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FAMILY PREDICTORS OF CHILD BEHAVIOR PROBLEMS: MATERNAL AND 
PATERNAL DEPRESSIVE SYMPTOMS AND MARITAL PROBLEMS 

D I S S E R T A T I O N 

Proposal submitted in partial fulfillment of the 
requirements for the Degree Doctor of Philosophy in the 
Graduate School of the Ohio State University 

By 

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* * * * * 

The Ohio State University 

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ABSTRACT

Parental depressive symptoms and marital problems have been identified as salient correlates of child behavior problems; the present study tested models wherein parental depressive symptoms and aspects of the marital relationship were examined together in the prediction of children's externalizing and internalizing behaviors.

Data collected at child ages 2 1/2, 4, and 6 years were utilized. (Data from child ages 2 1/2 and 4 years were already available, while age 6 data were collected in 1997-1998) Data were collected from a nonclinical, community sample of 53 mothers, 43 fathers, and their six-year-old, first-born children. Mothers and fathers completed questionnaires on their depressive symptoms, marital satisfaction, and conflict-resolution strategies in the marriage. As well, mothers and children's first-grade teachers reported on children's externalizing and internalizing behavior problems using a child behavior checklist. Finally, mothers and children were visited by the researcher in their homes for two hours where the researcher observed the children's and the mothers' behavior toward their children during a structured play task.

When hierarchical regression analyses were performed on the data, parents' depressive symptoms and marital satisfaction emerged as significant predictors of parents' avoidance and attacking conflict-resolution strategies. In regard to children's behavior problems, an interaction between maternal depressive symptoms and maternal marital satisfaction explained a significant proportion of the variance in children's mother-reported internalizing behavior problems. Whereas, an interaction between maternal depressive symptoms and maternal acceptance of the child predicted children's teacher-reported internalizing behavior problems. In addition, maternal avoidance conflict-resolution
strategies served as a mediator in the relation between maternal depressive symptoms and children's mother- and teacher-reported internalizing behavior problems. That is, maternal depressive symptoms were significantly related to maternal avoidance conflict-resolution strategies in the marriage. In turn, maternal conflict-resolution strategies were significantly related to children's mother- and teacher-reported internalizing behavior problems. Children's mother-reported and girls' teacher-reported externalizing behaviors problems were significantly predicted by maternal acceptance toward the child. Overall, the findings highlight the importance of considering the development of behavior problems in children from a family systems perspective.
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CHAPTER 1
INTRODUCTION

Significance

Reports on the incidence of problem behaviors have suggested that between 10-15% of young children demonstrate mild to moderate problems (Earls, 1980), which show high stability from the preschool period into adolescence (Campbell, 1995; Campbell & Ewing, 1990). Children who demonstrate problem behaviors are at risk for a wide variety of other difficulties, including impaired social relationships, poor academic achievement, delinquency, depression, and a higher incidence of psychiatric disturbance (Campbell, 1995; Barkley, 1988; McMahon & Forehand, 1988). Thus, the consequences of problem behaviors are far reaching and extend beyond individual concerns to include implications for societal issues involving delinquency and psychopathology.

The present study considered the developmental course of children's behavior problems and focused specifically on the influence of parental depressive symptomatology and marital problems in a nonclinical, community sample of mothers, fathers, and children. The incidence of behavior problems in children, as cited above, is significant and treating children with behavior problems is a major challenge for schools and communities. Additionally, the research literature (extensively discussed below) links parental depressive symptoms and marital discord to children's behavior problems. Depressive symptoms and marital problems are prevalent in parents of young children, even in nonclinical, community populations. By systematically examining the influence of parental depressive symptoms and marital discord on children's behavior problems, this study addressed
problems that are major societal issues; its findings offer clear and useful insights to health professionals working with families and young children.

Background

Discussion of problem behaviors in young children usually involves the consideration of two dimensions, internalizing versus externalizing expressions of dysfunction (Achenbach & Edelbrock, 1978). Externalizing problems are characterized by a lack of control and hyperactive or aggressive symptomatology, while internalizing disorders tend to reflect more passive behaviors involving withdrawal, anxiety, depression, and somatic concerns.

Although many correlates of child behavior problems have been identified, of critical importance are family factors, such as parental depression and marital quality (Cummings & Davies, 1992). Traditionally, these factors have been examined separately in the prediction of child behavior problems. However, some studies have indicated that examining these factors together can predict behavior problems better than considering either one alone. For example, in a recent study Marchand and Hock (1997) examined parental depression and marital quality in the same model; results indicated that both factors made unique contributions to the prediction of child behavior problems.

Further, it has been suggested that depression in parents and marital difficulties often co-occur (Downey & Coyne, 1990), and their relation to child behavior problems may result from interpersonal processes operating within the family context (Cummings & Davies, 1997). Yet, previous research on marital quality has typically defined quality of the marital relationship broadly as maternal and paternal reports of marital satisfaction (Gottman & Katz, 1989; Marchand & Hock, 1997). This approach has impeded progress in identifying the specific mechanisms which drive relations among parental depression, marital quality, and child behavior problems.
Recently, however, attention has been directed toward examining more specific aspects of the marital relationship, as they relate to child behavior problems (Katz & Gottman, 1993; Kerig, 1996). One of these aspects is marital conflict. Dimensions of marital conflict include frequency, mode of expression (physical conflicts vs. nonverbal anger), intensity, content, and strategies used to resolve conflict (Cummings & Davies, 1992). Research has documented relations between child behavior problems and some of these dimensions of marital conflict. For example, when conflict content is focused on the child, it is has more detrimental consequences for the child's adjustment (Grych & Fincham, 1990). However, less in known about how other dimensions, such as parental conflict-resolution strategies, relate to child behavior problems.

**Statement of Objectives**

The primary objective of this study was to examine relations among maternal depressive symptoms, marital quality (i.e., marital satisfaction), and child externalizing and internalizing behaviors. (The subjects are members of a longitudinal study and information on maternal depressive symptoms, marital quality, and child behavior problems was available. Data collected at three time periods, child ages 2 1/2, 4, and 6 years, were utilized. Data from child ages 2 1/2 and 4 years had already been collected, while the 6-year-old data was collected Autumn 1997-1998.)

To date, there remains uncertainty about the role of timing of maternal depressive symptoms in the development of child behavior problems. The question persists as to whether previous episodes of maternal depressive symptoms are a more powerful predictor of child behavior problems than current levels of maternal depressive symptoms. Additionally, the relationship between marital quality and the development of child behavior problems remains unclear. Do problems in the marital relationship independently predict child behavior problems? Or, do marital problems serve as a
moderator or mediator in the relation between maternal depressive symptoms and child
behavior problems.

The second objective of this study was to focus on concurrent levels of maternal and
paternal depressive symptoms and marital quality as they relate to child externalizing and
internalizing behavior problems and can best be stated as five aims:

1) Since parental depressive symptoms and problems in the marital relationship
often co-occur, an aim of this study was to examine the relations among
maternal and paternal depressive symptoms and marital quality. However, for
the purpose of this study marital quality assessed currently referred to two
aspects of the marital relationship, i.e., maternal and paternal self-reported
marital satisfaction and conflict-resolution strategies characterized as
"avoidance" and "attacking". Depressive symptoms referred to mothers' and
fathers' self-reported physical and psychological depressive symptoms on a
commonly used inventory of depressive symptoms. While previous research
has examined the relations among maternal and paternal depressive symptoms
and marital satisfaction (Christensen, Phillips, Glasgow, & Johnson, 1983),
there has been no empirical research to date on how parents' depressive
symptoms impact the strategies they use to resolve conflict within the marital
relationship. However, some clinical research has suggested that depressive
symptoms may influence conflict-resolution strategies (Ablon, Davenport,

2) Recently, researchers have also begun to consider the impact of marital conflict on
parent-child relations (Lindahl, Clement, & Markman, 1997). Findings have
suggested that parent-child relations may serve as a mediating factor in the relation
between marital conflict-resolution strategies and children's behavior problems.
That is, conflict in the marital relationship may be indirectly related to child
behavior problems by exerting a negative influence on the quality of parent-child interactions, which may relate directly to child behavior problems. Thus, this study examined the relation between parents' conflict-resolution strategies in the marriage and independent observer ratings of maternal acceptance, which reflected the absence of hostile and punishing behavior toward the child.

3) A third aim was to examine marital satisfaction and conflict-resolution strategies as predictors of children's externalizing and internalizing behaviors. Children's externalizing and internalizing behaviors were defined as children's mother- and teacher-reported externalizing and internalizing behaviors on a commonly used child behavior checklist. Unlike marital satisfaction, marital conflict-resolution strategies reflect interpersonal processes within the marital relationship, which may serve an important role in the relation between maternal and paternal depressive symptoms and child externalizing and internalizing behaviors. Examining this aspect of the marital relationship, in addition to marital satisfaction, may help to illuminate the specific mechanisms underlying the relation between parental depressive symptoms and problem behaviors in children.

4) As well, it was an aim of this study to examine the relations among current levels of maternal and paternal depressive symptoms and child externalizing and internalizing behaviors. While a significant research literature has identified maternal depression as a risk factor for the development of behavior problems in children, much less is known about the impact of paternal depression on children's behavior problems (Carro, Grant, Gotlib, & Compas, 1993). Therefore, this study advanced knowledge by examining both maternal and paternal depressive symptoms in the prediction of externalizing and internalizing behaviors.

5) Negative maternal behaviors in the context of maternal depressive symptoms have also emerged as a salient correlate of child behavior problems (Leadbeater, Bishop,
& Raver, 1995). Maternal behaviors toward the child reflect interpersonal processes within the mother-child relationship, which may partially account for the relation between maternal depression and child behavior problems. In the present study, attention was focused on the relation between maternal acceptance toward the child and child externalizing and internalizing behavior problems.
CHAPTER 2
LITERATURE REVIEW

Introduction

The purpose of this chapter is to define the primary variables under investigation and review the extant research which demonstrates relations among them. Further, the underlying theoretical framework and rationale for the study are presented.

Depression in Adults

Researchers have estimated that as many as 100 million people in the world suffer from depression (Sartorius, 1979) with the majority of these individuals being women. Over the past 30 years women in the United States have been reported to experience depression at about twice the rate of their male counterparts (Culbertson, 1997) with reasons for this gender difference including socioeconomic, biological, and emotional variables (McGrath, Keita, Strickland, & Russo, 1990).

Over the course of their depression, depressed persons will impact three times as many other people, some of which will be children. Among women with young children, maternal depressive symptoms are a very common phenomena with epidemiological studies on maternal depression indicating that between 12-20% of mothers with children between the ages 4 months to 5 years experience depression (Garrison & Earls, 1996). Consequently, the impact of maternal depression on children's development has been the focus of much research investigation.

However, more recent studies have reported findings which indicate a higher rate of depression among men than the traditional 2:1 ratio suggests. For example, in 1994
reports indicated a reduction in this ratio to 1.7:1 (Kessler, McGonagle, & Zhoa, 1994). Further, in this study the rate of depression among men between ages 20-30 surpassed that of women. In light of the recent increase in the rate of depression experienced among men, considering the impact of paternal depression on children's development should be a priority among child development scholars.

Within the literature addressing the impact of parental depression on children's social and emotional development, definitions for depressive phenomena range from depressive disorders which meet the diagnostic criteria outlined in the Diagnostic and Statistical Manual for Mental Disorders (APA, 1987) to self-reported physical and psychological symptoms, including feelings of sadness, fear, worry, guilt, and worthlessness, loss of hope, a sense of being overwhelmed by the demands of the world, moodiness, crying spells, loss of appetite, sleep disturbance, lethargy, difficulty concentrating, irritability, and loss of interest in activities that typically bring one pleasure. For the purpose of the present study depressive phenomena will be defined as parents' self-reported depressive symptoms on the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977).

Parental Depression and the Marital Relationship

An aim of this study was to examine marital quality as a predictor of child behavior problems. However, due to reports on the comorbidity between parental depression and marital conflict (Downey & Coyne, 1990), a discussion on how these family factors relate to one another is required first. A few studies examining parental depressive symptoms and marital quality together have provided some important theoretical insights into how these factors relate to children's behavior problems.

For example, Christensen, et al. (1983) found a significant negative relation between both mothers' and fathers' self-reported depression and marital adjustment. In turn, marital adjustment was significantly and negatively related to parents' reports of child behavior problems. Miller, Cowen, Cowen, Hetherington, and Clingempeel (1993) reported similar
relations. That is, when mothers reported elevated levels of depressive symptoms, there tended to be less positive affect and more conflict in the marital relationship. In turn, problems in the marital relationship were related to higher rates of child externalizing behaviors.

Fergusson, Horwood, and Lynsky (1995) examined maternal depressive symptoms and other social and contextual factors, including marital discord, as predictors of depressive symptoms in adolescents. Results revealed that the relation between maternal depressive symptoms and adolescent reports of depressive symptoms was largely due to the relation of maternal depressive symptoms to marital discord and other social and contextual factors.

These reports confirmed the importance of examining parental depression and quality of the marital relationship together in the prediction of children's behavior problems. Further, they provided insight into the nature of the relationship between parental depression and child behaviors problems. Clearly, these studies suggested an indirect relation between parental depression and children's behavior problems and identified marital quality as an important pathway by which depression in parents influenced child behavior problems. However, at least one recent study did not support this indirect relationship.

Marchand and Hock (1997) examined the contributions of maternal and paternal depressive symptoms and marital satisfaction to the development of children's behavior problems. Results indicated no relation between parents' depressive symptoms and marital satisfaction. Instead, depressive symptoms and marital satisfaction were independent predictors of children's behavior problems.

In the aforementioned studies marital quality was defined as parental ratings of global marital adjustment, amount of conflict within the marital relationship, and expressions of positive and negative affect. The relation between maternal and paternal depressive
symptoms and marital conflict-resolution strategies has not yet been addressed in the scientific literature. However, parental depressive symptoms and marital conflict-resolution strategies may be related in important ways.

Specifically, parents' depressive tendencies may lead them to utilize more maladaptive conflict-resolution strategies to resolve marital disagreements. To elaborate, depressive symptoms in adults may include hostility and irritability, as well as dysphoria and withdrawn-avoidance behavior (Cohn, Matias, Tronick, Lyons-Ruth, & Connell, 1986). These depressive behavioral tendencies may interfere with their ability to use more adaptive conflict-resolution strategies, such as negotiation or compromise. Instead the negative symptoms associated with depression may translate into maladaptive conflict-resolution strategies, such as withdrawal from or avoidance of conflict and verbal or physical attacks on one's spouse. Some evidence from the clinical research has provided support for this speculation.

Research has indicated that in families with a clinically depressed parent, marital conflict expressed by nonverbal anger may predominate. Observations of family interactions have revealed preoccupation with the control and avoidance of anger and sadness expressions (Davenport, Adland, Gold, & Goodwin, 1979), especially within the context of marital conflict (Ablon, et al., 1975). This research has suggested that within the context of a diagnosed clinical depression, parents may be inclined to use more maladaptive strategies to manage conflict. It may be the case that these same strategies are also prevalent among families with no history of a diagnosed clinical depression but wherein at least one parent is experiencing elevated levels of depressive symptoms.

Demonstrating the relation between maternal and paternal depressive symptoms and conflict-resolution strategies is an important first step in understanding how these two factors relate to child behavior problems. Conflict-resolution strategies may serve as a
pathway by which depression in parents impacts behavior problems in children. Specifically, conflict-resolution strategies may mediate the relation between depressive symptoms in parents and child behavior problems. That is, depression in parents may be indirectly related to child behavior problems by exerting an influence on the strategies parents use to resolve conflict in the marital relationship. Or, conflict-resolution strategies may serve to moderate the relation between parents’ depressive symptoms and child behavior problems, such that high levels of "attacking" or "avoidance" conflict-resolution behaviors in the context of elevated levels of parental depressive symptoms may serve as a risk factor for the development of problem behaviors in children. However, low levels of attacking and avoidance conflict-resolution behaviors in the context of elevated depressive symptoms in parents may serve as a buffer against the development of child behavior problems.

Following from the extant research, the present study considered relations among current levels of maternal and paternal depressive symptoms, marital satisfaction, and marital conflict-resolution strategies. It was predicted that maternal depressive symptoms would be significantly and negatively related to marital satisfaction. As mothers reported elevated levels of depressive symptoms, they would experience less marital satisfaction. In addition, maternal depressive symptoms would be significantly and positively related to attacking conflict-resolution strategies. As mothers reported elevated levels of depressive symptoms, they would report more use of attacking conflict-resolution strategies. As well, maternal depressive symptoms were expected to show a significant and positive relationship to avoidance conflict resolution strategies. As mothers reported elevated levels of depressive symptoms, they would report more use of avoidance conflict-resolution strategies. These same relations were expected among paternal depressive symptoms, marital satisfaction, and marital conflict-resolution strategies.
Marital Relationship and Child Adjustment

The marital relationship is assumed to be an important context for children's social and emotional development (Carter & McGoldrick, 1980). This assumption has been supported by research which has documented a relationship between marital quality and behavior problems in children (Cummings, Davies, & Simpson, 1994; Katz & Gottman, 1993; Miller et al., 1993). While previous work has considered the impact of marital satisfaction on children's social and emotional development (Gottman & Katz, 1989), researchers have only recently begun to consider how more specific aspects of the marital relationship, such as conflict-resolution strategies, relate to child adjustment.

For example, Katz and Gottman (1993) examined the relation between parents' conflict-resolution strategies and externalizing and internalizing behaviors in preschool children. To elaborate, husbands and wives were observed as they engaged in a high-conflict task wherein they discussed two problem areas in their marriage. Children's adjustment was assessed via two teacher-report child behavior checklists. Results indicated that fathers' angry and withdrawn behaviors predicted child internalizing behaviors. Whereas, hostile behaviors reported by both mothers and fathers predicted externalizing behaviors. Whereas, hostile behaviors reported by both mothers and fathers predicted internalizing behaviors.

Using a school-age (7-11 years) sample of children and their parents, Kerig (1996) also examined the relation between parents' conflict-resolution behaviors and children's problem behaviors. She utilized self-report conflict and problem-solving scales to assess conflict behaviors. Results indicated that boys' externalizing behaviors were greater when both parents reported conflicts, characterized as more aggressive, while internalizing behaviors were related to mothers' reports of verbal aggression. In addition, mothers' reports of verbally and physically aggressive conflict-resolution strategies related to anxiety in boys. However, girls were at greater risk for anxiety when fathers reported the use of verbally aggressive strategies.
Taken together, these findings suggested that the strategies parents used to resolve marital conflict had important implications for the development of problem behaviors in children and related differently to externalizing and internalizing behaviors.

The present study considered maternal and paternal marital conflict-resolution strategies, characterized as attacking and avoidance, and marital satisfaction in the prediction of children's behavior problems. A significant and negative relationship between maternal marital satisfaction and child externalizing behaviors was predicted. As mothers reported less marital satisfaction, their children would receive higher mother- and teacher-rated scores on externalizing and internalizing behaviors.

In addition, maternal conflict-resolution strategies were expected to relate to child behavior problems with maternal attacking and avoidance conflict-resolution strategies relating differently to child externalizing and internalizing behaviors. It was predicted that maternal attacking conflict-resolution strategies would be significantly and positively related to child externalizing behaviors. As mothers reported more use of attacking strategies, their children would be rated higher on externalization. However, maternal avoidance conflict-resolution strategies would be significantly and positively related to child internalizing behaviors. As mothers reported more use of avoidance strategies, their children would receive higher internalization scores. These same relations were expected among paternal marital satisfaction, conflict-resolution strategies, and children's behavior problems. Finally, the potential of conflict-resolution strategies to serve as a mediator or moderator in the relation between parental depressive symptoms and child behavior problems was examined.

**Underlying Mechanisms**

Examination of aspects of the marital relationship which reflect interpersonal processes, such as conflict-resolution strategies, may be more likely to illuminate the
specific mechanisms that account for the relation between disturbed marital relations and child behavior problems.

Several mechanisms driving the relation between marital conflict-resolution strategies and child externalizing and internalizing behaviors have been advanced in the theoretical literature. To begin, exposure to various conflict-resolution strategies may have a direct impact by causing more emotional and physiological arousal in children. Research has indicated that children are more emotionally and behaviorally reactive to physical and hostile forms of conflict (Cummings, 1987), which suggests that exposure to this form of conflict may be associated with externalizing problems. On the other hand, conflict characterized by withdrawal from or avoidance of conflict may result in chronic tension and uncertainty. This type of conflict may prevent the child from expressing his/her own feelings and result in anxiety or depression (Cummings & Davies, 1992).

In addition, parents' may contribute to the development of problem behaviors in their children by providing examples of maladaptive behaviors, which children may imitate. For example, a child who witnesses his/her parents using aggressive or hostile strategies to manage conflict may be more inclined to utilize similar strategies to solve problems or manage emotions. On the other hand, a child who has observed his/her parents withdraw from or avoid conflict may be more inclined to withdraw from situations that arouse negative emotions.

Finally, conflict-resolution strategies may relate to children's behavior problems indirectly through their impact on parenting behaviors. Specifically, angry-hostile or avoidance strategies used by parents to manage conflict with their spouse may be utilized by parents in interactions with their child. Thus, parent-child interactions may serve as a mediator in the relation between conflict in the marital relationship and the development of behavior problems in children, such that conflict in the marital relationship may impact children's adjustment by compromising the quality of parent-child interactions. Or, parent-
child interactions may serve as a moderator in the relation between marital conflict and child behavior problems, such that the presence of negative parent-child interactions in the context of marital conflict may serve as a risk factor for the development of problem behaviors in children. Whereas, the absence of negative parent-child interactions may serve as a buffer against the development of child behavior problems in the context of marital conflict.

At least one recent study demonstrated a relation between conflict in the marital relationship and parent-child interactions. Lindahl, et al. (1997) observed husbands and wives as they discussed a problem area in their relationship. Couples' interactions were coded for supportive (i.e., positive affect, communication skills, and validation) and conflictual (i.e., negative affect, dominance, denial, and conflict) qualities. Next, mothers and children were observed as they completed a mildly frustrating task together. Summary codes of maternal behaviors included affective attunement (i.e., acceptance of child's ideas, supportiveness, negative affect regulation, emotional sensitivity, and positive affect) and emotional invalidation (i.e., emotional sensitivity, withdrawal, and negative affect).

Results revealed that mothers' current conflictual marital communication was negatively related to affective attunement of the child and positively related to negative invalidation of the child. Further, when data were subjected to hierarchical regression analyses, significant proportions of the variance in mothers' affective attunement and emotional invalidation of their child was accounted for by mothers' concurrent expressions of conflict and anger toward their spouse.

In light of this recent study, it was a final aim of the present study to examine the relation between maternal conflict-resolution strategies and maternal hostile and punishing behaviors to determine whether mothers who utilize more angry-hostile strategies to resolve conflict within the marital relationship, also demonstrate more negative behaviors when interacting with their child. It was hypothesized that maternal reports of attacking
conflict-resolution strategies in the marriage would be positively and significantly related to maternal hostile and punishing behaviors.

The relation between maternal avoidance conflict-resolution strategies was examined, as well. Since depressed persons tend to demonstrate more withdrawal and avoidance, it is possible that mother's use of avoidance conflict-resolution strategies within the marital relationship may translate into more avoidance of and withdrawal from mother-child interactions. Thus, it was hypothesized that mothers, who used more avoidance conflict-resolution strategies to resolve conflict within the marital relationship, would demonstrate fewer hostile and punishing behaviors during mother-child interactions.

Finally, the potential of maternal hostile and punishing behaviors to serve as a mediator or moderator in the relation between maternal attacking and avoidance conflict-resolution strategies and child behavior problems was explored.

**Parental Depression and Children's Socioemotional Development**

The context of parental depression has generally been accepted to have important implications for children's social and emotional development beginning in the early stages of infancy and extending into childhood and adolescence (Alpern & Lyons-Ruth, 1993; Campbell, 1995; Carro et al., 1993; Cummings & Davies, 1994; Downey & Coyne, 1990; Garrison & Earls, 1996; Fergusson et al., 1995; Forehand & Smith, 1986; Gaensbauer, Harmon, Cytron, & McKnew, 1984; Leadbeater et al., 1996; Murray, 1992; Philipps, & O'Hara, 1991; Rubin, Both, Zahn-Waxler, Cummings, & Wilkinson, 1991; Shaw, Vondra, Hommerding, Keenan, & Dunn, 1994; Thomas & Forehand, 1991).

Of particular relevance to the present study was the research literature documenting the relation between parental depression and children's externalizing and internalizing behavior problems. This research will be reviewed in the following pages. Literature on child behavior problems in the context of maternal depression will be discussed first
followed by the literature addressing the relation between paternal depression and child behavior problems.

**Maternal Depression and Child Behavior Problems**

Maternal depression has been identified as a risk factor for the development of problem behaviors in children. Specifically, children of depressed mothers demonstrate higher rates of externalizing and internalizing behavior problems. For example, Lyons-Ruth, Alpern, and Repacholi (1993) identified mothers' psychosocial problems as a significant predictor of preschool children's externalizing behaviors. That is, mothers, who reported a history of child maltreatment, a history of inpatient psychiatric hospitalization, or scored above the clinical cut-off on CES-D scores when children were 18-months-old, had children who showed more hostile behaviors toward their peers in the preschool classroom.

Rubin, et al. (1991) investigated the relation between the play behaviors of 5-year-old children of well and depressed mothers. Mothers were selected for the study using a structured diagnostic interview. Depression at child age 5 was assessed via a brief self-report inventory of depressive symptoms. Results indicated that children of depressed mothers showed more anxious and withdrawn behavior in a play context with a peer than did children of well mothers.

Finally, Alpern and Lyons-Ruth (1993) examined the relation between previous, recent, and chronic maternal depressive symptoms and subtypes of children's behavior problems. Results suggested that mothers who had experienced chronic depression had children who were rated higher on hostile behaviors by their preschool teachers. Mothers with a previous episode of depressive symptoms but not current had children who demonstrated more anxious behaviors in the classroom, and mothers with a recent but not a current episode of depressive symptoms had children who received higher teacher-ratings on hyperactive behaviors. Results from this study suggested that maternal depressive
symptoms have important implications for children's behavior problems regardless of the timing or duration of depressive symptoms.

**Maternal Depression and Negative Maternal Behaviors**

Recently, researchers have begun to focus on the contribution of negative maternal behaviors to the development of behavior problems in children. Maternal behaviors, such as anger, hostility, restriction, or punishment, are often concomitant with maternal depression and may serve as a pathway by which maternal depression impacts the child. This is supported by studies demonstrating relations among maternal depression, negative maternal behaviors, and child externalizing and internalizing behaviors.

Hamish, Dodge, and Valente (1995) examined the role of mother-child interaction in the relation between maternal depressive symptoms and first-grade children's externalizing behaviors. To elaborate, mothers and children were observed engaging in an interaction task involving the use of books and toys. Mother-child interaction quality was defined as the degree to which mother and child enjoyed the interaction, mother's sensitivity to her child's cues, the child's responsiveness to the mother's attempts to interact, the degree to which mother and child were involved in the interaction, clarity of maternal commands to the child, the degree that mother followed commands with warnings or praise, and the child's compliance with maternal commands.

Results indicated that both maternal self-reported depressive symptoms and negative mother-child interaction quality were significant predictors of children's externalizing behaviors. Further analyses revealed that mother-child interaction quality served a partial mediating role in the relation between maternal depressive symptoms and children's externalizing behaviors. Thus, although maternal depressive symptoms were directly related to children's behavior problems, they also had an indirect impact on children's behaviors through their relation to maternal behaviors, which were directly related to children's externalizing behaviors.
Lyons-Ruth et al. (1993) examined the relation between maternal psychosocial problems and maternal behavior and preschool children's aggressive behaviors. Researchers focused on two dimensions of maternal behavior, maternal involvement and hostile-intrusiveness. Results indicated that both maternal psychosocial problems and maternal hostile-intrusiveness were significant predictors of children's hostile-aggressive behaviors in the preschool classroom. However, maternal psychosocial problems failed to account for a significant increment in the variance after maternal hostile-intrusive behaviors were entered. Again, these findings suggested that psychosocial problems may lead mothers to interact more negatively with their children, which may, in turn, lead to the development of child behavior problems.

Despite the evidence supporting the mediating role of negative maternal behaviors in the relation between maternal depressive symptoms and child behavior problems, at least one study failed to support this indirect relationship. Leadbeater, et al. (1996) investigated the relations among mother-toddler interaction quality, maternal depressive symptoms, and children's externalizing and internalizing behaviors. Researchers focused on mothers' affectively harsh, insistent, angry, or demanding behavioral attempts to influence their children and children's verbal and physical protest behaviors. Results indicated that mother-child interactions failed to mediate the relation between maternal depressive symptoms and child behavior problems. Instead, both maternal depressive symptoms and mother-child interaction quality made unique contributions to children's behavior problems.

In light of the extant research identifying maternal depression as a salient correlate of child behavior problems, an aim of the present study was to examine the relation between maternal depressive symptoms and children's externalizing and internalizing behaviors. However, since the literature has also identified negative maternal behaviors as a source of risk for the development of problem behaviors in children, this study considered maternal
behaviors as well. The present study focused on negative maternal behaviors characterized as hostile and punishing.

It was hypothesized that there would be a significant positive relationship between maternal depressive symptoms and children's behavior problems. That is, as mothers reported elevated levels of depressive symptoms, children would receive higher scores on mother-rated externalizing and internalizing behaviors. Further, it was expected that maternal hostile and punishing behaviors would be significantly related to child behavior problems, such that mothers who were rated higher on hostile and punishing behavior would have children who demonstrated higher mother-reported externalizing and internalizing behaviors.

To more fully illuminate the nature of the relation between maternal depressive symptoms, maternal hostile and punishing behaviors, and child behavior problems, the potential of maternal hostile and punishing behaviors to serve as a mediator in the relation between maternal depressive symptoms and child externalizing and internalizing behaviors was explored. This follows from the aforementioned research which suggested that negative maternal behaviors may mediate the relation between maternal depressive symptoms and child behavior problems such that maternal depressive symptoms exert an influence on maternal behaviors, which then relate to child behavior problems.

In addition, the potential for maternal hostile and punishing behaviors to serve as a moderator in the relation between maternal depressive symptoms and child behavior problems was examined. While it has not been documented in previous research, maternal negative behaviors may serve as a moderator in the relation between maternal depressive symptoms and child behavior problems. That is, the presence of maternal negative behaviors in the context of elevated maternal depressive symptoms may serve as a risk factor for the development of problem behaviors in children. Conversely, the absence of
negative maternal behaviors in the context of elevated maternal depressive symptoms may serve as a buffer against the development of child behavior problems.

Since depressed mothers' ability to accurately report their children's behaviors has been called into question (Fergusson et al., 1993; Richters, 1992), this study also employed children's kindergarten teachers to provide an independent rating of children's behaviors. Thus, it was further hypothesized that children of depressed mothers would receive higher teacher-rated scores on externalizing and internalizing behaviors. As well, mothers who demonstrated more hostile and punishing behaviors would have children who received higher teacher-rated scores on externalizing and internalizing behaviors.

**Paternal Depression and Child Behavior Problems**

While recurrent findings have suggested that maternal depression is a powerful predictor of problem behaviors in young children, much less is known about the role of paternal depression on this domain of child functioning (Carro et al., 1993). However, literature on child resiliency has suggested that positive parent-child relationships serve as a buffer against child maladaptation in the face of environmental stressors (Honig, 1996). Thus, in the context of elevated levels of maternal depressive symptoms, the availability of an alternative nondepressed parent with whom the child can establish a positive parent-child relationship may protect the child from developing behavior problems. On the other hand, the presence of depressive symptoms in the alternate parent may serve as an additional source of risk for the development of behavior problems.

Few studies have examined the relation between paternal depression and the development of behavior problems in preschool and early school-age children. The scant research that has addressed this topic has provided support for the relation between paternal depressive symptoms and child behavior problems.

For example, Carro et al. (1993) documented a significant direct relation between paternal reports of postpartum depressive symptoms and child behavior problems when
children were between the ages 2 and 3. Specifically, when fathers reported elevated levels of depressive symptoms during the postpartum period, their children exhibited more internalizing and externalizing behaviors. As well, an indirect relation between paternal depressive symptoms and children behavior problems was noted. That is, elevated levels of depressive symptoms in fathers during the postpartum period significantly predicted maternal depressive symptoms when children were between the ages 2 and 3. In turn, maternal depressive significantly predicted children’s externalizing and internalizing behavior problems.

Marchand and Hock (1997) examined the relation of concurrent levels of maternal and paternal depressive symptoms and internalizing behavior problems in preschool children (age 4). Results indicated that paternal depressive symptoms was a salient predictor of child internalizing behaviors and made a significant contribution even when it was considered after maternal depressive symptoms.

Additional findings from the adolescent research have supported the relation between paternal depression and child maladjustment. Forehand and Smith (1986) examined the relation between maternal and paternal depressed mood and depressed mood in female adolescents. Both parents and adolescents completed self-report inventories of depressive symptoms. Results indicated that paternal but not maternal reports of depressive symptoms were significantly related to adolescents' reports of depressive symptoms.

In a later study, Thomas and Forehand (1991) used a sample of both female and male adolescents and their parents to examine the relation between parents' depressive mood and adolescent functioning. Mothers and fathers completed a self-report index of depressive symptoms, while adolescents were assessed via a teacher-report index of child behaviors. Results indicated that paternal depressive symptoms made a unique
contribution to adolescents' behaviors even when considered after maternal depressive symptoms. Specifically, paternal depressive symptoms contributed significantly to the variance in female adolescents' conduct problems and male adolescents' anxiety.

These reports highlighted the importance of considering paternal depression in the prediction of children's behavioral functioning and in some cases suggested that paternal depression was an even more powerful predictor of child behavior problems than maternal depression. In the present study it was hypothesized that paternal depressive symptoms would be significantly and positively related to child behavior problems. As fathers reported elevated levels of depressive symptoms, children would receive higher mother- and teacher-rated scores on externalizing and internalizing behavior problems.

**Research Questions**

Following from the theoretical issues addressed in the literature review, the present study attempted to more clearly define the nature of the relations among maternal and paternal depressive symptoms, marital quality, and child externalizing and internalizing behaviors by addressing the following sets of research questions:

**Depressive Symptoms and Marital Quality**

1. What are the relations among parents' self-reported depressive symptoms, marital satisfaction, and conflict-resolution strategies? Does the presence of elevated levels of depressive symptoms place the parent at risk for reporting lower levels of marital satisfaction or utilizing more attacking and avoidance conflict-resolution strategies?

2. Further, do parents' marital satisfaction and conflict-resolution strategies serve as mediators or moderators in the relation between parental depressive symptoms and child behavior problems? Or, do parental depressive symptoms, marital satisfaction, and conflict-resolution strategies each contribute uniquely to the variance in children's externalizing and internalizing behaviors?
Parental Conflict-Resolution Strategies and Mother-Child Interactions

1. Is there a relationship between the strategies mothers and fathers use to resolve conflict within the marital relationship and the behaviors mothers demonstrate when interacting with their child? Specifically, if mothers or fathers report more use of attacking conflict-resolution strategies, are mothers at greater risk for demonstrating more hostile and punishing behaviors when interacting with their child? As well, if mothers or fathers report more use of avoidance conflict-resolution strategies to resolve conflict within the marital relationship, do mothers demonstrate less hostile and punishing behaviors when interacting with their child?

2. Further, do maternal hostile and punishing behaviors play a mediating or moderating role in the relation between parental conflict-resolution strategies and children's externalizing and internalizing behaviors, or do they contribute independently to the prediction of children's externalizing and internalizing behaviors?

Marital Relationship and Child Behavior Problems

1. What are the implications of parents' marital satisfaction and conflict-resolution strategies for children's externalizing and internalizing behaviors? Is there a significant relation between these aspects of the marital relationship and children's behavior problems?

2. Is a child at an increased risk for the development of externalizing and internalizing behaviors if both parents report low marital satisfaction and/or the use of maladaptive conflict-resolution strategies as opposed to just one parent?

3. Further, are parents' attacking and avoidance conflict-resolution strategies differentially related to children's externalizing and internalizing behavior problems?

Parental Depressive Symptoms and Child Behavior Problems

1. What is the relation between maternal depression and children's externalizing and internalizing behaviors?
2. What is the relation between paternal depressive symptoms and children's externalizing and internalizing behaviors? Do paternal depressive symptoms relate directly to child behavior problems? Or, do paternal depressive symptoms relate indirectly to child behavior problems by serving as a significant predictor of maternal depressive symptoms?

3. Does the presence of elevated depressive symptoms in both parents increase the child's risk for demonstrating higher rates of externalizing and internalizing problems?

4. Conversely, can low levels of depressive symptoms in one parent serve as a buffer for the child against higher rates of problem behaviors when depressive symptoms in the other parent are elevated?

Maternal Depressive Symptoms and Mother-Child Interactions

1. Are children at risk for higher rates of externalizing and internalizing problems in the context of maternal hostile and punishing behaviors?

2. Do maternal depressive symptoms relate to maternal hostile and punishing behaviors?

3. Further, do maternal depressive symptoms and maternal hostile and punishing behaviors make independent contributions to children's externalizing and internalizing behaviors, or do maternal hostile and punishing behaviors serve as a mediator or moderator in the relation between maternal and paternal depressive symptoms and child behavior problems?
CHAPTER 3
METHODOLOGY

Introduction
The purpose of this section is to present the primary method of investigation. Discussion proceeds in four sections. First, sample selection is discussed. Next, the procedures for collecting data are described, followed by a description of the instruments. Finally, statistical procedures for the analysis of data are stated with discussion of the longitudinal data analysis preceding the description of the concurrent data analysis.

Sample
Data were collected from a predominantly Caucasian sample of 53 non-clinical, community-residing mothers and their first-born children when children were 6 years old. As well, 43 fathers agreed to participate. Families, who are part of a larger longitudinal study, were initially recruited from private physician offices, a women's health center, and other community resources when mothers were pregnant with their first child.

Mothers were an average of 35 years old (range: 26 to 46 years) with an average educational attainment of 16 years (range: 12 to 22 years). Fathers' average age and years of education were 37 (range: 27-49 years) and 15 (range: 12-22 years) respectively. Family income ranged from $0-100,000 (mean income of $53,839).

Procedure
A letter was sent to the families to notify them of the study and inform them of the study's primary purpose. The researcher contacted mothers to obtain their consent for participation and schedule a home visit. In addition, mothers and fathers were mailed separate packets, containing questionnaires for their completion. Mothers' packets
contained a letter informing them of the primary purpose of the study, a participation consent form, and questionnaires to assess mother and child characteristics (i.e., maternal depressive symptoms, marital satisfaction, marital-conflict resolution strategies, and child behavior problems). Fathers' packets contained a letter informing them of the study's purpose, a participation consent form, questionnaires to assess paternal characteristics only (i.e., depressive symptoms, marital satisfaction, and marital conflict-resolution strategies), and a stamped envelope addressed to the researcher for returning the questionnaires.

Next, the researcher visited the mothers and children in their homes. During the first 30 minutes of the home visit, the researcher interacted with the child in an unstructured play context to allow the child an opportunity to adjust to the presence of the researcher in the home. The researcher then observed the mother and child in a structured play activity, which allowed for assessment of maternal behavior. The activity took approximately 25 to 30 minutes with some variability due to differences in skill level among the children. The child was instructed by the researcher to draw several figures on an Etch-A-Sketch toy. The mother was informed that she could help the child through verbal instruction or manual help if she chose. This task was chosen because it is a developmentally challenging task for children of this age and has the potential to arouse frustration in both the child and mother. In the present study, particular interest was in hostile and punishing behaviors that mother used as she helped her child manage his/her negative emotions while they completed the task together.

Finally, the last 15-20 minutes of the visit consisted of a brief semi-structured interview with the mother, which was necessary for completion of the Acceptance subscale of the Caldwell's HOME Inventory by the researcher immediately following the home visit.

Before leaving the home, the researcher collected the mother's completed questionnaires and requested her consent to contact the child's kindergarten
teacher as an independent rater of the child's behavior. Upon granting her consent, the researcher obtained the name of the child's teacher and school. The researcher then mailed to the teacher the consent form with the parent's signature, the teacher form of the child behavior checklist, and a stamped envelope addressed to the researcher for return of the checklist.

**Instruments**

**Depression**

The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was used to assess symptoms of depression in mothers and fathers. The CES-D Scale is a self-report measure that was designed to assess level of depressive symptomatology, with an emphasis on depression. The 20 items on this scale can be expected to be experienced by a healthy individual to a certain degree; however, more symptoms will be experienced by a seriously depressed individual. The internal consistency for this measure has been shown to be about .85 in the general population (Radloff, 1977). Test-retest correlations for this scale can be expected to be only moderate due to the nature of depression, per se. That is, depression in individuals tends to be cyclical in nature, which complicates test-retest measurement. Despite this complication, Roberts, Andrews, Lewinsohn, and Hops (1990) were able to obtain reliability measures above .50 after 1 month in four samples of high school students. Other studies have shown the CES-D to be a valid measure of depressive symptoms (Harrington, Hughes, & Stone, 1980).

For completion of this scale subjects were asked to respond to 20 items in 1 of 4 ways including: 0 = "rarely or none of the time (less than 1 day)", 1 = "some or a little of the time (1-2 days)", 2 = "occasionally of a moderate amount (3-4 days)", and 3 = "most or all of the time (5-7 days)". Weights for depressive symptomatology range from 0 to 3, yielding a total possible score ranging from 0 to 60, with lower scores indicating less
depressive symptomatology and higher scores indicating greater depressive symptomatology.

Marital Satisfaction

The Marital Comparison Level Inventory (MCLI; Sabatelli, 1984) is a 32-item questionnaire designed to assess an individual's perception of the quality of his or her marital relationship. The instrument provides a measure of the contrast between marital experiences and marital expectations. Construct validity for this instrument has been demonstrated; the MCLI has been shown to relate to other indices of marital quality and measures of marital commitment (Sabatelli, 1988). The level of marital satisfaction is thought to be reflected in the evaluation of marital outcomes; the less the outcomes meet the respondent’s expectations, the greater the dissatisfaction with the marital relationship (Sabatelli, 1984). This Likert-type scale requires respondents to indicate the degree to which their current marital relationship experiences favorably or unfavorably compare to their expectations by circling scores ranging from +3 (much better) to -3 (much worse than expected). The midpoint (0) of the scale indicates that the person’s expectations exactly match their experiences within the relationship. Example items include, “The amount of mutual respect you experience” and “The amount of arguing over petty issues you experience”. High internal consistency for this instrument has been reported (Sabatelli, 1984).

Conflict Resolution Behavior

The Conflict-Resolution Behavior Questionnaire (CRBQ; Rubenstein & Feldmen, 1993), an instrument designed to assess parent-adolescent conflict resolution behaviors in response to parent-adolescent conflict, was adapted for use with marital couples. The 22-item Likert-type scale requires respondents to rate items ranging from 1 = "never" to 5 = "almost always". Example items include "Try to work out a compromise" and "Get mad and walk away". The items represent three behavioral approaches to conflict-resolution including Attacking, Compromise, and Avoidance. Attacking consists of 9 items with
alpha coefficients of .78 for adolescent and .89 for parent reports. Compromise is comprised of 5 items with reported alphas of .77 for adolescent and .83 for parent reports. Avoidance consists of 4 items with alphas of .73 and .71 for adolescent and parent reports, respectively. Participants receive scores on each of these continuous variables. For the purpose of the present study attention was focused on avoidance and attacking behaviors, which are considered to be more maladaptive approaches to resolving conflict.

**Maternal Hostility and Punishment**

Caldwell's (1966) Home Observation for the Measurement of the Environment (HOME) was utilized to document the quality of maternal behaviors. This inventory contains 55 items, representing 6 subscales. Scoring is based on information gathered during observations of mother-child interactions and a semi-structured interview during a home visit when both mother and child are present.

Consistent with the aims of the current study, only the subscale, Acceptance, was administered. This follows from previous research documenting negative maternal behavior as an important factor in the development of behavior problems in children (Harnish et al., 1995). Example items include "Parent does not scold, yell, or derogate child more than once" and Parent does not use physical restraint during the visit.

Previous research indicates that raters can be quickly trained to achieve a level of .90 inter-rater reliability (Elardo, Bradley, & Caldwell, 1975). In the present study, inter-rater reliability between the researcher and a research assistant was established via the completion of 15 home visits wherein the researcher was accompanied by the research assistant. Both individuals observed the mother and the child interaction task. Immediately following the visit, the researcher and the assistant completed individual copies of the HOME Acceptance subscale. Inter-rater reliability for the items on this subscale ranged from 87-100%.
Child Behavior Checklist

The Child Behavior Checklist was used to assess mother- (Achenbach, 1991) and teacher-reported (Achenbach & Edelbrock, 1986) child behaviors. The CBCL yields three scores, externalizing, internalizing, and total problem behaviors. For the purpose of this study, only the externalizing and internalizing behavior scores were utilized. Example items which demonstrate externalizing behaviors include "Temper tantrums or hot temper", "Threatens people", and "Impulsive or acts without thinking". While internalizing behaviors include "Too fearful or anxious", "Shy or timid", and "Refuses to talk".

To complete the checklist, mothers and teachers responded to 113 items by rating the child's behavior during the past 2 months. Each item is rated on a three-point likert-type scale ranging from 0 = "not true at all" to 2 = "very true of often". Scoring of the mother and teacher checklists were in accordance with the procedures advanced by Achenbach (1991) and Achenbach and Edelbrock (1986), respectively. Both mother and teacher forms of the Child Behavior Checklist have demonstrated good reliability and validity (Achenbach, 1991; Achenbach & Edelbrock, 1986).

Data Analyses

The proposed data analyses addressed separately the two parts of this research investigation. First, longitudinal data analyses based on data collected over three time periods, child ages 2 1/2, 4, and 6 years, are discussed. Next, elaboration on the data analyses for concurrent relations based only on data collected at child age 6 years is provided.

Longitudinal Relationships

Descriptive statistics, including means, standard deviations, and ranges for all major study variables were provided. Data on maternal depressive symptoms, maternal marital satisfaction, and mother-reported externalizing and internalizing behavior problems
collected at child ages 2 1/2, 4, and 6 years were then subjected to correlational analyses to address relations among these variables.

In order to more fully address the objective of considering the relative influence of timing of maternal depressive symptoms and marital satisfaction on children's Time 3 mother-reported externalizing and internalizing behavior problems, a series of hierarchical regressions were performed on the data. This procedure allows for the examination of the unique contribution of a theoretically-derived set of variables to the criterion, while taking into consideration the relationships among them. The procedure is recommended for studies that utilize multiple independent variables (Cohen & Cohen, 1983).

The first series of hierarchical regression equations considered the influence of timing of maternal depressive symptoms on children's externalizing and internalizing behavior problems. The predictor, maternal depressive symptoms at Time 1, was entered into the equation first, since maternal problems during early stages of child development are recognized as a salient risk factor for maladaptive child outcomes at subsequent stages of development. Further, Time 1 maternal depressive symptoms were followed by Time 2 and Time 3 maternal depressive symptoms, respectively.

The next series of hierarchical regression equations addressed the role of marital quality in the development of children's externalizing and internalizing behavior problems. The impact of maternal marital satisfaction was considered after the predictor, maternal depressive symptoms, since most literature documents the salience of parental depressive symptoms on child outcomes. Time 1 maternal depressive symptoms and marital satisfaction were entered into the equation first, followed by Time 3 maternal depressive symptoms and marital satisfaction. (Data for Time 2 marital satisfaction were not available.)
Concurrent Relationships

Relations among all concurrent study variables were first examined utilizing Pearson correlations. In order to examine the relative influence of maternal and paternal depressive symptoms and marital satisfaction on maternal and paternal conflict-resolution strategies, data were subjected to hierarchical regression analyses. Models were tested wherein the predictor, paternal depressive symptoms, was entered after maternal depressive symptoms had been considered. Maternal and paternal depressive symptoms were then followed by maternal marital satisfaction and paternal marital satisfaction, respectively. Similar models were tested to determine the influence of maternal and paternal depressive symptoms and marital satisfaction on fathers' conflict-resolution strategies, except the order in which maternal and paternal predictors were entered was reversed.

Next, a series of regression equations were performed to examine the influence of paternal depressive symptoms, marital satisfaction, and conflict-resolution strategies on maternal depressive symptoms and acceptance. The predictor, paternal depressive symptoms, was considered first, since the clinical research literature has provided some evidence that problems in the individual precede the marital relationship and serve as an additional source of strain on the marital relationship (Coyne, Kessler, Tal, Turnbull, Wortman, Greden, 1987). Marital satisfaction was considered next, as it represents the father's global feelings about the marital relationship, and was followed by conflict-resolution strategies, which represent the father's contemporaneous, reported behaviors in interactions with his spouse. The dependent variable, maternal depressive symptoms, was regressed on the predictor variables first. Maternal acceptance was then regressed on the predictor variables following the same sequence.

The third series of hierarchical regression equations examined the relative influence of maternal and paternal depressive symptoms, marital satisfaction, conflict-resolution...
strategies, and maternal acceptance on child behavior problems. Maternal and paternal characteristics were first considered separately and then together in the prediction of child behavior problems.

In the models predicting child behavior problems from maternal characteristics, the predictor, maternal depressive symptoms, was entered first. Marital satisfaction was considered next, as it represents the mother's global feelings about the marital relationship, and was followed by conflict-resolution strategies, which represent the mother's contemporaneous, reported behaviors in interactions with her spouse. Finally, maternal acceptance was entered after maternal conflict-resolution strategies, since qualities of the marital relationship precede those of the parent-child relationship. The theoretical framework was based on interpersonal models advanced in the recent literature which have suggested that depressive symptoms in parents may indirectly effect children's adjustment through their association to marital problems and disturbed parent-child relations (Cummings & Davies, 1994; Downey & Coyne, 1990).

The theoretical framework for models predicting child behavior problems from paternal characteristics was similar to the models tested for mothers except that acceptance behaviors were excluded, since data on father-child interactions was not collected.

Consistent with the goals of this study, separate models were tested for attacking versus avoidance conflict-resolution strategies to determine whether they related differently to child externalizing and internalizing behavior problems. In addition, separate models were tested for mother- and teacher-reports of child externalizing and internalizing behavior problems.

To test the mediating role of maternal attacking conflict-resolution strategies in the relation between maternal depressive symptoms and child externalizing behavior problems, the three-step procedure recommended by Baron and Kenny (1986) was followed. In order for maternal attacking conflict-resolution strategies to serve a mediating role, all the
following conditions needed to be met: 1) scores for maternal depressive symptoms were correlated with scores for the mediator, attacking conflict-resolution strategies, 2) scores for maternal depressive symptoms were correlated with scores for the dependent variables, child externalizing behavior problems, and 3) scores for attacking conflict-resolution strategies were correlated with scores for the dependent variable, child externalizing behavior problems.

If these association were made, scores for child externalizing behavior problems would be regressed on scores for maternal depressive symptoms and attacking conflict-resolution strategies. Conflict-resolution strategies would be considered to have served a mediating role in the relation between maternal depressive symptoms and child externalizing behavior problems, if the association between maternal depressive scores and child externalizing scores was reduced to nonsignificance upon entering scores for attacking conflict-resolution strategies into the regression equation. The hypotheses are represented by Figure 1.

H1: Maternal Depressive Symptoms --> Attacking Strategies
H2: Maternal Depressive Symptoms --> Child Externalizing Behavior Problems
H3: Maternal Attacking Strategies --> Child Externalizing Behavior Problems
H4: Depressive Symptoms>Attacking Strategies>Externalizing Behavior Problems

Figure 1: Diagram of Hypotheses and Conceptual Framework for Maternal Attacking Strategies as a Mediator in the Relation Between Maternal Depressive Symptoms and Child Externalizing Behavior Problems.

Hypothesized relationships are indicated by arrows. Hypothesis 4 is essentially a test of the denoted pathway using multiple regression procedures.

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The same steps were carried out to test the potential mediating role of maternal avoidance conflict-resolution strategies in the relation between maternal depressive symptoms and child internalizing behavior problems.

In order to test the potential moderating role of maternal attacking conflict-resolution strategies in the relation between maternal depressive symptoms and externalizing behavior problems, the following steps were executed: 1) scores for child externalizing behavior problems were regressed on scores for maternal depressive symptoms, 2) scores for maternal attacking conflict-resolution strategies were entered into the regression model, 3) scores for the interaction between maternal depressive symptoms and maternal attacking conflict-resolution strategies were regressed on child externalizing behavior problems.

The maternal attacking conflict-resolution strategies would be considered to have served as a moderator if the following conditions were met: 1) scores for maternal depressive symptoms contributed significantly to the variance in child externalizing behavior scores, 2) the contribution of maternal attacking conflict-resolution strategies scores to the variance in child externalizing behavior scores failed to reach significance when considered after scores for maternal depressive symptoms, 3) the interaction between maternal depressive symptoms scores and scores for attacking conflict-resolution strategies made a significant contribution to the variance in externalizing behavior scores above and beyond that which was accounted for by maternal depressive symptoms and attacking conflict-resolution strategies scores when entered separately. The hypotheses are represented by Figure 2.
H1: Maternal Depressive Symptoms $\rightarrow$ Child Externalizing Behavior Problems
H2: Maternal Attacking Strategies $\rightarrow$ Child Externalizing Behavior Problems
H3: Maternal Depressive Symptoms $\rightarrow$ Child Externalizing Behavior Problems

Maternal Attacking Strategies

Figure 2: Diagram of Hypotheses and Conceptual Framework for Maternal Attacking Strategies as a Moderator in the Relation Between Maternal Depressive Symptoms and Child Externalizing Behavior Problems.

Hypothesized relationships are indicated by arrows. Hypothesis 3 was essentially a test of the denoted pathway using multiple regression procedures.

The same steps were carried out to test the potential moderating role of maternal avoidance conflict-resolution strategies in the relation between maternal depressive symptoms and child internalizing behavior problems and to test both models substituting in paternal characteristics.

As well, the two procedures outlined above were also employed to test the mediating or moderating role of maternal hostile and punishing behavior in the relation between maternal conflict-resolution strategies and child behavior problems and in the relation between maternal depressive symptoms and child behavior problems with separate models tested for externalizing and internalizing behavior problems.

Figure 3 provides a diagram of the overall theoretical framework for this study.
Figure 3: Overall Theoretical Framework for the Study.
In general the model suggests that concurrent levels of parental depressive symptoms, marital satisfaction, conflict-resolution strategies, and maternal hostile and punishing behaviors are each directly related to child behavior problems with attacking and avoidance conflict-resolution strategies differentially related to child externalizing and internalizing behavior problems. In addition, parental depressive symptoms are indirectly related to child behavior problems through their relation to parental marital satisfaction and conflict-resolution strategies, which in turn, are directly related to child behavior problems. Finally, marital conflict-resolution strategies are indirectly related to child behavior problems through their relation to maternal hostile and punishing behaviors, which, in turn, relate directly to child behavior problems.
CHAPTER 4
RESULTS

This chapter begins with presentation of the descriptive statistics for all the major study variables. Next, findings from the analyses conducted on data collected over three time periods, child ages 2 ½ , 4, and 6 years are presented, followed by findings from the data analyses conducted only on data collected at child age 6 years. Findings for relations among the mother-father study variables precede findings for relations among the mother-child study variables. The chapter concludes with a report of the findings from analyses performed to explore the associations among the father-child study variables.

Descriptive Statistics

The descriptive statistics for the data collected at Time 1 (child age 2 1/2), Time 2 (child age 4), and Time 3 (child age 6) indicated that maternal depressive symptoms and marital satisfaction demonstrated considerable stability across the three assessment periods. Both child externalizing and internalizing behaviors declined gradually over time; however, the changes in mean scores for externalizing and internalizing behavior problems from Time 1 to Time 2 and from Time 2 to Time 3 were not statistically significant. Means for maternal depressive symptoms, marital satisfaction, and child externalizing and internalizing behaviors were comparable to the means reported in previous studies utilizing nonclinical samples of mothers and children. In general, mothers' mean scores for depressive symptoms at Time 1 (M = 6.67), Time 2 (M = 6.85), and Time 3 (M = 6.90) were well below the clinical cutoff score of 16 for maternal depressive symptoms as assessed by the Center for Epidemiological Studies Depression (CES-D) scale. In addition, means for marital satisfaction at Time 1 (M = 146.94) and Time 3 (M = 147.00)
indicated that most mothers reported that their experiences within the marital relationship approximated their expectations, indicating that marital satisfaction among mothers was generally high. (Data for maternal marital satisfaction at Time 2 were not available.) Finally, means for externalizing behavior problems at Time 1, Time 2, and Time 3 were $M = 10.56, 9.53,$ and $6.94$, respectively. Means for internalizing behavior problems at Time 1, Time 2, and Time 3 were $M = 7.76, 6.43,$ and $5.04$, respectively.

For concurrent data, levels of depressive symptoms were comparable for mothers ($M = 6.90$) and fathers ($M = 8.19$), with fathers reporting slightly more depressive symptoms than mothers. However, mean scores for both mothers and fathers depressive symptoms were well below the clinical cutoff of 16. As well, mothers and fathers reported similar levels of marital satisfaction ($M = 147$ and $M = 144.44$) and equivalent rates of attacking ($M = 1.85$ and $M = 1.87$) and avoidance ($M = 2.32$ and $M = 2.32$) conflict-resolution strategies, respectively. In general, mothers and fathers reported relatively high levels of marital satisfaction and low rates of attacking and avoidance conflict-resolution strategies. The mean scores for teacher-reported externalizing and internalizing behavior problems were $M = 7.70$ and $M = 1.34$, respectively. Interesting to note was the considerable difference in the mean scores for mother- and teacher-reported internalizing behavior problems. Descriptive statistics for the data collected at child ages 2 1/2, 4, and 6 years are presented in Table 1.
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Table 1: Descriptive Statistics for Major Study Variables.
Correlation Analyses on the Longitudinal Data

Data on maternal depressive symptoms, maternal marital satisfaction, and mother-reported child externalizing and internalizing behavior problems collected at child ages 2½, 4, and 6 years were first subjected to correlational analyses. In general, results revealed significant correlations among maternal depressive symptoms, marital satisfaction, and child externalizing and internalizing behavior problems assessed concurrently and longitudinally.

Specifically, maternal CES-D scores at Time 1 were significantly and positively correlated with maternal CES-D scores at Time 2 and Time 3, $r = .40$, $p < .01$ and $r = .48$, $p < .001$, respectively. Thus, higher CES-D scores at Time 1 were related to higher CES-D scores at Time 2 and Time 3. As well, maternal CES-D scores at Time 1 were significantly and negatively correlated with Time 1 maternal MCLI scores, $r = -.29$, $p < .04$, indicating that higher CES-D scores at Time 1 were related to lower Marital Comparison Level Index (MCLI) scores at Time 1. Finally, significant positive correlations were noted between Time 1 maternal CES-D scores and Time 1 mother-reported CBCL externalizing and internalizing scores, $r = .37$, $p < .01$ and $r = .52$, $p < .0001$, respectively, and mother-reported CBCL internalizing scores at Time 2, $r = .41$, $p < .003$, and Time 3, $r = .32$, $p < .02$. Thus, higher CES-D scores at Time 1 were correlated with higher mother-reported CBCL externalizing and internalizing scores at Time 1 and higher mother-reported CBCL internalizing scores at Time 2 and Time 3.

Similarly, maternal CES-D scores at Time 2 were significantly and positively correlated with Time 3 maternal CES-D scores, $r = .33$, $p < .02$, and Time 2 mother-reported CBCL externalizing and internalizing scores, $r = .44$, $p < .0001$, and $r = .29$, $p < .04$, respectively, indicating that higher CES-D scores at Time 2 were related to higher Time 3 CES-D scores and Time 2 CBCL externalizing and internalizing scores.
Finally, a significant negative correlation between Time 3 maternal CES-D scores and Time 3 maternal MCLI scores, $r = -0.34, p < .01$, was revealed. Thus, higher CES-D scores at Time 3 were related to lower MCLI scores at Time 3. As well, there were marginally significant correlations between Time 3 maternal CES-D scores and Time 1, Time 2, and Time 3 mother-reported CBCL internalizing scores, $r = 0.26, p < .09$, $r = 0.24, p < .09$, and $r = 0.27, p < .06$, respectively. These findings indicated that Time 3 CES-D scores tended to be related to higher CBCL internalizing scores at Time 1, Time 2, and Time 3. Correlations among all major study variables are presented in Table 2.
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*p < .05  **p < .01  ***p < .001  ****p < .0001

Table 2: Correlations Among Major Study Variables

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* p < .05  ** p < .01  *** p < .001  **** p < .0001

Table 2: Correlations Among Major Study Variables Con't
In order to more fully address the objective of considering the relative influence of timing of maternal depressive symptoms and marital satisfaction on children's Time 3 mother-reported externalizing and internalizing behavior problems, a series of hierarchical regressions were performed on the data. However, none of the models achieved significance.

Correlation Analyses on the Concurrent Data

Relations among all current study variables were first examined utilizing Pearson correlations (See Table 2).

Maternal and Paternal Depressive Symptoms, Marital Quality, and Maternal Acceptance

Significant correlations among Time 3 maternal and paternal depressive symptoms, marital satisfaction, and conflict-resolution strategies were noted. Maternal CES-D scores were significantly and positively correlated with paternal CES-D scores, $r = .56$, $p < .0001$, indicating that higher maternal CES-D scores were related to higher paternal CES-D scores. In addition, a significant negative correlation between maternal CES-D scores and paternal MCLI scores, $r = -.42$, $p < .005$ emerged. Thus, higher maternal CES-D scores were related to lower paternal MCLI scores. Maternal MCLI scores were significantly and positively related to paternal MCLI scores, $r = -.49$, $p < .001$, indicating that higher maternal MCLI scores were related to higher paternal MCLI scores. A significant positive correlation between maternal CRBQ attacking scores and paternal CES-D scores, $r = .35$, $p < .03$, was revealed. Thus, higher maternal CRBQ attacking scores were related to higher paternal CES-D scores. In addition, maternal CRBQ attacking scores were significantly related to paternal MCLI scores, $r = -.37$, $p < .02$, indicating that higher maternal CRBQ scores were related to lower paternal MCLI scores. A similar trend was noted between maternal CRBQ avoidance scores and paternal CES-D and MCLI scores, $r = .44$, $p < .004$, and $r = -.33$, $p < .04$. Further, maternal CRBQ
avoidance scores were related to paternal CRBQ avoidance scores, \( r = .37, p < .02 \). Thus, higher maternal CRBQ scores were related to higher paternal CRBQ scores.

Maternal Depressive Symptoms, Marital Quality, and Acceptance

Results revealed several significant correlations among Time 3 maternal depressive symptoms, marital satisfaction, conflict-resolution strategies, and acceptance. To elaborate, maternal CES-D scores were significantly and negatively correlated with maternal MCLI scores, \( r = -.34, p < .01 \), indicating that higher CES-D scores were related to lower MCLI scores. As well, significant positive correlations were noted between maternal CES-D scores and maternal CRBQ attacking and avoidance scores, \( r = .67, p < .0001 \), and \( r = .39, p < .01 \), respectively. Thus, higher CES-D scores were related to higher Conflict-Resolution Behavior Questionnaire (CRBQ) attacking and avoidance scores. A significant negative correlation between maternal MCLI scores and maternal CRBQ attacking scores, \( r = -.43, p < .002 \) was also noted, indicating that lower MCLI scores were related to higher CRBQ attacking scores.

Maternal Depressive Symptoms, Marital Quality, Acceptance, and Child Behavior Problems

Several significant relations among maternal marital satisfaction, conflict-resolution strategies, acceptance, and children’s externalizing and internalizing behaviors were noted. Specifically, maternal CRBQ avoidance scores were significantly correlated with CBCL mother-reported and teacher-rated internalizing scores, \( r = .35, p < .01 \), and \( r = .51, p < .001 \), respectively. Thus, higher CRBQ avoidance scores were related to higher mother- and teacher-reported internalizing CBCL scores. Further, significant negative correlations were documented between maternal HOME acceptance scores and mother- and teacher-reported CBCL externalizing scores, \( r = -.41, p < .002 \), and \( r = -.41, p < .01 \), respectively. Thus, lower HOME acceptance scores were related to higher mother- and teacher-reported CBCL externalizing scores.
Paternal Depressive Symptoms and Marital Quality

Significant correlations were noted among Time 3 paternal depressive symptoms, marital satisfaction, and conflict-resolution strategies. To elaborate, paternal CES-D scores were significantly and negatively correlated with paternal MCLI scores, $r = -.50$, $p < .0001$. Thus, higher CES-D scores were related to lower MCLI scores. In addition, paternal CES-D scores were significantly and positively correlated with paternal CRBQ avoidance scores, $r = .43$, $p < .004$, indicating that higher paternal CRBQ avoidance scores were related to higher paternal CES-D scores.

Paternal Depressive Symptoms, Marital Quality, and Child Behavior Problems

Few significant correlations were noted among paternal depressive symptoms, marital satisfaction, conflict-resolution behavior, and child externalizing and internalizing behavior problems. The only significant correlation was between teacher-reported CBCL internalizing scores and paternal CRBQ avoidance scores, $r = .34$, $p < .05$, indicating that higher CRBQ avoidance scores were related to higher CBCL internalizing scores.

Maternal and Paternal Characteristics and Child Behavior Problems

This section begins with the presentation of results from hierarchical regression analyses performed to explore the influence of the maternal and paternal depressive symptoms and marital satisfaction on maternal and paternal conflict-resolution strategies.

Next, results from analyses performed to determine the relative influence of paternal depressive symptoms, marital satisfaction, and conflict-resolution strategies on maternal depressive symptoms and acceptance behaviors are provided. Finally, results from analyses performed to examine the influence of maternal and paternal depression, marital satisfaction, conflict-resolution strategies, and maternal acceptance behaviors on mother- and teacher-reported externalizing and internalizing behavior problems are discussed.
Maternal and Paternal Depressive Symptoms and Marital Quality

The final model, examining the influence of maternal and paternal CES-D and MCLl scores on maternal CRBQ avoidance scores, was significant, $F(4, 35) = 4.0, R^2 = .31, p < .01$. Maternal CES-D scores significantly predicted 26% of the variance in maternal CRBQ avoidance scores ($p < .001$). The significance and positive sign of the regression weight for this predictor indicates that higher CES-D scores predicted higher CRBQ avoidance scores. Paternal CES-D scores contributed an additional 4% to the variance. Maternal MCLl scores did not contribute to the variance in CRBQ avoidance scores, and paternal MCLl scores contributed only 1%.

The final model predicting maternal CRBQ attacking scores from the maternal and paternal predictors was also significant, $F(4, 35) = 11.84, R^2 = .58, p < .0001$. The first predictor, maternal CES-D scores, significantly predicted 48% of the variance in maternal CRBQ attacking scores ($p < .0001$). The significance and positive sign of the regression weight suggested that higher CES-D scores predicted higher CRBQ attacking scores. Paternal CES-D scores did not contribute to the variance. Maternal MCLl scores was a significant predictor ($p < .01$) and explained an additional 9% of the variance in maternal CRBQ attacking scores. The significance and negative sign of the regression weight for this predictor indicated that lower MCLl scores were related to higher CRBQ attacking scores. Paternal MCLl scores contributed 1%.

While both of the final models predicting paternal conflict-resolution strategies from paternal and maternal CES-D and CRBQ scores achieved significance, different trends emerged. The final model predicting paternal CRBQ avoidance scores from the paternal and maternal predictors was significant, $F(4, 39) = 3.60, p < .01$, and explained 29% of the variance in paternal CRBQ avoidance scores. Paternal CES-D scores significantly explained an additional 15% of the variance in paternal CRBQ avoidance scores ($p < .01$). The significance and positive sign of the regression weight for this predictor suggested
that higher CES-D scores predicted higher CRBQ avoidance scores. Maternal CES-D scores contributed 1\% to the variance. Paternal MCLI scores was a significant predictor (p < .04), explaining an additional 10\% of the variance in CRBQ avoidance scores. The significance and negative sign of this predictor suggested that lower MCLI scores predicted higher CRBQ avoidance scores. Maternal MCLI scores contributed an additional 3\% to the variance.

The final model predicting paternal CRBQ attacking scores from the paternal and maternal predictor variables explained 23\% of the variance, F (4, 35) = 2.62, p < .05. Paternal CES-D scores accounted for an additional 5\% of the variance in CRBQ attacking scores. Maternal CES-D scores did not contribute to the variance. Paternal MCLI scores was a significant predictor of paternal CRBQ attacking scores (p < .01) and explained an additional 15\% of the variance. The significance and negative sign of this predictor indicated that lower MCLI scores predicted higher CRBQ attacking scores. Maternal MCLI scores contributed an additional 3\% to the variance. Results of the analyses are presented in Table 3.
### Table 3: Hierarchical regression of Time 3 maternal and paternal attacking and avoidance conflict-resolution strategies regressed on Time 3 maternal and paternal depressive symptoms and marital satisfaction.

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*p < .05 **p < .01 ***p < .001 ****p < .0001
Paternal Depressive Symptoms and Marital Quality as Predictors of Maternal Depressive Symptoms and Acceptance

The next series of hierarchical regression equations addressed the relative influence of paternal depressive symptoms, marital satisfaction, and avoidance and attacking conflict-resolution strategies on maternal depressive symptoms and acceptance behaviors. The final model predicting maternal depressive symptoms from the paternal characteristics was significant, $F (4, 35) = 4.69, R^2 = .35, p < .004$. Paternal CES-D scores significantly contributed 29% to the variance in maternal CES-D scores ($p < .0004$). The significance and positive sign of the regression weight for this predictor indicated that higher paternal CES-D scores predicted higher maternal CES-D scores. Paternal MCLI scores contributed an additional 3% to the variance, as did paternal CRBQ avoidance scores. Paternal CRBQ attacking scores did not contribute to the variance. Results of the analyses are presented in Table 4.

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*p < .05  **p < .01  ***p < .001  ****p < .0001

Table 4: Hierarchical regression of Time 3 maternal depressive symptoms regressed on Time 3 paternal depressive symptoms, marital satisfaction, and attacking and avoidance conflict-resolution strategies.

53
The final model predicting maternal HOME acceptance from paternal CES-D, MCLI, and CRBQ avoidance and attacking scores was not significant. However, paternal CRBQ attacking scores did emerge as a significant predictor ($p < .05$), accounting for 10% of the variance in maternal HOME acceptance scores.

Maternal Characteristics and Child Internalizing Behavior Problems

Preliminary analyses indicated that maternal HOME acceptance scores did not contribute to the variance in mother-reported CBCL internalizing scores. Thus, a trimmed model, considering the influence of maternal CES-D, MCLI, and CRBQ avoidance scores on CBCL internalizing scores, was tested. The final model was significant, $F (4, 43) = 3.18$, $R^2 = .23$, $p < .02$. Maternal CES-D scores was a marginally significant predictor ($p < .06$), explaining 8% of the variance. Maternal MCLI scores contributed an additional 1% to the variance. Maternal CRBQ avoidance scores was a marginally significant predictor of CBCL internalizing scores ($p < .09$), contributing an additional 5% to the variance in CBCL internalizing scores. Finally, an interaction between maternal CES-D and MCLI scores was a significant predictor of CBCL internalizing scores ($p < .03$) and accounted for an additional 9% to the variance. A plot of the interaction indicated that higher levels of maternal depressive symptoms and lower levels of maternal marital satisfaction were associated with the highest levels of mother-reported internalizing behaviors.

For teacher-reported CBCL internalizing scores a slightly different trend emerged. To elaborate, preliminary analyses indicated that maternal MCLI scores did not contribute to the variance in CBCL internalizing scores. Therefore, a trimmed model was tested wherein maternal CES-D, CRBQ avoidance, and HOME acceptance scores were entered as predictors of CBCL internalizing scores. The final model was significant, $F (4, 39) = 9.89$, $R^2 = .53$, $p < .0001$. Maternal CES-D scores was a marginally significant predictor ($p < .07$), accounting for 8% of the variance in CBCL internalizing scores. CRBQ
avoidance scores was a significant predictor of CBCL internalizing scores ($p < .004$) and explained an additional 19% of the variance. The statistical significance and positive sign of the regression weight for this predictor variable indicated that higher CRBQ avoidance scores predicted higher CBCL internalizing scores. HOME acceptance scores contributed an additional 1% to the variance. In addition, an interaction between CES-D and HOME acceptance scores was a significant predictor of CBCL internalizing scores ($p < .0001$), contributing 25% to the variance. The plot of the interaction indicated that the highest levels of teacher-reported internalizing behaviors were associated with higher levels of maternal depressive symptoms and lower levels of maternal acceptance. Results are presented in Table 5.
Table 5: Hierarchical regression of Time 3 mother- and teacher-reported internalizing behavior problems regressed on Time 3 maternal depressive symptoms, marital satisfaction, avoidance conflict-resolution strategies, and acceptance.
Maternal Characteristics and Child Externalizing Behavior Problems

Preliminary analyses indicated that maternal MCLI and CRBQ attacking scores did not contribute to the variance in mother-reported CBCL externalizing scores. Consequently, a trimmed model was tested wherein maternal CES-D and HOME acceptance scores were considered in the prediction of CBCL externalizing scores. The final model was significant, $F(3, 47) = 4.38$, $R^2 = .22$, $p < .01$. Maternal CES-D scores did not contribute independently to the variance in CBCL externalizing scores. HOME acceptance was a significant predictor of child externalizing scores ($p < .01$), explaining 17% of the variance. Finally, a marginally significant interaction ($p < .09$) between maternal CES-D scores and HOME acceptance scores accounted for an additional 5% of the variance in CBCL externalizing scores.

As reported above, significant gender effects for teacher-reported externalizing scores were revealed. Thus, analyses for teacher-reported externalizing scores were considered separately for boys and girls. The final model assessing the influence of maternal CES-D scores and HOME acceptance scores on girls' externalizing behavior problems was marginally significant, $F(2, 23) = 3.24$, $R^2 = .22$, $p < .06$. Maternal CES-D scores contributed 5% to the variance. HOME acceptance scores was a significant predictor of girls' externalizing scores ($p < .04$) and explained an additional 17% of the variance. The model predicting boys' externalizing behaviors from maternal CES-D scores was not significant. Results are presented in Table 6.
## Table 6: Hierarchical regression of Time 3 mother- and teacher-reported externalizing behavior problems regressed on Time 3 maternal depressive symptoms, marital satisfaction, attacking conflict-resolution strategies, and acceptance.

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Externalizing Behavior Problems (Mother-Reported)

Externalizing Behavior Problems (Teacher-Reported - Girls)

* $p < .05$  ** $p < .01$  *** $p < .001$  **** $p < .0001$
Analyses Testing Mediating Relationships

To test the mediating role of maternal avoidance and attacking conflict-resolution strategies in the relation between maternal depressive symptoms and child internalizing behavior problems, the three-step procedure recommended by Baron and Kenny (1986) was followed. Results from the analyses testing the mediating role of maternal avoidance conflict-resolution strategies in the relation between maternal depressive symptoms and mother-reported internalizing behaviors are presented first.

Step one of the mediational analyses addressed the association between maternal CES-D scores and the scores for the mediator, CRBQ avoidance. Thus, maternal CRBQ avoidance scores were regressed on maternal CES-D scores. Maternal CES-D scores accounted for 16% of the variance in maternal CRBQ avoidance scores, $F(1, 49) = 9.49$, $p < .003$. In step two, the association between maternal CES-D scores and the dependent variable, CBCL internalizing scores, was considered. Maternal CES-D scores was a marginally significant predictor, $F(1, 49) = 3.60$, $p < .06$, accounting for 7% of the variance in CBCL internalizing scores. Finally, step three tested the association between maternal CRBQ avoidance and CBCL internalizing scores. In this analyses, when CRBQ avoidance scores were entered before CES-D scores, it accounted for 11% of the variance in CBCL internalizing scores, $F(1, 49) = 6.23$, $p < .02$. When CES-D scores were entered after CRBQ avoidance scores, it accounted for only 2% of the variance, suggesting that maternal CRBQ avoidance scores attenuated the relation between maternal CES-D scores and CBCL internalizing scores.

Similar results were revealed when the mediating role of CRBQ avoidance scores in the relation between maternal CES-D scores and teacher-reported CBCL internalizing scores was considered. In the first step, when maternal CES-D scores were regressed on CRBQ avoidance scores, maternal CES-D scores accounted for 13% of the variance in maternal CRBQ avoidance scores, $F(1, 39) = 5.82$, $p < .02$. In step two, maternal CES-D
scores was a marginally significant predictor, $F(1, 39) = 3.45, p < .07$, accounting for 8% of the variance in CBCL internalizing scores. Finally, step three indicated that when CRBQ avoidance scores were entered before CES-D scores, it accounted for 25% of the variance in CBCL internalizing scores, $F(1, 39) = 13.38, p < .0008$. When CES-D scores were entered after CRBQ avoidance scores, it accounted for only 1% of the variance, again suggesting that maternal CRBQ avoidance scores attenuated the relation between maternal CES-D scores and CBCL internalizing scores.

Because preliminary correlation analyses indicated that maternal attacking conflict-resolution strategies were not significantly related to mother- or teacher-reported internalizing behavior problems, the three-step procedure to test the mediating role of maternal attacking conflict-resolution strategies in the relation between maternal depressive symptoms and child internalizing behavior problems was not employed.

**Paternal Characteristics and Child Behavior Problems**

None of the models predicting mother- and teacher-reported externalizing and internalizing behavior problems from paternal CES-D, MCLI, and CRBQ attacking and avoidance scores achieved significance. As well, none of the paternal predictor variables served as a significant predictor of child externalizing and internalizing behavior problems.

**Maternal and Paternal Characteristics and Child Behavior Problems**

Only two models assessing maternal and paternal characteristics together in the prediction of child behavior problems were significant. Specifically, reduced models wherein maternal and paternal avoidance conflict-resolution strategies and their interaction were considered in the prediction of mother- and teacher-reported internalizing behavior problems achieved significance. The final model examining maternal and paternal CRBQ scores as predictors of mother-reported internalizing behavior problems explained 19% of the variance, $F(3, 37) = 2.85, p < .05$. Maternal CRBQ avoidance scores was a marginally significant predictor of CBCL internalizing scores ($p < .08$) and contributed 8%
to the variance. Paternal CRBQ avoidance scores did not contribute independently to the variance in CBCL internalizing scores. However, a significant interaction between maternal and paternal CRBQ avoidance scores \((p < .03)\), accounting for an additional 11% of the variance, was noted. A plot of the interaction suggested that the highest CBCL internalizing scores emerged when both maternal and paternal CBCL avoidance scores were higher.

When maternal and paternal CRBQ avoidance scores and their interaction were considered in the prediction of teacher-reported CBCL internalizing scores, similar results were revealed. The final model accounted for 46% of the variance in CBCL internalizing scores, \(F(3, 28) = 8.07, p < .001\). Maternal CRBQ scores significantly predicted 24% of the variance \((p < .004)\). The significance and positive sign of the regression weight for this predictor suggested that higher maternal CRBQ scores predicted higher CBCL internalizing scores. Paternal CRBQ avoidance scores explained an additional 5% of the variance. Finally, the interaction between maternal and paternal CRBQ scores was significant \((p < .01)\) and contributed an additional 17% to the variance in CBCL internalizing scores. Results are presented in Table 7.
<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>Change in $R^2$</th>
<th>$B$</th>
<th>F-value for Final Model</th>
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<td><strong>Internalizing Behavior Problems</strong></td>
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<td></td>
<td>(Mother-Reported)</td>
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<tr>
<td>1.</td>
<td>Maternal Avoid Strategies</td>
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<td>.08**</td>
<td>2.375</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Paternal Avoid Strategies</td>
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<td>.00</td>
<td>-.404</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Mat Avoid X Pat Avoid</td>
<td>.19</td>
<td>.11**</td>
<td>5.017*</td>
<td>2.85*</td>
</tr>
<tr>
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<td><strong>Internalizing Behavior Problems</strong></td>
<td></td>
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<td></td>
<td>(Teacher-Reported)</td>
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<tr>
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<td>Maternal Avoid Strategies</td>
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<td>.24**</td>
<td>1.919**</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Paternal Avoid Strategies</td>
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<td>.05</td>
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</tr>
<tr>
<td>3.</td>
<td>Mat Avoid X Pat Avoid</td>
<td>.46</td>
<td>.17**</td>
<td>3.063**</td>
<td>8.07***</td>
</tr>
</tbody>
</table>

* $p < .05$       ** $p < .01$       *** $p < .001$       **** $p < .0001$

Table 7: Hierarchical regression of Time 3 mother- and teacher-reported internalizing behavior problems regressed on Time 3 maternal and paternal avoidance conflict-resolution strategies and their interaction.
CHAPTER 5
DISCUSSION

A primary objective of the present study was to utilize data collected at three time periods, Time 1 (child age 2 1/2), Time 2 (child age 4), and Time 3 (child age 6) to examine the relation between timing of maternal depressive symptoms, marital satisfaction, and children's externalizing and internalizing behavior problems. A second objective was to consider concurrent (Time 3) levels of maternal and paternal depressive symptoms and marital quality as they related to externalizing and internalizing behavior problems.

This chapter begins with a discussion of findings addressing relations among the maternal and paternal attributes. Discussion of findings addressing maternal attributes as they related to child externalizing and internalizing behavior problems and paternal attributes as they related to child externalizing and internalizing behavior problems follows. The chapter concludes with a discussion of findings addressing maternal and paternal attributes as considered together in the prediction of child externalizing and internalizing behavior problems.

Relations Among Maternal and Paternal Attributes

The present study examined the relations among maternal and paternal attributes. Analyses revealed several significant associations between the mother and father study variables. To elaborate, paternal depressive symptoms, marital satisfaction, and avoidance conflict-resolution strategies were significantly correlated with maternal avoidance conflict-resolution strategies.

Further, when hierarchical regression analyses were performed to test the relative influence of paternal attributes on maternal attributes, paternal depressive symptoms
emerged as a significant predictor of maternal depressive symptoms, accounting for 29% of the variance. This relation has been documented by previous research. For example, Carro et al. (1993) found that elevated levels of depressive symptoms in fathers during the postpartum period significantly predicted maternal depressive symptoms when children were between the ages 2 and 3.

In addition, paternal attacking conflict-resolution strategies in the marriage significantly predicted maternal acceptance of the child, indicating that when fathers were more attacking toward mothers, mothers were, in turn, less accepting of and more hostile and intrusive toward their children. Thus, it appeared that problems in the marital relationship "spilled over" into the parent-child relationship. Further, the quality of mother-child interactions during a play task seemed to mimic the quality of father-mother interactions during marital conflict.

These findings confirm previous reports documenting the relation between marital conflict and the parent-child interactions. For example, Lindahl, et al. (1997) found that mothers' current expressions of conflict and anger toward their spouse accounted for a significant proportions of the variance in mothers' affective attunement and emotional invalidation of their child. In addition, Miller et al. (1993) found that lower rates of positive affect in the marital relationship were associated with less parental warmth toward the child.

Studies on adolescents have also documented the relation between conflict in the marital relationship and quality of the parent-child relationship. For example, Harold, Fincham, Osborn, and Conger (1997) found a significant positive relation between adolescents' perceptions of conflict in the marital relationship and adolescents' perceptions of parents' hostility toward the adolescent. Similarly, Harold and Conger (1997) found that marital conflict, characterized as attacking in nature, significantly predicted adolescents' perceptions of parental hostility toward the adolescent.
Results from the current study also documented mothers' and fathers' depressive symptoms and marital satisfaction as important predictors of mothers' and fathers' conflict-resolution strategies. Models were tested wherein maternal and paternal depressive symptoms and marital satisfaction were considered together in the prediction of maternal and paternal attacking and avoidance conflict-resolution strategies. While both depressive symptoms and marital satisfaction emerged as powerful predictors of parent's conflict-resolution strategies, different predictors were noted for avoidance and attacking conflict-resolution strategies. As well, gender differences were revealed. That is, depressive symptoms and marital satisfaction related differently to mothers and fathers attacking and avoidance conflict-resolution strategies.

Specifically, maternal depressive symptoms was the only predictor to account for a significant proportion of the variance in maternal avoidance conflict-resolution strategies. However, maternal attacking conflict-resolution strategies were significantly predicted by both maternal depressive symptoms and maternal marital satisfaction. Paternal depressive symptoms and marital satisfaction emerged as significant predictors of paternal avoidance conflict-resolution strategies. Whereas, paternal marital satisfaction was the only predictor to account for a significant proportion of the variance in paternal attacking conflict-resolution strategies.

Findings indicated that the degree to which mothers used avoidance conflict-resolution strategies was primarily related to their level of depressive symptoms. On the other hand, mothers' use of attacking conflict-resolution strategies was related to both maternal depressive symptoms and marital satisfaction. For fathers, the degree to which they used avoidance conflict-resolution strategies was related to both their depressive symptoms and marital satisfaction. However, fathers' use of attacking conflict-resolution strategies was related only to their marital satisfaction. Thus, both mothers and fathers used more attacking strategies if their levels of marital satisfaction were lower and more avoidance
conflict-resolution strategies if they were experiencing higher levels of depressive symptoms.

Previous research documenting the relation between parental depressive symptoms and problems in the marital relationship have defined marital problems as mothers' and fathers' global reports of marital satisfaction (Marchand & Hock, 1997), amount of conflict within the marital relationship (Fergusson et al., 1995), or mothers' and fathers' expressions of positive and negative affect toward each other (Miller et al., 1993). However, the present study is the first to document the relation between mothers' and fathers' depressive symptoms and their conflict-resolution strategies within the marriage. Findings indicated that parents, who reported elevated levels of depressive symptoms, also reported using avoidant conflict-resolution strategies more often. Thus, findings provided support for the suggestion that depressive symptoms, such as withdrawal and avoidance, would translate into the use of avoidance conflict-resolution strategies within the marriage.

According to Downey and Coyne (1990) marital problems are more common in families with a clinically depressed parent. With respect to avoidance conflict-resolution strategies, previous reports on adult depression have suggested that in families with a clinically depressed parent, marital conflict expressed by nonverbal anger predominated. Further, family interactions were characterized by preoccupations with the control and avoidance of anger and sadness expressions (Davenport, Adland, Gold, & Goodwin, 1979), especially within the context of marital conflict (Ablon, et al., 1975). Findings from the present study indicated that these same strategies were also utilized by nonclinical, community residing adults who did not have a diagnosable clinical depression but who were experiencing elevated levels of depressive symptoms.

Maternal Attributes and Child Behavior Problems

Findings from correlational analyses performed on data from Time 1, Time 2, and Time 3 indicated that maternal depressive symptoms at different times correlated significantly

66
with children’s externalizing and internalizing behavior problems. However, when hierarchical regression analyses were applied to the data to examine the relative influence of maternal depressive symptoms at Time 1, Time 2, and Time 3 on children’s Time 3 mother-reported externalizing and internalizing behavior problems, none of the models achieved significance.

Considering the relations among concurrent levels of maternal depressive symptoms, marital satisfaction, conflict-resolution strategies in the marriage, acceptance of the child and children’s mother- and teacher-reported externalizing and internalizing behavior problems, aspects of the marital relationship and maternal acceptance of the child emerged as salient correlates of children’s behavior problems.

Findings indicated that higher rates of maternal avoidance conflict-resolution strategies in the marital relationship were associated with higher rates of mother- and teacher-reported internalizing behavior problems. Further, low rates of maternal acceptance of the child were associated with a higher incidence of mother- and teacher-reported externalizing behavior problems. As well, child gender was significantly correlated with teacher-reported externalizing behavior problems, with boys demonstrating higher rates of externalizing behavior problems than girls.

When data were subjected to hierarchical regression analyses, Time 3 maternal depressive symptoms as a main effect was not a significant predictor of mother-reported internalizing behavior problems in children; however, an interaction between maternal depressive symptoms and marital satisfaction was significant. This interaction indicated that children demonstrated the highest rates of mother-reported internalizing behavior problems when mothers reported both lower levels of marital satisfaction and higher levels of depressive symptoms. Thus, it was in the context of lower levels of marital satisfaction that elevated levels of maternal depressive symptoms posed the greatest risk for mother-reported internalizing behavior problems in children.
For teacher-reported internalizing behavior problems, a slightly different trend emerged. Maternal avoidance conflict-resolution strategies in the marriage emerged as a significant predictor of teacher-reported internalizing behavior problems, accounting for 19% of the variance. However, an interaction between maternal depressive symptoms and maternal acceptance of the child accounted for the greatest proportion of the variance in teacher-reported internalizing behavior problems. This interaction explained 25% of the variance and indicated that children at the greatest risk for internalizing behavior problems had mothers who reported higher levels of depressive symptoms and demonstrated lower rates of acceptance. Thus, elevated levels of maternal depressive symptoms had the greatest impact on children's teacher-reported internalizing behavior problems when they occurred in the context of lower rates of maternal acceptance of the child.

The potential of parent-child interactions to serve a moderator in the relation between parental depressive symptoms and child adjustment was documented by one other recent study. However, somewhat different findings were revealed. Jacob and Johnson (1997) utilized a sample of mothers and fathers who had received a current diagnosis for a clinical depressive disorder and their 10- to 18-year-old children. Mothers and fathers completed a self-report inventory of depressive symptoms. In addition, mothers, fathers, and children completed a laboratory problem-solving task wherein the triads were instructed to discuss topics that are common sources of family conflict. Parent-child communication was coded for positive, negative, problem-solving, and congenial qualities.

Results of the Jacob and Johnson study indicated that mothers' depression was a significant predictor of children's depression, total problem behaviors, and internalizing and externalizing problem behaviors. However, neither mother-child communication nor the interaction between mothers' depression and mother-child communication predicted child outcome. On the other hand, both fathers' depression and father-child communication emerged as significant predictors of children's depression, total problem
behaviors, and internalizing and externalizing problem behaviors. Further, the interaction between fathers' depression and father-child communication significantly predicted children's depression, suggesting that fathers' communication moderated the impact of fathers' depression on children's depression. This study differed from the current study in that a community sample of parents who were not clinically depressed were used.

In previous research, stronger relations between parents' depressive symptoms and children's behavior problems were noted when depression was identified through a diagnostic interview as opposed to parents' self-reported depressive symptoms (Forehand, McCombs, & Brody, 1987). Further, Hamilton, Jones, and Hammen (1993) found that mothers with a clinically diagnosed depressive disorder were more negative toward their children during a laboratory problem-solving task than mothers with no diagnosable depression. In the present study even low to moderate levels of maternal depressive symptoms related to children's mother-reported internalizing behavior problems through their interaction with maternal marital satisfaction. In addition, while maternal depressive symptoms were not directly related to maternal acceptance of the child, maternal depressive symptoms did interact with maternal acceptance of the child to predicted children's teacher-reported internalizing behavior problems.

For child externalizing behavior problems, maternal acceptance of the child emerged a significant predictor of children's mother-reported externalizing behavior problems and girls' teacher-reported externalizing behavior problems, which is consistent with previous reports identifying negative maternal behavior as a risk factor for the development of externalizing behavior problems in children (Harnish et al., 1995).

While, maternal attributes, such as negative maternal behavior toward the child, have been identified as risk factors among child samples with clinically significant behavior problems (Campbell, 1990; Speltz, Deklyen, Greenberg, Dryden, 1995), findings from the present study indicated that even low to moderate rates of negative maternal behaviors
toward the child were systematically related to children's behavior problems. Overall, findings from the present study provided support for the position advanced in recent reviews which suggests that social and contextual factors co-occurring with parental depression may serve as additional sources of risk for behavior problems in children (Cummings & Davies, 1992; Fergusson et al, 1995).

Maternal Avoidance Conflict-Resolution Strategies as a Mediator

Both parental depression and marital problems have been identified as salient correlates of children's behavior problems (Downey & Coyne, 1990). However, most studies have examined these aspects of the family environment separately in the prediction of behavior problems. Further, marital problems have typically been defined broadly as maternal reports of marital satisfaction (Christensen et al., 1983). The present study is the first study to examine parent's depressive symptoms and a more specific aspect of the marital relationship, i.e., conflict-resolution strategies in the marriage, together in the prediction of externalizing and internalizing behavior problems in children.

Findings indicated that maternal depressive symptoms related to mother- and teacher-reported internalizing behavior problems in early school-age children through it's relation to maternal avoidance conflict-resolution strategies. That is, maternal depressive symptoms significantly correlated with maternal avoidance conflict-resolution strategies. In turn, maternal avoidance conflict-resolution strategies significantly correlated with internalizing behavior problems in children. Maternal depressive symptoms also modestly predicted child internalizing behavior problems. However, when maternal depressive symptoms were entered into the equation after maternal avoidance conflict-resolution strategies had been considered, the amount of variance accounted for by maternal depressive symptoms was significantly reduced, indicating that maternal avoidance conflict-resolution strategies attenuated the relation between maternal depressive
symptoms and child internalizing behavior problems. This pattern of findings was noted for both mother- and teacher-reported internalizing behavior problems.

Cummings and Windle (1997) reported similar findings in a recent study examining behavior problems in adolescents. These researchers identified family discord as a mediator in the relation between parental depressive symptoms and adolescent adjustment. However, family discord was defined broadly as low levels of family intimacy, marital satisfaction, adolescents' exposure to marital conflict, and stressful life events. The mediational models provided substantial support for the mediating role of family discord in the relation between maternal depressive symptoms and adolescent girls' delinquent behaviors and only modest support for the mediating role of family discord in the relation between maternal depressive symptoms and adolescent girls' depressive symptoms.

The current study also examined the relation between maternal attacking conflict-resolution strategies and child externalizing behavior problems, which has been supported by previous research. Katz and Gottman (1993) identified a "Mutally Hostile" pattern of marital conflict as a significant predictor of children's externalizing behavior problems. This pattern is characterized by each spouse directly attacking the other's beliefs, feelings, and character.

While findings from the present study clearly identified maternal avoidance conflict-resolution strategies as a significant predictor of children's internalizing behavior problems and an important mediator in the relation between maternal depressive symptoms and internalizing behavior problems, the proposed relation between maternal attacking strategies and child externalizing behavior problems was not supported. Maternal depressive symptoms emerged as a significant predictor of maternal attacking conflict-resolution strategies; however, maternal attacking strategies did not predict externalizing behavior problems in children.
The lack of statistical support for the relation between maternal attacking conflict-resolution strategies and child externalizing behavior problems may be attributed to the relatively low rates of attacking conflict-resolution strategies reported by mothers. It should be noted that no mothers reported high rates of attacking conflict-resolution strategies. Instead, rates of attacking conflict-resolution strategies ranged from low to moderate.

**Paternal Attributes and Child Behavior Problems**

This study also considered the role of paternal depressive symptoms, marital satisfaction, and conflict-resolution strategies in the prediction of children's externalizing and internalizing behavior problems. In the present study, the only significant correlation revealed among the father attributes and children's behavior problems was between paternal avoidance conflict-resolution strategies and teacher-reported internalizing behavior problems. The significant positive relationship indicated that when fathers reported using more avoidance conflict-resolution strategies to resolve problems in the marital relationship, their children demonstrated higher rates of internalizing behavior problems. This finding concurred with previous research which documented a significant relation between paternal conflict-resolution strategies characterized as "Angry and Withdrawn" and teacher-reported internalizing behaviors (Katz & Gottman, 1993). When fathers used more angry and withdrawn conflict-resolution strategies, children demonstrated higher rates of internalizing behavior problems.

One factor that may have accounted for the seemingly minimal direct role of paternal attributes in the development of child behavior problems was the rate of father participation. In the present study the rate of father participation was significantly lower than the rate of mother participation. Fifty-three mothers as opposed to 43 fathers agreed to participate. Thus, the sample size for fathers may not have been large enough to yield statistically significant associations between the other father attributes and child behavior
problems. However, examination of correlation coefficients representing the relations between paternal depressive symptoms and child externalizing and internalizing behavior problems did indicate that the associations were in the proposed direction. That is, as paternal depressive symptoms increased, children tended to demonstrate higher rates of externalizing and internalizing behavior problems.

In addition, fathers, like mothers, reported relatively low rates of attacking conflict-resolution strategies. Rates of attacking conflict-resolution strategies among fathers ranged from low to moderate. Thus, the absence of high rates of attacking conflict-resolution strategies may have accounted for the failure of attacking conflict-resolution strategies to emerge as a significant correlate of child behavior problems.

Maternal and Paternal Attributes and Child Behavior Problems

In the present study, models were also tested wherein maternal and paternal attributes were considered together in the prediction of child behavior problems in order to determine whether paternal attributes served as an additional source of risk for child behavior problems. Of the models tested, only the those considering maternal and paternal avoidance conflict-resolution strategies and their interaction in the prediction of child internalizing behavior problems achieved significance.

In the model predicting mother-reported internalizing behavior problems, an interaction between maternal and paternal avoidance conflict-resolution strategies in the marriage emerged as the strongest predictor of internalizing behavior problems in children. The interaction indicated that children demonstrating the highest rates of mother-reported internalizing behavior problems had both a mother and a father who used avoidance conflict-resolution strategies more often to resolve conflict in the marital relationship.

In the model predicting teacher-reported internalizing behavior problems, maternal avoidance conflict-resolution strategies accounted for the greatest proportion of variance (24%) in internalizing behavior problems. However, an interaction between maternal and
paternal avoidance conflict-resolution strategies was significant and explained an additional 17% of the variance in children's teacher-reported internalizing behavior problems. Thus, findings from both models suggested that higher rates of paternal avoidance conflict-resolution strategies in the marriage posed as an additional source of risk for child internalizing behavior problems when they occurred in the context of higher rates of maternal marital avoidance conflict-resolution strategies.

Mother- Versus Teacher-Reported Externalizing and Internalizing Behaviors

Within the literature on maternal depressive symptoms and child behavior problems a source of debate has been the use of mother-versus other-reports of children's behavior problems. It has been a shared concern among scholars that mothers who are experiencing elevated levels of depressive symptoms may provide negatively biased reports of their children's behaviors. That is, as a result of their depressive symptomatology, mothers may view their children's behaviors as more problematic and therefore, provide more negative ratings of their children's behaviors. However, findings from several studies have suggested that depressed mothers' reports of their children's behaviors are consistent with teacher, interviewer, and clinician ratings. For example, Lee and Gotlib (1991a) found considerable agreement between mothers' negative ratings of their children, almost one year after mothers' depressive episodes had remitted, and clinician's ratings of the children. Further, in his thorough review Richters (1992) concluded that there is little evidence of a negative bias in depressed mothers' ratings of their children's behavior problems.

Some scholars have even suggested that mothers who are experiencing elevated levels of depressive symptoms may provide more accurate ratings of their children's problem behaviors than mothers who are not depressed. At least one study provided support for this position. Hammen (1989) found a consistent pattern between child behavior ratings of depressed and nondepressed mothers: depressed mothers made accurate distinctions in their children's behavior problems; whereas, nondepressed mothers ratings of their
children's behavior was positively biased. Thus, nondepressed mothers' under-rated the behavior problems in their symptomatic children.

In the present study children's mother- and teacher-reported externalizing and internalizing behavior problems were significantly correlated. Further, the mean score for Time 3 children's mother- and teacher-reported externalizing behavior problems were similar. However, the mean score for Time 3 teacher-reported internalizing behaviors was considerably lower than the mean score for mother-reported internalizing behaviors.

Teachers have a much larger reference group than mothers against which to compare children's behaviors and may, therefore, be more cognizant of what constitutes problematic behaviors in children. This may account for the considerably lower mean score for children's teacher-reported internalizing behavior problems.

However, another plausible explanation for this finding is that in the school environment, externalizing behaviors, such as hyperactivity and aggression, are more likely to disrupt the organization and structure of the classroom, and thus, draw the attention of teachers. However, internalizing behaviors, such as withdrawal and anxiety, may attract less attention. Thus, a child who is more quiet, reserved, or keeps to him or herself may be overlooked by a teacher because the child's behaviors are not likely to work against the teacher's goals of providing organization and structure in the classroom.

Caution should, therefore, be taken in drawing conclusions about the accuracy of the mothers' and teachers' ratings of children's behavior problems in the present study. It cannot necessarily be assumed that teachers' ratings were more accurate representations of children's actual behaviors than mothers' ratings. Notwithstanding, results from the present study highlight the need to obtain teachers' reports of children's behavior problems in addition to mothers' reports.
CHAPTER V
CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH AND PRACTICE

This chapter begins with conclusions regarding the relations among maternal and paternal attributes and follows with conclusions regarding maternal and paternal attributes as they related to children's externalizing and internalizing behavior problems. Implications for future research are addressed throughout the chapter.

Findings from the present study advanced knowledge on child behavior problems by using a family systems approach. More specifically, depressive symptoms in parents were examined as a source of risk for problems in the marital relationship and parent-child relationship. Further, the relation between problems in the marital relationship and parent-child relationship was considered. Finally, problems in the marital relationship and parent-child relationship were examined as risk factors for the development of behavior problems in children.

Findings provided information on the relations between mothers' and fathers' depressive symptoms and conflict-resolution strategies. To elaborate, depressive symptoms in parents stood out as a salient predictor of parent's marital attacking and avoidance conflict-resolution strategies. Thus, findings provided support for the suggestion that parents' depressive tendencies may lead them to utilize more maladaptive marital conflict-resolution strategies to resolve disagreements in the marriage.

Further, findings indicated that depressive symptoms related differently to mothers' and fathers' attacking and avoidance conflict-resolution strategies in the marriage. That is, depressive symptoms significantly predicted mothers' attacking and avoidance conflict-
resolution strategies. However, for fathers only avoidance conflict-resolution strategies in the marriage were predicted by depressive symptoms. Thus, findings indicated that mothers, who were experiencing elevated levels of depressive symptoms, used both attacking and avoidance approaches to resolve marital conflict. Whereas, fathers, who were experiencing elevated levels of depressive symptoms, primarily withdrew from marital conflict.

Findings from the present study revealed the different approaches used by mothers and fathers to resolve conflict in the marital relationship; however, additional questions regarding the nature of these approaches remain unanswered. For example, do mothers demonstrate attacking and avoidance conflict-resolution strategies simultaneously? Or, do mothers utilize one approach until it becomes ineffective and then convert to the other approach? Further longitudinal research on the relation between mothers' and fathers' depressive symptoms and conflict-resolution strategies is warranted.

Findings also provided information on how patterns of interaction between mothers and fathers were related to the patterns of interaction between mothers and children. Specifically, paternal attacking conflict-resolution strategies emerged as a significant predictor of maternal acceptance of the child, indicating that when fathers were more attacking toward their wives in the context of marital conflict, the mothers, in turn, were less accepting and more hostile and intrusive toward their children. Thus, patterns of negative interaction within the marital relationship seemed to be repeated within the mother-child relationship.

While information was provided on problems in the marital relationship as they related to problems in the mother-child relationship, a limitation of the present study is that the relation between maternal and paternal conflict-resolution strategies and the quality of father-child relationship was not addressed. Understanding how problems in the marital relationship relate to father-child interactions is important. Thus, future research should
consider the parents' conflict-resolution strategies as they relate to the quality of the father-child relationship as well.

This study provided information of the relative influence of parent's depressive symptoms, marital problems, and negative behavior on children's externalizing and internalizing behavior problems and highlighted the need to consider these aspects of the family environment together in the prediction of children's behavior problems. In the present study maternal marital conflict resolution strategies was identified as a powerful predictor of children's mother- and teacher-reported internalizing behavior problems. Findings indicated that maternal avoidance conflict-resolution strategies in the marriage significantly predicted children's internalizing behavior problems. This finding provided partial support for the suggestion that attacking and avoidance conflict-resolution strategies would relate differently to children's externalizing and internalizing behavior problems. However, relations between maternal attacking conflict-resolution strategies were not documented.

Close examination of the data indicated that instances of high rates of attacking conflict-resolution strategies did not occur. Instead, mothers in this sample reported using only low to moderate rates of attacking conflict-resolution strategies. The limited variability in rates of attacking conflict-resolution strategies reported by mothers may have accounted for the failure of relations between maternal attacking conflict-resolution strategies and child externalizing behavior problems to achieve statistical significance.

This study also utilized data on maternal depressive symptoms and child behavior problems collected at child ages 2 1/2, 4 and 6 to examine the relation between timing of maternal depressive symptoms and children's externalizing and internalizing behavior problems. Although at some time periods maternal depressive symptoms was significantly correlated with children's externalizing and internalizing behavior problems, the more salient finding of this study was that interactions between Time 3 maternal depressive symptoms...
symptoms and marital satisfaction and Time 3 maternal depressive symptoms and maternal acceptance of the child explained significant proportions of the variance in mother- and teacher-reported internalizing behaviors, respectively. Thus, elevated maternal depressive symptoms posed the greatest risk for internalizing behavior problems in the home environment when they occurred in the context of lower levels of maternal marital satisfaction. Whereas elevated maternal depressive symptoms were associated with the highest levels of internalizing behavior problems in the school environment when they occurred in the context of lower rates of maternal acceptance of the child. As well, maternal acceptance was an independent and significant predictor of children's mother-reported and girls' teacher-reported externalizing behavior problems.

In the present study paternal attributes did not appear to have a considerable direct impact on children's behavior problems. Paternal avoidance conflict-resolution strategies was the only paternal attribute to correlate significantly with behavior problems. It was significantly related to children's teacher-reported internalizing behavior problems. As mentioned previously, the absence of high rates of attacking conflict-resolution strategies may have accounted for the failure of attacking conflict-resolution strategies to emerge as a significant correlate of child behavior problems. In addition, the significantly smaller sample size for fathers may have influenced the associations between the other father attributes and child behavior problems. Thus, caution should be taken in drawing conclusions about relations among these father and child attributes until findings are replicated.

While the present study provided insight into the relations among maternal and paternal attributes and child behavior problems, information on the causal direction of influence among the study variables was not provided. Thus, many questions remain unanswered regarding relations among parent's depressive symptoms, marital problems, negative behavior, and child behavior problems. For example, it still remains unclear whether
depressive symptoms in parents drive the development of behavior problems in children or whether behavior problems in children contribute to parent's depressive symptoms. Further, it is uncertain whether parent's depressive symptoms lead to problems in the marriage or whether problems in the marriage cause parents to experience higher levels of depressive symptoms. Thus, more longitudinal research in this area is required. Further, applying statistical procedures (structural equation modeling) designed to provide information on the direction of influence to longitudinal data on parent's depressive symptoms, marital problems, negative behavior, and child behavior problems can address these questions. However, a considerably larger sample is required.

In addition, caution should be taken in drawing conclusions based on the present study's findings due to the considerable reliance on self-report measures to assess parents' functioning. The possibility that significant associations among depressive symptoms, marital satisfaction, and conflict-resolutions strategies may be explained by a common source of variance cannot be ruled out. However, the use of more behavior-based questionnaires in this study reduced this likelihood. In addition, questionnaires used to assess parents' marital satisfaction and conflict resolution strategies were at different levels of specificity, which further reduces the likelihood that significant associations among the parent attributes resulted from a common source of variance. By considering marital problems at the level of specific behaviors that parents' used to resolve conflict in the marital relationship, this study yielded important findings that can be used to guide behavior-based interventions.

In conclusion, findings from the present study provided important information on the relations among parents' depressive symptoms, marital problems, negative behaviors toward the child, and children's behavior problems, which can inform clinicians, family life educators, and other people working with families. For example, findings suggest that marital problems may need to be considered in the context of parental depressive
symptoms. In the present study, depressive symptoms in mothers and fathers were associated with greater use of avoidance conflict-resolution strategies in the marriage. Thus, parents' depressive symptoms seemed to translate into more maladaptive conflict-resolution strategies. Therefore, in order for marital relations to improve, it may be necessary to first alleviate depressive symptoms in one or both spouses.

In regard to child behavior problems, findings suggest that it is important to consider the quality of both mother-father and parent-child relations as sources of risk. Specifically, fathers' attacking strategies in the marriage were associated with lower rates of maternal acceptance toward the child. Thus, disturbance in the marital relationship seemed to have a direct impact on the quality of the parent-child relationship. Providing families with information on the associations among conflict-resolution strategies in the marriage, negative parental behavior toward the child, and children's behavior problems is an important first step in the prevention of child behavior problems.
APPENDIX A

INSTRUMENTS
CENTER FOR EPIDEMIOLOGICAL STUDIES IN DEPRESSION SCALE

Circle the number for each statement which best describes how often you felt or behaved this way during the past week.

<table>
<thead>
<tr>
<th>Rarely or None of the Time</th>
<th>Some or a Little of the Time</th>
<th>Occasionally or a Moderate Amount of Time</th>
<th>Most or All of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1 day)</td>
<td>(1-2 days)</td>
<td>(3-4 days)</td>
<td>(5-7 days)</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

During the past week:

1. I was bothered by things that usually don't bother me.
   0 1 2 3

2. I did not feel like eating; my appetite was poor.
   0 1 2 3

3. I felt that I could not shake off the blues even with help from my family or friends.
   0 1 2 3

4. I felt that I was just as good as other people.
   0 1 2 3

5. I had trouble keeping my mind on what I was doing.
   0 1 2 3

6. I felt depressed.
   0 1 2 3

7. I felt that everything I did was an effort.
   0 1 2 3
8. I felt hopeful about the future.
0 1 2 3

9. I thought my life had been a failure.
0 1 2 3

10. I felt fearful.
0 1 2 3

11. My sleep was restless.
0 1 2 3

12. I was happy.
0 1 2 3

13. I talked less than usual.
0 1 2 3

0 1 2 3

15. People were unfriendly.
0 1 2 3

16. I enjoyed life.
0 1 2 3

17. I had crying spells.
0 1 2 3

18. I felt sad.
0 1 2 3
19. I felt that people disliked me.
0 1 2 3

20. I could not "get going".
0 1 2 3
CONFLICT-RESOLUTION BEHAVIOR SCALE - MOTHER FORM

This questionnaire lists a number of different things people might do when they have a conflict with their husbands. Tell me how often you do the following things when you have a conflict with your husband about something.

<table>
<thead>
<tr>
<th>Almost Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Try to avoid talking about it. 0 1 2 3 4
2. Really get mad and start yelling. 0 1 2 3 4
3. Try to reason. 0 1 2 3 4
4. Get sarcastic. 0 1 2 3 4
5. Try to smooth things over. 0 1 2 3 4
6. Listen to what your husband says and try to understand. 0 1 2 3 4
7. Clam up and hold your feelings inside. 0 1 2 3 4
8. Try to work out a compromise. 0 1 2 3 4
9. Get cool and distant or give your husband the cold shoulder. 0 1 2 3 4
10. Get mad and walk away. 0 1 2 3 4
11. Come right out and say what you are feeling. 0 1 2 3 4
12. Get madder the more you talk. 0 1 2 3 4
13. Stay mad for a long time. 0 1 2 3 4
14. Get mad and throw something at your husband. 0 1 2 3 4
15. Say or do something to hurt his feelings. 0 1 2 3 4
16. Go to your room to be alone. 0 1 2 3 4
17. Watch T.V. or read a book. 0 1 2 3 4
18. Tell yourself the problem is not important. 0 1 2 3 4
19. Try to be funny and make light of it. 0 1 2 3 4
20. Talk to a friend or sibling about how you feel. 0 1 2 3 4
21. Apologize to your husband. 0 1 2 3 4
22. Get back at your husband in some way. 0 1 2 3 4
CONFLICT-RESOLUTION BEHAVIOR SCALE - FATHER FORM

This questionnaire lists a number of different things people might do when they have a conflict with their wives. Tell me how often you do the following things when you have a conflict with your wife about something.

<table>
<thead>
<tr>
<th>Almost Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Try to avoid talking about it. 0 1 2 3 4
2. Really get mad and start yelling. 0 1 2 3 4
3. Try to reason. 0 1 2 3 4
4. Get sarcastic. 0 1 2 3 4
5. Try to smooth things over. 0 1 2 3 4
6. Listen to what your wife says and try to understand. 0 1 2 3 4
7. Clam up and hold your feelings inside. 0 1 2 3 4
8. Try to work out a compromise. 0 1 2 3 4
9. Get cool and distant or give your wife the cold shoulder. 0 1 2 3 4
10. Get mad and walk away. 0 1 2 3 4
11. Come right out and say what you are feeling. 0 1 2 3 4
12. Get madder the more you talk. 0 1 2 3 4
13. Stay mad for a long time. 0 1 2 3 4
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Get mad and throw something at your wife.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Say or do something to hurt her feelings.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Go to your room to be alone.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Watch T.V. or read a book.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. Tell yourself the problem is not important.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Try to be funny and make light of it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Talk to a friend or sibling about how you feel.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Apologize to your wife.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Get back at your wife in some way.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
MARITAL COMPARISON LEVEL INDEX

Please indicate on the 7-point scale how you think your current marital relationship experiences compare with your expectations. Please assume that the midpoint (0) on the scale represents your EXPECTATION for the relationship dimension listed. With zero representing your expectation level, please indicate to what degree your relationship currently compares favorably or unfavorably to your expectation level by circling the appropriate number. A score of -3 would indicate that your current experience is much WORSE than you expect; a score of 0 would indicate that your current experience equals your expectations level; a score of 3 would indicate that your current experience is much BETTER than you expect.

(WORSE) -3 -2 -1 0 1 2 3 (BETTER)

1. The amount of love you experience.
   
   -3  -2 -1 0 1 2 3

2. The amount of compatibility that you experience.
   
   -3  -2 -1 0 1 2 3

3. The amount of mutual respect you experience.
   
   -3  -2 -1 0 1 2 3

4. The degree to which your needs are met.
   
   -3  -2 -1 0 1 2 3

5. The amount of affection your partner displays.
   
   -3  -2 -1 0 1 2 3

6. The amount of commitment you experience from your spouse.
   
   -3  -2 -1 0 1 2 3

7. The amount your partner is willing to listen to you.
   
   -3  -2 -1 0 1 2 3
8. The degree to which your interpersonal communications are effective.

-3  -2  -1  0  1  2  3

9. The amount of companionship you experience.

-3  -2  -1  0  1  2  3

10. The amount of relationship equality you experience.

-3  -2  -1  0  1  2  3

11. The amount of confiding that occurs between you and your partner.

-3  -2  -1  0  1  2  3

12. The amount your partner is trusting of you.

-3  -2  -1  0  1  2  3

13. The fairness with which money is spent.

-3  -2  -1  0  1  2  3

14. The amount of time you spend together.

-3  -2  -1  0  1  2  3

15. The degree of physical attractiveness of your partner.

-3  -2  -1  0  1  2  3

16. The amount of conflict over daily decisions that exists.

-3  -2  -1  0  1  2  3

17. The amount of interest in sex your partner expresses.

-3  -2  -1  0  1  2  3
18. The amount of arguing over petty issues that you experience.
-3  -2  -1  0  1  2  3

19. The amount of sexual activity that you experience.
-3  -2  -1  0  1  2  3

20. The amount of conflict over the use of leisure time that you experience.
-3  -2  -1  0  1  2  3

21. The amount of criticism your partner expresses.
-3  -2  -1  0  1  2  3

22. The amount you and your partner discuss sex.
-3  -2  -1  0  1  2  3

23. The amount to which you and your spouse agree on your lifestyle.
-3  -2  -1  0  1  2  3

24. The amount of disagreement over friends you experience.
-3  -2  -1  0  1  2  3

25. The amount of freedom you experience in pursuing other friendships.
-3  -2  -1  0  1  2  3

26. The amount to which your spouse supports your choice of occupation.
-3  -2  -1  0  1  2  3

27. The amount that responsibility for household tasks is shared.
-3  -2  -1  0  1  2  3

28. The amount of conflict over money you experience.
-3  -2  -1  0  1  2  3
29. The amount of jealousy your partner expresses.

-3 -2 -1 0 1 2 3

30. The amount of privacy you experience.

-3 -2 -1 0 1 2 3

31. The degree to which you and your spouse agree on the number of children you have.

-3 -2 -1 0 1 2 3

32. The amount of responsibility your partner accepts for household tasks.

-3 -2 -1 0 1 2 3
HOME OBSERVATION OF THE ENVIRONMENT SCALE

Circle "yes" if the behavior is observed during the visit or if the parent reports that the condition or events are characteristics of the home environment.

**ACCEPTANCE**

| 1. Parent does not scold of yell at or derogate child more than once. | Yes | No |
| 2. Parent does not use physical restraint during visit. | Yes | No |
| 3. Parent neither slaps nor spanks child during visit. | Yes | No |
| 4. No more than one instance of physical punishment occurred during the past week. | Yes | No |
APPENDIX B

INITIAL LETTER TO THE PARENTS
Dear Mr. and Mrs.

Hello! Here we are in the midst of yet another hot Ohio summer, which is flying by quickly. It's hard for us to believe your child is 6 years old now. We certainly hope you and __________________ are doing well along with the rest of your family.

Before we say anything more, we want—again—to tell you how much we have appreciated your participation and support over the past several years. We understand the time and energy it takes and how precious time and energy are when you are a parent. Your cooperation has enabled us to gain valuable insight into the trials and tribulations experienced by first-time parents. We truly believe in the importance of this project in helping mothers and fathers feel better understood and supported. We also hope to help educate the general public about both parent and child characteristics and the contributions of each to children's social development. Therefore, we are on the verge of beginning a new phase of the project, which we hope will make a difference.

Now that your child is 6 years old, we'd like to visit you in your home briefly at your convenience. We will be calling you soon to confirm your participation and set up a time to meet with you. Prior to our visit we will send you a packet of 4 questionnaires to be completed at your convenience.

Your willingness to share your insights and feelings will continue to play a major role in coming phases of the study. We appreciate your commitment and can hardly wait to talk to you again.

Sincerely,                                                Sincerely,

Ellen Hock, Ph.D.
Professor, Department of Family Relations and Human Development
Principle Investigator

Jennifer F. Marchand
Graduate Associate, Department of Family Relations and Human Development
Research Scientist
APPENDIX C

PHONE SCRIPT
Phone Script

Hello Mrs. ______________________. This is ___________________ with the Transition to Motherhood Project headed by Dr. Ellen Hock at the Ohio State University. How are you and your ______ (child's name) _______ doing these days? Now that _______ is 6 years old, we'd like to visit you in your home at your convenience. Would you be willing to help us out in this way?

Let me take just a minute to tell you what this next phase of our project will entail. We are interested in finding out more about family stresses and supports (i.e., qualities of your marriage, how you and your husband/partner resolve differences, and some of the feelings and experiences you've had as a mother of an early school-age child) and how they impact children's social development. As part of the study, I'd like to visit you in your home for approximately an hour and a half where I can observe you and ______ (child's name) ______ play some games together. In addition to the home visit, a packet of 4 questionnaires will be sent to you through the mail, which are to be completed prior to our visit. As well, we are interested in finding out more about your husband/partner's feelings and experiences, so we'll be sending him a separate packet of 3 questionnaires for completion. I'll pick up your questionnaires at the time of our visit; we will give your husband a self-addressed, stamped envelope to return his questionnaires. We assure you that no information from you will be disclosed to anyone, including other family members.

Okay. Can we set up a time? I will send you a confirmation letter a few days before the scheduled visit to confirm our appointment. Please let me know if something comes up and you are unable to keep our appointment. You can call me or leave a message at __________________________. I'll call you back to reschedule. I'll include this information in the confirmation letter sent out with the packet.

Thanks a lot! I'm looking forward to seeing you and ______ (child's name)
APPENDIX D

LETTER ACCOMPANYING MOTHERS’ AND FATHERS’ PACKETS OF QUESTIONNAIRES
Dear Mrs.

We are very interested in your participation in our current study. We continue to be fascinated by how much young children's experiences in and away from the home effect his/her character as s/he grows. This is why your continued participation is so much appreciated.

We are currently focusing our attention on how children's experiences in the home effect social development. We have enclosed 4 questionnaires which ask questions about your marital relationship, how you resolve differences with your husband, your sense of well-being, and your child's behaviors. To help us find out more about these family characteristics, we would appreciate it if you would complete the questionnaires. We will pick them up when we visit you in your home.

We assure you that no information from you will be disclosed to anyone, including other family members. As always, we greatly appreciate the extra time and effort you take in helping us learn more about families.

Sincerely,

Ellen Hock, Ph.D.  
Professor, Department of Family Relations and Human Development

Jennifer F. Marchand, MS  
Graduate Associate, Department of Family Relations and Human Development
Dear Mr.

We are very interested in your participation in our current study. We continue to be fascinated by how much young children's experiences in and away from the home effect his/her character as s/he grows. This is why your continued participation is so much appreciated.

We are currently focusing our attention on how children's experiences in the home effect social development. We have enclosed 3 questionnaires which ask questions about your marital relationship, how you resolve differences with your wife, and your sense of well-being. To help us find out more about these family characteristics, we would appreciate it if you would complete the questionnaires and return them to us in the enclosed self-addressed, stamped envelope.

We assure you that no information from you will be disclosed to anyone, including other family members. As always, we greatly appreciate the extra time and effort you take in helping us learn more about families.

Sincerely,

Ellen Hock, Ph.D.
Professor, Department of Family Relations and Human Development

Sincerely,

Jennifer F. Marchand, MS
Graduate Associate, Department of Family Relations and Human Development
APPENDIX E

SCRIPT TO REQUEST MATERNAL CONSENT FOR TEACHER PARTICIPATION
Script for Teacher Participation

As you know, children's behavior sometimes differs depending on the people they are around or the environment they are in. Therefore, it is very important to have more than one informant in behavioral research. We would like to send a questionnaire to your child's teacher so we can understand how your child's social behavior in the school-setting is similar to or different than his/her social behavior at home. The questionnaire asks teachers to report on the incidence of behaviors such as disobedience at school, arguing a lot, lying or cheating, unhappiness, sadness, or withdrawal and is similar to the one that you completed.

You and your family should be proud of your involvement in an Ohio State University study. In addition, your child's teacher will have respect for your family's involvement in such a study. We assure you that no information that has been provided from you will be disclosed to anyone, including your child's teacher. As well, the information provided by your child's teacher will be used only for the purpose of this study and will not be disclosed to anyone. Would it be O.K. with you if we sent your child's teacher a questionnaire similar to the one you answered?
APPENDIX F

LETTER TO THE TEACHER
Dear Ms./Mr.

We, at Ohio State, along with Mrs. _________________ hope you will be able to help in a study we are doing on children's social development. Her child has been in the study since infancy, and we are now interested in finding out how s/he is getting along in school. This involves filling out the enclosed questionnaire. The questionnaire lists behaviors that children may or may not display in the school-setting and asks teachers to indicate to what degree the child displays these behaviors.

I know that for a busy teacher an additional task is something of a chore. However, the information you can provide is essential to the study. Hopefully, it will help us understand what background factors make it possible for some children to adjust easily to school (group situations) and peers, while others find it more difficult. The data will be used only for research purposes. No one child will be identified—all information is anonymous. A copy of the parental consent form, the questionnaire, and a self-addressed stamped envelope are enclosed. Further, we assure you that no information from you will be disclosed to anyone else, including the child's family members.

Please let me know if there are further questions concerning the study. I can be reached at 614/292-5639 or 614/785-0738. I very much hope you will help us complete this phase of the study.

Sincerely,

Ellen Hock, Ph.D.                Jennifer F. Marchand
Professor, Department of Family   Graduate Research Associate, Department of
     Relations and Human Development Family Relations and Human Development

Parent's Signature: ___________________________________________
APPENDIX G

PARTICIPATION CONSENT FORM FOR MOTHERS AND FATHERS
CONSENT FOR PARTICIPATION IN SOCIAL
AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

________________________________________________________________________

________________________________________________________________________

(Principal Investigator) or his/her authorized representative has explained
the purpose of the study, the procedure to be followed, and the expected duration of my
(my child's) participation. Possible benefits of the study have been described as have
alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding
the study and that any questions I have raised have been answered to my full satisfaction.
Further, I understand that I am (my child is) free to withdraw consent at any time and to
discontinue participation in the study without prejudice to me (my child).

Finally, I acknowledge that I have read and fully understand the consent form. I sign it
freely and voluntarily. A copy has been given to me.

Date:___________________ Signed: ______________________________

Signed__________________ Signed: ______________________________

(Principal Investigator or his/her Authorized Representative) (Person Authorized to Consent for
Participant - If required)

Witness:_________________________
REFERENCE


