicted maltreated children's aggression. Whether the child resides in a single-parent versus a two-parent home significantly predicted reactive aggression. Again, as with sibling characteristics, several studies (e.g., Kimball et al., 1980) indicate that caregiver status influences the *occurrence* of child maltreatment, yet no studies assess the extent to which caregiver status influences the behavioral outcomes of child maltreatment. Future child maltreatment research should assess the dynamics of

the caregiver-child relationship to assess the nature of its influence on the outcomes of maltreatment, such as aggression.

The patterns of correlations between family composition variables and aggression differed among neglected, sexually abused, and physically abused and neglected children. Sexually abused children whose perpetrators were extrafamilial were more likely to display hyperactive-distractible behavior than children maltreated by intrafamilial perpetrators. This pattern was not true for physically abused and neglected children. The finding that more detrimental effects result from extrafamilial perpetration than intrafamilial perpetration differs from much of the research on sexual abuse. Previous research suggests that incest results in more negative externalizing and internalizing sequelae for the victims than sexual abuse by a non-family member does (Browne & Finkelhor, 1986). However, the underlying variable of importance when considering the effects of the relationship of the perpetrator on the victim, according to Browne and Finkelhor (1986), may be the issue of betrayal. Children who were sexually victimized by an extrafamilial perpetrator who was a live-in paramour may feel more betrayed than incest victims who did not have much contact with their perpetrator. Consequently, the victims of extrafamilial abuse would exhibit more negative sequelae than the incest victims.

For physically abused and neglected children, sibling characteristics and caregiver status appear to be related to maltreated children's aggression. For the physically abused and neglected group, as the percent of siblings who were neglected increased, so did their hyperactive-distractible behavior. However, this was not true for the neglected children.

This discrepancy may be the result of the physical abuse aspect of the former group. It is generally accepted in the maltreatment literature that physically abused children exhibit higher levels of aggression-related behaviors than children of other maltreatment groups (e.g., Prino & Peyrot, 1994). Therefore, physically abused and neglected children who resided with many neglected siblings may exhibit their frustration and anger in ways that physically abused children often do -- with aggression-related behaviors. Future research should assess why, for physically abused and neglected children, the percent of siblings neglected is correlated with hyperactive-distractible behavior, yet the percent of siblings abused is not.

Some research indicates that there is a relationship between marital status and the occurrence of child maltreatment (Sack et al., 1985). The present research findings go one step further, suggesting that marital status is related to maltreated children's aggression. In conjunction with the earlier research (e.g., Gelles, 1989) which suggests that single-parent families are at a higher risk for maltreating their children than two-parent families, physically abused and neglected children in the present study who were from single-parent homes experienced a more negative outcome (higher aggression) than those in dual-parent homes. However, this pattern was not found for sexually abused children or neglected children. Future research should examine the role of the parents' marital status on maltreatment outcomes for different maltreatment groups.

The findings which indicate differences in patterns of family composition-aggression correlations suggest that the pathway to aggression differs as a function of the type of victimization suffered by the child. Different maltreatment groups, therefore,

require different interventions. Furthermore, the varying family composition-aggression relationships among different maltreatment groups suggest that researchers should further examine the pathways from family variables to child maltreatment outcomes.

In sum, the results support the hypotheses of the study. Sibling characteristics and caregiver status play a role in the amount of aggression, destructive behavior, hyperactive-distractible behavior, and reactive aggression that a maltreated child exhibits. Therefore, caregiver status and sibling characteristics need to be incorporated in research on maltreated children. Future research should assess the dynamics of caregiver-child and sibling relationships. This might be done using observation or videotaping procedures.

The findings of the current study also suggest that family composition-aggression relationships differ for different maltreatment groups. These findings suggest that the pathway to aggression differs as a function of the type of victimization suffered by the child. Different maltreatment groups, therefore, require different interventions. Intervention for maltreated children's aggression must take into account the different family variables associated with that aggression. Furthermore, future research could benefit from assessments of the varying family composition-maltreatment outcomes pathways among different maltreatment groups of children.

Table 1

Pearson Correlation Coefficients* of Family Composition Variables and Aggression Subscales

	# of Siblings	% of Siblings Neglected	% of Siblings Abused	# of Foster Care Placements	# of Months in Foster Care	1- or 2-Parent Home
CBCL Aggression	.26 (p = .11)	--	--	--	--	--
CBCL Destruction	.33 (p = .04)	.40 (p = .03)	--	.21 (p = .20)	.26 (p = .13)	--
PBQ Hostile-Aggressive	.27 (p = .11)	--	--	--	--	--
PBQ Hyperactive-Distractible	--	.42 (p = .02)	-.41 (p = .03)	--	--	.30 (p = .08)
PTOPS Proactive Aggression	--	--	--	--	--	.29 (p = .08)
PTOPS Reactive Aggression	.30 (p = .07)	--	--	--	--	.34 (p = .04)

*Listed only correlation coefficients with an alpha level of .20 or less.

Table 2

Hierarchical Multiple Regression Predicting CBCL Aggression

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.01	.12	2, 36	
Race				.08
Gender				.05
2. Family composition	.11	4.45*	3, 35	
Number of siblings				.40*

*$p \leq .05$

Table 3

Hierarchical Multiple Regression Predicting CBCL Destructive Behavior

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.32	5.87**	2, 25	
Race				-.04
Gender				.55**
2. Family composition	.25	3.05*	6, 21	
Percent of siblings neglected				.29
Number of siblings				.50*
Number of foster placements				-.20
Number of months in foster care				.26

*$p \leq .05$

**$p \leq .01$

Table 4

Hierarchical Multiple Regression Predicting PBQ Hostile-Aggressive Behavior

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.01	.85	2, 34	
Race				-.04
Gender				.08
2. Family composition	.07	2.39	3, 33	
Number of siblings				.30

Table 5

Hierarchical Multiple Regression Predicting PBQ Hyperactive-Distractible Behavior

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.06	.80	2, 27	
Race				-.11
Gender				.19
2. Family composition	.40	9.34**	4, 25	
Percent of siblings neglected				.52**
Percent of siblings abused				-.56**

**$p \leq .01$

Table 6

Hierarchical Multiple Regression Predicting PTOPS Reactive Aggression

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.03	.49	2, 33	
Race				-.12
Gender				.10
2. Family composition	.17	3.25*	4, 31	
Single- or two-parent home				.35*
Number of siblings				.17

*$p \leq .05$

Table 7

Hierarchical Multiple Regression Predicting PTOPS Proactive Aggression

Blocks and Predictors Entered	$R^{2change}$	F^{change}	df	Beta
1. Race, Gender	.07	1.31	2, 34	
Race				.24
Gender				.19
2. Family composition	.09	3.75	3, 33	
Single- or two-parent home				.32

Table 8

Pearson Correlation Coefficients of Family Composition Variables and Aggression Subscales by Maltreatment Group

	Neglected (n = 16)	Sexually Abused (n = 9)	Physically Abused and Neglected (n = 11)
PBQ Hyperactive-Distractible with Intra- or Extrafamilial Perpetrator	--	.76*[a]	-.38[b]
PBQ Hyperactive-Distractible with Percent of Siblings Neglected	-.11[a]	.06	.79*[b]
CBCL Aggression with Single- or Two-Parent Home	.39[a]	.04[a]	-.88*[b]
PTOPS Reactive Aggression with Percent of Siblings Abused	-.09	.21	-.79*

Note. Correlation coefficients with different superscripts (i.e., [a] and [b]) statistically differ from each other.

*$p \leq .05$

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APPENDIX A

INSTRUMENTS

THE CHILDREN'S PLACE

CHILD FORM
ENROLLMENT

FAMILY SOCIAL HISTORY

Client number _____ **Date of entry 19**____/____/____
Name _____ **Date of birth 19**____/____/____
Sex _____ **Race** _____
Codes: 0 = female Codes: 0 = African American 2 = Multiracial
1 = male 1 = Caucasian 3 = Other

Living arrangement: _____
Codes: 1 = natural mother 5 = relative foster care
2 = natural father 6 = other _____
3 = natural parents 7 = relative (voluntary)
4 = foster care

Maltreatment type/Perpetrator:

	Relationship	Type of maltreatment
Perpetrator #1	_____	_____
Perpetrator #2	_____	_____
Perpetrator #3	_____	_____
Perpetrator #4	_____	_____

Rel. codes:
1 = natural mother
2 = natural father
3 = foster parent/s
4 = mother substitute
5 = father substitute
6 = day care
7 = other _____

Maltx codes:
1 = physical abuse
2 = neglect
3 = abuse and neglect
4 = failure to thrive
5 = sexual abuse
6 = physical & sexual
7 = prevention
8 = not applicable
9 = family interaction
10 = emotional abuse

History of foster care:
Number of foster care placements prior to enrollment _____
Number of months of foster care prior to enrollment _____

Siblings:
Number of siblings _____
Number of siblings abused _____
Number of siblings neglected _____
Number of siblings with parental rights terminated _____
Is this client the natural mother's first born child? _____
Age of natural mother at birth of first born child? _____

Legal status of child:
How many instances of abuse/neglect reported for this child prior to enrollment? _____
Have parental rights been terminated for this child? _____
Is child involved with juvenile court? _____
Has criminal action been taken against perpetrator/s _____

*****CODES FOR ALL ITEMS: 1 = YES; 2 = NO; 888 = N/A

FAMILY SOCIAL HISTORY -- CHILD @ ENROLLMENT

Page two Client Number _____

Natural mother:

Living arrangements _____

Codes: 1 = living alone
2 = living w/ spouse or significant other
3 = multiple live-ins
4 = living w/ relative/s or friends

Marital Status _____

Codes: 1 = never married
2 = married
3 = divorced
4 = widowed

Family education/Employment

	Education status	Employment status
Natural mother	_____	_____
Natural father	_____	_____
Significant other #1	_____	_____
Significant other #2	_____	_____

Education codes: 1 = less than HS diploma
2 = HS diploma or GED
3 = some college
4 college degree
5 = vocational training
6 = graduate degree

Employment codes: 1 = full time
2 = part time
3 = unemployed

Income of child's NATURAL family _____

Codes:
1 = less than $5,000
2 = $5,001 to $10,000
3 = $10,001 to $15,000
4 = $15,001 to $20,000
5 = $20,001 to $25,000
6 = $25,001 to $30,000
7 = $30,001 to $40,000
8 = $40,001 to $50,000
9 = $50,001 to $75,000
10 = $75,001 to $100,000
11 = more than $100,000

Is child's natural mother receiving ADC? _____

Dates of birth:

Natural mother: **19**____/____/____
Natural father: **19**____/____/____
Significant other #1: **19**____/____/____
Significant other #2: **19**____/____/____

Family's history of abuse:

Was natural mother abused as a child? _____
Was natural father abused as a child? _____
Was significant other #1 abused as a child? _____
Was significant other #2 abused as a child? _____

Child's physical history:

Was child born prematurely? _____
Was child physically impaired prior to abuse? _____
Is child physically impaired after abuse? _____

*******CODES FOR ALL ITEMS: 1 = YES; 2 = NO; 888 = N/A**

FAMILY SOCIAL HISTORY -- CHILD @ ENROLLMENT

Page three Client Number _____

TCP Program @ enrollment: _____

Codes: 1 = Day Treatment; 2 = Extended Treatment Services

Day Treatment classroom: _____ (when applicable)

Codes: IN = Infants; T1 = Toddler 1; T2 = Toddler 2;
PS = Preschool; DE = Drug exposed

Primary diagnosis @ enrollment: _____; _____; _____

History of parent alcohol/drug use/abuse:

Natural mother (and significant other, if applicable):

Does parent currently use drugs? _____

Codes: 1 = yes; 2 = no; 3 = suspected

What drugs? _____; _____; _____; _____

How often? _____

Codes: 1 = seldom; 2 = frequently; 3 = chronically

History of treatment for substance abuse: _____

Codes: 1 = past; 2 = current; 3 = never

Comments: _____

Natural father (and significant other, if applicable):

Does parent currently use drugs? _____

Codes: 1 = yes; 2 = no; 3 = suspected

What drugs? _____; _____; _____; _____

How often? _____

Codes: 1 = seldom; 2 = frequently; 3 = chronically

History of treatment for substance abuse: _____

Codes: 1 = past; 2 = current; 3 = never

Comments: _____

*******CODES FOR ALL ITEMS: 1 = YES; 2 = NO; 888 = N/A**

Initials of person completing form: _____

Source/s of information: _____

THE PRESCHOOL BEHAVIOR QUESTIONNAIRE

Lenore Behar, Ph.D.
Samuel Stringfield, Ph.D.

Child's Name_____ School Attending_____

Parent's Name_____ Sex (circle) M F

Address_____
(Street)

_____
(City, State, Zip Code)

Rated by_____

Title of Rater_____

Length of time rater has worked with child (months or weeks)_____

	Month	Day	Year
Present Date	____	____	____
Child's Birthday	____	____	____
Age of Child	____	____	____

Following is a series of descriptions of behaviors often shown by preschoolers. After each statement are three columns, "Doesn't Apply," "Applies Sometimes," and "Certainly Applies." If the child shows the behavior described by the statement frequently or to a great degree, place an "X" in the space under "Certainly Applies." If the child shows behavior described by the statement to a lesser degree or less often, place an "X" in the space under "Applies Sometimes." If, as far as you are aware, the child does not show the behavior, place an "X" in the space under "Doesn't Apply."

Please put ONE "X" for EACH statement.

	Doesn't Apply	Applies Sometimes	Certainly Applies	For Scorer's Use Only			
1. Restless. Runs about or jumps up and down. Doesn't keep still.	____	____	____	____			____
2. Squirmy fidgety child	____	____	____	____			____
3. Destroys own or others' belongings	____	____	____	____	____		
4. Fights with other children	____	____	____	____	____		
5. Not much liked by other children	____	____	____	____	____		
6. Is worried. Worries about many things	____	____	____	____		____	
7. Tends to do things on his own, rather solitary	____	____	____	____			
8. Irritable, quick to "fly off the handle"	____	____	____	____	____		
9. Appears miserable, unhappy, tearful, or distressed	____	____	____	____		____	

	Doesn't Apply	Applies Sometimes	Certainly Applies	For Scorer's Use Only			
10. Has twitches, mannerisms, or tics of the face and body	___	___	___	___	.....	___	
11. Bites nails or fingers	___	___	___	___			
12. Is disobedient	___	___	___	___	___		
13. Has poor concentration or short attention span	___	___	___	___	.....	.....	___
14. Tends to be fearful or afraid of new things or new situations	___	___	___	___	.....	___	
15. Fussy or over-particular child	___	___	___	___	.....	___	
16. Tells lies	___	___	___	___	___		
17. Has wet or soiled self this year	___	___	___	___			
18. Has stutter or stammer	___	___	___	___			
19. Has other speech difficulty	___	___	___	___	.....	___	
20. Bullies other children	___	___	___	___	___		
21. Inattentive	___	___	___	___	.....	.....	___
22. Doesn't share toys	___	___	___	___	___		
23. Cries easily	___	___	___	___	.....	___	
24. Blames others	___	___	___	___	___		
25. Gives up easily	___	___	___	___	.....	___	
26. Inconsiderate of others	___	___	___	___	___		
27. Unusual sexual behaviors	___	___	___	___			
28. Kicks, bites, or hits other children	___	___	___	___	___		
29. Stares into space	___	___	___	___	.....	___	
30. Do you consider this child to have behavior problems?	___	___	___	___			
TOTALS				___ Total	___ 1	___ 2	___ 3

TAXONOMY OF PROBLEM SITUATIONS
PRESCHOOL VERSION

Child's Name:_____ ID#:_____
Classroom:_____ Teacher:_____

Instructions: For each situation, please tell us how likely this child is to respond in an inappropriate manner (by hitting peers, aggressing verbally, crying, disrupting the group, withdrawing, appealing to the teacher for help, or behaving in some other immature, unacceptable, and unsuccessful way). In other words, how much of a problem is this situation for this child?

Use the following scale to answer:

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

For example: When this child is teased by peers

If you feel that when this child is teased by peers, he or she almost always responds inappropriately or ineffectively (such as by crying), you would agree that this is a problem situation for this child and would circle 5. If you feel that when this situation occurs, the child almost always responds in an effective and appropriate manner (such as by ignoring the teasing), you would agree that this is not a problem situation for this child and would circle 1. We are less interested in how frequently this situation occurs and more interested in this child's response when it does occur.

1.	When this child is working on a group activity that requires sharing or cooperation (for example, group block building).	1	2	3	4	5
2.	When peers notice that this child is somehow different (for example, wearing peculiar clothes, or walking funny).	1	2	3	4	5
3.	When this child does better at an activity than a peer.	1	2	3	4	5
4.	When a peer takes this child's turn during an activity with established procedures for turn-taking.	1	2	3	4	5
5.	When this child is waiting for a turn with a peer and realizes that the peer is going to go first.	1	2	3	4	5
6.	When peers call this child a bad name.	1	2	3	4	5
7.	When a peer is allowed a privilege (such as winning a prize or standing first in line) that this child cannot enjoy.	1	2	3	4	5
8.	When a peer performs better than this child in an activity.	1	2	3	4	5
9.	When this child asks a peer to play and the peer chooses to play with a third child instead.	1	2	3	4	5
10.	When a peer performs better than this child on a project or activity (such as painting a picture or climbing a play structure).	1	2	3	4	5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

11.	When peers laugh at this child for having difficulty in a play activity.	1	2	3	4	5
12.	When this child performs better than a peer in an activity.	1	2	3	4	5
13.	When peers laugh at this child for having difficulty with a project or activity.	1	2	3	4	5
14.	When this child performs better than a peer in a project or activity.	1	2	3	4	5
15.	When this child is having difficulty with a particular project or activity.	1	2	3	4	5
16.	When a peer has something belonging to this child, and this child wants it back.	1	2	3	4	5
17.	When this child finds out that s/he has been left out of a group or activity of peers.	1	2	3	4	5
18.	When this child has something belonging to a peer and the peer wants it back before this child is through with it.	1	2	3	4	5
19.	When this child is playing with a peer, and the peer accidentally breaks this child's toy.	1	2	3	4	5
20.	When this child is teased by peers.	1	2	3	4	5
21.	When peers start to play as a group and do not include this child.	1	2	3	4	5
22.	When this child wants to play with a group of peers who are already playing an activity.	1	2	3	4	5
23.	When this child tries to join in with a group of peers who are playing, and they tell him/her to wait until they are ready.	1	2	3	4	5
24.	When this child is accidentally provoked by a peer (such as a peer who accidentally bumps into this child in line).	1	2	3	4	5
25.	When this child is asked by a peer to share his toy (or pencil or some other object).	1	2	3	4	5
26.	When the teacher asks this child to work on an activity that will take a long time and will be difficult.	1	2	3	4	5
27.	When the teacher is trying to speak to the entire class.	1	2	3	4	5
28.	When this child is waiting with peers and must wait a long time.	1	2	3	4	5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

29.	When this child is on the playground and a teacher is not nearby.	1	2	3	4	5
30.	When this child is in the classroom with peers and the teacher is not nearby.	1	2	3	4	5
31.	When this child is seated at lunch with a group of peers and a teacher is not nearby.	1	2	3	4	5
32.	When a peer tries to start a conversation with this child.	1	2	3	4	5
33.	When this child is sad, and a peer acknowledges his/her sadness (for example, pats him/her or asks why s/he's sad).	1	2	3	4	5
34.	When a peer has a toy or object that this child wants.	1	2	3	4	5
35.	When this child has an extra toy and a peer asks him to share it.	1	2	3	4	5
36.	When a peer expresses anger at this child.	1	2	3	4	5
37.	When a peer has performed quite well at a task and is deserving of a compliment from this child.	1	2	3	4	5
38.	When a peer is troubled, worried, or upset and needs comfort from this child.	1	2	3	4	5
39.	When a peer has been helpful to this child, and this child should thank him or her.	1	2	3	4	5
40.	When a peer takes a turn in place of this child.	1	2	3	4	5
41.	When a peer tries to talk with this child.	1	2	3	4	5
42.	When this child has accidentally hurt a peer and could apologize.	1	2	3	4	5
43.	When this child needs help from a peer and could ask for help.	1	2	3	4	5
44.	When this child does not do best in an activity with peers.	1	2	3	4	5
45.	When this child has been teased or threatened, s/he gets angry easily and strikes back.	1	2	3	4	5
46.	This child always claims that other children are to blame in a fight and feels that they started the trouble.	1	2	3	4	5
47.	When a peer accidentally hurts this child (such as by bumping into him), s/he overreacts with anger and fighting.	1	2	3	4	5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

48.	When a peer refuses to play with this child, s/he gets angry and threatens the peer.	1	2	3	4	5
49.	When a peer takes an object from this child, s/he gets angry and will use force to retrieve the object.	1	2	3	4	5
50.	When this child makes a request of a peer and the peer refuses, this child gets angry and either threatens the peer or strikes out at the peer.	1	2	3	4	5
51.	When a peer ignores this child, s/he gets angry and either threatens the peer or strikes out at the peer.	1	2	3	4	5
52.	When a peer refuses to play with this child, s/he gets angry and either threatens the peer or strikes out at the peer.	1	2	3	4	5
53.	This child gets other kids to gang up on a peer that s/he does not like.	1	2	3	4	5
54.	This child uses physical force (or threatens to use force) in order to dominate the other kids.	1	2	3	4	5
55.	This child threatens or bullies others in order to get his/her own way.	1	2	3	4	5
56.	This child initiates taunting and making fun of other children.	1	2	3	4	5
57.	This child belittles peers in an attempt to look good.	1	2	3	4	5
58.	This child takes the possessions of others and uses force (or threatens to use force) if the peer attempts to retrieve the possessions.	1	2	3	4	5
59.	This child coerces other children into doing things for him/her.	1	2	3	4	5
60.	This child will perform hurtful tricks on other children and then laugh afterwards.	1	2	3	4	5

CHILD BEHAVIOR CHECKLIST FOR AGES 2-3

For office use only
ID #

CHILD'S NAME

SEX ☐ Boy ☐ Girl

AGE

ETHNIC GROUP OR RACE

TODAY'S DATE Mo.____ Date____ Yr.____

CHILD'S BIRTHDATE Mo.____ Date____ Yr.____

Please fill out this form to reflect *your* view of the child's behavior even if other people might not agree. Feel free to write additional comments beside each item and in the space provided on page 2.

PARENTS' USUAL TYPE OF WORK, even if not working now ***(Please be specific—for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.)***

FATHER'S TYPE OF WORK: ____

MOTHER'S TYPE OF WORK: ____

THIS FORM FILLED OUT BY:

☐ Mother (name): ____

☐ Father (name): ____

☐ Other—name & relationship to child: ____

Below is a list of items that describe children. For each item that describes the child **now or within the past 2 months**, please circle the **2** if the item is **very true or often true** of the child. Circle the **1** if the item is **somewhat or sometimes true** of the child. If the item is **not true** of the child, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to the child.

0 = Not True (as far as you know) **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 1. Aches or pains (without medical cause)
0 1 2 2. Acts too young for age
0 1 2 3. Afraid to try new things
0 1 2 4. Avoids looking others in the eye
0 1 2 5. Can't concentrate, can't pay attention for long
0 1 2 6. Can't sit still or restless
0 1 2 7. Can't stand having things out of place
0 1 2 8. Can't stand waiting; wants everything now
0 1 2 9. Chews on things that aren't edible
0 1 2 10. Clings to adults or too dependent
0 1 2 11. Constantly seeks help
0 1 2 12. Constipated, doesn't move bowels
0 1 2 13. Cries a lot
0 1 2 14. Cruel to animals
0 1 2 15. Defiant
0 1 2 16. Demands must be met immediately
0 1 2 17. Destroys his/her own things
0 1 2 18. Destroys things belonging to his/her family or other children
0 1 2 19. Diarrhea or loose bowels when not sick
0 1 2 20. Disobedient
0 1 2 21. Disturbed by any change in routine
0 1 2 22. Doesn't want to sleep alone
0 1 2 23. Doesn't answer when people talk to him/her
0 1 2 24. Doesn't eat well (describe): ____
0 1 2 25. Doesn't get along with other children
0 1 2 26. Doesn't know how to have fun, acts like a little adult
0 1 2 27. Doesn't seem to feel guilty after misbehaving
0 1 2 28. Doesn't want to go out of home
0 1 2 29. Easily frustrated
0 1 2 30. Easily jealous
0 1 2 31. Eats or drinks things that are not food—don't include sweets (describe): ____
0 1 2 32. Fears certain animals, situations, or places (describe): ____
0 1 2 33. Feelings are easily hurt
0 1 2 34. Gets hurt a lot, accident-prone
0 1 2 35. Gets in many fights
0 1 2 36. Gets into everything
0 1 2 37. Gets too upset when separated from parents
0 1 2 38. Has trouble getting to sleep
0 1 2 39. Headaches (without medical cause)
0 1 2 40. Hits others
0 1 2 41. Holds his/her breath
0 1 2 42. Hurts animals or people without meaning to
0 1 2 43. Looks unhappy without good reason
0 1 2 44. Angry moods
0 1 2 45. Nausea, feels sick (without medical cause)
0 1 2 46. Nervous movements or twitching (describe): ____
0 1 2 47. Nervous, highstrung, or tense
0 1 2 48. Nightmares
0 1 2 49. Overeating
0 1 2 50. Overtired
0 1 2 51. Overweight
0 1 2 52. Painful bowel movements
0 1 2 53. Physically attacks people
0 1 2 54. Picks nose, skin, or other parts of body (describe): ____
0 1 2 55. Plays with own sex parts too much
0 1 2 56. Poorly coordinated or clumsy
0 1 2 57. Problems with eyes without medical cause (describe): ____
0 1 2 58. Punishment doesn't change his/her behavior
0 1 2 59. Quickly shifts from one activity to another
0 1 2 60. Rashes or other skin problems (without medical cause)
0 1 2 61. Refuses to eat
0 1 2 62. Refuses to play active games
0 1 2 63. Repeatedly rocks head or body
0 1 2 64. Resists going to bed at night

Please see other side

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	1	2	65.	Resists toilet training (describe): _____	0	1	2	82.	Sudden changes in mood or feelings
				_____	0	1	2	83.	Sulks a lot
0	1	2	66.	Screams a lot	0	1	2	84.	Talks or cries out in sleep
0	1	2	67.	Seems unresponsive to affection	0	1	2	85.	Temper tantrums or hot temper
0	1	2	68.	Self-conscious or easily embarrassed	0	1	2	86.	Too concerned with neatness or cleanliness
0	1	2	69.	Selfish or won't share	0	1	2	87.	Too fearful or anxious
0	1	2	70.	Shows little affection toward people	0	1	2	88.	Uncooperative
0	1	2	71.	Shows little interest in things around him/her	0	1	2	89.	Underactive, slow moving, or lacks energy
0	1	2	72.	Shows too little fear of getting hurt	0	1	2	90.	Unhappy, sad, or depressed
0	1	2	73.	Shy or timid	0	1	2	91.	Unusually loud
0	1	2	74.	Sleeps less than most children during day and/or night (describe): _____	0	1	2	92.	Upset by new people or situations (describe): _____
				_____					_____
0	1	2	75.	Smears or plays with bowel movements	0	1	2	93.	Vomiting, throwing up (without medical cause)
0	1	2	76.	Speech problem (describe): _____	0	1	2	94.	Wakes up often at night
				_____	0	1	2	95.	Wanders away from home
0	1	2	77.	Stares into space or seems preoccupied	0	1	2	96.	Wants a lot of attention
0	1	2	78.	Stomachaches or cramps (without medical cause)	0	1	2	97.	Whining
					0	1	2	98.	Withdrawn, doesn't get involved with others
0	1	2	79.	Stores up things he/she doesn't need (describe): _____	0	1	2	99.	Worrying
				_____				100.	Please write in any problems your child has that were not listed above.
0	1	2	80.	Strange behavior (describe): _____	0	1	2		_____
				_____	0	1	2		_____
0	1	2	81.	Stubborn, sullen, or irritable	0	1	2		_____

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS. UNDERLINE ANY YOU ARE CONCERNED ABOUT.

Does your child have any illness, physical disability, or mental handicap? ☐ No ☐ Yes—Please describe

What concerns you most about your child?

Please describe the best things about your child:

APPENDIX B

WRITTEN SOLICITATION AND CONSENT FORMS

Written Solicitation

In cooperation with The Children's Place, we, Dr. Rex Culp, Dr. Laura Hubbs-Tait, Dr. Anne Culp and Ms. Maureen Blankemeyer, are studying preschool children's behavior and family relationships. We are interested in determining how these child and family characteristics are related to your child's participation at The Children's Place.

Your participation and consent are needed so we can learn more about your child. You will be asked to complete two questionnaires about your child. This will take approximately 50 minutes. Your child's teacher and TCP social worker will complete three questionnaires. In addition, your child will play a series of story games, which will be videotaped. During the story games, Ms. Blankemeyer will use toys to tell the beginning of a story and then will ask your child to complete the story. A total of five stories will be used. You will not be required to be present at the video taping session, as it will occur during the day when your child is at The Children's Place.

You and your child will only be identified by a number on the questionnaires and videotape. The videotapes will be stored in locked cabinets at Oklahoma State University. Your participation is voluntary, there is no penalty for non-participation and you may withdraw your child from this study at any time.

Informed Consent of Legal Guardian for Child Participation

I, _____, hereby authorize Dr. Rex Culp, Dr. Laura Hubbs-Tait, Dr. Anne Culp and their associates to perform the following procedures as part of the study entitled "Child and Family Characteristics and Type of Child Maltreatment":

a. request my child's teacher and The Children's Place social worker to complete the temperament survey for children;
b. request my child's teacher and The Children's Place social worker to complete the Child Behavior Checklist;
c. request my child's teacher to complete the Taxonomy of Problem Situations;
d. videotape my child during the story games.

I understand that completion of the questionnaires will require approximately 25 minutes each and must be completed within two weeks of the video tape session. I understand that all my child's responses will be held in confidence. I understand that this informed consent form will be kept separate from the questionnaires and that the questionnaires are coded with an identification number and will not have my child's name on them.

I understand that my child is being asked to participate in this study because s/he is *receiving services at The Children's Place for maltreatment.*

I understand that participation is voluntary, that there are no consequences for non-participation, and that I am free to withdraw my consent and child's participation in this project any time without affecting my or my child's standing with The Children's Place after notifying the project directors.

I may contact the project directors at the following telephone numbers: Dr. Rex E. Culp, Dr. Laura Hubbs-Tait or Dr. Anne M. Culp, *243 HES Building, Department of Family Relations and Child Development, Oklahoma State University, Stillwater, OK 74078*; telephone: (405) 744-5057 or Ms. Harriet Lawrence, *The Children's Place*; telephone: (816) 363-1898. *I may also contact University Research Services, 001 Life Sciences East, Oklahoma State University, Stillwater, OK 74078; telephone: (405) 744-5700.*

I have read and fully understand the consent form. I sign it freely and voluntarily.

Date:_____ Time:_____(a.m./p.m.)

Signed: _____
Signature of Legal Guardian

I certify that I have personally explained all elements of this form to the subject's legal guardian before requesting him/her to sign it.
Signed: _____
Project Director or his/her authorized representative

Signed: _____
Project Director or his/her authorized representative

Informed Consent of *Natural Parent, When Child Resides With Natural Parent.*

I, _____, hereby authorize Dr. Rex E. Culp, Dr. Laura Hubbs-Tait, Dr. Anne M. Culp and their associates to perform the following procedures as part of the study entitled "Child and Family Characteristics and Type of Child Maltreatment":

a. I will complete the temperament survey for children;
b. I will complete the Child Behavior Checklist;
c. I will allow access to the Family Social History information collected when my child is enrolled at The Children's Place. This includes information such as my date of birth, ethnicity, marital status, education and income.

I understand that completion of the questionnaires will require approximately 25 minutes each and must be completed within two weeks of the video tape session. I understand that all my responses will be held in confidence. I understand that this informed consent form will be kept separate from the questionnaires and that the questionnaires are coded with an identification number and will not have my name on them.

I understand that one benefit of this project is to make teachers, social workers, parents, and foster parents aware that children in attendance at The Children's Place may have different family, individual, or socioeconomic characteristics which are related to providing effective intervention.

I understand that I am being asked to participate in this study because *my child is receiving services at The Children's Place for maltreatment.*

I understand that participation is voluntary, that there is no penalty for non-participation, and that I am free to withdraw my consent and participation in this project at any time without affecting my standing with The Children's Place after notifying the project directors.

I may contact the project directors at the following telephone numbers: Dr. Rex E. Culp, Dr. Laura Hubbs-Tait or Dr. Anne M. Culp, *243 HES Building, Department of Family Relations and Child Development, Oklahoma State University, Stillwater, OK 74078*; telephone: (405) 744-5057 or Ms. Harriet Lawrence, *The Children's Place*; telephone: (816) 363-1898. *I may also contact University Research Services, 001 Life Sciences East, Oklahoma State University, Stillwater, OK 74078; telephone: (405) 744-5700.*

I have read and fully understand the consent form. I sign it freely and voluntarily.

Date:_____ Time:_____(a.m./p.m.)

Signed: _____
Signature of *Natural Parent*

I certify that I have personally explained all elements of this form to the subject's legal guardian before requesting him/her to sign it.
Signed: _____
Project Director or his/her authorized representative

Informed Consent of *Natural Parent, When Child Is Not Residing With Natural Parent.*

I, _____, hereby authorize Dr. Rex Culp, Dr. Laura Hubbs-Tait, Dr. Anne Culp and their associates to perform the following procedures as part of the study entitled "Child and Family Characteristics and Type of Child Maltreatment":

I will allow access to the Family Social History information collected when my child is enrolled at The Children's Place. This includes information such as my date of birth, ethnicity, marital status, education and income. I understand that the all information will be held in confidence. I understand that this informed consent form will be kept separate from the Family Social History information used in this project, which is coded with an identification number and will not have my name on it.

I understand that one benefit of this project is to make teachers, social workers, parents, and foster parents aware that children in attendance at The Children's Place may have different family, individual, or socioeconomic characteristics which are related to providing effective intervention.

I understand that I am being asked to particpate in this study because *my child is receiving services at The Children's Place for maltreatment.*

I understand that participation is voluntary, that there is no penalty for non-participation, and that I am free to withdraw my consent and participation in this project at any time without affecting my standing with The Children's Place after notifying the project directors.

I may contact the project directors at the following telephone numbers: Dr. Rex E. Culp, Dr. Laura Hubbs-Tait or Dr. Anne M. Culp. *243 HES Building, Department of Family Relations and Child Development, Oklahoma State University, Stillwater, OK 74078*; telephone: (405) 744-5057 or Ms. Harriet Lawrence, *The Children's Place*; telephone: (816) 363-1898. *I may also contact University Research Services, 001 Life Sciences East, Oklahoma State University, Stillwater, OK 74078; telephone: (405) 744-5700.*

I have read and fully understand the consent form. I sign it freely and voluntarily.

Date:_____ Time:_____(a.m./p.m.)

Signed: _____

Signature of *Natural Parent*

I certify that I have personally explained all elements of this form to the subject's legal guardian before requesting him/her to sign it.

Signed: _____

Project Director or his/her authorized representative

Informed Consent of Foster Parent, When Child Is Residing With Foster Parent

I, _____, hereby authorize Dr. Rex Culp, Dr. Laura Hubbs-Tait, Dr. Anne Culp and their associates to perform the following procedures as part of the study entitled "Child and Family Characteristics and Type of Child Maltreatment":

a. I will complete the temperament survey for children;
b. I will complete the Child Behavior Checklist;

I understand that completion of the questionnaires will require approximately 25 minutes each and must be completed within two weeks of the video tape session. I understand that all my responses will be held in confidence. I understand that this informed consent form will be kept separate from the questionnaires and that the questionnaires are coded with an identification number and will not have my name on them.

I understand that one benefit of this project is to make teachers, social workers, parents, and foster parents aware that children in attendance at The Children's Place may have different family, individual, or socioeconomic characteristics which are related to providing effective intervention.

I understand that I am being asked to participate in this study because *my child is receiving services at The Children's Place for maltreatment.*

I understand that participation is voluntary, that there is no penalty for non-participation, and that I am free to withdraw my consent and participation in this project at any time without affecting my standing with The Children's Place after notifying the project directors.

I may contact the project directors at the following telephone numbers: Dr. Rex E. Culp, Dr. Laura Hubbs-Tait or Dr. Anne M. Culp, *HES Building, Department of Family Relations and Child Development, Oklahoma State University, Stillwater, OK 74078;* (405) 744-5057 or Ms. Harriet Lawrence, *The Children's Place*; telephone: (816) 363-1898. *I may also contact University Research Services, 001 Life Sciences East, Oklahoma State University, Stillwater, OK 74078; telephone: (405) 744-5700.*

I have read and fully understand the consent form. I sign it freely and voluntarily.

Date:_____ Time:_____(a.m./p.m.)

Signed: _____
Signature of Legal Guardian

I certify that I have personally explained all elements of this form to the subject's legal guardian before requesting him/her to sign it.
Signed: _____
Project Director or his/her authorized representative

VITA

Maureen Blankemeyer

Candidate for the Degree of

Doctor of Philosophy

Thesis: DOES FAMILY COMPOSITION PREDICT MALTREATED CHILDREN'S AGGRESSION?

Major Field: Human Environmental Sciences

Biographical:

Personal Data: Born in Lima, Ohio, December 17, 1967, the daughter of Gene and Joan Blankemeyer.

Education: Graduated from Lincolnview High School, Van Wert, Ohio, June 1986. Received Bachelor of Science degree in Psychology from Bowling Green State University, Bowling Green, Ohio in May, 1990. Received Master of Science degree in Family Relations and Child Development from Oklahoma State University in May, 1993. Completed the requirements for the Doctor of Philosophy degree in Human Environmental Sciences at Oklahoma State University in May, 1996.

Professional Experience: Teaching Assistant, Department of Family Relations and Child Development, Oklahoma State University, August, 1990 to May, 1991 and August, 1995 to May, 1996. Research Assistant, Department of Family Relations and Child Development, Oklahoma State University, August, 1990 to present.

Professional Organizations: Phi Kappa Phi, Kappa Omicron Nu, National Council on Family Relations, Oklahoma Council on Family Relations.

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 01-28-94 **IRB#:** HE-94-024

Proposal Title: CHILD AND FAMILY CHARACTERISTICS AND TYPE OF CHILD MALTREATMENT

Principal Investigator(s): Rex Culp, Laura Hubbs-Tait, Anne M. Culp, Maureen Blankenmeyer

Reviewed and Processed as: Full Board

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Modifications received and approved.

Signature: _____ Date: March 31, 1994
Chair of Institutional Review Board