Child Adjustment Difficulties and Maternal Depressive Symptoms: The Father's Role.

By

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CHILD ADJUSTMENT DIFFICULTIES AND MATERNAL DEPRESSIVE SYMPTOMS: THE FATHER'S ROLE

BY

LISA M. MACMARTIN

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University

of Manitoba in partial fulfillment of the requirements of the degree

of

MASTER OF SCIENCE

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Abstract

Child behaviour problems of both an internalizing and externalizing nature have been implicated in studies of the effects of maternal depressive symptoms. However, since many children of mothers with depressive symptoms do not develop such problems, the purpose of this study was to examine the role that fathers may play in preventing the development of behaviour problems when mothers have depressive symptoms. The moderating effect of fathers' parenting style on the relation between maternal depressive symptoms and child behaviour problems was assessed. The study was done with a sample of 3-year-old girls from two-parent families. Results showed that there were differential relations between adjustment difficulties and depressive symptoms in mothers and fathers. Internalizing behaviours were related to depressive symptoms in mothers, but not fathers. Externalizing behaviours were related to depressive symptoms in fathers, but not mothers. While there was a strong relation between fathers' parenting style and child adjustment difficulties, fathers' parenting did not moderate the relation between maternal depressive symptoms and child behaviour problems. The study provides evidence indicating the importance of the father's role in child development.

Acknowledgements

When I began my work on this thesis I spent some time reading over a few theses completed by other graduate students. When I glanced over the acknowledgement pages of these theses, I was often surprised and even amused by the "melodramatic" tone of the words. Some of the authors made the feat of completing a thesis sound like climbing Mount Everest. Well, as I now stand at this end of the thesis process, all I can say is...........I understand.

Yes, completing my Master's thesis was probably the most challenging task of my life to date. There are many people who surrounded me with an environment of support and encouragement without which I tend to believe I couldn't have remained sane! All of these people deserve my utmost appreciation and big hugs. - My advisor, Dr. Rosemary Mills, for her time and guidance, but mostly for her patience.

- My two committee members, Dr. Caroline Piotrowski and Dr. Lesley Graff for their enlightening insights, their words of encouragement, and big smiles. - My fellow grad students with their understanding ears to complain to. - My family and my dear friends whose belief in me was a powerful motivation. - And finally, my husband Brian, who shared every triumph and defeat with enthusiasm and strength. You are a wonderful friend.

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Introduction

Depression represents a serious mental health problem that may impair a person's ability to function effectively in his or her various social roles. The majority of research regarding the psychological functioning of the children of depressed parents has focused on the mother's rather than the father's depression. This is understandable, as women are traditionally the primary caretakers of children in the majority of families. Moreover, women are almost twice as likely as men to develop a depressive disorder (Goldin & Gershon, 1988: as cited in Gelfand & Teti, 1990). Depression is alarmingly common among young mothers of infants and young children, and it is strongly associated with psychological disturbances in children (Pound, 1982). There is now extensive evidence that the children of affectively disturbed mothers are themselves at a high risk of developing cognitive, behavioural, and socioemotional disturbances, including depression (Zahn-Waxler, Cummings, Iannotti, & Radke-Yarrow, 1984; Gelfand & Teti, 1990; Beardslee, Bemporad, Keller, & Klerman, 1983).

Furthermore, it has been shown that the risk of emotional and behavioural problems in children is not limited to the offspring of mothers with diagnosed affective disorders. Maternal depressive symptoms, without reaching a syndrome level, have also been associated with child disturbance (Kershner & Cohen, 1992; Leadbeater & Bishop,

1994; Alpern & Lyons-Ruth, 1993).

Nevertheless, many children of depressed mothers lead relatively normal lives, free of developmental adjustment problems and psychological disorder. This has led researchers to attempt to identify characteristics of parents and of the family social environment that may moderate the impact of maternal depressive states on offspring. Identifying sources of resilience for a child is crucial in developing a full understanding of the nature of successful adaptation (Masten, Best, & Garmezy, 1990). Identifying family environmental factors that may serve to protect a child may also aid in designing interventions to promote positive adjustment (Masten et al., 1990). Furthermore, identification of protective factors and sources of resilience within the family environment may also provide clues about the processes leading to behavioural and socioemotional problems in children with a depressed mother. One important protective factor for children with a depressed mother may be the presence of a positive father-child relationship. This study will investigate the role fathers may play in moderating the effects of maternal depressive symptoms on child adjustment.

Maternal Depressive Symptoms and Child Development

The Characteristics of Depression

The term depression has been used in research, and in general, to refer to a range of affective disturbances that

include a psychiatric disorder, a collection of symptoms, and dysphoric mood.

As a disorder, depression is highly prevalent, especially among young women of child-bearing age who are not working (Weissman, 1987). The average age of onset of depression for women is the mid-twenties. At any given time, approximately 8% of mothers are clinically depressed (Weissman, Leaf, & Bruce, 1987).

Depression as sad affect or mood is a common experience of everyday life. As a syndrome, or disorder, depression refers to a group of symptoms of which sad affect is only one. The symptoms include cognitive, emotional, and physical disturbances which must be sustained for a minimum of two weeks in order to warrant a diagnosis of a clinical disorder.

It is common for affective disorders to be associated with other psychiatric conditions, such as substance abuse, panic disorder, anxiety and various forms of personality disorder (Rutter & Quinton, 1984). Anxiety and depression have a particularly high comorbidity, especially at the symptom level. Merikangas, Prusoff, and Weissman (1988) have drawn attention to the frequency of coexisting disorders in parents with affective disorders (and their spouses). For example, 89% of those with unipolar depression also had at least one diagnosis of anxiety disorders in the past, and 23% had secondary alcoholism. Coexisting disorders appear to

increase the risk of disorder in offspring (Merikangas et al., 1988).

In addition to sad affect, other symptoms of depression include a loss of pleasure in activities that were previously pleasurable, sleep disturbances (usually in the form of insomnia, but also hypersomnia), appetite disturbances (either decrease or increase in appetite), psychomotor agitation, diminished ability to concentrate or think (e.g., indecisiveness), fatigue or loss of energy, feelings of worthlessness and extreme guilt, and recurrent thoughts of death and suicide (APA, 1994).

Loss of pleasure has effects on the interpersonal realm of a person's life. It usually means an inability to enjoy previously engaging relationships and often leads to social withdrawal, intense irritability that is often directed to others, increased dependency on others caused by feelings of helplessness and inadequacy, and an increased sensitivity to perceived rejection or distancing by others. The person's reduced energy and motivation commonly result in difficulty in sustaining effort or participation in activities, including personal relationships. Depressed individuals may tend to avoid effortful interactions, such as social or conflict situations. The cognitive characteristics of depressive thinking lead to evaluations of the self and others in very negative terms. Because these are the common symptoms of depression, it is not surprising that the conse-

quences of depression involve an impairment of social role functioning. Depressed people are often unable to perform their role obligations as a responsive parent and/or spouse (Downey & Coyne, 1990).

Although substantial attention has been focused on the negative influence of depression, and as noted above it can be a pervasive disorder, many mothers are not clinically depressed (Downey & Coyne, 1990). Research on the effects of maternal depression on child adjustment has frequently used self-report measures of symptom levels in addition to, or instead of, psychiatric diagnoses of clinical depression (Downey & Coyne, 1990). Although related to clinical diagnoses, symptom levels may reflect psychological distress more broadly (Leadbeater, Bishop, & Raver, 1996). The present study will focus on levels of depressive symptoms.

It has been shown that the risk of emotional and behavioural problems in children is not limited to the offspring of mothers with diagnosed affective disorders. Research has indicated that even minor variations in depressive mood states in nonclinical populations are associated with child functioning difficulties (Forehand, McCombs, & Brody, 1987; Tannenbaum & Forehand, 1994; Jouriles, Murphy & O'Leary, 1989). Furthermore, maternal depressive symptoms have been associated with child adjustment difficulties in the offspring of mothers with other psychiatric disturbances (Kokes, Harder, Fisher, &

Strauss, 1980), suffering from medical illnesses (Hammen, Adrian, et al., 1987), mothers from community samples (Lefkowitz & Tesiny, 1985), and adolescent mothers (Leadbeater & Bishop, 1994). Hammen, Burge, Burney, & Adrian (1990) reported that current maternal depressed mood and chronic stress contributed more to children's negative outcomes (i.e. high level of psychiatric diagnoses) than did maternal depression diagnosis itself. While a negative relationship between maternal depressive symptoms and child functioning is expected to be more pronounced in clinically depressed mothers, depressive symptoms in general may also have negative effects. Research documenting the negative effects of maternal depression and maternal depressive symptoms on child functioning will be reviewed in the following sections.

The Impact of Maternal Depression on Child Adjustment

Previous research that has relied on parent reports and diagnostic interviews has identified a variety of problems in the children of mothers who have been diagnosed as depressed or who have reported depressive symptoms. The negative effects of maternal depression on child socioemotional development can be observed very early in life. In research with infants, it has been discovered that diagnosed maternal depression is associated with a number of effects on child behaviour. Infants of depressed mothers appear to have difficulty developing interaction skills and

typically show less effective interaction styles with others (Field, 1992). When interacting with their depressed mother, infants show less positive affect, less vocalization, less attentiveness, and lower activity levels than other infants (Field, 1992). Infants of depressed mothers have also been shown to exhibit this depressed style of interacting, not only with their depressed mother but with nondepressed adults as well (Field et al., 1988). Finally, depressed mother-infant dyads have been found to exhibit less matching of affective/attentive behaviour states than nondepressed mother-infant dyads (Field, Healy, Goldstein, & Guthertz, 1990; Cohn, Matias, Tronick, Connell, & Lyons-Ruth, 1986). When the depressed mother-infant dyads do match behaviour states it is more often negative behaviour states (e.g. anger, disengagement) (Field et al., 1990), which may contribute to a contagion effect of negative mood (Field, 1992). One possible consequence of the infant's mimicking of the mother's predominantly negative mood state is that the infant may fail to develop adequate self-regulation and interaction skills.

Child adjustment difficulties of both an internalizing and externalizing nature have been implicated in studies of the toddlers and preschoolers of depressed mothers. In several studies (Lang et al., 1996; Rubin, Both, Zahn-Waxler, Cummings, & Wilkinson, 1991; Radke-Yarrow, Cummings, Kuczynski, & Chapman, 1985; Zahn-Waxler, Cummings, McKnew, &

Radke-Yarrow, 1984), toddlers of depressed mothers have been described as showing greater sadness, speaking less, and engaging in less exploratory behaviour than toddlers of nondepressed mothers. Kochanska (1991) observed that preschool-age children of depressed mothers were less likely to explore a novel setting and were less likely to interact with an adult stranger than children of well mothers. In addition, Rubin et al., (1991) found that the 5-year-old children of depressed mothers were more likely to display socially withdrawn and anxious behaviours with peers than children of nondepressed mothers. Alpern and Lyons-Ruth (1993) found that the children (age 4-6) of mothers who had reported depressive symptoms during their child's infancy, but not at a preschool-age assessment, showed significantly more anxious and withdrawn behaviour at daycare and at home. Mothers who reported depressive symptoms when their children were preschoolers had children who tended to be more hyperactive and demanding than the preschoolers whose mothers did not report depressive symptoms.

Externalizing behaviours have also been displayed by toddlers of depressed mothers, including aggression, conduct problems, poor impulse control, and hyperactivity (Lang et al., 1996; Zahn-Waxler, Iannotti, Cummings, & Denham, 1990; Zahn-Waxler et al., 1984). For example, toddlers of depressed mothers have been shown to have difficulty controlling aggressive impulses, sharing, and cooperating

with others (Zahn-Waxler et al., 1984). In another study, Zahn-Waxler and colleagues (1990) found that dysregulated aggression in 2-year-old children of depressed mothers predicted mother-reported externalizing problems at five years of age, and self-reported emotional difficulties at age six. Alpern and Lyons-Ruth (1993) found that the children (age 4-6) of mothers who reported chronic depressive symptoms exhibited significantly higher rates of hostile behaviour problems at daycare and at home compared to children of never-depressed mothers.

Early behaviour patterns are important determinants of later development in cognitive, behavioural and emotional areas. Studies suggest that children of depressed parents continue to show higher levels of both externalizing and internalizing symptoms in middle childhood than children of nondepressed parents(Anderson & Hammen, 1993; Lee & Gotlib, 1989). Other indicators of maladjustment in school-age children of depressed mothers include deficits in academic performance, and social competence (Anderson & Hammen, 1993; Rolf & Garmezy, 1974; Weintraub, Neale, & Liebert, 1975).

Jaenicke et al. (1987) found that school-age children of depressed mothers had a more negative self-concept and a more negative attributional style than children of bipolar, medically ill, or nondepressed, physically healthy mothers. Jaenicke et al. (1987) found that the children of depressed mothers reported a high number of negative self-descriptive

adjectives. These negative self-cognitions and attitudes may contribute to the poor academic performance and poor social competence of children of depressed mothers. A child with low self-regard may be poorly motivated to achieve in school and to seek out new experiences with other children. In addition, Jaenicke et al. (1987) have suggested that the poor self-attitudes found in children of depressed mothers may be a possible mechanism of vulnerability to depression. Indeed, negative self-concept, negative attributional style, and less positive self-schemas are common depressive cognitions in depressed adults.

Research investigating the frequency of psychopathology among children of depressed mothers has indicated that children of mothers with mood disorders have significantly higher rates of clinically diagnosable depression than do other groups of children (Billings & Moos, 1983; Weissman, Prusoff, et al., 1984; Beardslee, Bemporad, Kellar, & Klerman, 1983; Orvaschel, Walsh-Allis, & Ye, 1988; Hammen, 1991). Weissman et al. (1984) found that a variety of DSM-III diagnoses occurred in the children (ages 6-18 years) of depressed parents, at a rate three times that of children of nondepressed parents. The most common disorder was major depression, followed by attention deficit disorder, and separation anxiety disorder. The children of depressed parents also reported a higher rate of suicidal thoughts and suicide attempts than those of nondepressed

parents (Weissman et al., 1984).

Hammen (1991) reported that children of women with affective disorders were more likely than not to experience major disorders at some point in their childhoods. The risk for diagnosable problems was equal for boys and girls, and the presence of multiple diagnoses was more common than one diagnosable disorder in isolation (Hammen, 1991). Interestingly, the offspring of mothers with unipolar depression appeared to be considerably more impaired than the offspring of mothers with bipolar depression, and the children of unipolar depressed mothers were more likely than the children of bipolar depressed mothers to display mood disorders (Hammen, 1991). Downey and Coyne (1990) found that the rate of affective disorder (of any type) was 1.75 times higher in children of unipolar disordered parents than it was in children from the control group.

In summary, studies indicate that children of depressed mothers are at heightened risk for psychopathology and general adjustment problems even in early childhood. There is a growing body of literature indicating that young children of mothers with depressive symptoms have impaired socioemotional and behavioural functioning manifested as internalizing and externalizing problems. While the processes underlying this association are not completely understood, research examining the parenting practises of mothers with depressive symptoms provides some clues about

the processes through which maternal depressive symptoms may contribute to child adjustment difficulties.

How Maternal Depressive Symptoms Affect Child Adjustment

Research on the parenting practices of depressed mothers reflects a growing interest in the interpersonal context of depression (Downey & Coyne, 1990). Parenting is a complex form of social interaction. Interacting with a young child requires sustained effortful behaviour, which is likely to be difficult for depressed mothers. Depressed mothers have been described in the literature as experiencing difficulties in their parenting role that reflect the symptoms of their disorder.

The interactions of depressed mothers with their children. Studies of depressed mothers and their infants have shown that depressed mothers typically show flat affect and provide less stimulation during early interactions with their infants (Field, 1992). Depressed mothers gaze less at their infants' faces, are less active, less playful, and less responsive in face-to-face interactions than non-depressed mothers (Cohn, Campbell, Matias, & Hopkins, 1990). Depressed mothers have been found to be less likely to expand or extend their infant's contributions to an interaction in a child-centred manner (Murray, 1988; as cited in Puckering, 1989).

Furthermore, it appears that depressed mothers often become mentally disengaged during interaction with their

young children (Cox, Puckering, Pound, & Mills, 1987). With their toddler-age children, depressed mothers have been shown to speak less to their children than non-depressed mothers, and they respond more slowly to their children's speech (Cox et al., 1987). Though some depressed mothers may be warm and physically involved with their young children, they are less likely to be involved in extended chains of interaction, or to use complex language involving questions, explanations, and suggestions (Cox et al., 1987). This lower level of interaction between mother and child may have negative effects on a child's social development.

Research has also shown that depressed mothers less frequently provide their young children with appropriate structure, guidance, and rule-enforcement than do other mothers. Depressed mothers have been described as harsh and critical in their discipline and control practises (Webster-Stratton & Hammond, 1988). Both power-assertive and negative psychological methods of discipline, such as guilt-induction and love-withdrawal, are more common in depressed than nondepressed mothers (Zahn-Waxler, Denham, Iannotti, & Cummings, 1992).

However, when Kochanska, Kuczynski, Radke-Yarrow, and Welsh (1987) observed how depressed mothers attempted to influence the behaviour of their 2-and 3-year-old children during interactions, they found that depressed mothers were more likely than nondepressed mothers to avoid confrontation

with their child when control efforts were resisted by the child. Or, if the depressed mother did persist in controlling her child's behaviour, there was less likelihood of a mutually negotiated compromise. Goodman and Brumley (1990) also reported that depressed mothers were observed to avoid punishment and discipline more than nondepressed mothers. However, Cox et al. (1987) found that depressed mothers differed from control subjects in being more likely to respond with control when their 2-year-old children were distressed. In addition, depressed mothers often feel ineffective in dealing with their children and often report more negative perceptions of their children (Field, Morrow, & Adlestein, 1993; Whiffen, 1991).

It is not clear what factors contribute to the different parenting styles exhibited by depressed mothers. It is possible that both controlling and unassertive discipline behaviours are consistent with depressive symptomatology (Kochanska, Kuczynski, & Maguire, 1989). The differences in parenting styles of depressed mothers may be a function of the severity of a mother's depressive symptoms, the chronicity of her depressive symptoms, her personality characteristics, characteristics of the child (e.g. temperament), or the developmental stage of the child. For example, a mother who is severely depressed and incapacitated may not have the energy to express hostility, but instead may withdraw completely from any form of

interaction, even speech. Depressive symptoms are not always chronic. Quite often a mother may suffer from depressive symptoms or a depressive episode for a limited time period, but then revert back to a more balanced state when the depressive symptoms have lessened or disappeared. The frequency with which these "depressive periods" occur, as well as the length of time that they last, may affect the consistency of parenting behaviour.

In addition, a woman's premorbid personality characteristics may affect how the depression is expressed and, therefore, how it will affect her parenting behaviour. Similarly, characteristics of the child may also affect how depression is expressed in parenting behaviour. A child with a difficult temperament may elicit more irritation and hostility from a depressed mother and exacerbate her coping difficulties, whereas a child with an easy temperament may facilitate withdrawal. In addition, disturbances in the parenting behaviour of depressed mothers may take different forms at different points in the child's development (Weissman & Paykel, 1974). For example, Kochanska et al. (1989) found that depressed mothers displayed a pattern of withdrawal, submissiveness, and avoidance of conflict when their children were toddlers, but when their children were five-years-old they used more direct commands than nondepressed mothers. The stressful demands of a toddler may lead some depressed women to withdraw in order to avoid

confrontation with their child. Interacting with a 5-year-old may be less demanding than interacting with a toddler and the depressed mother may feel free to issue more directives. Interaction with a 5-year-old may be less demanding because the child is more verbal by that age and a mother is better able to issue verbalized directives that the child can comprehend.

Research on the interactions between depressed mothers and their young children has revealed a variety of parenting behaviours that may be detrimental to a child's socioemotional development. In summary, it appears that depressed mothers have difficulties interacting with their children and when mother-child interaction does occur, it is usually negative. The processes that may underlie the association between depressive symptoms and the negative interactions of depressed mothers with their young children will be outlined in the following section.

How depressive symptoms affect parenting. Maternal depression researchers have studied various aspects of the social functioning of depressed mothers. As outlined in the preceding section, a great deal of research has focused on the mother's difficulties with parenting in a positive manner. It has been suggested that depression is associated with impairments in parenting through the negative mood experienced by the mother (Rutter, 1990). Parents' emotions are believed to reflect the quality of the caregiving

environment (Dix, 1991). Negative emotions, such as anger or sadness, are thought to lead to insensitive, abusive, and coercive parenting. Since negative emotions and intense irritability are prominent in the parenting of depressed mothers (Forehand, et al., 1987), negative mood, itself, may be an important situational determinant of parent behaviour that may contribute to the development of dysfunctional parent-child interaction (Jouriles, Murphy, & O'Leary, 1989).

It has been suggested that mood influences the type of attributions that mothers make about their children's behaviour (Patterson, 1982; cited in Jouriles et al., 1989; Dix, 1991). Specifically, Patterson (1982) has suggested that mothers in negative moods are more likely than other mothers to make negative attributions. Negative attributions, in turn, will increase the likelihood of negative parent behaviours directed toward the child (e.g. criticism). Dix, Reinhold, and Zambarano (1990) found that angry mothers expected their children's behaviour to be more negative and perceived their children's current problems as more serious than mothers who were in happy or neutral moods. Negative attributions, in turn, are likely to increase negative maternal behaviours toward the child, as well as lead directly to a negative shift in affect expressed toward the child (Cohn et al., 1990). In addition, negative maternal mood and irritability may lower a mother's

threshold of tolerance for aversive child behaviour (Schaughency & Lahey, 1985), and may diminish her sensitivity and responsivity to her children's cues and needs (Cox et al., 1990). As a result, negative moods may result in depressed mothers being more critical and controlling of their children's behaviour.

Alternatively, negative mood may lead depressed mothers to withdraw from interactions with their children in order to avoid parent-child conflict (Jouriles, et al., 1989). Jouriles et al. (1989) found that mothers in a negative mood issued fewer positive statements and engaged in less verbal interaction with their young sons than mothers in a positive mood. Thus, maternal mood may play an important role in the association between maternal depression and parenting behaviours.

The syndrome of depression includes symptoms other than negative moods. Depression has been associated with withdrawn behaviour, submissiveness, loss of energy, diminished ability to concentrate, and inability to outwardly express anger (Kochanska, et al., 1989; Jouriles et al., 1989). These symptoms may contribute to withdrawn parenting behaviour. Intense feelings of guilt and resentment, and sleep disturbances, are also common characteristics of depression (DSM-IV, 1994) that may be associated with irritable and intrusive parent-child interactions.

It is important to note that depression is often accompanied by family factors that have been correlated with negative parenting behaviour. For example, there is a high incidence of marital discord in families with a depressed mother (Gotlib & Hooley, 1988; Rutter & Quinton, 1984). Marriages in which one spouse is depressed have been characterized by less self-disclosure, less problem-solving behaviour, and higher rates of aggressive behaviour between the parents (Biglan et al., 1985). However, it is not clear whether marital discord is an antecedent or a consequence of depression.

The emotional turmoil of marital discord may have detrimental effects on each parent's ability to provide adequate parenting to their child. It has been suggested that an effect on parenting is the critical mechanism by which marital conflict affects children (Fincham, Grych, & Osborne, 1994). Marital conflict can lead to a breakdown of discipline practises, and reduce the emotional availability or sensitivity of parents (Davies & Cummings, 1994). A negative spousal relationship may indirectly affect the relationship between a depressed mother and child by exacerbating her depression and negative mood. Depressed mothers, whose ability to parent may already be impaired, may respond to marital discord by being even more rejecting or insensitive with their children. Lack of support from a spouse may also intensify maternal depressive symptoms

(Crockenberg, 1981), and a high frequency of negative interactions between spouses may intensify feelings of irritability that may extend to mother-child interactions. Thus, it is possible that marital discord may contribute to the association between maternal depression and negative parenting behaviour.

In summary, it appears that there is a variety of factors that contribute to the way in which depression will manifest itself in parenting behaviour. There have been some attempts at linking particular parenting styles to particular child adjustment problems. The following section will discuss how the parenting behaviour of a depressed mother may lead to child adjustment problems.

How the parenting of depressed mothers affects child adjustment. A depressed mother whose caregiving is angry and harsh might have a different impact on a child's self-esteem and behaviour than one who is characteristically apathetic and withdrawn (Gelfand & Teti, 1990). Internalizing and externalizing problems in children may be associated with parenting patterns of overcontrol and undercontrol, respectively (Zahn-Waxler et al., 1990). It is possible that depressed mothers who are predominantly hostile and intrusive may be overcontrolling in their parenting behaviour; their children may develop internalizing problems such as social withdrawal and depression. In contrast, depressed mothers who are predominantly withdrawn and

disengaged may provide their children with low control; their children may develop externalizing problems such as aggression and conduct disorder.

Although internalizing and externalizing problems are clearly different patterns of behaviour, the underlying socioemotional processes within the child may be quite similar. The child who exhibits internalizing behaviour may be experiencing feelings of sadness and fear due to the rejecting, hostile, and overcontrolling behaviour of the predominantly intrusive depressed mother. The child who exhibits externalizing behaviour may be experiencing a great deal of sadness and anger due to the rejection and emotional neglect of the withdrawn depressed mother. Both types of behavioural problems may be rooted in feelings of insecurity resulting from the mother's depression and consequent unresponsiveness. Research linking maternal depression to insecure attachment in children provides some indirect support for this hypothesized scenario.

It appears that the interaction styles of depressed mothers described above may foster insecure attachments in their children. Attachment theory suggests that certain characteristics of mothering are required in order for a secure attachment to develop. These include responsiveness to the child's cues and needs, consistency in responding, emotional availability, and a warm and accepting attitude toward the child (Ainsworth, Blehar, Waters, & Wall, 1978).

However, research has indicated that depressed mothers are disproportionately less likely to display these behaviours (Maccoby & Martin, 1983), which may contribute to insecure attachments in their children.

Indeed, research findings tend to support this prediction. Radke-Yarrow et al. (1985) studied the patterns of attachment in 2- and 3-year-old children of depressed mothers and nondepressed mothers. Children of mothers with major depression (unipolar or bipolar) were more likely to be insecurely attached than children of mothers with minor depression or with no history of affective disorder. The children of mothers with bipolar depression were more than twice as likely to be insecurely attached as children of normal mothers. Teti, Gelfand, Messinger, and Isabella (1995) also found that maternal unipolar depression was linked to insecure attachment in young children. In this study of depressed mothers and their children, 80% of infants and 87% of preschoolers displayed insecure attachment patterns (Teti et al., 1995). Finally, Rubin et al. (1991) found that, at age two, children of depressed mothers tended to have more insecure attachment relationships with their mothers than children of nondepressed mothers.

Insecure attachment relationships in infancy and toddlerhood may, in turn, be associated with later displays of internalizing and externalizing behaviour problems. Rubin

et al. (1991) suggested that insecure attachment in infancy may be associated with internalizing problems, such as socially anxious and withdrawn behaviours, in early childhood. These researchers found that insecure attachments with depressed mothers at age two were modestly associated with indices of social inhibition with peers at age five. Social inhibition could be behavioural evidence of the felt insecurity that children of depressed mothers may experience (Rubin et al., 1991).

The toddler and preschool years are a critical period for the expansion of relationships beyond the family setting. Maladaptive behaviour patterns (both withdrawn and aggressive) shown by children toward peers may evolve from disturbed interactions and insecure attachment with a depressed mother during the early years of life. These maladaptive behaviour patterns, in turn, may lead to rejection, neglect, and unpopularity in the peer group (Zahn-Waxler et al., 1992). The association between inadequate peer relations and the later development of psychopathology is well-documented (Zahn-Waxler et al., 1992).

In summary, it has been argued that depressive symptoms have an impact on the parenting style of mothers, and that the child adjustment difficulties observed in young children of depressed mothers may be related to the parenting styles of depressed mothers. The research findings indicate that

depressed mothers may be withdrawn, unresponsive, and/or irritable and coercive. Research also suggests that as a result of these patterns of interaction, depressed mothers foster insecure attachments in their children which may also be associated with child adjustment problems.

However, despite the evidence that maternal depressive symptoms are related to child adjustment difficulties, there are those children who do not suffer ill effects (Gelfand & Teti, 1990; Cummings, 1995; Carro et al., 1994). There may be environmental characteristics that serve to protect these children and foster resilience in spite of the risk. Radke-Yarrow et al.(1985) reported that there was a higher frequency of insecure attachments among children of depressed mothers whose fathers were absent (did not live with the mother and child) than children whose fathers lived with them. Bowlby (1969) has suggested that the effects of physical separation on attachment relationships depends in part on the physical availability of alternative figures during separation. The findings of Radke-Yarrow et al. (1985) suggest that, in the case of maternal depression when the mother may be emotionally unavailable, an alternative paternal attachment figure may be important in fostering child security. Therefore, the father may be particularly important in moderating the negative effects of maternal depressive symptoms on child adjustment. The parenting style of the father may be a factor within the family environment

that contributes to the healthy adjustment of some children of depressed mothers.

The Father's Role in Determining the Effects of Maternal Depressive Symptoms

Studies of maternal depression that include fathers in their investigations have mostly focused on the contributing effects of paternal psychological disturbance (Carro, Grant, Gotlib, & Compas, 1994; Goodman Brogan, Lynch, & Fielding, 1993), and the effects of the presence or absence of fathers (Radke-Yarrow et al., 1985), on child adjustment. Fewer studies have investigated the direct moderating effect of the father's parenting behaviour on child adjustment.

The Father's Role in Child Development

While fathers seem to be increasing their involvement with their children and moving towards more equal participation with their spouses in the care and rearing of children, the majority of fathers still spend less time than mothers do interacting with their children (Parke, 1995). However, research has shown that fathers are just as competent as mothers in caring for infants and children (Parke, 1995). In spite of spending less time than mothers in caregiving activities, fathers have been found to be just as sensitive and responsive to infant cues as mothers (Parke and Sawin, 1975; as cited in Parke, 1995). As well, most infants form attachments to both their mothers and their fathers at roughly the same age (Lamb, 1977).

Some important differences between maternal and paternal style have been identified. Mothers' interactions tend to be centred around caretaking, whereas fathers' interactions are characterized more by play, especially physically stimulating play. Fathers' socialization behaviour has been thought to account more for sex-typing in children's behaviour than mothers' behaviour. Fathers make a greater distinction than mothers between sons and daughters, and fathers are more concerned than mothers with transmitting to the child the norms and expectations of the world outside of the family (Siegal, 1987).

With respect to the play aspect of the father-child relationship, some research has suggested that, through play, fathers contribute in unique ways to children's social development. For example, MacDonald and Parke (1984) found that fathers who exhibited high levels of physical play with their 3- and 4-year-old children, and elicited high levels of positive affect in their children during play, had children who received the highest ratings of peer popularity from their teachers. Fathers' level of directiveness may be another important aspect of father-child interaction. Parke (1995) suggests that fathers with low levels of directiveness allow their children more opportunity to regulate the pace of play interactions; this, in turn, allows a child to learn how to recognize and send emotional signals during social interactions. Consistent with this idea,

MacDonald and Parke (1984) found that boys whose fathers were both highly physical and low in directiveness received the highest popularity ratings, and boys whose fathers were highly directive received lower popularity ratings. Therefore, the father's role as a play partner may be important in the child's social development.

In summary, even though fathers spend less time than mothers interacting with their children, they do have an impact on their children's socioemotional development. Thus, the quality of father-child interaction may be an important factor in the adjustment of children with mothers suffering from depressive symptoms.

Paternal Parenting Style as a Moderating Factor

Maternal depressive symptoms can be viewed as a stressor to the child. As is the case with adults, the availability of a support system helps to buffer the effects of stress on children (Luthar & Zigler, 1991). A good relationship with at least one parent is a support system that has been found to protect a child from the adverse effects of family-related stressors or disruption (Rutter, 1987). Research has shown that the most frequently reported correlate of resilience for children living with a parent with a mental disorder is a warm relationship with an adult within or outside the family (Fischer, Kokes, Cole, Perkins & Wynn, 1987). For children living with a mother suffering from depressive symptoms, a positive relationship with the

father may serve a similar protective function.

Goodman et al. (1993) investigated the effect of paternal psychological disturbance on the adjustment of children of depressed mothers. These researchers administered self-report measures of self-concept, perceived self-control, and social competence to children of depressed mothers. The children were between 5 and 10 years of age. Two groups of children were compared: one in which some form of psychological disturbance was present in the father and one in which it was absent. Paternal psychiatric status explained much of the variability in children's socioemotional development. In the absence of paternal disturbance, children of depressed mothers differed little in their socioemotional competence from children of nondepressed mothers; only in the presence of paternal disturbance did children of depressed mothers evidence socioemotional difficulties. Thus, psychopathology in fathers may provide a context in which children of depressed mothers may show lower socioemotional competence. This is an important finding, considering that spouses of depressed mothers often report high rates of depressive symptoms themselves (Downey & Coyne, 1990). Depression in adults is associated with the selection of partners who are also psychologically disturbed, most likely depressed (Quinton, Rutter, & Liddle, 1984), or with the eventual development of psychopathology (often depression) in a previously well

spouse as part of an interactional process (Coyne et al., 1987). Thus, fathers may contribute significantly to the effects of maternal depression through their own psychological disturbance.

Conversely, fathers who are well-adjusted may buffer the effects of maternal depressive symptoms. The study conducted by Goodman et al. (1993) suggests that the nondisturbed father may play a role in compensating for the depressed mother's deficits in parenting. Surprisingly few studies have examined *how* a well-adjusted father may compensate for the depressed mother's deficits in parenting.

Maternal depression studies that evaluate the parenting style of fathers are lacking. Just because a father is free of depression does not necessarily mean that he is giving his children what they are lacking from their relationship with their depressed mother. Some fathers fail to become involved in their parenting role and thus assume an "absent parent" role. Some fathers may be avoiding the spousal conflict that is common in families with a depressed mother and therefore, do not spend a great deal of time with their family. This avoidant behaviour may contribute to less involved paternal parenting. Other fathers who are involved in the physical care and discipline aspects of parenting are, nonetheless, unaware of the emotional needs of their children. They may not be able to provide the child with sensitive, responsive, and consistent caregiving.

In a study of the functioning of offspring of mothers hospitalized for psychiatric disorder, Fisher et al. (1987) attempted to identify family factors that could be associated with positive outcome in children. Because the primary dependent variable in this study was school competence, the study was done with children between the ages of seven and ten years. Child functioning was assessed on the basis of parent, teacher, and peer reports. Using observational data of parent-child interactions, Fisher et al. (1987) reported that the children of affectively disturbed mothers tended to maintain a high level of functioning if their fathers were able to be supportive and express warmth to the children.

Another exception to the dearth of research on the buffering role of fathers is a study by Tannenbaum and Forehand (1994). In this study of young adolescents of mothers with high depressive symptoms, the quality of the father-adolescent relationship was examined to determine whether it moderated the relationship between maternal depressive symptoms and adolescents' externalizing and internalizing problems. The Conflict Behaviour Questionnaire (CBQ), which assesses communication-conflict behaviour, was used to measure the quality of the father-adolescent relationship. When a good father-adolescent relationship existed in the presence of high maternal depressive symptoms (i.e., when the father-child relationship was characterized by positive communication), the adolescents had no more

problems than their counterparts in families with nondepressed mothers.

Although correlational, the findings of Fisher et al. (1987) and Tannenbaum and Forehand (1994) at least suggest that supportive and responsive parenting from fathers may compensate for the possible lack of such parenting from depressed mothers. Perhaps the fathers were able to respond to the emotional needs of their children and thus provide them with a sense of security and self-worth. A very interesting finding of the Tannenbaum and Forehand (1994) study is that a good father-adolescent relationship appeared to have a buffering effect on the child even when the parents were divorced and the father did not live with his children. This finding may be evidence that the emotional quality of the father-child relationship is more significant than the amount of time spent together (Tannenbaum & Forehand, 1994).

The mechanisms underlying the protective effect of a warm and supportive father-child relationship are not completely understood. The role of the father may be one of compensation for the depressed mother's parenting deficits. It is possible that fathers provide their children with a secure object of attachment. Bowlby (1969) has suggested that the effect of physical separation on attachment depends in part on the availability of alternative figures during separation. While the depressed mother may be emotionally

unavailable, the father may act as an alternative attachment figure. Children with fathers who are emotionally involved, available, and consistently and appropriately responsive to their needs (Ainsworth, Blehar, Waters, & Wall, 1978) may develop a secure attachment to their father. Such children will develop an internal working model of themselves as worthy of love and attention. This high self-esteem may serve to protect the child from the detrimental effects of the mother's depressive symptoms (Rutter, 1987). A positive internal working model of the father will also promote the development of social competence. Indeed, Main and Weston (1981) found that infants who were insecurely attached to mothers but securely attached to fathers, were more sociable with a strange adult than infants who were insecurely attached to both parents. Thus, it may be that, from early in life, children may be protected from the effects of maternal depression when fathers are involved and provide sensitive-responsive parenting characterized by emotional availability and consistent and appropriate responsiveness to the child's needs.

Fisher et al. (1987) and Tannenbaum and Forehand (1994) both found evidence for the buffering effect of fathers on the negative effects of maternal depression in school-age children and adolescents. More research needs to be done to examine the processes underlying the father's buffering effect and to determine whether these processes vary with

age of the child. Given the possibility suggested above, that the father's involvement and ability to promote a secure attachment may play an important role, it seems reasonable to suggest that involved and sensitive-responsive fathers may moderate the effects of maternal depressive symptoms early in their children's lives.

Purpose of the Study

It appears that fathers have the potential to buffer the negative effects of maternal depressive symptoms on child functioning. The objective of the proposed study was to examine the direct effects that fathers may have on child adjustment early in life. More specifically, the purpose of the proposed study was to determine whether a supportive paternal parenting style can moderate the negative effects of maternal depressive symptoms on early child socioemotional adjustment. In keeping with the evidence suggesting that an important way in which fathers may buffer their children is through involvement with their children and the ability to promote the development of a secure attachment, supportive parenting was defined as involvement with the child and a sensitive-responsive style of parenting.

Hypotheses

On the basis of the evidence reviewed above suggesting that fathers may moderate the effects of maternal depression through the style of their parenting (Tannenbaum & Forehand,

1994; Fisher et al., 1987), the following hypothesis was tested: children who have a mother with depressive symptoms and receive supportive parenting from their fathers will score lower on measures of child behaviour problems than children who have a mother with depressive symptoms and do not receive supportive parenting from their fathers.

On the basis of this hypothesis, the following predictions were made.

Prediction 1

In keeping with the evidence outlined above, which suggests that maternal depressive symptoms are associated with behavioural and socioemotional problems in children (Forehand et al., 1987; Jouriles et al., 1989), it was expected that significant positive correlations would be found between maternal depressive symptoms and child adjustment difficulties.

Prediction 2

On the basis of evidence reviewed above indicating that fathers play an important role in their children's development (e.g., Parke, 1995), a significant inverse relationship between paternal supportive parenting and child adjustment difficulties was predicted. Children with a father who provides supportive parenting were expected to score significantly lower on indices of child adjustment problems than children with a father who does not provide supportive parenting.

Prediction 3

Central to the hypothesis of the study, and on the basis of the evidence reviewed above suggesting that fathers may moderate the effects of maternal depressive symptoms through the style of their parenting, a significant interaction effect was expected between the product of maternal depressive symptoms with paternal supportive parenting and child adjustment difficulties.

Exploratory Analysis

Given the evidence that maternal depression has negative effects on husbands (e.g., Coyne et al., 1987), and possibly their parenting behaviour, an additional, exploratory analysis was conducted in order to determine whether, and how, maternal depressive symptoms may be related to paternal supportive parenting. While the available evidence indicates that they tend to be inversely related, the hypothesis of the present study implies that maternal depressive symptoms can be accompanied by paternal supportive parenting. It was therefore of some interest to assess the strength of the relation between maternal depressive symptoms and paternal supportive parenting and determine whether the direction is negative or positive.

Method

The study was done with data gathered as part of a larger study of familial factors that may contribute to the development of internalizing and externalizing problems in

girls. Since the larger study focused on girls, the present study was an investigation of the father's role in moderating the development of adjustment difficulties in daughters of mothers exhibiting depressive symptoms.

Sample

A total of 107 three-year-old girls and their parents participated in the study. The families were recruited through the Manitoba Health Services Commission (MHSC), with the exception of 10 recruited through word-of-mouth. The MHSC, which administers the provincial medicare program, provided a random sample of 600 two-parent families residing in Winnipeg, who had a daughter between 38 and 45 months of age. Families were sent a letter describing the study and inviting them to participate. In order to obtain a measure of child adjustment from a source outside of the family, only families who had a daughter attending day care or nursery school were invited to participate. In order to obtain as broad a sample as possible and to encourage the participation of fathers, families were paid 100 dollars for their participation.

The majority of the parents in the sample were between the ages of 30 and 39 years; 79% of the mothers and 78% of the fathers fell within this age range. The majority of the sample reported an education level higher than high-school (68% of mothers and 56% of fathers). Most families (73%) reported a family income above $50,000. In summary, the

majority of the sample was well-educated and middle to upper-middle class.

Procedure

Potential participants were sent a letter describing the study and inviting them to participate (see Appendix 1). Parents were asked to indicate whether they would accept or decline the invitation by returning a stamped return postcard. Parents who accepted the invitation made a visit to the University of Manitoba.

The visit took place in the Child Development Centre in the Department of Family Studies. The family had contact primarily with one member of the research team who received the family and met with them in an interview room to explain the purpose of the study, to describe the procedure that would be followed, and to establish rapport. Informed written consent was obtained at this time from both of the parents (see Appendix 2).

During the three-hour university visit, the family participated in a number of different activities that were not pertinent to the present study. At the conclusion of the visit, the parents were given two identical sets of questionnaires which included the measures used in the present study. The parents were asked to complete the questionnaires at home, within a week if possible, and to return them by mail in a stamped return envelope. The parents were asked to work on the questionnaires separately

in order to be sure that their answers reflected their personal views. Because the questionnaires took about three hours to complete, it was suggested that they take frequent breaks rather than try to complete all of the questionnaires in one sitting. The parents were also given a letter and a questionnaire to take to the child's daycare or nursery school teacher (see Appendix 3).

The measures relevant to the proposed study are described below.

Assessment of Maternal Depressive Symptoms

Depressive symptoms were assessed with the Beck Depression Inventory (BDI; Beck & Steer, 1993; see Appendix 6). Both mothers and fathers were assessed, as it was thought that the effects of maternal and paternal depression may be confounded. If so, it would be possible to control for this statistically by including paternal depressive symptoms as a covariate.

The BDI has been widely used by researchers to screen for depression in a nonclinical population. It consists of 21 items, each consisting of four statements describing a symptom in differing levels of intensity. The respondent chooses the statement that most applied to them during the previous week. For example, one item describes depressed mood: "I do not feel sad", "I feel sad", "I am sad all the time and I can't snap out of it", "I am so sad or unhappy that I can't stand it". The 21 items (in order of appearance

on the BDI) describe mood, pessimism, sense of failure, lack of satisfaction, guilt feelings, sense of punishment, self-dislike, self-accusation, suicidal wishes, crying, irritability, social withdrawal, indecisiveness, distortion of body image, work inhibition, sleep disturbance, fatigability, loss of appetite, weight loss, somatic preoccupation, and loss of libido.

The BDI has been shown to be a highly reliable and valid measure of severity of depression. Test-retest reliability correlations between pretest and posttest administrations of the BDI for varying time intervals for nonpsychiatric patients range from .60 to .90 (Beck, Steer, & Garbin, 1988). With regard to the internal consistency of the BDI, a review of 25 studies employing the BDI with psychiatric and nonpsychiatric populations reported that for nine psychiatric populations, the coefficient alphas ranged from .76 to .95. Within the 15 nonpsychiatric populations, the range was from .73 to .92 (Beck, et al., 1988).

The concurrent validity of the BDI with respect to other measures of depression is high. Beck et al. (1988) reviewed 35 studies that reported correlations between the BDI and a variety of concurrent measures of depression. The mean correlation coefficient between clinical ratings and the BDI ranged from .55 to .96 for psychiatric patients. The mean correlation coefficient between the clinical ratings and the BDI for nonpsychiatric samples was .60. The BDI also

has concurrent validity with a variety of other measures of depression, such as the MMPI Depression Scale, the Hamilton Psychiatric Rating Scale for Depression, and the Zung Self-reported Depression Scale (Beck et al., 1988).

The construct validity is strong. The BDI detects a number of hypothesized relationships between physiological, behavioural, and attitudinal variables indicative of depression (Beck et al., 1988). In addition, the BDI has been shown to discriminate between psychiatric and nonpsychiatric samples and between different types of affective disorders (e.g., between major depressive disorder and dysthymic disorders) (Beck et al., 1988).

The BDI is most often self-administered. The symptom statement selected in each item is scored from 0 to 3, with 0 representing the lowest-intensity symptom or attitude, and 3 representing the highest-intensity symptom or attitude. Therefore, scores on the BDI can range from 0 to 63. The following cut-off scores are used to diagnose patients with an affective disorder: none or minimal depression is less than 9; mild depression is 10-16; moderate depression is 17-29; and severe depression is 30-63 (Beck & Steer, 1993).

Assessment of Child Adjustment Difficulties

Children's adjustment difficulties were assessed using two measures. It has been shown that assessments by different informants tend to be moderately correlated (e.g. Achenbach, McConoughy, & Howell, 1987). This suggests that

while different informants are fairly consistent with one another they also provide unique information to some degree, and hence that the most valid assessment is provided by the use of multiple informants. For this reason, children's socioemotional behaviour was assessed by one teacher and both parents.

Teacher ratings. A day care or nursery school teacher who was familiar with the child was asked to complete the short form of the Preschool Socioaffective Profile (PSP; LaFreniere, Dumas, Capuano, Coutu, & Giuliani, 1993; see Appendix 4). The PSP assesses the socioemotional functioning of children between two and six years of age. It consists of 30 items, each describing socioemotional behaviour. Each item is rated on a six-point scale reflecting the frequency of the behaviour, with the following anchor points: Never (1), Sometimes (2 or 3), Often (4 or 5), and Always (6).

The long form of the PSP consists of eight 10-item scales, with five items describing successful adjustment and five items describing adjustment difficulties. Three of the scales assess emotional expression: Joyful-Depressive, Secure-Anxious, and Tolerant-Angry. Three of the scales describe peer relations: Integrated-Isolated, Calm-Aggressive, and Prosocial-Egotistical. Finally, two of the scales describe teacher-child relations: Cooperative-Oppositional and Autonomous-Dependent. Each of the eight scales has been found to clearly differentiate between

clinical and non-clinical samples (LaFreniere, Dumas, Capuano, & Dubeau, 1992). Interrater reliability for each of the eight scales has been found to be uniformly high, ranging from .72 to .89. The internal consistency (Cronbach's alpha) of each scale is high, ranging from .79 to .91. In a sample of 29 subjects, the test-retest reliability for each scale over a two-week period ranged from .74 to .87 (LaFreniere et al., 1992). Concurrent validation of the PSP is established by substantial correlations with Child Behaviour Checklist-The Teacher Report Form (Edelbrock & Achenbach, 1984) and the ability of each scale to differentiate a smaller clinical sample from the complete sample. Construct validity has also been demonstrated with respect to classroom social participation and peer sociometrics (LaFreniere et al., 1992). Factor analyses yielded three factor scales. The first factor, Social Competence, is comprised of the eight positive item-clusters. The second factor, Externalizing Behaviour, is comprised of four negative item-clusters (angry, aggressive, egotistical, oppositional). The third factor, Internalizing Behaviour, is comprised of the four remaining negative item-clusters (depressed, anxious, isolated, dependent).

A short form of the PSP was developed by selecting the ten items from each factor that had the highest factor loadings (LaFreniere et al., 1993). The internal consistency of the eight scales on the short form of the PSP has been

shown to be high, as indexed by Cronbach's Alpha (range: .77-.92). High test-retest reliability over two weeks, with estimates ranging from .78 to .91, has also been demonstrated (LaFreniere et al., 1993).

Factor scores are computed by summing the ratings for the 10 items in each factor. These factor scores can range from 10 to 60, with low scores representing better socioemotional functioning. Only scores on Internalizing and Externalizing were analyzed in the present study.

Parent ratings. Mothers and fathers independently completed the Child Behavior Checklist (CBCL/2-3; Achenbach, Edelbrock, & Howell, 1987; see Appendix 5). It consists of 99 items describing behavioural and emotional problems that parents can assess with a minimum of inference. Respondents are instructed to rate the items as follows: "For each item that describes the child now or within the past two months, please circle the 2 if the item is very true or often true of the child. Circle the 1 if the item is somewhat or sometimes true of the child. If the item is not true of the child, circle the 0." (Achenbach et al., 1987). Examples of items include: "Aches and pains without medical cause", "Avoids looking others in the eye", and "Unhappy, sad or depressed".

Factor analyses of the CBCL/2-3 resulted in the identification of six narrow-band syndromes of problems: Social Withdrawal, Anxious/Depressed, Somatic Problems,

Sleep Problems, Aggressive, and Destructive. Second-order factor analyses of the six syndrome scales yielded an Internalizing factor comprised of Social Withdrawal and Anxious/Depressed, and an Externalizing factor comprised of Aggressive and Destructive. The two remaining syndromes, Somatic Problems and Sleep Problems, were not strongly associated with either the Internalizing or Externalizing grouping.

In a sample of 61 children, the test-retest reliability for these six scales, over a one-week period, ranged from .79 to .92, with a mean of .87. A one-year test-retest analysis with a sample of 73 children showed a mean of .69 (Achenbach et al., 1987). Crawford and Lee (1991) also reported significant test-retest reliability over a period of four-to-six weeks, especially for the total behaviour problem score and the two broad-band scores. The discriminant validity of the CBCL/2-3 has also been established, with clinically referred children scoring higher than nonreferred children on all the scales (Achenbach et al., 1987).

Scores are computed by summing the numbers that the respondent has circled. The total scale score can range from 0 to 196. For the present study, only scores from the Internalizing and Externalizing broad-band factors were used. Summary scores for the Internalizing broad-band factor can range from 0 to 50. Scores for the Externalizing broad-

band factor can range from 0 to 52. A low score on the CBCL-2/3 represents a child with few behaviour problems.

Aggregate Indices of Child Adjustment Problems. There has been some debate about the accuracy of depressed mothers' reports about their children's behaviour (see Richters, 1992, for a review; Breslau, Davis, & Prabucki, 1988; Whiffen, 1990; Field, Morrow, & Adelstein, 1993). There is some evidence to suggest that depressed mothers tend to overreport problem behaviours in their children. On the other hand, it has been argued that the elevated rates of child behaviour problems reported by depressed mothers may indicate that they more accurately report child behaviour problems than nondepressed mothers (Field et al., 1993; Richters, 1992; Hammen, Burge, & Adrian, 1990; Conrad & Hammen, 1989). Conrad and Hammen (1989) use the notion of "depressive realism" in explaining depressed mothers' perceptions of their children's behaviour. "Depressive realism" refers to the theory that nondepressed adults hold more positive views of events than warranted by reality, whereas depressed adults aren't as "protected" by positive, but unrealistic perceptions. Evidence to support this argument is found in studies demonstrating that children of depressed mothers are also more likely to be rated as maladjusted by the nondepressed spouses of depressed mothers (Billings & Moos, 1985) and by teachers (Weintraub, Neale, & Liebert, 1975). This suggests that their perceptions are not

coloured by their depression in and of itself. Consistent with this, in the present study, a paired *t*-test showed that depressed mothers (those scoring at or above 9 on the BDI) did not tend to score their children any lower in adjustment difficulties than nondepressed fathers (for internalizing: $t(28) = .52$, p = *ns*; for externalizing: $t(30) = -.05$, p = *ns*).

As Tables 1 and 2 show, correlational analyses revealed that mother, father, and teacher reports of child adjustment problems were significantly intercorrelated. The strength of the correlations was quite comparable. In particular, the overall correlation between parental ratings was moderately strong and comparable to that reported by other investigators (Achenbach, et al., 1987). On the basis of these significant intercorrelations, and given the evidence indicating that mothers may be just as accurate as other reporters, aggregate indices of Internalizing and Externalizing were computed using all three informants. The scores for Internalizing problems, as reported by the three reporters, were standardized and summed to create a single index of internalizing difficulties. The scores for Externalizing problems were also standardized and summed to create a single index of externalizing problems. Aggregate indices are believed to be more reliable than a mono-source index (Paunonen & Gardner, 1991).

Table 1

Intercorrelations Among Reporters of Child Internalizing Difficulties

Variables	2	3
1. Maternal Report	.45**	.34**
2. Paternal Report	---	.30*
3. Teacher Report		---

* p < .05 two-tailed.

** p < .01 two-tailed.

Table 2

Intercorrelations Among Reporters of Child Externalizing Difficulties

Variables	2	3
1. Maternal Report	.52**	.21*
2. Paternal Report	---	.30**
3. Teacher Report		---

* $p < .05$ two-tailed.

** $p < .01$ two-tailed.

Assessment of Paternal Supportive Parenting

Paternal parenting style was assessed using the Parenting Dimensions Inventory (PDI; Slater & Power, 1987). The PDI is a 54-item self-administered instrument that assesses nine dimensions of parenting. The PDI has nine scales, each of which was designed to assess one of nine parenting dimensions. Three scales assess parental support or warmth (Nurturance, Responsiveness to Child Input, and Nonrestrictive Attitude), three assess parental control (Type of Control, Amount of Control, and Maturity Demands), and three assess parental structure (Consistency, Organization, and Involvement). The PDI items were primarily drawn from the following existing instruments: the Parent Attitude Research Instrument (Schaefer & Bell, 1958), the Block Child-Rearing Practices Report (Block, 1965), the Questionnaire on Parental Attitudes (Easterbrooks & Goldberg, 1984), and the Child-Rearing Practices Questionnaire (Dielman & Barton, 1981). Two of the scales (Nurturance and Nonrestrictive Attitude) were taken from a factor analysis of the Block Child-Rearing Practices Report. The Involvement scale was adapted from an instrument developed by Kobayashi and Power (1984; cited in Slater & Power, 1987). The remaining items and scales were developed by a team of researchers after reviewing the parenting literature and other measures that assess parenting. Separate confirmatory factor analyses were performed to

determine whether each scale tapped one, and only one, parenting dimension. The results of these analyses were used to purify the scales; items that loaded on more than one factor were dropped (Slater & Power, 1987).

The purified PDI scales have been found to be internally consistent, as indexed by Cronbach's alphas ranging from .54 to .79. Two week test-retest reliabilities for each scale ranged from .54 to .83. Predictive validity has also been established by using the PDI to predict children's behaviour problems, as measured by the Child Behaviour Checklist for 4-18-year-olds (Slater & Power, 1987). The construct validity for the PDI was supported through factor analysis and structural equation modelling (Slater, 1986; cited in Slater & Power, 1987). Each item on the PDI loaded on only one of the nine parenting dimensions, even though the parenting dimensions were found to be intercorrelated. Inter-item correlations ranged from .97 to .99 (Slater, 1986; cited in Slater & Power, 1987). Although the PDI was originally developed with parents of school-age children, with the exception of four scales (Maturity Demands, Nonrestrictive Attitude, Organization, and Amount of Control), there is evidence of its reliability and validity with parents of preschool-age children (Power, Kobayashi-Winata, & Kelley, 1992).

Supportive parenting has been defined as involvement with the child and sensitive-responsive parenting comprised

of emotional availability and consistent and appropriate responsiveness to the child's needs. Three scales were used to assess paternal supportive parenting (see Appendix 7 for the items comprising each scale). The first scale, Involvement (commitment to the parenting role and to the fostering of optimal child development), is comprised of six items describing activities that a parent may do with a child. Parents indicate how often they have engaged in each activity with their child in the past month by choosing one of the following response options: Never (0), Once (1), 2-3 Times (2), Once or twice (3), 3-4 Times (4), or 5 times a week or more (5). Scores were summed to provide a total scale score.

The second scale, Nurturance (degree to which the parent provides warmth, affection, support, or an emotional relationship), is comprised of six items describing parental attitudes and behaviours. Parents rate each item with respect to the degree to which it describes them using a scale with the following anchor points: Not at all descriptive of me (1), Slightly descriptive of me (2), Somewhat descriptive of me (3), Fairly descriptive of me (4), Quite descriptive of me (5), and Highly descriptive of me (6). Ratings were summed to provide a total score, with higher scores reflecting greater nurturance.

The third scale, Responsiveness to Child Input (openness to consideration of the child's feelings and

desires when making decisions), is comprised of five items describing parental attitudes and behaviours. Parents rate the self-descriptiveness of each item using the same scale described above for the Nurturance scale. Ratings were summed to create a total score, with higher scores reflecting greater responsiveness.

Fathers' total scores on the three scales were summed to create a total score. The total score could range from 11 to 96, with higher scores representing greater supportiveness.

Results

Preliminary Analyses

Descriptive statistics for the study variables, in their original form, are shown in Table 3. The predictions were tested using correlation and multiple regression analyses. Preliminary analyses were done to determine whether the distributional properties of the variables met the assumptions of these analyses. Correlation and multiple regression analyses require that the assumptions of normality, linearity, homoscedasticity, and multicollinearity are met. Preliminary analyses revealed that there were violations of normality in child internalizing problems, child externalizing problems, maternal depressive symptoms and paternal depressive symptoms. To reduce skewness and kurtosis, child externalizing problems and child internalizing problems were

Table 3

Descriptive Statistics for Study Variables

Variables	n	M	SD	Range
Depressive Symptoms[a]				
Maternal	99	6.92	6.39	0-31
Paternal	101	5.38	5.34	0-29
Paternal Supportive Parenting[b]	100	75.81	8.45	46-91
Child Internalizing Difficulties[c]	105	.07	2.21	-3.7-7.5
Child Externalizing Difficulties[c]	107	.07	2.34	-3.4-8.3

[a]Range of possible values is from 0 to 63.

[b]Range of possible values is from 11 to 96.

[c]Scores are composites of *z*-scores.

logarithmically transformed and maternal depressive symptoms and paternal depressive symptoms underwent square root transformations. The assumptions of linearity, multicollinearity, and homoscedasticity were met.

A univariate outlier analysis was conducted for each variable. One case with an extremely low z score on child internalizing difficulties (SD =.18) was found to be a univariate outlier. Multivariate outlier analyses were also conducted. One case was identified through Mahalanobis distance as a multivariate outlier with $p < .001$ for child internalizing problems. The two outliers were deleted leaving 105 cases for analysis of child internalizing problems. There were no outliers identified for child externalizing problems. Intercorrelations among the study variables are shown in Table 4. An alpha level of .05 was used for all statistical tests.

Test of Prediction 1

The first prediction was that maternal depressive symptoms would be significantly and positively correlated with child adjustment problems. A correlation was computed between total maternal BDI scores and child internalizing scores. As Table 4 shows, there was a significant relationship between maternal depressive symptoms and child internalizing difficulties, $r(79) = .25$, $p = .02$. A second correlation was computed between total maternal BDI scores and child externalizing scores. This analysis revealed a

Table 4

Intercorrelations Among Study Variables

Variables	2	3	4	5
1. Maternal Depressive Symptoms	.20	-.12	.25*	.19
2. Paternal Depressive Symptoms	---	-.35**	.10	.27*
3. Paternal Supportive Parenting		---	-.33**	-.40**
4. Internalizing Difficulties			---	.54**
5. Externalizing Difficulties				---

*p < .05 two-tailed.

**p < .01 two-tailed.

trend towards significance, $r(85) = .19$, $p < .09$. Thus, the prediction was supported, but for internalizing problems only.

Test of Prediction 2

The second prediction was that children with a father who provides supportive parenting would score lower on indices of child adjustment difficulties than children with a father who does not provide supportive parenting. To test the prediction that paternal supportive parenting would be significantly and negatively correlated with child adjustment difficulties, two correlations were computed. The first correlation was computed between paternal supportive parenting and child internalizing scores. There was a significant inverse relationship between paternal supportive parenting and child internalizing difficulties, $r(80) = -.33$, $p = .002$, indicating that the more fathers were supportive in their parenting style, the less their children exhibited internalizing problems. The correlation analysis between paternal supportive parenting and child externalizing scores also revealed a significant inverse relationship between the two variables with $r(87) = -.40$, $p = .006$. Thus, this prediction was supported.

Test of Prediction 3

In order to test the prediction that paternal supportive parenting moderates the predictive relationship between maternal depressive symptoms and child adjustment

difficulties, two hierarchical (forced-entry) regression analyses were conducted. Separate regression analyses were done for the two criterion variables of internalizing and externalizing difficulties. In order to control for the potential confounding effects of paternal depressive symptoms, paternal depressive symptoms were entered first as a covariate. Maternal depressive symptoms were entered into the equation in step two, paternal supportive parenting in step three, and the product of maternal depressive symptoms and paternal supportive parenting in step four. From the magnitude of the correlations between the predictor variables (see Table 4), it appeared that multicollinearity was not a problem. In order to avoid introducing large nonessential correlations between the interaction term and each of its components, the predictor variables were standardized before being entered into the regression equation (Aiken & West, 1991).

Internalizing difficulties. Table 5 displays the results of the regression analysis on internalizing difficulties. The equation accounted for 10% of the variance in child internalizing difficulties (R=.31). When the effect of paternal depressive symptoms was controlled, maternal depressive symptoms were not significantly related to child internalizing difficulties. The sole significant predictor of child internalizing difficulties was paternal supportive parenting (R^2change=.05). The more fathers were supportive

Table 5

Hierarchical Regression for Child Internalizing Difficulties

Step	B	R	R^2 Increment	F
1. Paternal Depressive Symptoms	-.002	.04	.00	.09
2. Maternal Depressive Symptoms	-.37	.09	.01	.30
3. Paternal Supportive Parenting	-.11	.24	.05	2.86*
4. 2 X 3	.39	.31	.04	1.86

*p < .05 two-tailed.

in their parenting style, the less their children exhibited internalizing problems. The regression analysis failed to reveal a significant interaction effect; thus, prediction 3 was not supported for child internalizing difficulties.

Externalizing difficulties. The results of the analysis on externalizing difficulties are shown in Table 6. The equation accounted for 21% percent of the variance in child externalizing difficulties (R=.46). The significant predictors of child externalizing difficulties were paternal depressive symptoms (R^2 change=.00) and paternal supportive parenting (R^2change=.08). The more fathers were depressed, the more their children exhibited externalizing problems. On the other hand, the more fathers were supportive in their parenting style, the less their children exhibited externalizing problems. The interaction effect was not significant, indicating that prediction 3 was not supported for child externalizing difficulties.

Exploratory Analysis

In order to determine whether, and how, maternal depressive symptoms may be related to paternal supportive parenting, a correlation was computed between maternal depressive symptoms and paternal supportive parenting. It revealed a nonsignificant relationship between the two variables, $r(96) = -.12$, $p = .23$. A scatterplot analysis was also conducted. The scatterplot of maternal depressive symptoms and paternal supportive parenting showed a slight

Table 6

Hierarchical Regression for Child Externalizing Difficulties

Step	B	R	R^2 Increment	F
1. Paternal Depressive Symptoms	.04	.35	.00	11.01**
2. Maternal Depressive Symptoms	-.03	.36	.01	2.98
3. Paternal Supportive Parenting	-.06	.46	.08	6.81**
4. 2 X 3	.04	.46	.001	2.40

*p < .05 two-tailed.

**p < .01 two-tailed.

inverse relationship between the two variables. As maternal depressive symptoms increased, there was a slight decrease in paternal supportive parenting scores, thus suggesting that maternal depressive symptoms may have a negative impact on fathers' parenting.

Discussion

The purpose of the present study was to examine the direct effects that fathers may have on child adjustment early in life. In particular, the present study was concerned with whether a supportive paternal parenting style could moderate the negative effects of maternal depressive symptoms on early child socioemotional adjustment. Consistent with the literature showing a range of disturbances in the children of depressed mothers, maternal depressive symptoms were moderately related to child internalizing difficulties. There was not, however, a significant relationship between maternal depressive symptoms and child externalizing problems. Paternal supportive parenting, on the other hand, was strongly associated with both internalizing and externalizing difficulties. Fathers who provided their children with supportive parenting had children who exhibited fewer adjustment problems. However, there was no strong indication that fathers' supportive parenting moderated the relationship between maternal depressive symptoms and child adjustment difficulties. In addition, maternal depressive

symptoms were not strongly associated with paternal supportive parenting. Some fathers seemed able to provide their children with supportive parenting despite their wives' depressive symptoms.

The present study did not yield strong evidence that the presence of a father who is high in supportive parenting is a protective factor against the negative effects of maternal depressive symptoms. These findings are inconsistent with the view that a warm and supportive relationship with an adult within the family serves a protective function for children who live with family-related stressors (Rutter, 1987; Fischer et al., 1987). There may be several possible explanations. One is that the father's effect depends on the developmental level of the child. While fathers may be able to provide their 3-year-old daughters with supportive parenting, this type of interaction may not have as much impact on child development as mothers' parenting style simply because mothers usually spend more time with their children, especially preschool age children (Parke, 1995). While Tannenbaum and Forehand (1994) found that the quality of the father-adolescent relationship was more important in buffering the effects of maternal depressive symptoms than the quantity of time that the father and adolescent spent together, quantity of time spent together may have different implications for the father-preschooler relationship. In essence, the fathers in

the present study may have been very supportive and involved with their children when they were with their children, but they may not have been spending enough time with them to buffer any negative effects of maternal depressive symptoms. Whether the amount of time that fathers spend with their preschoolers is a factor to consider when assessing the father's role in buffering the effects of maternal depression needs to be examined further in future studies.

Another possible explanation why fathers did not buffer the effects of maternal depressive symptoms is that the presumed negative effects of maternal depressive symptoms on the quality of maternal parenting were not present in this sample. The hypothesis was predicated on the assumption that maternal depression interferes with maternal parenting, but that fathers may compensate for this when they are competent parents themselves. Perhaps maternal depressive symptoms had little effect on maternal parenting in the present sample. Most of the women in the present study who were exhibiting depressive symptoms scored within the mild and moderate ranges, indicating that this was a relatively healthy sample of mothers. Many women experiencing depressive symptoms at these levels may be able to function effectively in their parenting role (Zahn-Waxler et al., 1990). This, in turn, should mean that their children show no adverse effects. Indeed, no significant relation was found in the present study between maternal depressive symptoms and child

adjustment difficulties when the effects of paternal depressive symptoms were controlled. Thus, it is possible that no buffering effect was found because there was nothing to buffer. However, since there was no assessment of maternal supportive parenting, it remains but one possible interpretation of the findings.

Despite the lack of evidence for the buffering effect of paternal supportive parenting, the present study did provide strong evidence for the view that fathers play an important role in their children's development. Paternal nonsupportive parenting was associated with child adjustment difficulties (both internalizing and externalizing) and paternal depressive symptoms were as well (specifically with externalizing difficulties). These findings are noteworthy given recent evidence concerning fathers' contributions to child psychopathology (see Phares and Compas, 1992, for a review). There are several studies providing evidence that children of depressed fathers are at an increased risk for a variety of emotional and behavioural problems, and that maternal and paternal depressive symptoms may be equally detrimental for children (Billings & Moos, 1983; Orvaschel et al., 1988; Thomas & Forehand, 1991). Taken together with these studies, the present findings highlight the importance of including the role of paternal depressive states in the study of child behaviour problems.

Interestingly, the link between maternal depressive

symptoms and child adjustment difficulties was significant only for internalizing difficulties, while the link between paternal depressive symptoms and child adjustment difficulties was significant only for externalizing difficulties among 3-year-old girls. This difference is noteworthy given the research concerning the effects of gender on child adjustment problems (e.g., Gelfand & Teti, 1990; Hops, 1995). It has been suggested, for example, that parental depression acts as a stressor, increasing the occurrence of normative age- and sex-related types of problems (Hops, 1995). Thus, whatever type of problem behaviour that is characteristic of a particular gender will be more likely to occur in the presence of stressful parental depression.

Epidemiologic data indicate that boys tend to be more problematic during early or middle childhood, with higher levels of disruptive behaviour problems than girls (Eme, 1979; cited in Hops, 1995). Girls tend to show more problems during adolescence, with higher rates of clinical depression and depressive symptoms from middle adolescence through adulthood (Lewinsohn, Rohde, Seeley, & Fischer, 1993). Research with children and adolescents has consistently indicated that boys tend to respond to familial stressors with externalizing tendencies such as aggression, while girls tend to react more with internalizing tendencies such as withdrawal and distress (Cummings, Lanott, & Zahn-Waxler,

1985; Emery, 1982).

Hops and colleagues have proposed that the pathways from childhood to adolescence to adult pathology are gender-specific and that normative gender socialization may be the cause of gender differences in problem behaviours. For example, these researchers suggest that differential parenting practises encourage achievement-oriented and aggressive behaviour in boys, and more dependent and emotional behaviour in girls. In attempts to deal with stressful family experiences, such as the presence of a depressed parent, these gender-related behaviours may be magnified in children, thus producing the higher rates of externalizing and internalizing disorders for boys and girls, respectively (Hops, 1995). This is consistent with some of the findings of the present study. The association of child internalizing difficulties, but not externalizing difficulties, with maternal depressive symptoms may be attributable, in part, to the early development of a form of stereotypic female responding to stress. This particular finding may also be evidence for the early starting point of the pathway from childhood to adolescence to adult depressive symptoms and disorders in female children of depressed mothers.

The finding that paternal depressive symptoms were associated with child externalizing, but not internalizing, problems is consistent with a small body of research

suggesting that negative paternal characteristics are more consistently related to externalizing than internalizing problems in children (Phares & Compas, 1992). For example, Thomas and Forehand (1991) found that mothers' depressive mood had a significant relationship to adolescent daughters' internalizing problems and that fathers' depressive mood had a weak, though significant, relationship to adolescent daughters' conduct problems.

Thus, it is possible that maternal and paternal disturbances tend to promote different kinds of adjustment problems in girls. It should be noted, however, that in the few studies to date of paternal depression, differential effects on girls and boys have not been examined, and there are almost no studies in which the effects of maternal versus paternal depression on girls versus boys have been examined.

It is possible that maternal and paternal depressive symptoms are manifested in different ways and influence child adjustment through somewhat different processes. For example, it is possible that fathers may manifest their depressive symptoms by exhibiting increased levels of social withdrawal and unresponsiveness that are frequently associated with depression. A predominance of these types of depressive symptoms may explain the externalizing problems in the daughters of depressed fathers. Future research needs to investigate the differential manifestation of depressive

symptoms in mothers and fathers and, more importantly, the differential effects that depressive symptoms have on parenting behaviour and child development. It is also important to investigate the combined effects of differential parenting styles of depressed mothers and depressed fathers on child adjustment.

The mechanisms underlying the effects of paternal factors on child adjustment still need to be clarified and future research needs to generate data that will allow for more specific predictions of how fathers are involved in the development of socioemotional problems in their children. Similar to maternal depressive symptoms, the contributions of fathers' emotional states to child adjustment problems may be the result of fathers' direct interactions with their children as well as through more indirect processes involving stress and marital conflict. The finding in the present study, that fathers' depressive symptoms are related to child externalizing difficulties, underscores the need for more research exploring the role of paternal psychological factors that affect the father-child relationship and child development.

For those children who are exposed to maternal depression in the early years of development, the present study indicates that researchers also need to consider possible sources of protective factors other than the role of the father. Specifically, individual differences in child

temperament and behavioural style are possible sources of resilience to maternal depression. Research on child temperament and resiliency has shown that children with adverse temperamental features (negative mood, low regularity, and low malleability) are more likely than other children to be the target of parental criticism, hostility, and irritability (Rutter, 1987). Rutter (1987) suggests that not all children with a depressed parent will be treated the same; children with difficult temperaments tend to be scapegoated. Possible protective factors within the child need to be investigated more closely in future research on the influence of maternal depressive symptoms on child adjustment.

It is also important that the search for factors that may protect a child from maternal depressive symptoms include factors outside of the parent-child relationship. The mechanisms that most powerfully protect children from maternal depression may well be within the factors that protect mothers from developing depressive symptoms. For example, studies consistently report linkages between maternal depressive symptoms and marital discord (Zahn-Waxler et al., 1990). As mentioned in the literature review, it is still unclear whether child adjustment problems are due to marital discord or parental depressive symptoms. If maternal depressive symptoms are related to marital dissatisfaction or discord, then decreasing marital problems

may lessen maternal depression which may, in turn, have positive effects on parenting and child adjustment problems. It is difficult to know how these two constructs really can be disentangled. Marital satisfaction and marital discord were not included in the present study, so it is difficult to determine whether marital functioning played a part in the presence of child adjustment difficulties.

A related issue concerns the negative effects of maternal depression on husband's functioning as a parent and as a spouse. In the present study, maternal depressive symptoms were not significantly associated with paternal supportive parenting. Some of the fathers seemed able to provide their children with supportive parenting despite their wives' depressive symptoms. Again, this finding may be due to a weak effect of maternal depressive symptoms in a relatively healthy sample, or perhaps, fathers who have established a responsive and sensitive relationship with their children have established a similar kind of relationship with their wives. Spousal support can have a positive influence on the depressed mother's ability to cope by being a source of emotional support and enhancing her sense of well-being. Zur-Szpiro and Longfellow (1982) found that women who reported that they had an emotionally supportive partner also reported fewer feelings of depression and less stress in their role as a parent. - Emotional support from partners is associated with better

communication between mother and child, more nurturance, and more successful maternal control in mother-child interactions (Crnic & Greenberg, 1987; cited in Brunelli, Wasserman, Rauh, Alvarado, & Caraballo, 1995).

A supportive spousal relationship can help a depressed mother's ability to cope by providing instrumental support in the parenting role. A spousal relationship that has a sense of cohesion may also help to diffuse the responsibility for child care and lessen feelings of stress by virtue of the husband sharing the parental role. Furthermore, a supportive spousal relationship may have indirect, though beneficial, effects on the relationship between a depressed mother and her child. By providing support to his wife, a father may have a direct effect on his wife's parenting style and an indirect effect on his child's adjustment. Future studies that evaluate paternal style of parenting together with the emotional quality of the marital relationship in families with a depressed mother would provide valuable information about the possible protective processes underlying the association between maternal depressive states and child adjustment. Including the emotional quality of the marital relationship as a variable in future studies would help improve the ability to explain the variance in child adjustment difficulties.

The present study was limited in several ways and future research is needed to address these shortcomings. A

significant limitation of the present study was that maternal supportive parenting was not included in the regression analyses. This particular limitation could account for the nonsignificant moderating effect of paternal supportive parenting. Without including the variable of maternal supportive parenting, it is difficult to ascertain whether maternal parenting style contributed to the association between maternal depressive symptoms and child adjustment difficulties. Perhaps, in the present study, parenting style was not the mechanism through which maternal depressive symptoms affected child adjustment. Future research exploring the influence of paternal supportive parenting on the relationship between maternal depressive symptoms and child adjustment problems could undoubtedly benefit from including maternal supportive parenting as a variable.

A second limitation of the present study concerns the difficulty in generalizing the results of the study to the entire population of community families with a mother with depressive symptoms. The sample was comprised of families who had a child in daycare. Since all of the sample children were in daycare, it may be safe to assume that most of the mothers were employed or otherwise occupied during the day. All but three of the mothers in the present study were employed; over 60% of the mothers worked more than twenty-four hours a week. These children were, presumably, not

spending as much time with their mothers as children who were at home all day with their mothers. Depressive symptoms may be more severe and more common among non-working mothers. One study reported that as high as 40% of non-working mothers with preschool age children suffer from depression (Weissman, 1987). Children who are spending most of their time at home with a mother who is experiencing depressive symptoms may exhibit more adjustment problems than those children who spend some of their time in daycare, especially if the child in daycare is exposed to the attention of a sensitive and responsive daycare teacher on a consistent basis. Some of the children in the study may have spent even more time with their daycare teacher than their parents. In addition, paternal supportive parenting may not have as great an effect on child adjustment when the child has been spending a great deal more time with her depressed mother than if the child has not been spending a lot of time with her mother, as in the present study. Thus, the results of this study cannot be generalized to the population of children who spend a great deal of their time at home with their mothers. Future research could benefit from exploring the role of daycare and the daycare teacher as a moderating factor in the relationship between maternal depressive symptoms and child adjustment difficulties, especially for those children who attend full-time daycare.

Obviously, the findings of this study can be

generalized only to females. The study will need to be replicated with male preschool age children in order to determine whether fathers' supportive parenting has the same positive effect on boys' adjustment as on girls'. Research has shown that fathers make a greater distinction than mothers between their sons and daughters (Siegal, 1987). Fathers exhibit different socialization behaviour and interaction patterns with their sons than with their daughters, and this may be associated with differential effects on boys' adjustment. The issue of identification with the same-sex parent may also have implications with regard to any buffering effects that occur in the father-son relationship.

In addition, any generalizations to clinically depressed mothers need to be made with caution. The majority of mothers in the present study were in the range of nondepressed to moderately depressed; as such, the study did not provide a test of the impact of clinical levels of depression on early childhood adjustment. Clinically depressed mothers will, more than likely, exhibit more severe symptoms than a community sample of mothers with relatively mild depressive symptoms. The association between maternal depressive symptoms and poor child adjustment should be more pronounced in clinically depressed mothers (Forehand, et al., 1987). Therefore, as suggested earlier, it is possible that paternal supportive parenting would have

a stronger effect on child adjustment in a family with a clinically depressed mother than in a family with a nondepressed mother. Another related issue is that the mothers reported their depressive symptoms only once. Therefore, it is difficult to determine whether their reported symptoms indicate a transient distress or a long-lasting and recurring depression.

Another limitation is that depressive symptoms were the only form of psychopathology assessed in parents and it was impossible to rule out the presence of any other influential personal dysfunction. Quite often, depressive symptoms co-occur with anxiety disorders, physical illness, and/or alcoholism or other substance-related disorders (DSM-IV, 1994). This may have a tremendous impact on parent-child relations and family life in general. Coexisting disorders appear to increase the risk of disorder in children of depressed parents (Merikangas et al., 1988). Therefore, it is difficult to determine whether child adjustment difficulties exhibited by the children in the present study were due to parental depressive symptoms alone.

Finally, a focus on maternal depressive symptoms alone does not convey the entire story in understanding the impact of maternal depressive symptoms on child functioning. The present study did not address the underlying familial processes involved in the association between maternal depressive symptoms and child adjustment difficulties.

Assessment of parent-child triads may help to identify the processes through which maternal depressive symptoms may affect children. Natural observations of depressed mother-father-child interactions may provide many clues to the communication patterns and dynamics of such families. In addition, future studies would undoubtedly benefit from including an objective measure of supportive parenting. The present study was limited because fathers provided self-assessments of their parenting styles that may have been subject to self-promoting biases.

Future research investigating the developmental implications of exposure to maternal depressive symptoms would also be valuable. Longitudinal studies that investigate the interaction effect of maternal depressive symptoms and paternal supportive parenting on child adjustment may help to assess the effects of paternal supportive parenting in deterring long term, stable child problems in families with a mother suffering from depressive symptoms. Maternal depressive symptoms may be present for a transient period of time or they may be indicative of a more permanent state of distress. The length of time that the depressive symptoms are present, the severity of the symptoms, and the developmental stage of the child may have an interactive effect on a child's adjustment. Furthermore, there is evidence suggesting that child adjustment difficulties often persist even when a maternal depressive

episode has subsided (Lee & Gotlib, 1991). Future work may find that the father's role as a supportive parent may be very helpful in preventing stable, long-term, family problems from developing.

In summary, although paternal supportive parenting did not act as a buffer against possible effects of maternal depressive symptoms on child adjustment difficulties, the present study yielded some evidence to suggest that fathers play an important role in child development. The fact that father's supportive parenting was related to child adjustment problems may be of particular importance to the family therapist. Facilitating the father-child relationship may be a way to, at least, reduce or prevent child behaviour problems. It is important for therapists to recognize the need for, and encourage the participation of, fathers in family therapy when treating families dealing with maternal depression.

Further research on the protective effects that fathers may have on child adjustment is needed. Future studies investigating the parenting style of fathers need to include a measure of the amount of time that fathers actually spend with their preschool-age children. Though quantity of time does not appear to be an important factor in the buffering effect of the father-adolescent relationship, it may be very important when investigating the father-preschooler relationship. In addition, future studies will undoubtedly

benefit from investigating the indirect protective effects that fathers may have on the association between maternal depressive symptoms and child adjustment through the provision of spousal emotional support and the maintenance of a cohesive marital relationship.

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Appendix 1. Letter to Parents

THE UNIVERSITY OF MANITOBA FACULTY OF HUMAN ECOLOGY

Human Ecology Building
Winnipeg, Manitoba
Canada R3T 2N2

DEPARTMENT OF FAMILY STUDIES

Tel: (204) 474-9225
FAX (204) 275-5299

October 1994

Dear Mother and Father:

I am conducting a study of children's emotional development in early childhood. We would like to have the assistance of mothers and fathers who have a healthy 3-year-old daughter attending day care or nursery school.

The aim of the project is to better understand the ways in which children learn to deal with their emotions. Since children develop different personalities, child development researchers, teachers, and parents would like to have more information about connections between children's temperaments, learning experiences, and styles of coping with their emotions. We hope you will be able to help us examine these connections by participating in this study.

If you decide to participate, you would make one visit to the University with your child (parking provided), and we would visit you once at home. You would also complete some questionnaires. Two years from now, when your daughter is five years of age, you would once again visit the university with her, and we would once again visit you at home. Because mothers and fathers both play an important role in children's development, it is essential that you both participate in both phases of the study. If you decide to do so, we would be grateful for your help. To compensate you for your time, you would receive a payment of $100.00, half at the end of the first phase, and half at the end of the second phase.

If you participate in the study, the visit you make in each phase would take place in our Child Development Centre, in a large playroom equipped with plenty of toys and two small remotely-controlled cameras. You would be close by your child at all times, and one or two researchers would be present part of the time. After getting acquainted and showing you around, we would videotape your child's reactions to new and

unusual objects and events (e.g., walking along a child-size balance beam, a visit from a clown), to several familiar games (e.g., completing a puzzle, nesting a set of cups, building a tower of blocks), and a minor mishap (e.g., spilling juice). This is so that we can get an idea about your child's temperament and emotional responses. Your child is free to respond to these events in any way, or to choose not to play the games. While we have designed the games to be mildly frustrating, we will quickly dispel any frustration caused by telling your child that we made an error, and by letting her play the games again and giving her lots of praise for her success. The mishap will be handled in the same way, by revealing our mistake and reassuring your child that she did nothing wrong. I should note that children generally have a quite positive experience. We would then leave the room and videotape each of you playing with your child for about 35 minutes. Your child may show you the games she played with the researcher if she wishes; the time would be yours to spend in any way you wish. The entire visit would take about three hours in all, and would be arranged for a time convenient to you. In addition, we would give each of you a set of questionnaires to complete at home and mail to us in a stamped return envelope. It will take about three hours to complete the entire set. In the questionnaires, you would be asked to provide information about your family (e.g., occupation, relationships, circumstances, ways of handling stress), your relationship with your child (e.g., beliefs about why certain situations occur), and characteristics of your child.

The visit you make to the university two years later would be the same, except that sometime during the visit we would read your child some statements (e.g., "Some kids wish they could be a lot better at sports") and ask her how true they are of her.

If you allow us, we would also ask the day care or nursery school your child attends (or your child's kindergarten teacher in the second phase) to complete a checklist of behaviour descriptions by indicating how well each one fits your child (e.g., "easily adjusts to new situations"). Taken together with the information you provide about your child's characteristics, this will allow us to characterize your child's emotional responses.

This project has been approved by the Human Ethics Review Committee of the Faculty of Human Ecology, University of Manitoba. If you decide to participate, the information you provide would be kept confidential and under lock and key with access only by me and my immediate research assistants. Your name would not appear on any of the material and the results would be reported in groups, not individually. At the conclusion of the study, our record of your name and address would be destroyed, and your videotape and audiotape would be erased. If at any time you no longer wished to participate, you would be free to withdraw. If you would like to receive a summary of the results of the study, we will be happy to send you one.

Please let us know whether you wish to participate in the study by mailing the stamped addressed postcard enclosed with this letter. Please check the appropriate statement on the card, and drop it in the mail. If you will be participating, please provide telephone numbers where you can be reached. If you DO NOT wish to participate in the study, please return the enclosed postcard so that we may cross you off our mailing list. (Your name and address appear on the postcard so that we can keep our mailing list up to date and ensure that if you do not wish to participate you will not receive any further correspondence.)

If you have any questions about the study, please contact me at 474-9432. Thank you for your attention.

Sincerely,

Rosemary S. L. Mills, Ph.D.
Assistant Professor

Appendix 2. Consent Forms

THE UNIVERSITY OF MANITOBA FACULTY OF HUMAN ECOLOGY

Human Ecology Building
Winnipeg, Manitoba
Canada R3T 2N2

DEPARTMENT OF FAMILY STUDIES

Tel: (204) 474-9225
FAX (204) 275-5299

Participation Consent Form

Project: Emotional Development in Young Children

Investigator: Dr. Rosemary S. L. Mills

Date: ______________________

ID#: ______________________

Child's name: _______________

We agree to participate in the study of children's emotional development being conducted by Dr. R. Mills. We understand that this involves participating at two ages, when our child is three years old and when our child is five years old.

When our child is three, we will visit the university for about three hours. You will observe our child's reactions to new and strange objects and her reactions to her performance on several tasks. We will each play with our child, complete some questionnaires, and take some additional questionnaires home with us to complete and return by mail.

When our child is five, we will make another two-hour visit to the university identical to the first visit. As well, our child will be read some statements and asked how true they are of her.

We understand that we will receive a payment of $100.00 at the conclusion of each phase

of the study. Notwithstanding, we and our child are free to decline particular activities or omit particular questions should we wish to do so. We are also free to withdraw from the study at any time.
We permit you to contact the day care or nursery school in this phase of the project, and the kindergarten teacher in the second phase of the project, to ask them to assist us by indicating how well certain descriptions fit our child.

Signature of mother: ______________________

Signature of father:_______________________

Appendix 3. Letter to Teachers

THE UNIVERSITY OF MANITOBA Faculty of Human Ecology

DEPARTMENT OF FAMILY STUDIES

Human Ecology Building
Winnipeg, Manitoba
Canada R3T 2N2

Tel: (204) 474-9432
FAX (204) 275-5299

Child: ____________________

Dear Director:

The above-named child, and her parents, are participating in a study of children's emotional development that we are conducting in the Department of Family Studies, here at the University of Manitoba. Her parents have given us permission to write to you in order to ask for your assistance with the project. The aim of the project is to better understand the ways in which children learn to deal with their emotions. Since children develop different personalities, child development researchers, teachers, and parents would like to have more information about connections between children's temperaments, learning experiences, and styles of coping with their emotions.

Some of the information we are gathering concerns how the children in the study relate to other people and cope with emotional situations. This child's parents have given us their written consent to contact you and ask if you would assist us by completing a questionnaire, which involves indicating how well certain descriptions fit her. If possible, we would like two staff members to complete the questionnaire, as we are gathering information from as many different perspectives as we can. These should be staff members who have known this child for at least three months. If there is only one staff member who knows this child, that would be just fine and we would be most grateful for their help.

The questionnaire consists of 30 items, and takes no more than about 10 minutes to complete. I am enclosing the questionnaire (two copies in case there are two staff members who can do it) and a stamped return envelope. If you decide to complete the questionnaire, you can simply mail it to me in the stamped return envelope.

If you decide that you can be of help, we would certainly be grateful. Please be assured that this project was approved by the Human Ethics Review Committee of the Faculty of Human Ecology, University of Manitoba. The information you provide would be kept

confidential, and would be stored in a secure place to which only members of the research team would have access. No individual would be identified in the results.

I or another member of the research team will be phoning you shortly to ask you whether you will be able to consider this request. In the meantime, should you have any questions about the study, please feel free to contact me at 474-9432.

Sincerely,

Rosemary S. L. Mills, Ph.D.
Assistant Professor

Appendix 4. Preschool Social and Emotional Profile (PSP)

Preschool Social and Emotional Profile

Here is a list of statements that concern a child's emotional state. Please circle the number that reflects the frequency of the behaviour that you observe for the child according to the following continuum: The behaviour occurs **NEVER** (1), **SOMETIMES** (2 or 3), **OFTEN** (4 or 5) or **ALWAYS** (6). For those exceptional cases that are impossible to evaluate, please circle CE **(CANNOT EVALUATE)**.

1	2	3	4	5	6	CE
Never	Sometimes		Often		Always	Cannot Evaluate

Item	Rating
1. Maintains neutral facial expression (doesn't smile or laugh).	1 2 3 4 5 6 CE
2. Tired.	1 2 3 4 5 6 CE
3. Easily frustrated.	1 2 3 4 5 6 CE
4. Gets angry when interrupted.	1 2 3 4 5 6 CE
5. Irritable, gets mad easily.	1 2 3 4 5 6 CE
6. Worries.	1 2 3 4 5 6 CE
7. Takes pleasure in own accomplishments.	1 2 3 4 5 6 CE
8. Timid, afraid (e.g., avoids new situations).	1 2 3 4 5 6 CE
9. Sad, unhappy or depressed.	1 2 3 4 5 6 CE
10. Inhibited or uneasy in the group.	1 2 3 4 5 6 CE
11. Screams or yells easily.	1 2 3 4 5 6 CE

Here is a list of behaviours that you may observe while the child is playing with peers. Please circle the number that reflects the frequency of the behaviour that you observe, according to the following continuum: The behaviour occurs **NEVER** (1), **SOMETIMES** (2 or 3), **OFTEN** (4 or 5) or **ALWAYS** (6). For those exceptional cases that are impossible to evaluate, please circle CE **(CANNOT EVALUATE)**.

Item	Rating
12. Forces other children to do things they don't want to do.	1 2 3 4 5 6 CE
13. Inactive, watches the other children play.	1 2 3 4 5 6 CE
14. Negotiates solutions to conflicts with other children.	1 2 3 4 5 6 CE
15. Remains apart, isolated from the group.	1 2 3 4 5 6 CE
16. Takes other children and their point of view into account.	1 2 3 4 5 6 CE
17. Hits, bites or kicks other children.	1 2 3 4 5 6 CE
18. Cooperates with other children in group activities.	1 2 3 4 5 6 CE
19. Gets into conflicts with other children.	1 2 3 4 5 6 CE
20. Comforts or assists another child in difficulty.	1 2 3 4 5 6 CE
21. Takes care of toys.	1 2 3 4 5 6 CE

22. Doesn't talk or interact during group activities. 1 2 3 4 5 6 CE
23. Attentive towards younger children. 1 2 3 4 5 6 CE
24. Goes unnoticed in a group. 1 2 3 4 5 6 CE
25. Works easily in a group. 1 2 3 4 5 6 CE

Here is a list of behaviours that you may observe while the child is interacting with adults (teachers, parents, etc.). Please circle the number that reflects the frequency of the behaviour that you observe, according to the following continuum: The behaviour occurs **NEVER** (1), **SOMETIMES** (2 or 3), **OFTEN** (4 or 5) or **ALWAYS** (6). For those exceptional cases tuat are impossible to evaluate, please circle CE (**CANNOT EVALUATE**).

26. Hits teacher or destroys things when angry with teacher. 1 2 3 4 5 6 CE
27. Helps with everyday tasks (e.g., distributes snacks). 1 2 3 4 5 6 CE
28. Accepts compromises when reasons are given. 1 2 3 4 5 6 CE
29. Opposes the teacher's suggestions. 1 2 3 4 5 6 CE
30. Defiant when reprimanded. 1 2 3 4 5 6 CE

Appendix 5. Child Behaviour Check-List for Ages 2-3 (CBCL/2-3)

This section will take you about 10 minutes to complete. It contains a list of items that describe children. For each item that describes your child now or within the past 2 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0. Answer the items to reflect your view of your child's behaviour. Please answer all the items as well as you can, even if some do not seem to apply to your child.

0 = not true (as far as you know)
1 = somewhat or sometimes true
2 = very true or often true

1. Aches or pains (without medical cause)
2. Acts too young for age
3. Afraid to try new things
4. Avoids looking others in the eye
5. Can't concentrate, can't pay attention for long
6. Can't sit still or restless
7. Can't stand having things out of place
8. Can't stand waiting; wants everything now
9. Chews on things that aren't edible
10. Clings to adults or too dependent
11. Constantly seeks help
12. Constipated, doesn't move bowels
13. Cries a lot
14. Cruel to animals
15. Defiant
16. Demands must be met immediately
17. Destroys her/his own things
18. Destroys things belonging to his/her family or other children
19. Diarrhea or loose bowels when not sick
20. Disobedient
21. Disturbed by any change in routine
22. Doesn't want to sleep alone
23. Doesn't answer when people talk to her/him
24. Doesn't eat well (describe): ____________________
25. Doesn't get along with other children
26. Doesn't know how to have fun, acts like a little adult
27. Doesn't seem to feel guilty after misbehaving

28. Doesn't want to go out of home
29. Easily frustrated
30. Easily jealous
31. Eats or drinks things that are not food
    - don't include sweets (describe):____________

0 = not true (as far as you know)
1 = somewhat or sometimes true
2 = very true or often true

32. Fears certain animals, situations, or
    places (describe): ______________
33. Feelings are easily hurt
34. Gets hurt a lot, accident-prone
35. Gets in many fights
36. Gets into everything
37. Gets too upset when separated from parents
38. Has trouble getting to sleep
39. Headaches (without medical cause)
40. Hits others
41. Holds his/her breath
42. Hurts animals or people without meaning to
43. Looks unhappy without good reason
44. Angry moods
45. Nausea, feels sick (without medical cause)
46. Nervous movements or twitching
    (describe): ____________________
47. Nervous, highstrung, or tense
48. Nightmares
49. Overeating
50. Overtired
51. Overweight
52. Painful bowel movements
53. Physically attacks people
54. Picks nose, skin, or other parts of
    body (describe):______________________
55. Plays with own sex parts too much
56. Poorly coordinated or clumsy
57. Problems with eyes without medical
    cause (describe):_____________________
58. Punishment doesn't change her/his behaviour
59. Quickly shifts from one activity to another

60. Rashes or other skin problems (without medical cause)
61. Refuses to eat
62. Refuses to play active games
63. Repeatedly rocks head or body
64. Resists going to bed at night
65. Resists toilet training (describe): ___________
66. Screams a lot
67. Seems unresponsive to affection
68. Self-conscious or easily embarrassed
69. Selfish or won't share
70. Shows little affection toward people
71. Shows little interest in things around him/her
72. Shows too little fear of getting hurt

0 = not true (as far as you know)
1 = somewhat or sometimes true
2 = very true or often true

73. Shy or timid
74. Sleeps less than most children during day and/or night (describe):____________________
75. Smears or plays with bowel movements
76. Speech problem (describe): _________________
77. Stares into space or seems preoccupied
78. Stomachaches or cramps (without medical cause)
79. Stores up things s/he doesn't need (describe): ____________________
80. Strange behaviour (describe): ___________________
81. Stubborn, sullen, or irritable
82. Sudden changes in mood or feelings
83. Sulks a lot
84. Talks or cries out in sleep
85. Temper tantrums or hot temper
86. Too concerned with neatness or cleanliness
87. Too fearful or anxious
88. Uncooperative
89. Underactive, slow moving, or lacks energy
90. Unhappy, sad, or depressed
91. Unusually loud
92. Upset by new people or situations describe:________________________________

93. Vomiting, throwing up (without medical cause)
94. Wakes up often at night
95. Wanders away from home
96. Wants a lot of attention
97. Whining
98. Withdrawn, doesn't get involved with others
99. Worrying
100. Please write in any problems your child has that were not listed above:

____

____

____

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS

Appendix 6. The Beck Depression Inventory (BDI)

Below are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
   1 I feel I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
   1 I don't enjoy things the way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
   1 I feel guilty a good part of the time.
   2 I feel quite guilty most of the time.
   3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
   1 I am disappointed in myself.
   2 I am disgusted with myself.
   3 I hate myself.

8. 0 I don't feel I am any worse than anybody else.
   1 I am critical of myself for my weaknesses or mistakes.
   2 I blame myself all the time for my faults.
   3 I blame myself for everything bad that happens.

9. 0 I don't have any thoughts of killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.

10. 0 I don't cry any more than usual.
    1 I cry more now than I used to.
    2 I cry all the time now.
    3 I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am.
    1 I get annoyed or irritated more easily than I used to.
    2 I feel irritated all the time now.
    3 I don't get irritated at all by the things that used to irritate me.

12. 0 I have not lost interest in other people.
    1 I am less interested in other people than I used to be.
    2 I have lost most of my interest in other people.
    3 I have lost all of my interest in other people.

13. 0 I make decisions about as well as I ever could.
    1 I put off making decisions more than I used to.
    2 I have greater difficulty in making decisions than before.
    3 I can't make decisions at all anymore.

14. 0 I don't feel I look any worse than I used to.
    1 I am worried that I am looking old or unattractive.
    2 I feel that there are permanent changes in my appearance that make me look unattractive.
    3 I believe that I look ugly.

15. 0 I can work about as well as before.
    1 It takes an extra effort to get started at doing something.
    2 I have to push myself very hard to do anything.
    3 I can't do any work at all.

16. 0 I can sleep as well as usual.
    1 I don't sleep as well as I used to.
    2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
    3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
    1 I get tired more easily than I used to.
    2 I get tired from doing almost anything.
    3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
    1 My appetite is not as good as it used to be.
    2 My appetite is much worse now.
    3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any, lately.
    1 I have lost more than 5 pounds. I am purposely trying to lose weight.
    2 I have lost more than 10 pounds. By eating less: yes ___ no ___
    3 I have lost more than 15 pounds.

20. 0 I am no more worried about my health than usual.
    1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
    2 I am very worried about physical problems and it's hard to think of much else.
    3 I am so worried about my physical problems that I cannot think about anything else.

21. 0 I have not noticed any recent change in my interest in sex.
    1 I am less interested in sex than I used to be.
    2 I am much less interested in sex now.
    3 I have lost interest in sex completely.

Appendix 7. Parenting Dimensions Inventory - Three Scales

I. Involvement Scale

Parents are presented with a list of six types of activities and asked to indicate how often they did them with their child in the past month, by choosing one of the following response options: Never in the past month (0); Once in the past month (1); 2-3 times in the past month (2); Once or twice in the past month (3); 3-4 times a week (4); 5 times a week or more (5).

1. Visit friends or relatives with child.
2. Supervise child playing by himself/herself
3. Help child with a play activity (e.g., painting).
4. Comfort when he/she is upset.
5. Explain something to child.
6. Discipline child.

II. Nurturance Scale

For each of the statments below, parents were asked to indicate how descriptive the statement was of themselves using the following scale:

1. Not at all descriptive of me.
2. Slightly descriptive of me.
3. Somewhat descriptive of me.
4. Fairly descriptive of me.
5. Quite descriptive of me.
6. Highly descriptive of me.

1\. I encourage my child to talk about his/her troubles.

9\. My child and I have warm intimate moments together.

10\. I encourage my child to be curious, to explore, and to question things.

11\. I find it interesting and educational to be with my child for long periods.

16. I make sure my child knows that I appreciate what he/she tries to accomplish.

24. I respect my child's opinion and encourage him/her to express it.

III. Responsivity to Child Input Scale

For each of the statements below, parents were asked to indicate how descriptive the statement was of themselves using the following scale:

1. Not at all descriptive of me.
2. Slightly descriptive of me.
3. Somewhat descriptive of me.
4. Fairly descriptive of me.
5. Quite descriptive of me.
6. Highly descriptive of me.

14. I believe that parents who start a child talking about his/her worries don't realize that sometimes it is better to leave well enough alone. (reverse scored)

15. I encourage my child to express his/her opinions.

19. I believe that most children change their minds so frequently that it is hard to take their opinions seriously. (reverse scored)

21. When I let my child talk about his/her troubles, he/she ends up complaining even more. (reverse scored)

26. I believe that once a family rule has been made, it should be strictly enforced without exception. (reverse scored)