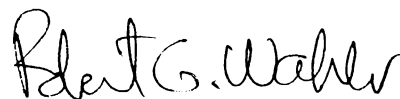


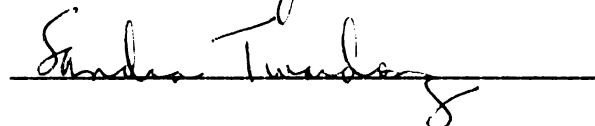
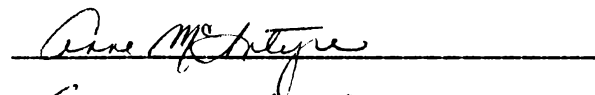
To the Graduate Council:

I am submitting herewith a dissertation written by Debra M. Bond entitled "The Alienation of Aggressive Children: A Correlational Analysis Among Child and Maternal Measures of Depression and Behavior." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.



Robert G. Wahler, Major Professor

We have read this dissertation
and recommend its acceptance:



Accepted for the Council:



Vice Provost
and Dean of The Graduate School

THE ALIENATION OF AGGRESSIVE CHILDREN:
A CORRELATIONAL ANALYSIS AMONG
CHILD AND MATERNAL MEASURES OF DEPRESSION AND BEHAVIOR

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Debra M. Bond

May 1989

Thesis
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DEDICATION

Dedicated to the memories of my brother, Thomas Wayne Bond, and my friend and colleague, Allisha Longstreet. Both of these individuals were actively striving toward their goals of helping others at the times of their deaths. Thomas was a senior in college pursuing a bachelors degree in Correctional Therapy. Allisha had completed all of the requirements towards a doctoral degree in Clinical Psychology except for her dissertation. My memories of their strength and character served to inspire and encourage me towards my goal.

Also dedicated to my niece and nephew, Shannon Ordean and Anthone Wayne Bond. May they develop the persistence and patience to obtain their dreams and goals.

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ABSTRACT

The social alienation of aggressive children often leads to the child's experience of isolation, frustration, rejection and/or depression. The aggressive child's experience of depressive symptoms was examined to determine relationships between depressive symptomatology and mother-child interactions. Using a multimethod approach which included self report, parent report and observational measures, child self reported depression was found to be significantly related to mother aversive behavior. Children with lower self reported depression had mothers who were more aversive. In addition, mothers who were more aversive had children who exhibited more aversive as well as more positive behaviors. Thus, the children of highly aversive mothers appeared to be more socially active. Maternal aversiveness seemed to serve as a "marker" for social activity which reduced the child's feelings of depression.

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CHAPTER I

INTRODUCTION

Alienation, rejection, isolation, depression and frustration are often the outcome of the aggressive child's negative personal experiences. Such experiential outcomes represent a high cost, particularly for a young child to pay. Over time these children appear to become entrapped in aversive interactions which are characterized by high rates of oppositional, noncompliant, aggressive and other negative behaviors. Further understanding about the nature of the aggressive child's entrapment is essential because aggression appears to be stable over time. Complaints of behavioral disturbance represent the primary reason for referral of children for psychological services. Also, aggression is the single most powerful child predictor of later adjustment difficulties including poor academic performance, poor social skills and more serious personality and affective disorders (Kohlberg, Ricks, & Snarey, 1984) as well as suicide (Shaffer, 1974).

The aggressive child's interactions with his or her parents, particularly with the mother, have been described as "coercive" (Patterson, 1982). During coercive

aversive manner where the parents appear to match the child's oppositional behaviors with their own coercive responses. The children exhibit negative behaviors such as whining, screaming and yelling with parents scolding, yelling and spanking. While research has shown that such coercive exchanges are low rate behaviors in comparison to the total number of behaviors exhibited during family interactions, coercive interactions occur for longer durations and end in more aggressive and abusive exchanges (Wahler, 1988; Patterson, 1982). In addition, these aggressive and abusive exchanges increase the likelihood of future coercive interactions (Patterson, 1982). The aggressive child's sibling and peer interactions also evidence similar disturbances. Aggressive children are described by their peers as being the least liked or unpopular (Stewart, 1985). Such familial and peer experiences are likely to lead the aggressive child into negative self reports emphasizing feelings of sadness, loneliness and frustration.

The research from groups led by Patterson, Wahler, Dumas, and Forehand using behavioral observations and interventions to treat aggressive children and their families has greatly enhanced our understanding of the processes which maintain coercive interactions. The literature suggests that aggressive children's behavioral

disturbances are the result of long standing patterns related to their early interactions with parental figures and their chaotic family environments. Research has identified other significant factors such as maternal depression, insularity, marital distress, socioeconomic disadvantage and aversive interactions with others in the community which affect parent perceptions of their child as well as parent interactions with their child (Panaccione & Wahler, 1986; Rogers & Forehand, 1983; Lobitz & Johnson, 1975). Interventions with aggressive children from these multistressed families emphasizing parent training techniques have had limited long term effects with poor generalization of parenting skills and increased child behavior problems during follow up (Webster-Stratton, 1985; Wahler & Dumas, 1983; Wahler & Afton, 1980).

Thus, clinicians working with such families have attempted to broaden their theoretical frameworks and provide empirical evidence to identify those factors which account for poor generalization and chronic aggressive child behavior. Theories based upon social learning, reinforcement and systems theory have emerged. The "predictability hypothesis," based upon Kantorian interbehavioral theory, advanced by Wahler and Dumas (1986) resulted from clinical research which found that

prolonged episodes of child coercive behavior were usually accompanied by greater predictability in parent reactions. In effect, an inconsistent or indiscriminate parent might become highly predictable during coercive exchanges where parent aversive reactions followed child coercive behavior. According to the "predictability hypothesis," child initiated episodes of aversive behavior are instrumental in generating temporary predictability in the midst of parental uncertainty. Thus, child aggression maybe an attempt by the child to create a more predictable home environment and thereby reduce feelings of insecurity.

The plight of the aggressive child has typically been described from the vantage point of others. There has been little research which has examined the aggressive child's experience of his or her entrapment. While it has been acknowledged that aggressive children experience feelings of sadness and lack self esteem, the research has focused on identifying correlates of poor academic or cognitive functioning and poor social skills. Recent research has identified a relationship between maternal behavior, early family experiences and children's peer relationships and social competence (Pettit, Dodge, & Brown, 1988). Research has also found the aggressive child to have attributional biases which are related to

poor social skills and further peer rejection (Lochman, 1987; Patterson, 1982).

The recent increase of research in the area of depression in children has led to the development of a variety of self report instruments which focus on children's feelings of sadness and poor self esteem. The role of aggressive behavior as a correlate and/or symptom of childhood depression has also been explored. Developmentally it appears that many young children may externalize feelings of sadness (Rutter, Izard, & Read, 1986). However, there is still some disagreement as to whether children will display internalizing or externalizing symptoms of depression. It has also been speculated that parents may not become alarmed and recognize symptoms of sadness until their children exhibit more overt and aggressive behaviors (Poznanski & Zrull, 1970). Dynamically it has been hypothesized that both aggressive and depressed children feel they have little influence over their parents' behavior and are vulnerable to the dysphoric effects of living in noncontingent environments (Ohye, 1985). In addition, the research has suggested some degree of similarity between the family environments of depressed and aggressive children. Both children live in family environments that are marked by aversive, non supportive and inconsistent parental

reactions and parent pathology (Kashani, Burbach, & Rosenberg, 1988; Holmes & Robbin, 1987; Cole & Rehm, 1986; Patterson, 1982). Also, there has been both a genetic and social/environmental relationship identified between these children and their parents. Many aggressive and depressed children have parents who also have similar difficulties.

1. STATEMENT OF THE PROBLEM

The investigation of depressive feelings in aggressive children would likely prove useful to increase our understanding of both aggressive and depressed children. The child aggression research has only minimally explored the child's feelings as related to his or her social alienation. While researchers and clinicians have found that factors such as maternal depression and marital distress need to be addressed to increase parent effectiveness with behavior management techniques, child factors such as depression and alienation have only been minimally considered. Further research in this area may show that the child's depressive affect may also serve to maintain coercive exchanges between the parent and child. The child depression research has primarily focused upon correlates of depressed mood in children and the development of

instruments to assess depression. While there has been some exploration of family factors, few studies have included home observations. Thus, empirical research including observational data may help to identify familial factors related to depressive symptoms in children.

This study was designed to examine the aggressive child's self report of depressive symptoms and investigate its correlates with parent and child behavior. A multimethod approach was designed to include child and parent self reports, parent ratings of child behavior and direct observations of parent-child interactions. The author's previous correlational pilot research (Bond & Wahler, 1986) hypothesized that coercive children's self reported depression would be associated with family interaction patterns marked by aversive and indiscriminate behaviors. Consistent with the hypothesis, coercive children who reported feelings of depression displayed more aversive behavior, were described by their parents as externalizers (exhibiting hyperactive, delinquent, aggressive, or cruel behaviors) and had parents who tended to respond to them in an indiscriminate manner. An inverse correlation, nearing statistical significance ($p < .10$), was found between child reported depression and parent aversive behavior. Also parent aversive behavior along with parent indiscriminate behavior best predicted

child depression, accounting for 47% of the variance ($r^2 = .47$, $p < .01$). It was speculated that the puzzling negative correlation could be accounted for by the "predictability hypothesis" advanced by Wahler and Dumas (1986). In accordance with the hypothesis, children might report less depression when their coercive behavior led to their indiscriminant parents' predictable aversive reactions.

2. RESEARCH HYPOTHESES

The present study was designed to study empirically mother-child interactions as related to the aggressive child's coercive behavior and self reported feelings of depression. Based upon the literature and the pilot study the following hypotheses were developed:

Hypothesis 1. Child self reported depression would be related to parent indiscriminant and aversive behavior, child aversive behavior, and parent self reported depression. Aggressive children with higher self reported depression would live in environments characterized by lower rates of parent aversive behavior and higher rates of parent indiscriminant behavior.

Hypothesis 2. In order to explore the relationship between parent aversiveness and consistency, it was

hypothesized that the mothers of children with low depression scores would use aversive behaviors more consistently. More specifically, the conditional probability of mother aversive behavior, given child aversive behavior, would be significantly higher for the aggressive children with lower self reported depression compared to the aggressive children with higher depression scores.

CHAPTER II

REVIEW OF THE LITERATURE

Aggressive behavior in children has been a long standing concern of parents, teachers and clinicians. Much is known about the long term effects and factors associated with aggression. Various theories emphasizing the role of genetic, physiological, ethological, sociobiological, psychodynamic, reinforcement, social learning, familial and environmental factors have emerged. Subsequently a wide variety of treatment approaches have been developed based upon these theoretical perspectives. From direct clinical experience and empirical research much has been learned about the factors which are associated with aggressive behavior in children. Despite our knowledge, oppositional, aggressive and delinquent behaviors in children continue to be a major concern. Aggression appears to be a complex phenomenon related to and maintained by various internal and external factors which can result in later academic, social and emotional difficulties. The social alienation and associated feelings of depression experienced by aggressive children will be the focus of this review.

Aggression as a correlate or expression of depression has been recently hypothesized with the increased recognition and acceptance of depressive symptoms in children. Research has identified similarities in the life experiences and home environments of both depressed and aggressive children. Many children receiving a diagnosis of oppositional or conduct disorder also meet criteria for depressive disorders and children who are depressed are also diagnosed as behaviorally disordered. Aggressive behaviors or conduct problems have been found to correlate with depressive symptoms (Jacobsen, Lahey, & Strauss, 1983; Kazdin, Esveltd-Dawson, Unis, & Rancurello, 1983; Leon, Kendall, & Garber, 1980; Poznanski & Zrull, 1970). Poznanski and Zrull (1970) found twelve out of fourteen children in their sample to have difficulty handling aggression. Puig-Antich (1982) found that one third of the boys in the sample who fit the Diagnostic and Statistical Manual, 3rd Edition (DSM-III) criteria for major depression also fit the diagnostic criteria for conduct disorder. Also, following successful treatment of the mood disorder with imipramine, there was an abatement of conduct difficulties.

When aggressive difficulties have been included in the diagnostic criteria, more children have been identified as depressed (Ney, Colbert, Newman, & Young,

1986). However, some research has suggested that aggressive or conduct disordered children endorse different items than depressed only children. Norvell and Towle (1986) found their depressed conduct disordered boys to endorse items reflecting misbehavior rather than depressed mood. Feinstein, Blouin, Eagan, and Conner (1984) found dysphoric symptoms to be prevalent in many diagnostic categories and were unable to discriminate between depressive and antisocial disorders. When symptoms were looked at in combination, self deprecatory ideation along with dysphoria was discriminative between depression and conduct disorders.

Berman and Ruane (1981) identified a group of delinquents who appeared to be chronically depressed and lived in neglectful family environments. The delinquent youth were characterized as "tag alongs" since their acting out behavior was sporadic and usually occurred through more peripheral association with older assertive and aggressive delinquents. Their antisocial behavior was viewed as a way to alleviate depressive feelings.

Shoemaker, Erikson, and Finch (1986) found that children who viewed themselves as depressed also saw themselves as experiencing a high degree of anger. This was consistent with a relationship between ratings of anger and depression by their peers and teachers.

O'Conner (1986) proposed a model of child depression in which the initial experience was one of affective pain followed by anger and hostile acting out behavior then fear and guilt which produced depressive symptoms. The depression served to immobilize the child's expression of anger and subsequent loss and pain. He presented a case study of a six year old boy in which audiotaped sessions were coded for hostile and depressive content and then analyzed using a 5 minute cross lag correlation matrix. His results showed that depressive behavior more often followed hostile behavior.

Ohye (1985) proposed that the depressed child and the acting out child share the view that they have minimal influence over their parents' behavior. Both are vulnerable to the specific dysphoric effects of a noncontingent environment as consistent with the learned helplessness research.

Children with concurrent depression and conduct disorders may be the most likely to be rejected by their peers compared to children with only one of these diagnoses (Asarnow, 1988). Asarnow, Carlson, and Guthrie (1987) identified a subgroup of depressed children with concurrent conduct disorders who perceived themselves as socially competent, but reported a negative attributional style, generated more physically aggressive coping

strategies and evaluated aggressive responses less negatively than children with only a depressive or conduct diagnosis.

The above mentioned studies clearly show a relationship between aggressive behavior and depressive symptoms. It is not clear if anger serves to cover depressive affect or if aggression and depression coexist. Borke (1971) found that children confused feelings of anger and sadness at age eight although they were able to distinguish happy situations by age three. Toolan (1962) suggested that sadness may not be reported by depressed children. He suggested that a depressed child may be convinced that he is bad, evil and unacceptable. These beliefs lead to antisocial behavior which reinforce the child's belief.

It seems highly conceivable, since aggression leads to rejection and social alienation, that aggressive children would experience depressive symptoms. It could also be possible that depression leads to aggressive behavior and then to social alienation. Or aggression and/or depression caused by cognitive and social skills deficits might lead to disturbed relationships with family members and peers which result in rejection. What are the self and other perceptions of depressed and aggressive children and are these perceptions accurate?

Specifically, what are the effects of growing up in a chaotic family environment and how are these experiences related to a child's feelings of alienation? Given the established relationship between aggression and depression, the empirical research on factors related to the social alienation of both aggressive and depressed children will be reviewed.

1. FAMILY FUNCTIONING

The early research with aggressive children focused upon parenting skills and found that parents used inconsistent and punitive methods in disciplining their children. A variety of factors affect the parent's ability to manage disruptive child behavior and use discipline methods consistently. Such factors include parental pathology, maternal depression, coercive interactions within the extended family and community, marital distress, social isolation and insularity (Brody & Forehand, 1986; Panaccione & Wahler, 1986; Loeber & Dishion, 1984; Patterson, 1982; Wahler, 1980).

Patterson (1982, 1986) identified a coercion process whereby family members exchanged aversive behaviors and trained each other to become increasingly aversive. This process was set in motion when parents failed to punish

coercive behaviors and to teach reasonable levels of compliance. The parents nagged and scolded their children, but seldom followed through with their threats. The children responded with behaviors such as whining and tantrums. Interactions often began around trivial behaviors which were reinforced by family members and provided a base for high amplitude aggressive behaviors. The children learned to use coercive behaviors to produce positive outcomes and began to use those behaviors as social skills. This process of interaction in the home generalized to the school setting and resulted in poor academic performance and disturbed peer relations.

Wahler's (1986, 1988) research from an interbehavioral systems framework has sought to further examine coercive parent-child interactions. Unlike Patterson's theory which focused upon the reinforcing properties of parent-child interactions, Wahler's theory viewed the child's interactions as part of a large system of events which were interdependent. The events included those internal to the child and his or her family members as well as external events in the immediate and past environment. Wahler proposed the "predictability" hypothesis as a way to explain the maintenance of coercive parent-child interactions. This model might help explain the aggressive child's alienation as well. As explained

in the previous chapter, the aggressive child's oppositional behavior represents an attempt to create a more predictable home environment, albeit an aversive or negative environment. This interactional style affected the child's adjustment within the peer group such that the child interacts coercively with peers as well.

Research by Keesler (1987) empirically tested Wahler's and Patterson's theories with conduct disordered boys. Keesler's research supported the predictability hypothesis, in that parent unpredictability significantly predicted coercive interactions. This was evident only in the low socioeconomic disadvantaged group as opposed to the high socioeconomic disadvantaged group.

Loeber and Dishion (1984) also focused on coercive family processes and found the generalization of aggressive behavior from home to school to be associated with increased coercive behavior in mothers. In their study, boys who fought only at home had mothers who were less coercive.

Parenting styles related to aggressive behavior have received much attention. A variety of labels have emerged to describe parenting styles on the continuum from too permissive to overly punitive. Frankel and Simmons (1985) in their review of these studies gave four hypotheses regarding the relationship between parent style and

aggressive child behavior: 1) permissive and punitive practices led to aggression; 2) parental punishment was ineffective because the child lacked favorable support from either parent; 3) parental discipline and family interactional style did not promote the development of good social skills; and 4) parents modeled aggression for their children.

Pettit, Dodge, and Brown (1988) looked at maternal factors which might influence the development of a child's social skills. They proposed a developmental path from maternal values and expectations to a child's social cognitive development and subsequent social competence with peers. They found that mothers' biased expectations for child behavior, her endorsement of aggression as an acceptable means for solving conflict and a restrictive discipline style were significantly related to poor social skills.

The family communication style may also serve to promote feelings of social alienation. Lessin and Jacob (1984) found that normal families exhibited higher rates of positive nonverbal and negative verbal communication as compared to delinquent families. The authors described this pattern of communication as one which nonverbally communicated acceptance of the child, but verbally indicated disapproval of the child's inappropriate

behavior. Such a pattern might provide a more supportive and adaptive environment for discussing interpersonal difficulties. Putallaz (1987) observed mothers and children interacting and found children who spoke more during interactions with their mothers to have a higher socioeconomic status. The mothers of these children interacted in a more positive and agreeable manner and were more concerned with the children's feelings.

The depression literature has found similar empirical associations between depression and family functioning. Research has identified the family environments of depressed children as being characterized by family discord, parental rejection, abuse, aversive interactions and parental pathology including alcoholism and depression (Livingston, Nugent, Rader, & Smith, 1985; Lefkowitz & Testiny, 1985; Seagull & Weinshank, 1984; Orvaschel, Weissman, & Kidd, 1980; Poznanski & Zrull, 1970; Agras, 1959).

Poznanski and Zrull (1970) in their sample of depressed children found a high incidence of parental depression. The parents seemed to use their depression defensively to control outbursts of rage. Parents had difficulty handling their own aggression and hostility, often directed their aggression toward their child and

used severe disciplinary measures. In addition, overt parental rejection was evident.

In a retrospective study, Holmes and Robbin (1987) found unfair and harsh discipline to predict later depression and alcoholism. In addition, their research indicated that such difficulties were predicted independently of parent's psychiatric history, respondent's sex and history of child behavior problems. Another retrospective study by Bohrnstedt and Fisher (1986) found depressive affect to be stable and reflective of the quality of relationships formed with parents and peers during childhood and adolescence. Retrospective reports of a cool mother and a strict father were associated with a failure to recall warm parents or to have one or more close friends during childhood.

Lefkowitz and Testiny (1984) found maternal rejection and maternal punishment to predict significantly depression in young adulthood. Parental rejection was significantly correlated with parental education and occupation. Lower education and economic status led to increased child depression. Although not significant, child maladjustment elicited parental rejection.

Maternal style during conflict was assessed in depressed adolescents and adolescents with oppositional and conduct disorders. Both groups perceived themselves

and their mothers as more verbally aggressive and violent during family conflict as compared to normal adolescents. More severe levels of depression were associated with increased difficulty in resolving intrafamilial conflict (Kashini, Burbach, & Rosenberg, 1988). Verbal aggression was significantly related to violence.

Stressful family experiences such as disruptions due to divorce and death were found to be experienced more by depressed children as compared to behavior problem and normal children (Beck & Rosen, 1986). Thus, the stress resulting from the cumulative effects of events outside of the control of the child which required more adjustment and higher levels of change were associated with depression. It was unclear as to the specific familial, parental and child characteristics which mediated the children's responses to stress.

In a laboratory experiment where children and parents were observed while engaged in a task, mothers of depressed children set high standards for success but rewarded their children less as compared to mothers of nondepressed and normal children (Cole & Rehm, 1986). This study suggested that depressed children are faced with high expectations from their parents, but receive little encouragement to meet such high standards. As a

result, these children would likely experience feelings of incompetence and have poor self esteem.

Grossman, Poznanski, and Benegas (1983) observed family interactions of depressed children during family luncheons. They found significant information from observing the child's food consumption during the meal, family affect, parent limit setting and themes of family conversation. Frequent themes during lunch pertained to food, parental illness, parent's childhood, money, family activities and the clinical evaluation. Less frequent themes pertained to the child's appearance and the child's experiences and activities. Thus, parents tended to dominate the conversations with their own individual concerns.

The adult depression literature has suggested that depressed persons emit behavior which is aversive to others (Biglan, Hops, & Sherman, 1986). While depressive behaviors such as crying, slowed speech, somatic complaints, self derogations and ignoring others are quite different from aggressive behaviors, they often evoke negative moods and reactions in others. Thus, a depressive style may result in a lack of social support from others. Mullins, Peterson, Wonderlich, and Reaven (1986) found some empirical support for this with children. Adults viewed videotapes of depressed and

nondepressed children and rated the depressed child as less attractive, more likely to exhibit future negative behavior and more likely to experience social difficulties. In addition, the adults did not wish to have further contact with the child. Also the adults rated themselves as more anxious and depressed after viewing the videos of the depressed child. Thus, depressed children may elicit negative and social responses from others which may serve to reinforce the child's negative self view and sense of alienation.

Hops, Biglan, Sherman, Arthur, Freidman, and Osteen (1987) conducted a study of depressed women which provided a possible explanation for the maintenance of coercive family processes. During family interactions, children of depressed and depressed/maritally distressed mothers showed more irritated affect. The mothers were more aversive as evidenced by higher rates of dysphoric affect and lower rates of happy affect. The mother's depressed affect also appeared to lower the chances of the child or husband immediately emitting aggressive affect. In addition, the expression of aggressive affect by other family members suppressed the immediate subsequent expression of dysphoric affect from the mother. Last, the expression of caring affect was found to reduce depressed affect. However, caring affect was infrequently used.

The authors speculated a family skill deficit as the reason for the infrequent use of caring affect.

2. ACADEMIC/COGNITIVE FUNCTIONING

Children with emotional and behavioral difficulties often experience academic difficulties as well. Are aggressive children's academic difficulties due to the their behavioral difficulties or vice versa? Dishion, Loeber, Southamer-Loeber, and Patterson (1984) examined the academic and work skills of delinquent boys from self report and official data. Delinquent boys scored lower on all skill measures with the greater deficits in homework skills and overall school competence.

Ledingham and Schwartzman (1984) found that aggressive and aggressive/withdrawn boys were more likely to have failed a grade or to be in special education classes. Older aggressive withdrawn boys had higher rates of school failure. Also, aggression was found to be a predictor of later academic adjustment over a three year period.

A recent review and longitudinal empirical study by Schonfeld, Shaffer, O'Conner, and Portnoy (1988) explored three hypothesis related to conduct disorder and cognitive functioning. The found support for the hypothesis that

cognitive deficits, particularly those in acquired knowledge, lead to conduct disturbance. Schonfeld et al., (1988) felt their results could be best explained by the literature on social processing deficits. They proposed that children who live in unfavorable learning contexts develop different ways of understanding social cues which lead to global cognitive deficits. Their data were not consistent with the view of cognitive deficits leading to experiences of academic failure, poor self esteem, frustration and negative school attitudes resulting in conduct disturbance. They found no support for the hypothesis that conduct difficulties lead to deficits in cognitive functioning. In accordance with hypothesis three, intelligence, parent psychopathology and early aggression were found to contribute to conduct problems ten years later, but were not common mediating or antecedent factors resulting in an association between conduct disturbance and cognitive functioning.

Depressed children performed poorly on academic tasks (Lefkowitz & Testiny, 1985; Seagull & Weinshank, 1984). Ward, Friedlander, and Silverman (1987) found that depressed children performed more poorly than nondepressed children on anagram tasks of scrambled words.

McGee, Anderson, Williams, and Silva (1986) found no relationship between depression and performance on various

subtests of the Wechsler Intelligence Scale for Children-Revised (WISC-R). Depression was more related to lower self esteem, poor self perception of scholastic ability and self reported inattention. However, Kaslow, Tanenbaum, Abramson, Peterson, and Seligman (1983) found self reported depression to be related to poor problem solving and rate of performance on cognitive tasks (WISC-R Block Design and anagram tasks).

3. PEER RELATIONSHIPS

There have been a variety of studies which have looked at peer rejection. Rejected children are viewed by their peers as being less popular, less liked, less cooperative, less physically attractive, less academically competent, more aggressive, more withdrawn, and having fewer mutual friends (Feltman, Doyle, Schwartzman, Serbin, & Ledingham, 1985; Li, 1985). Children can identify externalizing symptoms in peers very early and use this information to assign popularity status. Milich, Landau, Kilby, and Whitten (1982) found that preschool children identified aggressive behavior and rated aggressive children as less popular and more rejected.

Children who received the most negative peer ratings were observed to engage in rough and tumble and

functional sensorimotor play. Thus, rejected children engaged in less mature forms of play and interacted less with others (Rubin, Daniels-Beirness, & Hayvren, 1982). Other behaviors including physical and verbal aggression, property violation, noisy bothersome behavior, rule violation, exclusion and refusal of a request were found to be the critical behaviors associated with dislike by peers (Foster, DeLawyer, & Guevremont, 1986). Many of these critical behaviors occurred away from school, during transitions or in group interactions away from adult supervision. Thus, further exploration of situational parameters may determine specific contexts in which rejection is more likely to occur.

Peer ratings of vignettes describing specific peer interaction revealed more negative emotional responses toward disliked peers and more active responses to the negative behavior of disliked peers (DeLawyer & Foster, 1986). There was some tendency in positive situations, regardless of peer status, for positive emotional responses which were more active, more effective and more relationship enhancing. However, even when disliked peers exhibited positive behavior, they elicited more negative emotional responses.

Some studies have attempted to separate unpopular children into those who are rejected and those who are

neglected. Carlson, Lahey, and Deeper (1984) found rejected children were more aggressive, unable to wait their turn, more likely to refuse social overtures, less likely to share, less helpful, less honest, less adept at explaining things to others and less knowledgeable about joining group activities. Neglected children were different from unpopular children in that they engaged in more solitary activities, initiated fewer peer interactions and were less likely to brag about physical prowessness.

French (1988) attempted to separate rejected children into subgroups. He found two groups of rejected children: one group which was highly aggressive with low self control, anxiety, social withdrawal and a variety of behavioral difficulties and another group which was primarily withdrawn. The process by which these children were rejected was likely different. The second group was likely rejected due to their isolation behavior while the former group due to their aversive behavior.

Aggressive/withdrawn children have fewer friends and are rated as less likeable than children classified as either aggressive or withdrawn (Feltham, Doyle, Schwartzman, Serbin, & Ledingham, 1985). While the aggressive children were impulsive and hostile, they seemed to possess some social skills and were not

neglected as were the withdrawn children. It was hypothesized that the domineering style of the aggressive child may reflect some leadership skills and social skills for prosocial interaction. However, such a leadership based on aggressive dominance is maladaptive.

Dodge and Frame (1982) found that aggressive children displayed disproportionately high rates of aggressive behavior during interactions with peers. In addition, peers displayed more aggressive behavior towards them as well. Similarly, Lyons, Serbin, and Marchessault (1988) found aggressive children to be highly active and very involved in social interactions. They displayed more physical contact, initiated more aggression and were more likely to retaliate following peer initiated aggression.

Peer hostility may serve to create or maintain social difficulties. Lyons, Serbin, and Marchessault (1988) found no behavioral differences between aggressive/withdrawn children and control children in their level of solicitation and involvement in social interactions. Yet, aggressive/ withdrawn children received a disproportionate amount of aggression from peers.

Milich and Landau (1984) found that while both aggressive and aggressive/withdrawn children were high on peer nominated rejection, only aggressive children were

high on peer nominated popularity. Also while both groups were high on negative peer interactions, the aggressive children were also high on positive peer interactions. Dodge (1983) also found that aggressive children received positive and negative peer nominations and engaged in both prosocial and antisocial behaviors.

Dodge, Coie, and Brakke (1982) examined popular, actively rejected and socially neglected children. The rejected children displayed more hostile and aggressive behavior, dispensed fewer prosocial reinforcers, exhibited more task inappropriate solitary activity and made more prosocial approaches in the classroom than on the playground. The neglected children were engaged in more appropriate solitary tasks and made fewer prosocial approaches. However, the neglected children's prosocial approaches were rejected more by peers as compared to the other rejected children. The authors hypothesized that one reason for rejection may have been the children's inappropriateness in the timing of their interactions. Inappropriate timing and a lack of skillfulness may lead to rejection. It is also possible that the attention received as a result of aggressive children's behavior serves to maintain their behavior (Fagot, 1984). When compared to withdrawn and dependent children, aggressive

children received more negative peer and teacher reactions.

Similar to the research with aggressive children, depressed children have poor peer relationships and they are viewed by their peers as being unpopular (Jacobsen, Lahey, & Strauss, 1983). Asarnow (1988) found peer rejection was predicted by measures of child symptomatology. Peer acceptance was predicted by social and intellectual competence and higher socioeconomic status.

Peer awareness of level of depression and increased stress may also affect peer ratings. Peterson, Mullins, and Ridely-Johnson (1985) had children observe a film of a peer who varied on level of depression and stress. Depressed children were rated as least likeable, least attractive, engaging in few positive current and future behaviors and in need of therapy. Depressed children with high life stress were rated more positively than those with low life stress. Developmentally, younger children reacted more sympathetically than older children. The authors speculated that this difference was due to the younger child's less accurate ability to recognize depression and to confuse bad events with feeling bad.

Kazdin, Sherick, Esveldt-Dawson, and Rancurello (1985) observed depressed children to engage in less

social activity and exhibit less affect related expression. Other observational studies demonstrated decreased energy and slowed response times by depressed children during projective and cognitive task (Kaslow, 1985; Seagull & Weinshank, 1984; Kaslow, Tanenbaum, Abramson, Peterson, & Seligman, 1983). Nonverbal behaviors other than sad facial expression have not yielded significant correlations with depression in children (Kazdin, Sherick, Esveltd-Dawson, & Rancurello, 1985). In addition, behavioral referents of depression such as solitary behavior have not been correlated with child self reported depression (Kazdin, Esveltd-Dawson, Sherick, & Colbus, 1985). Altman and Gotlibb (1988) observed the social behavior of depressed children and found them to make more overtures for social contact than nondepressed children. However, once engaged with other children, the depressed children spent less time interacting with peers and engaged in a higher frequency of negative interactions. Overall they spent more time alone and experienced themselves as being less socially competent. This increased time alone may have direct effects on the acquisition of appropriate social skills.

4. SOCIAL SKILLS

Rejected aggressive children are generally less socially competent. Depressed children also appear to be less socially competent (Blechman, McEnroe, Carella, & Audette, 1986). Children nominated by their peers as happier were more socially competent. In specific social situations aggressive children responded differently from adaptive children to peer provocations and in response to teacher expectations (Dodge, McClaskey, & Feldman, 1985). One explanation is that aggressive children have never acquired social skills. As they become more noncompliant and skillfully coercive, they become more difficult to discipline and to teach social skills (Patterson, 1986). As a result, aggressive children do not learn about empathy, reciprocity and cooperation.

Empathy is viewed as crucial to the development of prosocial thought and behavior. In order for a child to respond with empathy the child needs to be socially perceptive of interpersonal cues, skilled in imaginative play, pretending and humor, and skilled in the evaluation of motives of others in interpersonal situations. It is possible that the capacity for empathy serves as an inhibitor of aggressive behavior (Ellis, 1982). Ellis found a group of delinquent adolescent males to be

significantly lower on measures of empathy than nondelinquents.

To further explore empathy, Bengtsson and Johnson (1987) examined how children process information involving conflictual elements. Children expected stronger emotional responses to happy and sad experiences from liked peers. Older children also attributed feelings that varied in intensity as a function of peer characteristics. Younger children showed qualitative variation in that they often replaced feelings of empathy with feelings of rivalry. Cognitive differences were also evident in the strategies used by the children when asked to use their thoughts to regulate empathic affect. Younger children focused upon one aspect of the stimulus and integrated information in such a way to provoke a single emotion. They also suggested changes in the external situation as a way to regulate empathy. Older children linked feelings and thoughts and used mentalistic strategies. Thus, they pictured themselves in the story or used role taking strategies.

Gelb and Jacobson (1988) found that contextual factors influenced the social skills exhibited by popular and unpopular children. During cooperative play activities, unpopular children made more group oriented statements. In a benign situation, unpopular children

exhibited less aversive behavior and their peers were more tolerant of them. During competitive activities unpopular children made more self referent statements, broke more rules, emitted silly noises and made statements pertaining to an authority figure when they attempted to enter a group activity. Subsequent to such behavior, these children were initially rejected by the group which led to further aversive responses from the unpopular child and more provocative behavior from peers. Thus, the children engaged in a cycle of rejecting and provocative behavior. Gelb and Jacobson also suggested that the children's appeal to authority in order to gain group entry pointed to their inability to resolve the situation on their own.

Nucci and Herman (1982) analyzed behaviorally disordered children's ability to discriminate between three categories of social actions: moral, conventional and personal. Moral actions were those which had some effect on the rights or well being of others. Conventional actions were based upon social consensus and norms. Personal actions were those which were a matter of individual prerogative. Nucci and Herman found no differences in discriminative ability although explanations provided for the classification of an action were different. Behaviorally disordered children did not identify hitting or not sharing as moral transgressions.

Hitting was viewed as acceptable because the victim must have done something wrong and deserved it or because the victim did not appear to be hurt or because the the aggressor appeared sorry for his or her actions. Thus, mitigating circumstances were cited as excuses for aggressive behavior. In general, the behavior disordered children had less developed knowledge of moral conventions. Adult constraints were more prominent as explanations for appropriate or inappropriate behavior. They also cited only one out of five personal items as a matter of personal prerogative. Thus, it was concluded that behavior disordered children are not assimilating actions governed by convention and morals into their personal domain. This may lead to difficulties identifying personal responsibility and control.

5. PROBLEM SOLVING SKILLS

Aggressive children have been unable to detect constructive alternatives to aggressive behavior. Keltikangas-Jarvinen and Kangas (1988) compared the problem solving strategies of aggressive and nonaggressive children in hypothetical situations. The nonaggressive children were significantly higher in their ability for causal thinking (determining how a situation arose and

assigning responsibility), consequential thinking (determining the results of a suggested behavior) and in their coping styles.

Lochman and Lampron (1986) investigated the notion that aggressive boys have systematic situational deficiencies in processing social cognition. They suggested that these deficits are more apparent in some situations than others. Previous research which used overall rates or total number of problem solutions generated may have masked some situational effects. They found during peer conflicts and hostile or frustrating situations that aggressive children generated fewer verbal assertion solutions. In hostile and frustrating situations they used more direct action solutions than when in situations with ambiguous intent. These results were interpreted as indicating deficits in assertive responding. Due to these deficits aggressive children generate more aggressive responses with aggression being perceived more positively than assertion.

The research with depressed children has not shown consistent evidence of problem solving difficulties. Leitenberg, Yost, and Carroll-Wilson (1986) examined children's use of negative cognitive errors including: catastrophizing, overgeneralizing, personalizing and selective attention to negative aspects of an experience.

Depressed children made significantly more negative cognitive errors and showed more overgeneralizing errors within the social domain. When given feedback about their performance, there were no differences found between depressed and nondysphoric children even when feedback was ambiguous (Perkins, Myers, & Cohen, 1988). However, overall scores showed depressed children to be less efficient problem solvers.

Mullins, Segal, and Hodges (1985) found no relationship between interpersonal problem solving ability and depression. Depression appeared to be related to specific problems in the environment as opposed to a specific deficit in cognitive coping ability. The authors suggested that problems may reinforce or lead to the child's perception that outcomes are independent of one's response. Also there were no differences in the children's ability to generate relevant means. Increased depression was associated with the generation of irrelevant means, which might result in more failure experiences.

Doerfler, Mullins, Griffin, Siegel, and Richards (1984) found no overall differences in the problem solving skills of depressed and nondepressed children. Across age groups, the 9-12 year olds showed some differences in the number of irrelevant means produced, but this was not

found in the 12-18 year old and college students. The authors speculated that because dynamic interactional dimensions of problems solving and problem solving in real life situations were not measured, no differences were evident.

Sacco and Graves (1984) found that depressed children showed poorer primary means end problems solving and lower self ratings on items assessing social comparison and self satisfaction with interpersonal problems solving performance. Thus, depressed children had difficulty considering alternatives and consequences, planning steps and anticipating obstacles in interpersonal situations, felt less adequate in relation to their peers and were dissatisfied with their performance. This awareness likely reinforced feelings of inadequacy.

6. INFORMATION PROCESSING

Huesmann (1988), using information processing theory, proposed that aggressive children acquire aggressive scripts that are stored in the memory and used to guide their behavior. These scripts are acquired early in life, are acquired and maintained through observational and enactive learning processes and are resistant to change.

Over time as scripts are used and rehearsed, they are more likely to be recalled in the future.

Hammen and Zupan (1984) examined the hypothesis that depressed persons would encode and recall negative self referent information and have a vulnerability to depressive experiences if their negative self schema was activated. Thus, negative schema biased incoming information and memories in a negativistic way. They found all children to demonstrate better recall of self referent information. The nondepressed children showed superior recall for self referent positive content. Depressed children showed poor recall and confused patterns and failed to show any specific content schema effects.

7. ATTRIBUTIONAL STYLE

The early works of Dodge (1980, 1982) have provided a framework which has been used to explore the aggressive child's attributional style. Dodge found that aggressive children perceived more hostile intentions from others in ambiguous situations. This attributional bias occurred only in situations in which the aggressive child was the target of a provocation. When not directly involved, this bias was not evident. Waas (1988) proposed that the

aggressive child's tendency to attribute hostile intent to others was due to a deficit in the initial encoding of social cues. He examined highly aggressive children who were rejected by peers and low aggressive children who were not rejected. He found that both groups of children had high expectations for negative and hostile behaviors from others in the absence of social information. When the children were given relevant social information, they altered their attributions in accordance with the information received.

Milich and Dodge (1984) identified three biases in aggressive children: response decision bias, hostile attributional bias and cue utilization bias. Aggressive children generated a higher proportion of aggressive and incompetent solutions to hypothetical problems, particularly those involving ambiguous provocation by a peer (response decision bias). They attributed hostile intent to a peer in ambiguous situations and expected hostile intent in the future (hostile attributional bias). Finally they collected fewer pieces of information about a peer in making attributions of that peer. Their recall of early presented cues was poor. Thus, biased attributions and expectations of hostile behavior led to aggressive responses and subsequent peer rejection.

Dodge and Frame (1982) also indicated that peers attributed hostile intentions to aggressive peers more frequently. Also, on a recall task, peers recalled more hostile cues than benevolent cues. Younger and Boyko (1987) found that children do not equally attend to past behaviors. Children attended less well to withdrawn behaviors as compared to aggressive behaviors. Withdrawn behavior may be less salient as there is no target and solitary activity was less deviant. This difference while consistent at all ages is more pronounced at younger ages.

On a cognitive bias questionnaire Haley, Fine, Stuart, Marriage, Moretti, and Freeman (1985) found that depressed children scored higher on the depressed distorted scale than the conduct, attention deficit, anxiety and adjustment disorder children. Blumberg and Izard (1985) found that depressed children reported sadness, anger, self directed hostility and shame and attributed negative events to internal, stable and global causes. Depressed girls reported more self directed hostility while depressed boys endorsed more items on the anger scale.

Weisz, Weiss, Wasserman, and Rintoul (1987) found self reported depression to be related to low levels of perceived competency but unrelated to the child's contingency beliefs (degree to which an outcome depends

upon the behavior of relevant persons). When the cause for a particular outcome was unknown, self reported depression was correlated to attributions following success and failure. Thus, uncertainty and a perceived lack of ability were associated with depression.

Depressed children attribute bad events to themselves and expect to perform less well (Haley et al., 1985; Kaslow, Rehm, & Siegel, 1984; Seligman, Peterson, Kaslow, Tanenbaum, Alloy & Abramson, 1984; Leon, Kendall, & Garber, 1980; Moyal, 1977; Poznanski & Zrull, 1970). Studies in this area are based upon Seligman's learned helplessness model which explains depression as a result of learning experiences which produce passivity, negative expectations, and a sense of helplessness, which do not provide the child the opportunity to master the environment or experience trauma without negative effects. Abramson reformulated this theory emphasizing the attributions associated with the child's sense of helplessness or lack of control. He suggested three dimensions of attributions which determined deficits in self esteem, individual differences in response and the generalizability of helplessness. These dimensions suggest that depressed persons attribute internal rather than external reasons for their failures. They apply stable rather than unstable explanations to their

difficulties. And, they attribute global rather than specific causes for negative experiences. Similarly, Kaslow, Rehm, and Siegal (1984) found depressed children to have more self control deficits. Such deficits were evident in their attentiveness to negative events, depressive attributional style, high self standards, self punitiveness and low self reinforcement. There were no differences noted across ages assessed (6, 9, 13 years).

Seligman et al., (1984) found that children who attributed bad events to internal, stable and global causes were more likely to report depressive symptoms. This attributional style predicted depressive symptoms six months later. The child's attributional style was related to the mother's but not the father's attributional style. In samples of clinic referred depressed and nondepressed children and nonclinic children, depressed children evidenced more self reported depression, a depressive attributional style, and more self control difficulties, and their mothers were more depressed (Kaslow, Rehm, Pollack, & Siegel, 1988).

Finchman, Diener, and Hokoda (1987) compared mastery oriented children who made effort attributions and showed enhanced problem solving following failure and learned helplessness children who made few effort attributions and manifested performance deterioration. The results

indicated that self reported depression was inversely related to attributions of effort. Following success, the mastery oriented children inferred more effort than the learned helplessness children. The learned helplessness group made more effort attributions following failure. Thus, they likely felt they had less control over the outcome.

Asarnow, Carlson, and Guthrie (1987) found no true differences between inpatient depressed and nondepressed children on measures of intelligence, academic, social and athletic competence. However, the depressed children perceived themselves, the world and the future negatively. Also the depressed children rated themselves lower on general self esteem and cognitive competence.

Layne and Berry (1983) found a relationship between low motivation and depression. The low motivation was due to the children's pessimistic expectation for reward. The author reported that the children were not ahedonic and indicated that children develop pessimism before ahedonia.

Moyal (1977) had children choose responses to twenty imaginary situations. Poor adaptive responses, choices of helpless, self blame and externalizing of blame, were given by children with more depressive symptoms. Mullins, Segal and Hodges (1985) found that an external locus of control, increased levels of objective and subjective

stress, and lower level of performance on impersonal tasks accounted for most of the variance of depression.

Ward, Friedlander and Silverman (1987) examined attributional style following experimental success or failure as opposed to habitual attributional style. On anagram tasks of scrambled words, depressed children performed more poorly than nondepressed children. The depressed children did not differ in the causal attributions following problem solving tasks which resulted in failures or successes. All children made internal and external attributions following success experiences and external attributions following failure experiences. There was also a positive relationship between negative self statements and task difficulty for the entire sample. Thus, causal attributions differences may not be evident when assessing specifics of a situation.

8. SELF/OTHER PERCEPTION

Aggressive boys have distorted perceptions of their own behavior and peer status. Lochman (1987) found them to minimize their own aggression. This perception may likely lead to justifications for increased aggressive behavior. Ledingham, Younger, Schwartzman and Bergeron

(1982) found that child self ratings on aggression and withdrawal were lower than peer and teacher ratings. On a measure of likeability, the self ratings of aggressive children were higher. When asked to compare themselves to other disturbed children they often did not see similarities. A sample of inpatient children admitted for acute disturbances and highly aggressive and destructive behavior rated other conduct disordered children as less likeable, more disturbed, having a poorer prognosis and less similar to themselves (Kazdin, Griest, & Esveltd-Dawson, 1984). Reasons given by the sample for other children's deviant behavior included something happening to the child at birth, the child was a bad person and because the child's parent yelled and argued.

Lochman (1987) found that nonaggressive boys perceived themselves as relatively more aggressive. They were seen as having a greater sense of responsibility for their aggressive behavior. Their increased sense of responsibility might have served to motivate their efforts to modulate the expression of anger.

Although not empirically tested, inaccurate parental perception may be causally related to the aggressive child's social alienation (McMahon, 1987). The literature has solidly demonstrated that parents and other adults make judgments about children which are influenced by

factors other than actual child behavior. These false perceptions may lead to feelings of alienation, depression and oppositionality. Also, the child may behave in accordance with others' misperceptions.

9. SUMMARY

The literature reviewed has provided theoretical and empirical support for some of the factors associated with the aggressive child's sense of alienation and experience of depressive feelings. Much is known about the nature of chronic aversive interactions between family members which lead to the use of aggressive and inappropriate social and problem solving skills and subsequently to disturbed peer and familial relationships. Various parental characteristics such as punitiveness, criticalness, permissiveness, and inconsistency have been identified as key factors related to depressive symptoms in children. A large body of research has sought to describe characteristics of aggressive and depressed children who are rejected and neglected by peers. Characteristics such as social incompetence, aggressiveness, immaturity, and withdrawal have been identified as factors associated with disturbed peer relationships and subsequent alienation. The research has provided much information which suggests

that many aggressive and depressed children experience difficulties due to poor social, cognitive and problem solving skills, attributional styles which lead to distortions in the intentions of others and a negativistic outlook as well as poor or inaccurate self perceptions.

More research is needed on the aggressive and/or depressed child's views about his or her experiences and on successful intervention techniques. This study was designed to include child self report information and to further explore the child's interactions within the home environment. Parent and child interactions were assessed in relationship to the child's self reported experience. More specifically, this study attempted to empirically demonstrate that among aggressive children, aversive and indiscriminant mother child interactions are associated with the experience of depressive symptoms in the child.

CHAPTER III

METHOD

1. DESIGN

The aggressive child's interactions with his or her mother were assessed to determine relationships between the child's self report of depressive symptoms and the nature of the interaction between the parent and child. Child self reported depression served as the dependent variable. Mother-child behavioral variables based upon observational data served as the independent variables. The independent variables included mother aversive behavior, child aversive behavior and mother indiscriminant or inconsistent behavior. Two other mother-child behaviors, mother positive and child positive behavior, served as control measures. Mother's self report of depression was also used as a control variable. Parent ratings of child behavior served as an independent measure of child aggressive behavior.

2. SUBJECTS

The subjects consisted of 46 families with children referred for outpatient psychological services at the University of Tennessee Child Behavior Institute. The families were referred for treatment from the Department of Human Services, other local mental health agencies and schools in Knoxville, Tennessee. Referral problems included overt and covert coercive behaviors such as noncompliance, oppositionality, lying, stealing, hitting and fighting.

Using an independent measure of child behavior (Child Behavior Checklist), based upon maternal ratings, the sample could be described as clinically aggressive. The children exhibited more problematic externalizing (hyperactive, delinquent, aggressive and cruel) behaviors (mean externalizing score = 72.43) as opposed to internalizing (withdrawn, anxious, depressed or uncommunicative) behaviors (mean internalizing score = 66.98). More specifically, the subscale means showed the sample to display more problematic aggressive behaviors (mean aggressive score = 75.46) as opposed to hyperactive and delinquent behaviors (mean hyperactive score = 67.36, mean delinquent score = 69.02). Specific behaviors included in the aggressive subscale included: argues,

brags, cruel to others, demands attention, swears, threatens people, impulsive, disobedient, jealous, feels unloved, feels persecuted, excess talk, loud, fights, screams, shows off, teases, stubborn, moody, sulks, suspicious, and temper tantrums.

All families included in the sample completed at least the baseline phase, or the first two to four week period prior to treatment. Subjects included were at least five years of age and able to complete the child self report measures. Targeted children included 41 males and 5 females ranging from age 5 to 12 (mean age = 8.23 years). Thirty eight children were white and eight were black. The majority of the families were single parent (56%) due to separation, divorce, widowhood or never having been married. Most of the mothers had completed high school or obtained their GED (74%). The mean education of the mothers was 12.1 years. Family size varied from one to six children (mean number of children = 2.0). Most of the mothers were not employed outside of the home (61%). On an index of socioeconomic disadvantage (SED), based on family status of low income, low education, single parent household, family size, referral source, and residence in a high crime area, the sample could be described as moderately disadvantaged. Family SED indicators covered the full scale from 0 to 6 with

higher numbers indicating greater socioeconomic disadvantage (mean SED = 3.0).

3. PROCEDURES

Upon referral to the Child Behavior Institute children and their parents were seen for intake by an assigned clinician. During the first or second interview, parent and child self report depression instruments (Child Depression Inventory and Beck Depression Inventory) were administered. Also, parents completed ratings of their child's behavior (Child Behavior Checklist). Home observations were conducted using the Standardized Observation Codes Revision-III-B system 1 to 2 times weekly by trained undergraduate and graduate student observers who completed 2 to 4 60 minute observations during the baseline period. The mean number of observations completed for each of the 46 families included in the sample was 3.93. Observation rules required all family members to be present and to remain in two rooms in sight of the observers. No guests or visitors were allowed in the home during the observation period. The television set had to be turned off and incoming telephone conversations were to be as brief as possible. Conversations between family members and the

score which falls in the upper 10% of the population. Reliability studies have shown the CDI to have good internal consistency (Kovacs, 1980/81; Kovacs, 1983; Saylor, Finch, Baskin, Furey, & Kelly, 1984; Smucker et al., 1986; Nelson et al., 1987). Test-retest reliability across populations and test intervals is reasonably stable over short time spans of one month (Kovacs, 1983; Kazdin, 1981; Saylor et al., 1984). Validity studies have demonstrated adequate concurrent validity in that the CDI is consistent with other child self report depression instruments (Kovacs, 1983; Asarnow & Carlson, 1985). The convergent validity has been poor in that measures of depression obtained from different sources are not significantly related (Leon, 1980; Kazdin, Esveltd-Dawson, Unis, & Rancurella, 1983; Saylor et al., 1984). Discriminant validity is good when the CDI has been used to differentiate between clinic referred and normal children (Carey, Faulstich, Gresham, Rugierro, & Enyard, 1987; Saylor et al., 1984; Kovacs, 1983). However when the CDI has been used to discriminate among clinical populations, the results have been less consistent across studies. Kovacs (1983) reported significant differences in depression scores across diagnostic groups. Nelson et al., (1987) found that the CDI was unable to distinguish conduct disordered from affective disordered children.

Thus, there continues to be a need for further studies on the validity and reliability of the CDI. However, the CDI appears to be the most widely used and best research instrument available to measure depression in children. While the use of the CDI as a sole diagnostic tool is not recommended even by its authors, it does seem to be a very useful measure for severity of depressive symptoms in children.

5. INDEPENDENT MEASURES

Standardized Observation Codes Revision-III-B (SOC-III-B)

The SOC-III-B was used to assess the quality and nature of the parent and child interactions and behaviors. The SOC-III-B is a coding system designed for the direct observational assessment of disturbed children and their families (Cerezo, Keesler, Wahler, & Dunn, 1986). The system allows the researcher to quantify and analyze reliably family interactions. Observational data are coded using traditional coding sheets segmented into 240 15-second time intervals or with small calculators (Hewlett Packard-71B) where the key board has been adapted to represent each behavioral code and allowed for direct data entry to an IBM-PC computer. Both methods allow for the continuous observation of child and parent

interactions. Using the paper scoring method, observers are signaled to observe and code occurrence of target behaviors and behavioral sequences through the use of an audio tape and earphone. When using the calculators, observers push the key corresponding to the onset of behavior and the 15 second time intervals were mechanically assigned.

All behavior codes are defined in a mutually exclusive manner. Behaviors coded include both interactional and noninteractional behaviors. Interactional behaviors included social attention/approach, instruction, compliance and opposition. These behaviors were also scored qualitatively in terms of their aversive, positive or neutral nature. Thus, there are a total of 12 possible interactional behavior codes. A brief description of each of the codes is as follows:

- 1) Social attention/approach is defined as verbal or physical contact. Where the subject displays apparent anger such as hitting or yelling the valence is negative. Where the contact is friendly, including such behavior as smiling or kissing, the valence is positive. Where there is a lack of affect or contact that is not considered aversive or positive, the valence is neutral.
- 2) Instruction is defined as a direct or indirect command. Aversive instructions are given in a demanding manner and

may be accompanied by derogatory adjectives. Positive instructions are given in a polite manner and may be accompanied by affectionate behavior. Neutral instructions are coded when the subjects behavior or tone of voice evidence no remarkable emotional quality.

3) Compliance is defined as the the child's doing or saying what is asked of him or her. The compliance valence is aversive when there are verbal or gestural complaints or the child requires physical assistance to comply. A positive valence is given when the child expresses pleasure, satisfaction or affectionate behavior. A neutral valence is assigned when there are no accompanying complaints or pleasantries. 4) Opposition is defined as failure to comply with an instruction. Aversive opposition is an assertive noncompliance observed in the context of negative behaviors such as yelling or whining. Positive opposition is when the subject gives an excuse for noncompliance or provides a justification. Neutral opposition occurs when the instruction is ignored and no emotion is evident.

Noninteractional behaviors are those not specifically directed at another individual, but may represent a way of responding to an interactional behavior. Noninteractional behaviors scored include complaints, time-out, rule violations, work, play and no interaction. They are

scored only in the absence of interactional codes. Complaints are defined as instances of verbal protests including whining, crying or tantrum behavior. Time-out occurs when the child is removed from a situation where problems behaviors are occurring. Rule violation is any behavior which violates a rule established in the home and instances of destructive behavior. Work is defined as the participation or engagement in school related activities or activities judged by the observer as helpful to another such as setting the table. Play includes any instance of spontaneous appropriate use of toys, games, books, or activities such as singing or dancing. No interaction is coded during times when the subject is not interacting with others or objects and is not engaged in time-out.

From these aforementioned codes, five interactional measures were derived to examine the relationship between mother and child interactions and child self reported depression. The following three measures were used as independent variables:

1. Child Aversive Behavior(CA). This measure was used to examine the relationship between child depression and child negative behavior. This measure represents the percentage of child behaviors coded as aversive during the period of observation. These behaviors included child aversive attention/approach, aversive instruction,

aversive compliance, aversive, neutral and positive opposition, complaint, and rule violation.

2. Mother Aversive Behavior (MA). This measure was used to examine the relationship between child self reported depression and mother aversiveness. It represents the percentage of maternal behaviors coded as aversive. These behaviors were aversive attention/approach, aversive instruction, and aversive opposition.

3. Mother Indiscriminant Behavior (IND). This measure was used to examine the consistency of maternal responding and its influence upon child symptoms of depression. This measure is an index of parent inconsistency in responding to child deviant (aversive) and prosocial (positive) behavior. Remembering that maternal behaviors were coded for positive, neutral and aversive reactions, it was possible to derive an index reflecting the extent to which mothers "matched" or responded in kind to a class of child responses (e.g., deviant) with a class of maternal reactions (e.g., aversive). The indiscriminant index summarized the percentage of child deviant and prosocial responses followed by nonmatching maternal reactions (i.e., child deviant behavior followed by maternal positive or neutral reaction; child prosocial behavior followed by maternal aversive reaction). The measure is computed by dividing the number of nonmatching responses

by the sum of the number of matching and nonmatching responses. A listing of the matching and nonmatching codes is provided in Table 1. The use of nonmatching responses to determine indiscriminant responding was done because none of the mothers in the sample were consistent nonmatchers. The percentage of nonmatches was not beyond 50% for any of the subjects. Fifty percent indicated perfect random responding. A mother would require a score of 70% to be highly consistent nonmatcher. In the sample used, mothers' nonmatching scores ranged from 0% to 40%.

6. CONTROL MEASURES

Beck Depression Inventory (BDI)

The BDI was used to assess maternal level of depression. The research has shown that many depressed children have parents who are also depressed (Rutter, 1986). Thus, given the possibility that mother's depression will influence the child's experience, the BDI was used as a control measure. The BDI is a self report questionnaire which was administered individually to each parent. The instrument includes 21 items. For example item number one states: a) I do not feel sad, b) I feel blue or sad, c) I am blue or sad all the time and I can't

TABLE 1

INDISCRIMINANT BEHAVIORAL CRITERIA

Matching Behavior

Nonmatching Behavior

Child	Mother	Child	Mother
A/A+	MA/MA+, MI/MI+	A/A+	MA-, MI-
A-	MA-, MI-	A-	MA/MA+, MI/MI+
RV	MI-, MA-	RV	MA/MA+, MI/MI+
I/I+	MC/MC+, MO/MO+	I/I+	MC-, MO-
I-	MC-, MO-	I-	MC/MC+, MO/MO+
C/C+	MA/MA+, MI/MI+	C/C+	MA-, MI-
C-	MA-, MI-	C-	MA/MA+, MI/MI+
O+	MA-, MI/MI+/MI-	O+	MA/MA+
O/O-	MA-, MI/MI+/MI-	O/O-	MA/MA+

A = Social attention/approach

I = Instruction

O = Opposition

+ = Positive

C = Compliance

RV = Rule Violation

- = Negative

snap out of it, d) I am so sad or unhappy that it is quite painful. The BDI yields a score from 0 to 63 classifying an adult as minimal, borderline, mild, moderate or severely depressed (Beck, 1967). The BDI has well established norms, reliability and validity data.

Standardized Observation Codes Revision-III-B (SOC-III-B)

The SOC-III-B as described in the previous section was used to derive two observational control measures based upon positive family interactions. The measures used were as follows:

1. Child Positive Behavior (CP). This measure was used as a control for child aversive behaviors. While coercive families are known to match aversive behaviors, positive behaviors do not appear to significantly influence family interactions. This measure represents the percentage of child behaviors coded as positive including child attention/approach, positive instruction, and positive and neutral compliance.
2. Mother Positive Behavior (MP). This measure was also used as a control for aversive behavior. This measure represents the percentage of maternal behaviors coded as positive. Such behaviors were mother positive attention/approach and positive instruction.

SOC-III-B Interobserver Agreement

The reliability of SOC-III-B was assessed through measures of agreement based on observer codes within each 15-second interval. Kappa coefficients were completed on 11 home observation comparisons between two independent observers. The Kappa statistic is widely used with nominal data because it adjusts for chance agreement (Foster, Bell-Dolan, & Burge, 1988). The Kappa formula is $P_o - P_c / 1 - P_c$, where P_o is the observed proportion of agreements between two observers and P_c is the proportion of agreement due to chance. Acceptable values for Kappa are from .40 to .75 with .40 indicating fair agreement and .75 indicating good (Fleiss, 1981). The Kappa statistics for the particular codes and indices are presented in Table 2. The Kappa values obtained are within the acceptable range and were significant at the $p < .0003$ level or better.

7. OTHER MEASURES

Child Behavior Checklist (CBCL)

The CBCL was used to independently assess child aggressive behavior in order to provide an objective descriptive measure of the sample. The CBCL is a questionnaire developed by Achenbach and Edelbrock (1981).

TABLE 2

INTEROBSERVER AGREEMENT FOR MOTHER AND CHILD BEHAVIORS

Behavior	Kappa	Z Score
Child Aversive Behavior	.70	11.07**
Mother Aversive Behavior	.61	5.12**
Child Positive Behavior	.55	5.02**
Mother Positive Behavior	.48	4.22**
Mother Indiscriminate Behavior	.57	3.41*

*Significance defined as $p < .0003$

**Significance defined as $p < .00001$

The instrument was given to each parent with instructions to check items which described their child now or within the past six months on a scale from 0 to 2. The instrument includes 113 items which are scored to obtain a behavioral profile in eight or nine areas (somatic complaints, schizoid or anxious, depressed, uncommunicative, obsessive-compulsive, social withdrawal, delinquent, aggressive, immature, cruel and hyperactive) depending upon the child's sex and age. Two global scales, Internalizing and Externalizing, are also derived. Raw scores are converted into T scores with a T score of 70, or the 90th percentile, being indicative of the clinical level of problem behaviors. Adequate reliability, validity and normative data have been established (Achenbach & Edelbrock, 1981).

8. DATA ANALYSES

Initially, descriptive statistics including means and standard deviations were obtained for the measures child depression (CDI), mother depression (BDI), mother aversive behavior (MA), mother indiscriminant behavior (IND), mother positive behavior (MP), child aversive behavior (CA), and child positive behavior (CP).

Next, the data were analyzed to determine the relationships among measures of child depression, the observational measures, and mother depression over the 46 families. A matrix of Pearson product-moment correlations described intercorrelations among the following measures: child depression (CDI), mother depression (BDI), percent of child aversive behavior (CA), percent of mother aversive behavior (MA), percent of child positive behavior (CP), percent of mother positive behavior (MP) and percent of mother indiscriminate behavior (IND).

Next, the data were analyzed to determine which variables best predicted child depression. A stepwise multiple regression analysis was initially conducted with CDI (child self reported depression) serving as the criterion variable and BDI (mother self reported depression), CA (child aversive behavior), MA (mother aversive behavior), and IND (mother indiscriminate behavior) serving as the predictor variables. Next a multiple regression analysis with hierarchical inclusion was conducted to predict child self reported depression (CDI) with the same predictor variables (BDI, CA, MA, and IND). A hierarchical format represents a more conservative analysis and was used because the pilot research suggested a definite causal ordering among the variables with mother aversive (MA) and mother

indiscriminant (IND) behaviors accounting for the most variance. Using this hierarchical procedure, these variables were entered last in the regression analysis. According to the hypothesis, mother aversive and mother indiscriminant caretaking behaviors will predict child self reports of depression when other sources of variance (e.g. maternal depression) have been taken into account.

Given the expected relationships between mother predictability and lower child reported depression, a molecular inspection of the associations between mother indiscriminant and mother aversive behavior and child depression was conducted. To do so the consistency of maternal aversive responding was assessed to determine if lower child reported depression was related to more predictable experiences in the home environment. The conditional probabilities of mother aversive behavior given child aversive and positive behavior were computed. Conditional probabilities were conducted at two lags before and after the child target behavior. The probabilities were computed using Bakeman's lagged event analyzer (ELAG) program. The significance of the conditional probabilities were determined by the Z scores which were computed during the ELAG analysis. The Z scores were then compared for two groups (high and low child self reported depression) using T tests.

Finally, for purposes of in depth description of the sample, a variety of chi square analyses were conducted to assess the following relationships: 1) between child self reported depression (CDI) and the demographic variables (mother's marital status, mother's employment and mother's education), 2) between these demographic measures and mother self reported depression (BDI), 3) between the demographic measures and mother indiscriminate behavior (IND), and 4) between the demographic variables and mother aversive behavior (MA). In order to complete the chi square analyses, two groups were determined by the median split on the measures of CDI, BDI, IND, and MA. The relationship between CDI, BDI, IND, and MA and the demographic variable of socioeconomic disadvantage (SED) was analyzed using Pearson product-moment correlations.

CHAPTER IV

RESULTS

Descriptive statistics for the sample measures are presented in Table 3. Mean child depression scores (mean = 12.83) are consistent with the mean scores found in other samples of disturbed children. Mother reported depression scores indicated that on an average the mothers were not significantly depressed (mean BDI = 14.34). Means and standard deviations for observational measures show that the mother and child aversive and positive behaviors occur at a low frequency. The identification of such observational measures as low rate behaviors is consistent with other research in this area.

Pearson product-moment correlations among the measures presented in Table 4 indicated a number of significant relationships. Child self reports of depression (CDI) were inversely related to mother aversive behavior ($r = -.312$, $p < .05$), mother indiscriminant behavior ($r = -.253$, $p < .05$) and child positive behavior ($r = -.298$, $p < .05$). These correlations, while significant, are very low and do not suggest strong relationships among the variables. The correlation between child reported depression and mother aversive behavior is in the expected

TABLE 3

SAMPLE DESCRIPTIVE STATISTICS

Measure	Mean	Standard Deviation
CDI	12.83	8.67
BDI	14.34	11.08
IND	.13	.08
MA	.04	.05
MP	.04	.04
CA	.09	.06
CP	.09	.05

TABLE 4

PEARSON PRODUCT-MOMENT CORRELATION MATRIX

	CDI	BDI	IND	MA	CA	MP	CP
CDI	1.00	-.159	-.253*	-.312*	-.027	-.221	-.298*
BDI		1.00	.435**	.552**	-.097	.042	.101
IND			1.00	.774**	.606**	.089	.314*
MA				1.00	.299*	.258*	.498**
CA					1.00	.203	.278*
MP						1.00	.681**
CP							1.00

*Significance defined as $p < .05$

**Significance defined as $p < .001$

direction and consistent with the hypothesis that aggressive children with higher self reported depression would live in environments characterized by lower rates of parent aversive behavior. The correlation which found an inverse relationship between parent indiscriminate behavior and child self reported depression is not in the expected direction. This association does not lend support to the hypothesis that children with higher self reported depression would live in environments characterized by higher rates of parent indiscriminant behavior. This inverse correlation is likely due to the fact that mother indiscriminant and mother aversive behaviors are highly intercorrelated ($r=.774, p<.001$). The negative association between child self reported depression and child positive behavior is consistent with literature on depressed children. Overall then, the more depressed children were likely to have mothers who were both less aversive and less indiscriminant. Also, the more depressed children were observed to manifest less positive behavior at home.

Further inspection of Table 4 reveals four additional sets of significant correlations. While these correlations do not provide direct support for the specified hypotheses, they reveal some interesting relationships among the independent and control variables:

1) Mother self reported depression (BDI) is significantly related to mother indiscriminate ($r=.435$, $p<.001$) and aversive ($r=.552$, $p<.0001$) behavior. Thus, mothers who were more likely to report feeling depressed were also more likely to respond to their children in an aversive and indiscriminate manner.

2) Mother indiscriminate behavior was significantly related to mother aversive behavior ($r=.774$, $p<.0001$), child aversive ($r=.606$, $p<.0001$) and child positive ($r=.314$, $p<.05$) behaviors. Thus, mothers who were more indiscriminate were also more aversive and had children who were more aversive, but also who exhibited more positive behavior. In other words, the children of highly indiscriminate and aversive mothers seemed to be more socially active than were their counterparts whose mother were less likely to offer indiscriminate and aversive attention.

3) Mother aversive behavior was significantly related to mother positive behavior ($r=.258$, $p<.05$), child aversive ($r=.299$, $p<.05$) and child positive behavior ($r=.498$, $p<.0001$). Thus, mothers who were more aversive were also more positive and had children who were more positive and more aversive.

4) Child positive behavior was significantly related to child aversive behavior ($r=.278$, $p<.05$) and mother

positive behavior ($r=.681$, $p<.0001$). Thus, children who were more positive were also more aversive. And, these children had mothers who were more positive.

The stepwise multiple regression analysis indicated that one variable significantly predicted child self reported depression (CDI). This finding is consistent with the author's pilot research and lends further support to the hypothesized relationship between child self reported depression and mother aversive behavior. Mother aversive behavior (MA) significantly accounted for almost 10% of the variance ($r^2=.097$, $p=.034$). The other three variables, child aversive behavior (CA), mother indiscriminate behavior (IND) and mother self reported depression (BDI) did not emerge as significant additional contributors (see Table 5).

The hierarchical multiple regression analysis indicated that mother aversive behavior (MA) was the best unique predictor of child self reported depression (CDI). Mother aversive behavior significantly accounted for 8% of the variance. This is consistent with the results of the stepwise multiple regression analysis and supports the hypothesized relationship between mother aversive behavior and child self reported depression. The remaining variables, mother indiscriminant behavior (IND), mother self reported depression (BDI) and child aversive

TABLE 5

STEPWISE MULTIPLE REGRESSION ANALYSIS

Variable	Cumulative		p
	Multiple r	Cumulative r^2	

1. MA	.312	.097	.034
2. CA	.319	.102	.098
3. IND	.329	.108	.181
4. BDI	.336	.113	.284

behavior (CA) accounted for an additional 3% of the variance (see Table 6). Thus, this variable combination accounts for only a small portion of the variance. This suggests that other significant factors or processes not examined are associated with child reports of depressive symptoms.

In order to interpret the lag analysis and examine consistency of maternal aversive responding, the overall sample was split at the median score into depressed and nondepressed groups. Conditional probabilities of mother aversive responses given child behavior were significant as indicated by Z-scores greater than 1.96, but the scores did not significantly differentiate between the groups. This finding does not support the hypothesis that the mothers of children with low depression scores would use aversive behavior more consistently. The finding suggests that generally mothers of aggressive children use aversive responding in a highly consistent manner when their children behave in aversive ways.

The results of the chi square analysis with the demographic factors revealed several significant associations between the variables, child depression (CDI), mother depression (BDI), mother aversive behavior (MA) and mother indiscriminate behavior (IND) and the demographic variables, mother's marital status, education

TABLE 6

HIERARCHICAL MULTIPLE REGRESSION ANALYSIS

Variable	Cumulative		p
	Multiple r	Cumulative r^2	

1. BDI	.159	.025	< .05
2. CA	.164	.027	< .05
3. MA	.323	.104	< .05
4. IND	.336	.113	< .05

and employment. Significant pearson correlations were also obtained for the socioeconomic disadvantage index. The significant chi square and Pearson associations were as follows: 1) Children with higher depression scores had mothers who were married ($p < .01$) and who were unemployed ($p < .01$); 2) Mothers with higher self reported depression were married ($p < .05$), had less than a high school education ($p < .01$) and were unemployed ($p < .05$.); 3) Mothers who were more indiscriminate were single ($p = .059$) and less educated ($p < .01$); 4) Mothers who were more aversive were single ($p < .05$) and less educated ($p < .05$); 5) Socioeconomic disadvantage was significantly correlated with mother reported depression ($r = .395$, $p < .01$), mother indiscriminate behavior ($r = .502$, $p < .001$) and mother aversive behavior ($r = .445$, $p < .001$). There was no relationship found between this measure and child depression. These findings do not provide direct support for the proposed hypotheses; however, they suggest direct effects of maternal factors such as income, education and marital status on the child's experience of depression.

In summary, the results provided partial support of the hypotheses presented in Chapter I. Consistent with hypothesis 1, child self reported depression was related to parent aversive behavior. Aggressive children with higher self reported depression lived in environments

where their mothers were less aversive. The less aversive mothers were also less positive and their children were less positive.

Hypothesis 2 was not confirmed in that there were no differences in the conditional probabilities of mother aversive reactions given child aversive behavior between the groups of children with low and high depression scores. The mothers consistently responded to their children's aversive behavior in a like manner, but their tendencies to do so were unrelated to the children's self reports of depression.

CHAPTER V

DISCUSSION

The aggressive child's experience of depressive symptoms does appear to be related to interactions with family members; specifically, with mother's aversive behaviors in interaction with them. Home observations showed that children who reported more depressive symptoms had mothers who were less aversive or, inversely, that children with few depressive symptoms had mothers who were more aversive. Also, mother aversive behavior was the best predictor of child reported depression.

While these relationships were statistically significant, it should be clearly pointed out that the correlations were low and the amount of variance explained was quite small. Thus, the relationships presented are not very strong. Possible explanations for these small relationships pertain to the following factors: 1) the prediction of self report data from observational data may be too problematic, 2) the use of low rate behaviors would not likely produce high correlations, 3) a truncated sample of restrictive range might result in low correlations, 4) the use of highly intercorrelated behavioral measures might make it difficult to determine

clear and strong relationships, and/or 5) the influence of the demographic factors, such as the mother's marital status and employment, on child depression were more prominent than expected. Thus, the discussion which follows is only speculative at best.

The association between mother aversiveness and child depression could not be clearly explained by the "predictability hypothesis" which suggests that children who experience more aversive interactions might feel less depressed because their aversive interactions are more predictable or consistent. The strong relationship between mother aversive and mother indiscriminant behavior made it difficult to examine the separate affects of aversiveness and consistency. However, it might be that these phenomena may not be independent in the families of clinically aggressive children. If mother aversive and indiscriminant behaviors are concomitant, then clinicians working with these families should be aware of this seemingly contradictory process. Clinicians may need to alter their expectations based upon logic which may not apply to many other disturbed families.

Thus, while the "predictability hypothesis" could not be used to explain the results, the role of maternal aversiveness in creating or maintaining depressive feelings in children seems to be important given the

results of the intercorrelations and regression analysis. Maternal aversiveness, rather than creating a sense of security and predictability for the aggressive child, might have served as a "marker" for social activity by the mother and child. The social activity, regardless of the valence (positive or aversive) may influence child feelings of depression. Increased social activity may reduce feelings of depression, isolation and helplessness which result in the child's sense of alienation. Theoretically, the increased social activity may be hypothesized as the child's attempt to increase his or her sense of control over the environment. The increased activity was reflected in the significant correlations between child aversive, child positive, mother positive, mother aversive and mother indiscriminant behavior.

Why would increased social activity make an aggressive child feel more in control or less helpless? And what is the aggressive child's subjective experience which leads to increased activity? It is possible that the increased anxiety and associated feelings of alienation resulting from chronic coercive family interaction patterns stimulate the child into action. These children do not have effective problem solving and social skills, thus they randomly employ a variety of positive and negative behaviors in an effort to master

their environment and effect change. The mother responds in kind with her own array of positive and negative behaviors. The child is likely to be further stimulated because the mother remains engaged. The maintenance of social contact likely creates a sense of control and reduces feelings of depression.

Such an hypothesis would be consistent with Seligman's learned helplessness theory (1975) and the later reformulation of the theory by Abramson, Seligman, and Teasdale (1978) and Seligman et al., (1984). The recent studies by Seligman et al, (1984) and Kaslow et al., (1983, 1984, & 1988) have provided some empirical support for learned helplessness theories of depression in children. Ohye (1985) also used Seligman's model as a way to explain similarities between the depressed and aggressive child's view of their family environment.

These results also provide some evidence for the importance of further investigation into the child's sense of control as related to family interactions and feelings of depression. Such an investigation might include home observational data as well as child self report measures of depression and attributional style. In addition, further research to separate mother aversive and indiscriminate responses might clarify the effects of maternal aversiveness.

The relationship between increased social activity and lower self reported depression in aggressive children also makes sense given psychodynamic theories of depression. In accordance with these theories, a depressed child might withdraw all energy initially used to establish relationships with significant others. The reinvestment of this energy through increased social activity would serve to decrease depressive feelings and create a sense of connectedness. In addition, because it is natural for the aggressive child to use a more active coping style, the effects of depression may not be immediately apparent. Further empirical research on the benefits of social activity in alleviating depressive feelings in children is needed. It seems likely that the type of activity employed will significantly influence the long term benefits.

Like all correlational studies, this study only highlights significant relationships and does not provide causal information. The study provides limited information about childhood depressive symptoms. Depression as a clinical syndrome was not addressed. The sample consisted of aggressive children who reported symptoms of depression on a measure which was not designed to diagnose Depression, but to give information about the severity of depressive symptoms. The sample included

primarily white males from moderately disadvantaged backgrounds. Thus, these results may not generalize to other populations, particularly those of different race and sex.

In comparison to other observational clinical empirical studies the sample size is quite adequate. However, the sample size did not allow for more thorough investigation of the sample as two separate groups, aggressive children with and without depressive symptoms without a reduction in power. Further investigation with the addition of a control group and a group of depressed children without aggressive difficulties would help to differentiate between subgroups and identify more specific family interaction patterns.

Follow up studies after treatment would also provide information about the relationship between parent aversive behavior and child report of depression. Treatment with the families includes parent training where parents are taught to respond to their children in a less aversive, more positive and consistent manner. Following successful treatment there should be a decrease in child report of depression.

The accuracy of the children's self reported depression was not assessed because the focus was on the child's subjective view of his or her experiences.

However, the child's report of depressive symptoms was correlated with parent ratings of child behavior. Further research on the items checked by the children would provide further useful information. Research has suggested that aggressive children may be endorsing only those items pertaining to acting out behavior. While such an analysis was not done, the children in this sample appeared to endorse a range of items.

The study implies a complicated relationship between self reported depression in aggressive children and aversive interactions with their mothers. The specific mechanism remains unclear. Clinicians and researchers in this area must consider parent and child effects, bidirectional influences, contextual influences and basic demographic information as well. There is a vast amount of literature which addresses the significant of maternal and familial experiences upon a child social and emotional development, but we continue to need longitudinal and observational information to understand the complexity of issues related to child development.

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