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I am submitting herewith a dissertation written by Karen Lillemor Franck entitled "The Interrelationships among Marital Hostility, Parental Depression, Compromised Parenting Behaviors, and Youth Maladjustment: A Mediated Model." I have examined the final paper copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

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The Interrelationships among Marital Hostility, Parental Depression, Compromised Parenting Behaviors, and Youth Maladjustment: A Mediated Model

A Dissertation

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Doctor of Philosophy

Degree

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Karen Lillemor Franck

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Dedication

To the memory of my grandparents—may the contributions of this generation reflect the wisdom and caring of those who have come before.

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No work of any merit is achieved by one lone individual; therefore, I would like to acknowledge the many people who have helped me throughout the long process of writing this dissertation and my post-graduate training. First, I owe a great debt to my major professor, Dr. Cheryl Buehler, who has been my mentor both professionally and personally and who continues to push me to achieve my professional and personal best. Also, I would like to acknowledge my committee members, Dr. Vey Nordquist, Dr. Brian Barber, and Dr. John Orme, whose guidance and expertise were invaluable. I would also like to thank the staff of the UT Family Life Project for their patience and assistance. Furthermore, I would like to extend my appreciation to the many families who participated in the project—without their invaluable contribution this works would not have been possible.

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Abstract

The purpose of this study was to examine the relationships among marital hostility, parental depressive affect, compromised parenting behaviors, and youth maladjustment. Youth perceptions of compromised parenting behaviors (i.e., harsh behavioral control, psychological intrusiveness, inconsistency, lower acceptance, and less knowledge of the youth's friends and activities) were examined as potential mediators of the associations between marital hostility, parental depressive affect, and youth externalizing and internalizing problem behavior. Questionnaire and observational data were collected from 416 mothers, fathers, and a 6th grade youth. There was evidence that marital hostility and parental depressive affect were related to youth outcomes both directly and indirectly through compromised parenting behaviors, but results differed for mothers and fathers.

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I. Introduction

The purpose of this dissertation is to examine a model of youth maladjustment where marital hostility and parental depressive affect are associated with negative youth outcomes directly and indirectly through compromised parenting behaviors (see Figure 1). Previous research has identified parental depressive affect (see Downey & Coyne, 1990 for a review), marital hostility (Buehler et al., 1997; Buehler et al., 1998; Erel & Burman, 1995), and compromised parenting behaviors (Rothbaum & Weisz, 1994) as important predictors of youth maladjustment. In families where the emotional climate is affected by the aversiveness and volatility of marital hostility or the dysphoria and negativity of parental depressive affect, it is likely that parents have more stressors, fewer emotional resources, less ability to shield their children from negative parental emotions and behaviors, and more difficulty establishing and maintaining a warm, supportive relationship with their child.

In this model, marital hostility and parental depressive affect are identified as two central risk factors for youth maladjustment. Both have been linked with externalizing and internalizing problem behaviors in children. There is strong evidence that children exposed to interparental physical aggression and violence are at an increased risk for clinical levels of problem behaviors (see Cummings & Davies, 1994 for a review). In a review of 20 studies, Grych and Fincham (1990)

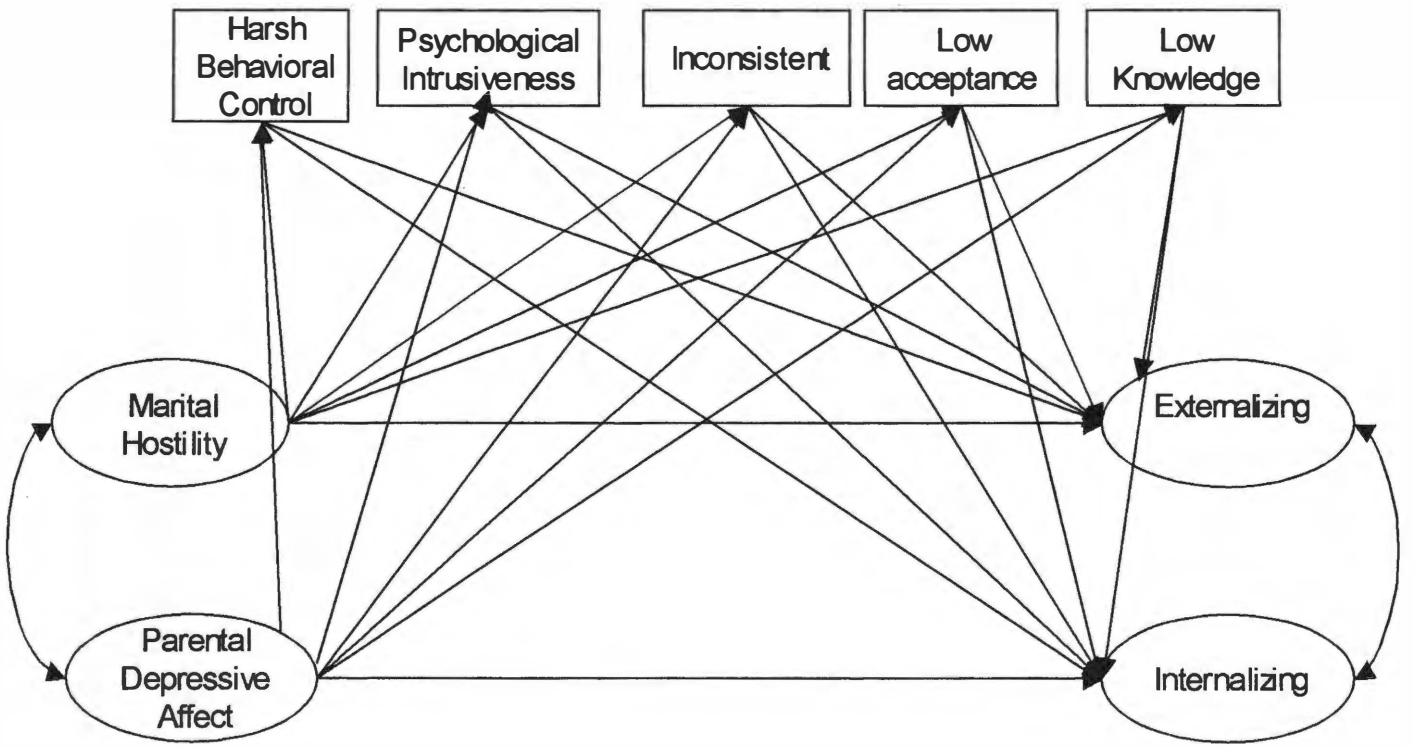


Figure 1. The relationships among marital hostilty, parental depressive affect, compromised parenting behaviors, and youth externalizing and internalizing problem behaviors.

found that children exposed to even less severe forms of marital hostility, such as verbal aggression, were at higher risk for problem behaviors such as aggression, conduct disorders, and depression than were children not exposed to marital hostility. In a meta-analysis of 33 studies, Reid and Crisafulli (1990) found an overall effect size for marital discord and child behavior outcomes of .16, supporting the relationship although the degree of association was low. Another meta-analysis of 68 studies found an effect size of .32 for the relationship between marital hostility and youth maladjustment (Buehler et al., 1997). With few exceptions (Gordis, Margolin, & John, 2001; Grych, Harold, & Miles, 2003), this body of research documents a statistically significant direct association between marital hostility and youth maladjustment.

Like marital hostility, parental depressive affect has been related to various negative outcomes in children, particularly increased risk for depression in childhood and later in adulthood. By age 20, a child with a depressed parent is 40 times more likely to have a major depressive episode than is a child with no depressed parents (Beardslee, Versage, & Gladstone, 1998). In a review of several epidemiological studies, Weissman (1987) found that children of depressed parents were 2 to 3 times more likely to develop depression during childhood compared with children of nondepressed parents. Furthermore, children of depressed parents were more likely to have anxiety disorders, social problems with peers, problems in school, and problems with alcohol and drugs than were children of nondepressed parents. In a longitudinal study, children of

depressed parent(s) were at increased risk for major depressive disorder, anxiety disorders, and poorer overall functioning both at the initial assessment and over time when compared with children of nondepressed parents (Weissman, Warner, Wickramaratne, Moreau, & Olfson, 1997). Several studies have compared children of depressed mothers with other groups, including children of medically-ill mothers, children of mentally ill (but not depressed) mothers, and children of mothers with no diagnoses (Anderson & Hammen, 1993; Gotlib & Lee, 1989; Hammen, 1991; Hammen, Shih, Altman, & Brennan, 2003). In these studies, children of depressed mothers were at increased risk for developing depression compared with children in other groups. One study found that children of depressed mothers were disproportionately at risk for clinical levels of internalizing and externalizing problems compared with children of medically-ill mothers, children of mentally ill mothers, and children of general community mothers (Gotlib & Lee, 1989).

Given the research which indicates the risk potential of these two factors, parental depressive affect and marital hostility are conceptualized in this study as co-varying predictors of youth maladjustment. There is significant evidence that suggests that depression and marital hostility often co-occur in couples (see Prince & Jacobson, 1995 for a review). Weissman (1987) reported that men were 26 times more likely and women were 28 times more likely to have major depression if they were in distressed marriages than if they were in nondistressed marriages. Also, depressed people were more likely to be married

to a depressed spouse, and these dual-depressed families were at increased risk of marital problems and child maladjustment compared to families with only one depressed parent or with no depressed parents. Other studies documented similar relationships between depression and marital discord for both husbands and wives (Christian, O'Leary, & Vivian, 1994; Fincham, Beach, Harold, & Osborne, 1997; Horneffer & Fincham, 1995; Whiffen & Gotlib, 1990) with one study finding that husbands and wives in conflictual marriages were 10 times more likely to report depressive symptoms than were men and women in nonconflictual marriages (O'Leary, Christian, & Mendell, 1994). Beach and O'Leary (1993) found that depressed women were more likely to have discordant marriages than were nondepressed women and these results were consistent over time.

Although marital hostility and parental depressive affect co-occur in these families, there also is evidence that these risk factors might be associated with different negative outcomes in children. There is evidence suggesting that depressive affect is more strongly related to youth internalizing problem behaviors and that marital hostility is more strongly related to youth externalizing problem behaviors. This has been found in two types of studies: studies where only one risk factor (i.e., either marital hostility or parental depressive affect) was examined and in studies where both risk factors were included. In studies where only marital hostility was examined, children generally had problems with externalizing behaviors (Cummings & Davies, 1994; Grych & Fincham, 1990;

Harold, Fincham, Osborne, & Conger, 1997). In studies where only parental depressive affect was examined, children generally had problems with internalizing behaviors, particularly depression (Coyne, Downey, & Boergers, 1992; Downey & Coyne, 1990). In studies that included both marital hostility and parental depressive affect, there was evidence that these specialized associations remain (Davies & Windle, 1997; Fendrich, Warner, & Weissman, 1990).

In sum, it is likely that a model including both marital hostility and parental depressive affect provides a more comprehensive understanding of parental correlates of youth problem behavior than a model including only one of these potential risk factors.

A more comprehensive understanding also is garnered by identifying potential linking mechanisms. In this study, compromised parenting behaviors are modeled as partial mediators of the relationship among marital hostility, parental depressive affect, and youth problem behaviors. Parenting behaviors are an important and integral part of the parent-child relationship. These behaviors convey to children a sense of security, structure, nurturance, and predictability. There is evidence that negative marital behaviors spill over from the spousal relationship into parenting, resulting in more negative and hostile parenting behaviors (Buehler & Gerard, 2002; Krishnakumar & Buehler, 2000). There also is evidence that depressed mothers display more negative parenting behaviors with their children than do nondepressed mothers, including more

hostile, intrusive, withdrawing, or rejecting behaviors (Lyons-Ruth, Lyubchik, Wolfe, & Bronfman, 2002). The stress of dealing with depression and marital hostility might distract parents from the parent-child relationship, disrupting their ability to discipline the child appropriately, effectively, and consistently. It is posited that the presence of marital hostility and parental depressive affect creates a hostile and negative familial environment, heightening the risk of externalizing and internalizing problem behaviors for youth. It is proposed that compromised parenting behaviors mediate these associations. The specialized associations of specific parenting behaviors are examined, including harsh behavioral control, psychologically intrusive behaviors, and inconsistency, as well as lower levels of parental acceptance and knowledge.

Conceptual Definitions

Marital Hostility

Overall, marital conflict is a common occurrence in families and most children are exposed to some form of marital conflict throughout their development (Margolin, Oliver, & Medina, 2001). Marital conflict behaviors range from positive or neutral behaviors (e.g., cooperating, debating issues) to negative behaviors (e.g., overt and covert hostility). Overt marital hostility behaviors are of interest here. Marital hostility behaviors encompass modes of expression characterized as negative and hostile. These behaviors are primarily overt expressions of anger and hostility, including yelling, belittling, and physical aggression (Buehler et al., 1997).

Parental Depressive Affect

For this study, parental depressive affect is conceptualized as the level of depressive symptoms reported by each parent. The depressive symptoms in this study include feelings of sadness, apathy, irritability, and hostility. To some degree these symptoms disrupt daily functioning through disturbances in sleep, appetite, activities, and energy levels. Levels of depressive affect can range from no reported depressive affect to high levels with different measures having specific cut-off scores to distinguish between nonclinical and clinical levels of self-reported depressive affect. It is important to keep in mind that high scores on depressive affect measures do not indicate necessarily clinical levels of depression nor does the failure to report high levels on depressive affect measures indicate an absence of depression. Rather, these scores indicate a person's functioning over the last two to four weeks and should be viewed as a short-term indicator of how the person is feeling and behaving.

Compromised Parenting Behavior

Through parenting or disciplining behaviors, parents convey to the child a sense of structure, behavioral limits, acceptance, and connection with an optimal parenting style being one that includes firm behavioral control behavioral limits, parental warmth, and acceptance (Baumrind, 1978; Holmbeck, Paikoff, & Brooks-Gunn, 1995; Peterson & Rollins, 1987). Furthermore, parenting behaviors potentially convey to the child parental interest and support and are important predictors of the child's sense of well-being, security, self-worth, and importance

(Belsky, 1984). If parenting behaviors are primarily hostile, negative, or detached, the child's sense of well-being and self-esteem might be threatened. Specific negative parenting behaviors examined here include harsh behavioral control, psychological intrusiveness, inconsistency, lower acceptance, and less knowledge. These specific parenting behaviors were chosen because it is likely that parents experiencing marital hostility and/or depression have fewer resources to display effective and supportive parenting behaviors and are more likely to display more hostility, negativity, withdrawal, or distraction with their children.

Harsh behavioral control. Harsh behavioral control includes yelling, hitting, and threats of violence against the child. These methods are conceptualized on a continuum ranging from no harsh control behaviors to severe physical or emotional abuse (Simons, Whitbeck, Conger, & Chyi-In, 1991). These methods are physical, psychological, and verbal aggressive attempts to control the child's behavior (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998) and include spanking, slapping, swearing at, and yelling. It is possible that parents who are experiencing marital hostility display harsh behavioral control due to displaced anger on the child (Cox, Paley, & Harter, 2001). Likewise, it is possible that depressed parents display harsh behavioral control due to increased irritability and hostility toward others, particularly family members (Downey & Coyne, 1990; Gelfand & Teti, 1990).

Psychological intrusiveness. Parents who are psychologically intrusive actively try to influence the child's thoughts, feelings, and beliefs and discourage the child from his/her own ideas. Psychologically intrusive behaviors include guilt induction, love withdrawal, constraining verbal interactions, invalidating feelings, and inconsistent emotional expression (Barber, 1996). The parent uses psychologically intrusive behaviors to keep the child dependent on the parent (Barber, 1996; Barber, Olson, & Shagle, 1994). These behaviors inhibit the adolescent's emotional development (Barber, 1996) and might be especially problematic during adolescence when the youth is struggling to form his or her sense of autonomy and identity as an emerging adult (Steinberg, 1990). It has been suggested that parental psychological functioning and parental interpersonal relationships might be two important determinants of psychological intrusive behaviors (Barber, Bean, & Erickson, 2002). Thus, parents experiencing depression and marital hostility might be more prone to display psychologically intrusive behaviors with their children.

Inconsistency. Inconsistent parenting behaviors include erratic and arbitrary enforcement of rules that fluctuate depending on the parent's mood or other stressors (Patterson, 1982). Inconsistent parents are unreliable in their discipline practices as well as their daily routine, failing to provide a predictable schedule regarding meals, bedtimes, and other activities. For this dissertation, inconsistent parenting refers to each parent's individual parenting behavior and not to inconsistencies between the couples' parenting behaviors. Parents

distracted by stressors such as marital hostility or depression might have difficulty setting limits and following through with discipline in a consistent, orderly manner. Inconsistency is based, in part, on mood so it is likely that depressed parents display inconsistent parenting behaviors because of fluctuations in their mood.

Lower levels of parental acceptance. Parental accepting behaviors include expressions of affection, approval, and support for the youth (Schaefer, 1965) as well as praising the child, including the child in decisions, and accepting the child's input and individuality. Parental accepting behaviors convey to the child the parent's willingness to accept the child as an individual person with valuable ideas (Belsky, 1984). Parents who show low levels of acceptance convey to the child that the child is inadequate and unlovable (Belsky, 1984). These feelings of inadequacy might result in lowered self-esteem and decrease the child's ability to function independently. It is possible that parents dealing with marital hostility and depression have problems displaying accepting behaviors with their children.

Lower levels of parental knowledge. Parental knowledge refers to how much the parent knows about the child's whereabouts, activities, and peer relationships (Steinberg, 1987). Parental knowledge differs from parental monitoring in that there is not a distinction between how parents know about what is going on with their children (for example, parents might ask others their child about his/her activities or the child might volunteer this information; Stattin & Kerr, 2000). Furthermore, parental knowledge behaviors do not necessarily

include parental attempts to regulate child behaviors, activities, or peer groups (Stattin & Kerr, 2000). Inadequate parental knowledge behaviors convey to the child parental unavailability and possible disinterest in the child's activities and interests. It is likely that parents facing marital hostility and parental depressive affect feel overwhelmed and have difficulty keeping up with their child's activities and friends.

Youth Maladjustment

Youth maladjustment has been described as problems dealing with others because of "noxious social behaviors and burdensome emotions" (Trotter, 1989, p. 17). Externalizing and internalizing problem behaviors are two aspects of youth maladjustment that are examined in this study. Externalizing problem behaviors are visible behaviors that are socially inappropriate, aversive to others, and are based in part on angry emotions (Achenbach, 1991a; Jenkins & Smith, 1991). These behaviors consist of two types: delinquent behaviors and acting out behaviors. Delinquent behaviors are illegal behaviors such as vandalism, theft, arson, and physical assault as well as behaviors that are illegal but not destructive to property or others such as running away and truancy (Bongers, Koot, van der Ende, & Verhulst, 2003). In contrast, acting out behaviors are not illegal, but are socially unacceptable or aversive to others. These behaviors include yelling, threatening others, disobeying parents and teachers, lying, and cheating (Achenbach, 1991a).

Internalizing problem behaviors are internal to the person and might or might not manifest in visible behavior. Internalizing problem behaviors consist of four groups: social isolation, anxiety, depression, and somatic complaints (Achenbach, 1991a). Socially isolating behaviors include withdrawing from interactions with others, refusing to talk, and being overly quiet and reserved. Anxious behaviors include visible behaviors such as excessive nail biting and other nervous habits and more internal behaviors such as being overly suspicious of others and feelings of nervousness and panic (Bernstein, Borchardt, & Perwein, 1996). Depressed behaviors include excessive crying, excessive guilt, and feelings of sadness and despair as well as suicidal ideation and attempts. Somatic complaints are physical disturbances such as changes in appetite and sleep patterns that result from anxiety (Silverstein, 2002).

In conclusion, the purpose of this study is to examine how three parental influences--marital hostility, parental depressive affect, and compromised parenting behaviors--are associated with each other and youth maladjustment. It is hoped that this study will contribute to the understanding of how different risk factors are associated with youth maladjustment. Few studies have examined the relationships among these three parental influences and youth maladjustment in the same model. By examining these relationships conjointly it might be possible to determine more effective interventions to help children and families with multiple stressors. This study also will provide additional information about the relationship among paternal depressive affect, marital hostility, and youth

maladjustment. Most studies of parental depressive affect have focused primarily on mothers. It is hoped that this study will contribute needed information about how paternal depressive affect influences parenting behaviors and youth outcomes.

II. Theoretical Perspectives and Literature Review

In this chapter, theoretical perspectives pertinent to the proposed model are examined focusing on how marital hostility, parental depressive affect, and compromised parenting behaviors are believed to affect children. This is followed by a review of the literature, examining the relationships among the constructs in the model. Several hypotheses for these relationships are proposed.

Theoretical Perspectives

There have been numerous theories and hypotheses used to explain how marital hostility, parental depressive affect, and compromised parenting behaviors are associated with youth maladjustment. Two main theories pertinent to the proposed model are examined here: social learning theory and family systems theory. Both theories indicate that these risk factors (i.e., marital hostility, parental depressive affect, and compromised parenting behaviors) are related to youth problem behaviors; however, the two theories differ in explaining the process of how these risk factors operate.

Social Learning Theory

Social learning theorists propose that children learn behaviors through observing other people's behaviors and the subsequent reinforcement or punishment of those observed behaviors (Bandura, 1973; Crosbie-Burnette & Lewis, 1993). A child does not repeat all observed behaviors, but the child's unconscious decision to perform behaviors is influenced strongly if the child perceives that the witnessed behavior was reinforced or punished by others

(Crosbie-Burnett & Lewis, 1993). If the child perceives that the observed behavior was reinforced by others or the environment, the child is more likely to perform the behavior than if the child perceives that the observed behavior was punished (Bandura, 1977; Crosbie-Burnett & Lewis, 1993). Furthermore, once the child replicates a behavior, the child's decision to repeat this behavior is influenced by whether or not this behavior was reinforced by others or an environmental factor. Parental behavior is thought to be particularly influential because parents are generally the primary caretakers during the infant and young child's socialization; thus, parents become the primary models for the child's own subsequent behavior. In addition, as the primary caretakers and disciplinarians, parents also act as influential reinforcers and punishers of the child's behavior.

Marital hostility. Using this theory, it is believed that a child is more likely to perform aggressive and hostile behaviors with others if the child witnesses hostility between his/her parents and perceives that this aggressive behavior was reinforced. During interparental hostility, aggressive behavior potentially can be reinforced in two ways: by continuing the interaction when the other spouse reciprocates the aggressive behavior or by ending the interaction when the other spouse backs down or withdraws from the engagement.

In studies of children and aggression, Bandura (1977) found evidence that children who witnessed aggressive behaviors in adults were prone to repeat aggressive behaviors in their own interactions with others. In another study,

children who witnessed verbally aggressive conflicts between adults were more likely to display aggressive behaviors with peers than were children who did not witness these verbally aggressive parental exchanges (Katz & Gottman, 1995). In a longitudinal study, Katz and Gottman (1993) found evidence that youth outcomes were dependent on different ways marital hostility was expressed. When mothers and fathers both used hostile behaviors during conflicts, youth were at higher risk for externalizing problem behaviors. It is likely that children exposed to marital hostility learn aggressive behaviors and might view these behaviors as legitimate and effective ways of getting their needs met particularly in intimate relationships (Grych & Fincham, 1990).

Patterson (1982) expanded on social learning theory ideas with his theory of coercive family processes. He theorized and supported empirically that some families are characterized by coercive and hostile behaviors (Patterson, 1982; Patterson, Dishion, & Bank, 1984). He argued that interparental hostility puts youth at risk for externalizing problem behaviors in two ways: first, by providing the youth with a model for aggressive and hostile behavior, and second, by negatively affecting the parents' moods and parenting behaviors, resulting in more irritability, negativity, and ineffective discipline attempts (Patterson, 1982; Patterson et al., 1984). In these families, he found that both couples and family members were more likely to react and reciprocate with aggressive and aversive behaviors (Patterson, 1982). Furthermore, parents were likely to engage in more punitive attempts to discipline to which the youth responded with more

aggressive and aversive behaviors. These behaviors were either positively reinforced through reciprocation and escalation of aversive behaviors or negatively reinforced when the parents disengaged or withdrew from the interactions (Patterson, 1982).

Parental depressive affect. Social learning theory has been used to explain, in part, how children of depressed parents are at risk for displaying more sad and dysphoric behaviors. Using this theory, it is believed that children of depressed parents imitate the parents' pessimistic statements, flat tone and emotional expressions, and other depressive symptoms (Gelfand & Teti, 1990).

Field (1984) had mothers display depressive symptoms for brief periods in front of their infant children. The infants responded negatively, displaying wariness, unhappiness, and disturbed behaviors. In observational studies of toddlers and their mothers, Radke-Yarrow (1990) reported a high rate of concordant behavior between mothers and their young children. The depressed group of mothers were more likely to exhibit negative affect than the nondepressed group of mothers, and the toddlers of depressed mothers were more likely to reciprocate their mothers' negative affect than were the toddlers of nondepressed mothers. Radke-Yarrow (1990) concluded that these toddlers were learning dysphoric affective styles from their depressed mothers. Other researchers have speculated that children of depressed parents learn a negative cognitive style (Garber & Martin, 2002). It is hypothesized that children learn this negative cognitive style through observing the depressed parents' verbalizations

of their own negative cognitions, particularly beliefs that are child-centered (e.g., "My life wouldn't be so awful if you would behave"). Furthermore, these cognitions are reinforced through negative interactions with the depressed parent such as criticizing and blaming, or ignoring and withdrawing—parental behaviors that the child might perceive as indicators of the child's low self-worth and self-esteem (Garber & Martin, 2002).

Biglan et al. (1985) also looked at aversive behavior in interactions of families with depressed mothers. These aversive behaviors were characterized by distressed behaviors such as disparaging oneself and nonverbal behaviors conveying sadness or depression (Biglan et al., 1985). If the mother responded with depressive behaviors in response to the father's aggressive behavior, the father was more likely to cease his aggressive behaviors than if the mother reciprocated aggressive behaviors, thus negatively reinforcing the mother's depressive behavior through his decreased aggressiveness. Another study found evidence for this negative reinforcement in interactions with depressed fathers as well (Jacob & Johnson, 1997). Children exposed to parental depressive affect might view dysphoric behaviors as ways of avoiding others' aggressive and aversive behaviors.

In sum, using this theory, youth are at risk for externalizing problem behaviors through direct observation and modeling of aggressive behaviors displayed during marital hostility. Youth are at risk for internalizing problem behaviors through direct observation and modeling of sad and dysphoric

behaviors displayed by parents with elevated levels of depressive affect. Furthermore, marital hostility disrupts the parents' ability to discipline effectively, placing youth at risk for maladjustment indirectly through compromised parenting behaviors. This theory does not address the relationship between parental depressive affect, compromised parenting behaviors, and youth outcomes.

Family Systems

The family systems perspective posits that individual functioning is a reflection of the family system (Margolin et al., 2001). Thus, youth problem behaviors are not a symptom of individual psychopathology but, rather, a symptom of problems in the family process (Margolin et al., 2001). Difficulties or stressors in one relationship disrupt the functioning of other relationships in the family system. All sub-systems are believed to be interconnected and dynamic where actions and reactions continue to shape relationships and interactions among individuals. Furthermore, in the family system there is an inherent hierarchy of power where the parental system or marital dyad is expected to exert authority and boundaries over children (Whitchurch & Constantine, 1993).

Marital hostility. Marital hostility simultaneously disturbs the relationship between the parents, the functioning of the child, and also intrudes on the parent-child relationship (Margolin et al., 2001; Minuchun, 1974). Using this theory, it is believed that the tensions from marital hostility affect the child in several ways. One way is the transference or spillover of tensions from marital hostility to the parent-child relationship. Almeida and colleagues (1999) found that parents were

more likely to have tense interactions with their children on days following tensions in the marital dyad. Although this was true for both mothers and fathers, fathers were at increased risk for the transference of tension from the marital dyad to the parent-child dyad. Furthermore, fathers were more likely to have tensions from the parent-child dyad transfer into the marital dyad than were mothers.

Using representative national data, Buehler and Gerard (2002) found that the spillover of marital hostility into ineffective parenting behaviors characterized families and children with a variety of background characteristics, including parents of sons and daughters, families of different socioeconomic statuses, and families with different ethnic backgrounds. These results also were consistent for mothers and fathers' reports of their own parenting. Three studies using observational methods also found evidence to support the spillover of marital hostility into parenting behaviors. In one study, families were studied in several observational tasks: one where the parents discussed conflicts in their relationship, one where the parents discussed other nonconflictual aspects of their relationship, and one where the parents and their 6-year-old child were present (Kitzmann, 2000). Mothers and fathers were more likely to display negative parenting behaviors with their child after the conflictual task than after the nonconflictual task. Another study found that, in couples who displayed marital hostility, fathers used more rejecting and coercive parenting behaviors with their children than did mothers (Lindahl & Malik, 1999). Finally, Katz and

Gottman (1996) found that marital hostility spilled over into more negative parenting behaviors for fathers but not for mothers.

As the child acts out in response to marital hostility, the parents might focus on the child in maladaptive ways. The parents might identify the child's negative behaviors as the reason for the parents' difficulties (Minuchin, 1974). The parents might join forces either in an effort to protect the child from further harm from exposure to marital hostility or to target the child as the scapegoat. The child might perceive his/her role as an important function in maintaining parental harmony and unity or might perceive this role as the only method for obtaining his/her parents' attention. As a result of these perceptions, the child might continue to exhibit problem behaviors. Another maladaptive parental response is when one parent intensifies the relationship with the child in order to compensate for the loss of the marital relationship (Minuchin, 1974). In this situation one of the parents becomes enmeshed in the relationship with the child, seeing the child as a confidante and peer (Jacobvitz & Bush, 1996). As a result, the child might display more adult behaviors in an effort to please the parent. The parent and the child might switch roles where the parent becomes more childlike and the child is expected to nurture and care for the parent. The parent might expect the child to be an ally against the other parent during conflicts. In order to maintain the child as a friend and ally, the parent gives up his/her role as disciplinarian. The child essentially loses the guidance and support of both parents. In the enmeshed relationship, the parent abdicates the parental role with

the child. In the non-enmeshed relationship, the child rejects the parent, choosing instead to side with the enmeshed parent. It is likely that these emotions and a lack of parental guidance and structure are displayed in children through increased acting out behaviors with both parents. Fish and colleagues (1991) found that enmeshed families had more marital hostility than did families that were not enmeshed. This was true both for fathers who allied with a child against mothers and for mothers who allied with a child against fathers. In a retrospective study, Jacobvitz and Bush (1996) found that there was increased marital hostility in families where daughters and mothers allied against fathers.

Parental depressive affect. Using family systems, the depression of one parent affects other family members through the compromised interactions with this parent (Phares, Duhig, & Watkins, 2002). The presence of a depressed parent is believed to compromise parenting behaviors and to affect other family members' attitudes and behaviors (Jacob & Johnson, 1997). Furthermore, youth are affected not only by direct interactions with the depressed parent but through disturbances in the interparental relationship including increases in marital hostility (Phares et al., 2002). Thus, there is a bi-directional element in families with a depressed parent where the depressed parent contributes to more problematic behaviors in children, but children also contribute to the parent's depressed mood by acting out (Phares et al., 2002).

Jacob and Johnson (1997) compared 3 groups of families: families with a depressed father, families with a depressed mother, and families with no

depressed parent(s). In families with a depressed parent (either a mother or a father), children had fewer positive interactions even with the nondepressed parent. Furthermore, the interactions of family members with the depressed parent(s) were characterized as less positive than were the interactions of the family members with no depressed parents.

In sum, family systems theory has been used to explain the relationships among marital hostility, parental depressive affect, and negative youth outcomes. Using this theory, it is expected that the presence of marital hostility and parental depressive affect disrupt family relationships, including the marital relationship and the parent-child relationship through more negative parenting behaviors, resulting in increased risk for youth for problem behaviors.

Literature Review

This literature review is organized by the relationships between the constructs presented in Figure 1. The following relationships are discussed: marital hostility and parental depressive affect, marital hostility and youth maladjustment, parental depressive affect and youth maladjustment, marital hostility and compromised parenting behaviors, and parental depressive affect and compromised parenting behaviors.

The Relationship between Marital Hostility and Parental Depressive Affect

As described previously, there is evidence that marital hostility and parental depressive affect often co-vary in couples (see Figure 2). There are several possibilities for this covariance. First, there is evidence that people who

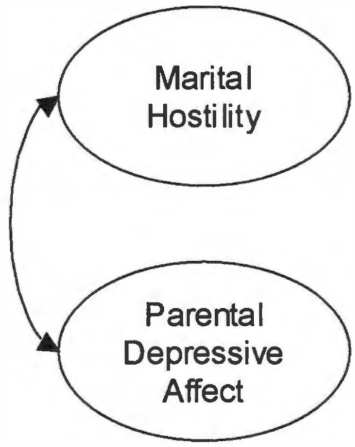


Figure 2. The relationship between marital hostility and parental depressive affect.

experience marital hostility and depressed people have similar attributional schemes with an increased tendency to have negative or pessimistic views of themselves and others. In general, depressed people have a more negative view of their marriages, their spouses, their children, and their own capabilities as partners and parents (Frankel & Harmon, 1996; Hammen & Brennan, 2002; Johnson & Jacob, 2000; Senchak & Leonard, 1993). Depressed people are more likely to attribute negative events to internal causes (i.e., I'm a bad person so nothing works out for me), and to view these negative events as more global and stable (Horneffer & Fincham, 1994). Couples in distressed marriages also tend to focus more on negative marital events than on positive marital events (Holtzworth-Monroe & Jacobson, 1985). Whereas depressed people tend to blame themselves for negative events, maritally distressed couples are more likely to attribute negative cues from their spouse as more stable and characteristic of their spouse's overall behavior while attributing positive cues from their spouse as more fleeting and uncharacteristic of the spouse's overall behavior (Baucom, Epstein, Sayers, & Sher, 1989; Gottman, 1994; Gottman, 1998).

In sum, both groups are prone to developing negative attributions about others with depressed people tending to view themselves as the problem and maritally distressed couples tending to view their spouse as the problem.

Depressed people and people experiencing marital hostility also display similar behaviors. Depressed people tend to be negative and hostile during

interactions with their spouses (Davila, Bradbury, Cohan, & Tochluk, 1997; see Teichman & Teichman, 1990, for a review) with marital interactions described as conflictual, hostile, negative, and destructive (Bradbury, Beach, Fincham, & Nelson, 1996; Du Rocher Schudlich & Cummings, 2003; Du Rocher Schudlich, Papp, & Cummings, 2004; Hammen & Brennan, 2001; Schroder, Hahlweg, Fielder, & Mundt, 1996; Sher, Baucom, & Larus, 1991). Maritally distressed couples tend to provoke these behaviors during interactions with their spouses, but depressed people are at risk for provoking these behaviors during interactions with a variety of people, including spouses, children, family members, and friends (Segrin & Dillard, 1992).

In summary, previous research has found evidence to support the proposed association between marital hostility and parental depressive affect. For this dissertation, it is expected that marital hostility and parental depressive affect will be correlated positively and that this relationship is characteristic of both mothers and fathers.

Marital Hostility and Youth Maladjustment

There is evidence that marital hostility directly affects youth externalizing and internalizing problem behaviors (see Figure 3). Children who witness marital hostility report a wide range of emotional responses, including anger, sadness, and fear (Crockenberg & Langrock, 2001; Cummings, Goeke-Morey, & Papp, 2003; O'Brien, Margolin, John, & Krueger, 1991), and children report feeling less emotionally secure with their parents (Cummings & Davies, 1994; Frosch,

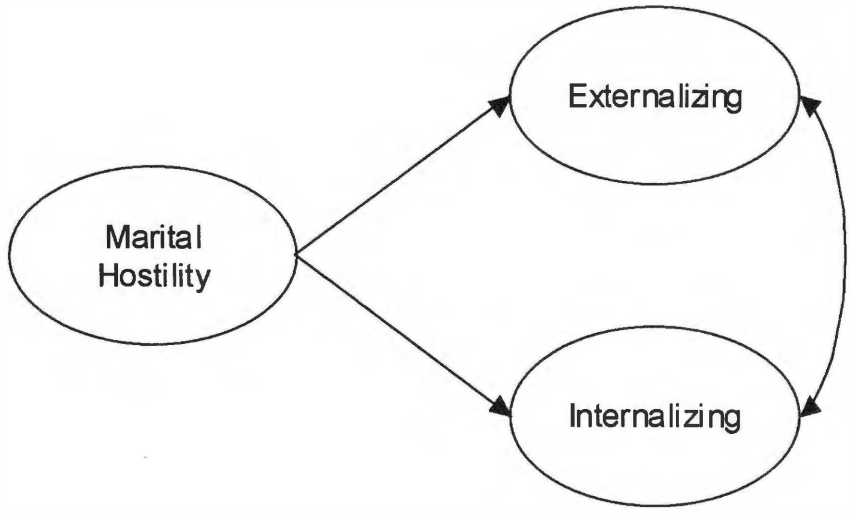


Figure 3. The relationships between marital hostility and youth externalizing and internalizing problem behaviors.

Mangelsdorf, & McHale, 2000). It is believed that children express these negative emotions and feelings of insecurity through increased externalizing and internalizing problem behaviors (Cummings et al., 2003). Marital hostility has been associated with various indicators of maladjustment, including poorer academic functioning (Brody, Stoneman, & Flor, 1995; Wierson, Forehand, & McCombs, 1988), conduct disorders (Fantuzzo et al., 1991; Jouriles, Murphy, & O'Leary, 1989), externalizing problem behaviors (Cummings et al., 2003; Frosch & Mangelsdorf, 2001; Harold et al., 1997; Jouriles et al., 1989; Morrison & Coiro, 1999; Rogers & Holmbeck, 1997; Vandewater & Lansford, 1999), problems with peers (Gottman & Katz, 1989; Katz & Woodin, 2002; Vandewater & Lansford, 1998; Wierson et al., 1988), personality disorders (Jouriles et al., 1989), internalizing problem behaviors (Cummings et al., 2003; Essex, Klein, Cho, & Kraemer, 2003; Harold et al., 1997; Jouriles et al., 1989; Morrison & Coiro, 1999; Rogers & Holmbeck, 1997; Vandewater & Lansford, 1998), and depression (MacKinnon-Lewis & Lofquist, 1996).

Certain characteristics of the interparental conflict style place children at higher risk for negative outcomes. For example, conflict intensity seems to be more salient than is frequency (Buehler et al., 1997). Cummings and Davies (1994) found that even when exposed to frequent conflicts, children were at lower risk for behavior problems if they witnessed parental conflicts of low intensity with positive features such as open communication. Children were at higher risk for behavior problems if the conflicts between their parents were

intense, as in the case of domestic violence (Sternberg et al., 1993). In a study that used reports of marital hostility from mothers, fathers, and children, Jenkins and Smith (1991) found that overt parental hostility was the strongest predictor of child behavior problems, especially externalizing behavior problems, and this relationship remained significant after controlling for the effects of covert parental hostility and parental discrepancies about parenting styles.

In sum, there is evidence that marital hostility directly affects youth maladjustment. It is hypothesized that marital hostility will be related significantly to youth externalizing and internalizing problem behaviors. However, it is predicted that marital hostility will be related more strongly to externalizing problem behaviors than internalizing problem behaviors. It is hypothesized that these relationships are the same for mothers and fathers as well as for sons and daughters.

Parental Depressive Affect and Youth Maladjustment

Previous research suggests that parental depressive affect is associated with youth externalizing and internalizing problem behaviors (see Figure 4). There is strong evidence linking parental depression with depression in children. Numerous studies have found that children of depressed parents or depressed grandparents are at higher risk for developing depression at some point in their lifetime (Hammen, 1991; Hammen, 1996; Hammen et al., 2003; Klein, Clark, Dansky, & Margolis, 1988; Leinonen, Solantaus, & Punamäki, 2003; Radke-Yarrow, Martinez, Mayfield, & Ronsaville,1998; Warner, Weissman, Mufson, &

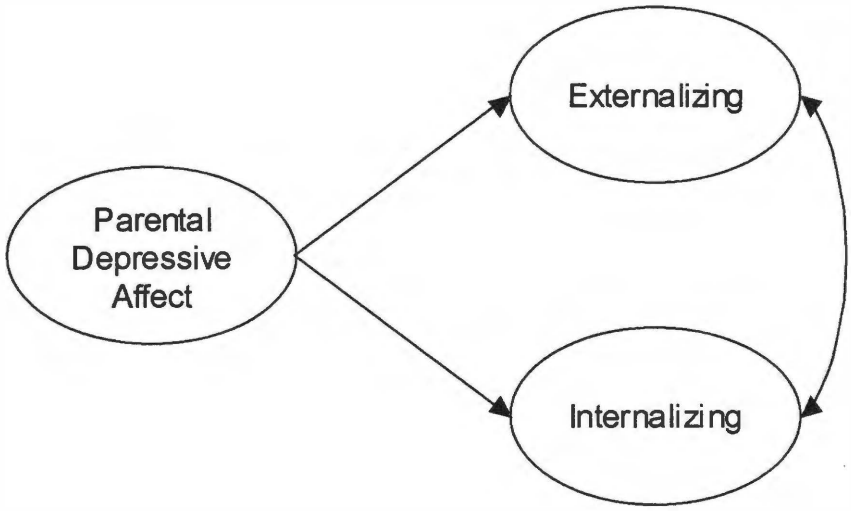


Figure 4. The relationships between parental depressive affect and youth externalizing and internalizing problem behaviors.

Wickramaratne, 1999; Weissman et al., 1997; Whitbeck et al., 1992). Children of depressed parents are at increased risk for developing their first depressive episode at puberty (Weissman et al., 1997), which places them at greater risk for chronic, recurring dysphoria throughout their lifespan (Weissman, 1987). In comparison studies, children with either a depressed father or a depressed mother were more likely to display higher levels of depressive affect compared to children with no depressed parent(s) (Johnson & Jacob, 2000; Jones, Forehand, Brody, & Armistead, 2002). Furthermore, children of depressed parents are more likely to be diagnosed with anxiety disorders (Fendrich et al., 1990; Warner et al., 1999; Weissman et al., 1997)—often a precursor of a later depressive episode (Cole, Peeke, Martin, Truglio, & Seroczynski, 1998).

There also is evidence that parental depressive affect is associated with a variety of negative youth outcomes. Children with at least one depressed parent have more problem behaviors than do children with no depressed parents, including more externalizing problems (Anderson & Hammen, 1993), conduct disorders (Dumas, Gibson, & Albin, 1989), delinquency (Radke-Yarrow, 1990), less compliance with parental demands (Radke-Yarrow, 1990), internalizing problems (Anderson & Hammen, 1993; Du Rocher Schudlich & Cummings, 2003; Jones et. al, 2002), social problems (Anderson & Hammen, 1993; Lyons-Ruth, 1992), cognitive and motor deficits (Petterson & Albers, 2001), poorer academic functioning (Petterson & Albers, 2001), and overall problem behaviors (Goodman, Connell, Broth, & Hall, 2003; Jacob & Johnson, 1997). Children of

depressed parents are more likely to have a serious child dysfunction than are children of parents with no depression (Billings & Moos, 1985).

There have been mixed findings regarding child and parent gender effects. One study found that daughters of depressed mothers displayed more internalizing problem behaviors and sons of depressed mothers displayed more externalizing problem behaviors (Essex et al., 2003). Several studies have found that mother's depressive mood has been related to various problem behaviors for daughters but not for sons, including depression (Davies & Windle, 1997), internalizing problem behaviors (Thomas & Forehand, 1991), conduct problems (Davies & Windle, 1997), and academic problems (Davies & Windle, 1997). In a meta-analysis, Connell and Goodman (2002) found that maternal depressive affect was related more strongly to internalizing problem behaviors in children than was paternal depressive affect. Compared with mother's depression, father's depression has been related to poorer cognitive problems for sons and daughters and internalizing problem behaviors in sons (Thomas & Forehand, 1991).

Age of the child and the parents seem to affect the relationship between parental depressive affect and youth maladjustment. In a meta-analysis of 134 studies, youth outcomes varied by age of the child and gender of parent although the effect sizes were small in magnitude (Connell & Goodman, 2002). Paternal depressive affect was related more closely to internalizing and externalizing problem behaviors in older children, whereas maternal depressive affect was

related more closely to internalizing and externalizing problem behaviors in younger children. In another meta-analysis, age of the mother moderated the relationship between maternal depressive affect and social-emotional competence and cognitive competence, and child age moderated the relationship between maternal depressive affect and cognitive competence and general behavior problems with studies of younger children showing the larger effects (Goodman et al., 2003).

In summary, there is evidence that parental depressive affect is associated with youth maladjustment with conflicting evidence regarding effects of child and parent gender. For this study, it is hypothesized that parental depressive affect is associated significantly with externalizing and internalizing problem behaviors, but that there is a stronger relationship between parental depressive affect and internalizing problem behaviors. It is hypothesized that these relationships are the same for mothers and fathers as well as for sons and daughters.

Marital Hostility, Parental Depressive Affect, and Youth Maladjustment

There is evidence that the presence of both marital hostility and parental depressive affect directly and additively affect youth maladjustment (see Figure 5). In one study, children exposed to both marital hostility and maternal depressive affect were at higher risk for problem behaviors than were children exposed only to marital hostility or only to maternal depressive affect or to neither risk factor (Essex et al. 2003). However, there were several moderators for these

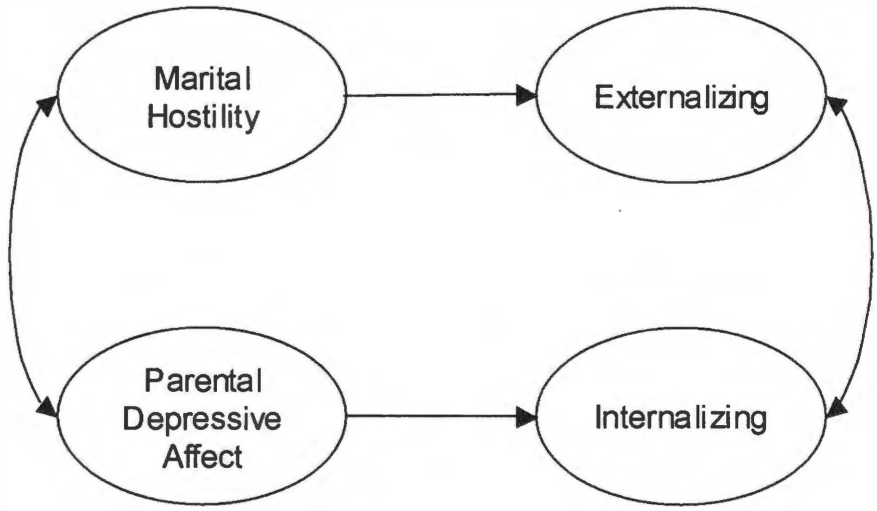


Figure 5. The relationships between marital hostility, parental depressive affect, and youth externalizing and internalizing problem behaviors.

relationships, including age, gender, sequence of exposure, and timing of exposure. Sons exposed initially to maternal depressive affect and then to marital hostility showed greater severity of problems than did sons exposed initially to marital hostility. Daughters exposed only to marital hostility had more internalizing problem behaviors than did daughters exposed only to maternal depressive affect. Another study found that adolescent daughters exposed to interparental hostility and maternal depressive affect displayed more irritability with others than did adolescent daughters exposed only to maternal depressive affect (Hops, Sherman, & Biglan, 1990). Furthermore, another study found that adolescent daughters exposed to maternal depression and marital hostility were more likely to display depressive symptoms, conduct disorders, and poor academic functioning than were adolescent sons exposed to maternal depressive affect and marital hostility (Davies & Windle, 1997).

In summary, there is evidence that youth who are exposed to marital hostility and parental depressive affect are at risk for maladjustment. For this study, it is hypothesized that when examined separately both marital hostility and parental depressive affect are associated significantly with externalizing and internalizing problem behaviors. However, when both variables are included then marital hostility is associated with externalizing problem behaviors but is no longer associated significantly with internalizing problem behaviors. Conversely, parental depressive affect is associated with internalizing problem behaviors but is no longer associated significantly with externalizing problem behaviors. It is

hypothesized that these relationships are the same for mothers and fathers as well as for sons and daughters.

Marital Hostility and Parenting Behaviors

Previous research has found a relationship between marital hostility and more compromised parenting behaviors (Figure 6). Marital hostility is associated with harsher discipline and less parental involvement (Buehler & Gerard, 2002; Jenkins & Smith, 1991; Kanoy, Ulku-Steiner, Cox, & Burchinal, 2003). In a meta-analysis of 39 studies, there was a strong association between marital hostility and parenting behaviors with an overall average effect size of -.62 (r = -.30; Krishnakumar & Buehler, 2000). Harsh discipline and parental acceptance were two parenting behaviors that were affected most by marital hostility with parents experiencing high levels of hostile conflict more likely to use harsh discipline and be less accepting of their children compared with parents experiencing low levels of hostile conflict.

Marital hostility has been associated with psychologically intrusive parenting behaviors. Fauber and colleagues (1990) found that psychologically intrusive parenting behaviors fully mediated the relationship between marital hostility and youth internalizing problem behavior for married families. Another study found that marital hostility was related to psychological intrusiveness with fathers displaying intrusiveness with their children but not mothers (Katz & Gottman, 1996). However, another study failed to find a statistically significant

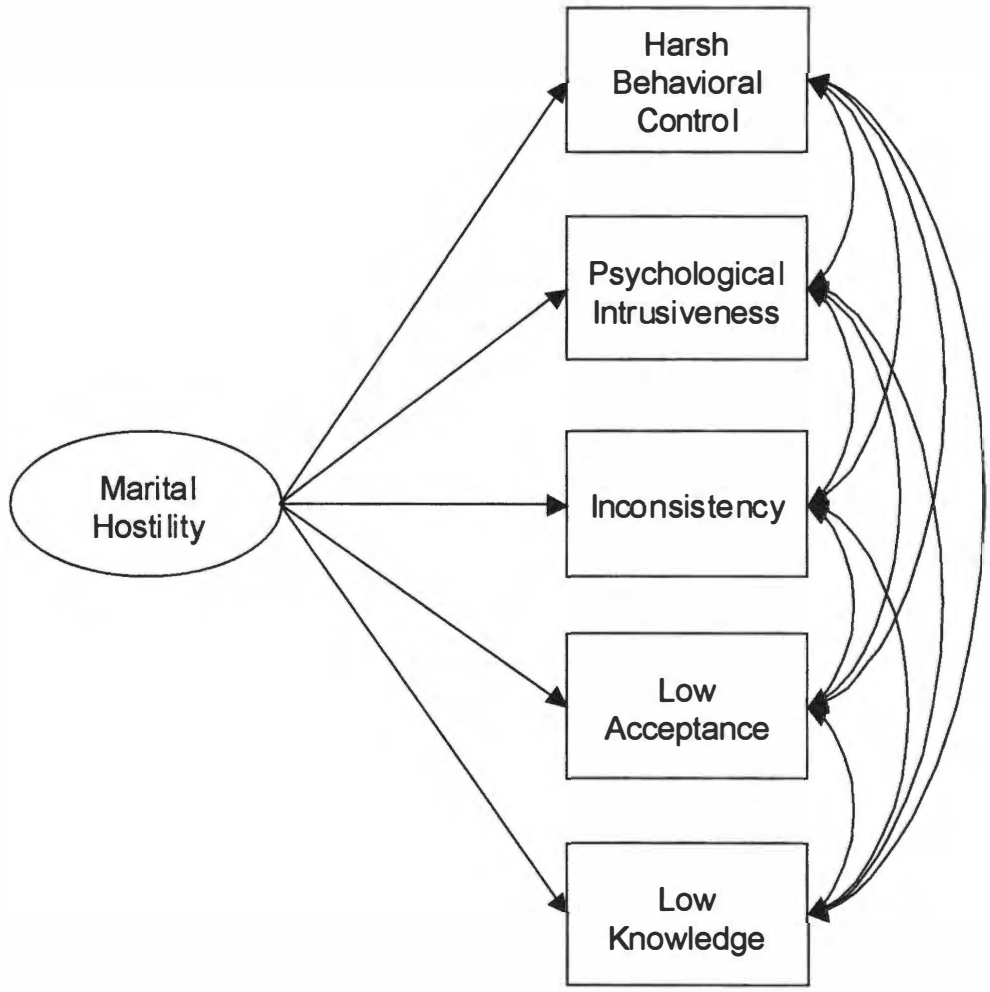


Figure 6. The relationships between marital hostility and compromised parenting behaviors.

relationship between overt interparental hostility behaviors and psychological intrusiveness when controlling for covert hostility (Stone, Buehler, & Barber, 2002).

Marital hostility also has been linked with inconsistent parenting behaviors. In one study, fathers who reported marital hostility also reported more inconsistent parenting than did mothers who reported marital hostility or mothers and fathers who reported no marital hostility (Stoneman, Brody, & Burke, 1989). Another study found that inconsistent parenting behaviors partially mediated the relationship between marital hostility and youth externalizing problem behaviors (Fauber, Forehand, Thomas, & Wierson, 1990). Jenkins and Smith (1991) found a positive association between parental hostility and parental inconsistency. Finally, parents who had low physiological responses to marital hostility (i.e., did not experience increases in heart rate and stress-released hormones) were more likely to be cold, angry, and inconsistent when disciplining their children (Gottman & Katz, 1989).

One study found that fathers showed less support and engagement with their children after marital hostility than did mothers (Kitzmann, 2000). Furthermore, fathers in marriages where the conflict style was described as destructive were more likely to reject, coerce, withdraw, and be less emotionally supportive of their children (Lindahl & Malik, 1999). Krishnakumar and Buehler (2000) found a stronger relationship between marital hostility and compromised parenting for parents of girls than for parents of boys or for parents of both girls

and boys. Vandewater and Lansford (1998) found that parental warmth lessened the negative effect of marital hostility on problem behaviors for daughters but not for sons.

In sum, there is evidence that marital hostility affects parenting behaviors. For this study, it is hypothesized that, when controlling for the effects of parental depressive affect, marital hostility is related to compromised parenting behaviors and that compromised parenting behaviors partially mediate the relationship between marital hostility and youth maladjustment. It is hypothesized that these relationships are the same for mothers and fathers as well as for sons and daughters.

Parental Depressive Affect and Parenting Behaviors

Parental depressive affect has been associated with compromised parenting behaviors (see Figure 7). When looking at an overall parenting style, previous research has found that depressed parents were more likely to endorse more authoritarian and controlling attempts at discipline (Fendrich et al., 1990; Longfellow, Zelkowitz, & Saunders, 1982; Stoneman et al., 1989), and more likely to expect immediate compliance from children compared to nondepressed parents (Fendrich et al., 1990; Zelkowitz, 1982). Several studies have linked parental depressive affect with intense harsh discipline such as physical abuse and child maltreatment (Egami, Ford, Greenfield, & Crum, 1996; Kotch, Browne, Dufort, Winsor, & Catellier, 1999). When controlling for socioeconomic status,

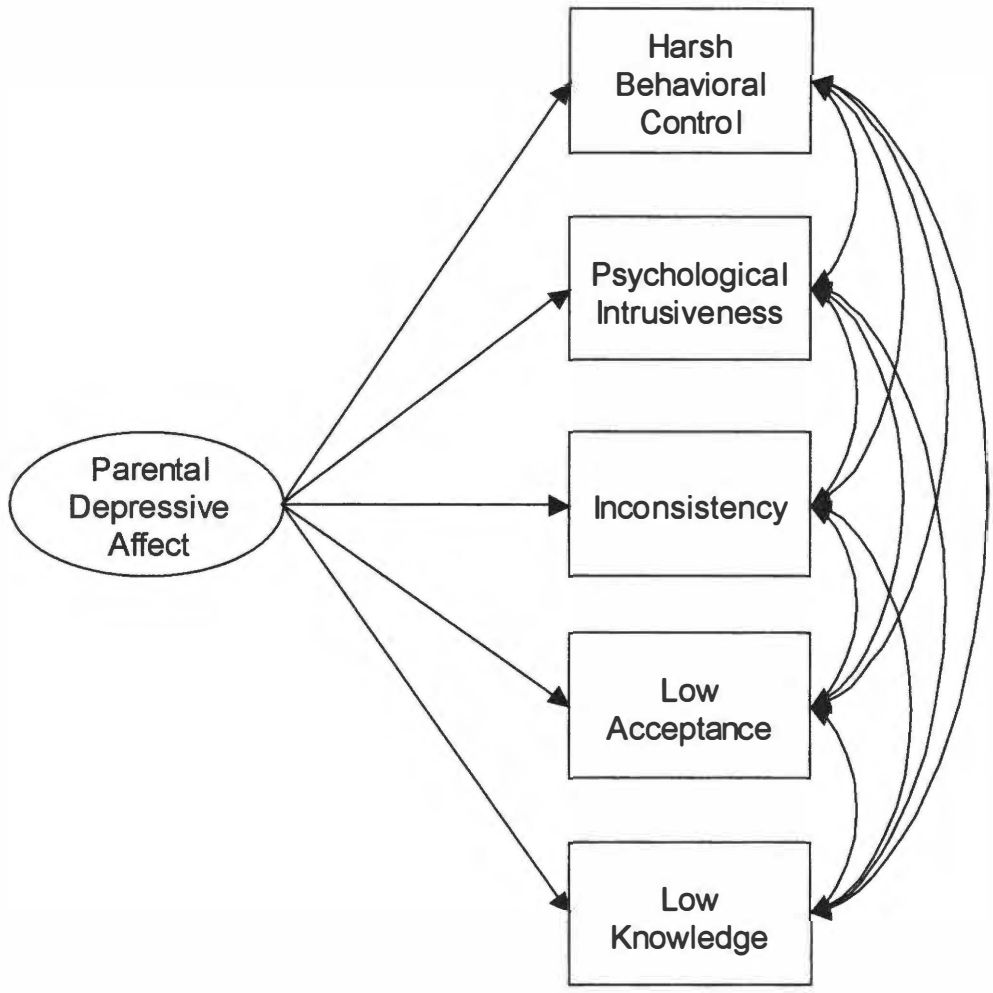


Figure 7. The relationships between parental depressive affect and compromised parenting behaviors.

physically abusive mothers had higher rates of depression and directed more physically aversive behavior toward their children during observational tasks than did nonabusive mothers (Lahey, Conger, Atkeson, & Treiber, 1984). Parental depressive affect has been associated with increased use of physical discipline, such as spanking, slapping, and shaking (Eamon & Zuehl, 2001; Lyons-Ruth et al., 2002; Wissow, 2002; Zelkowitz, 1982). One study found that depressed fathers displayed harsh parenting behaviors with both sons and daughters, but depressed mothers displayed harsh parenting behaviors only with sons (Leinonen et al., 2003). Furthermore, studies have linked maternal depression with increased use of hostile-controlling behaviors (i.e., scolding, yelling, derogation, physical punishment; Marchand, Hock, & Widaman, 2002).

Depressed parents also tend to be more inconsistent disciplinarians than are nondepressed parents. Stoneman and colleagues (1989) found that depressed fathers were more likely to report inconsistent parenting behaviors with sons and daughters, but depressed mothers were more likely to report inconsistent parenting behaviors with daughters. Radke-Yarrow (1990) found that depressed mothers were more likely to avoid further confrontation when their child resisted their attempts to control behavior than were nondepressed mothers. In another study, depressed mothers were more likely to be less engaged in positive parenting behaviors and were less likely to have daily routines for bedtimes, mealtimes, and naptimes (Lyons-Ruth et al., 2002).

There is evidence that parental depressive affect and low parental acceptance are related. Whitbeck and colleagues (1992) found that depressed parents were more likely to report less accepting and more rejecting behaviors than were nondepressed parents. Another study failed to find a direct relationship between parental depressive affect and child externalizing problems, but did find an indirect relationship between parental depressive affect and child externalizing problems when lack of parental acceptance was included (Miller, Cowan, Cowan, Hetherington, & Clingempeel, 1993).

For this study, it is hypothesized that, when controlling for marital hostility, parental depressive affect is associated significantly with compromised parenting behaviors, including harsh discipline, psychological intrusiveness, inconsistency, low acceptance, and low knowledge and that these parenting behaviors partially mediate the relationship between parental depressive affect and youth problem behaviors. It is hypothesized that these relationships are the same for mothers and fathers as well as for sons and daughters.

Compromised Parenting Behaviors and Youth Maladjustment

There is evidence that each of the parenting behaviors examined here (harsh behavioral control, psychological intrusiveness, inconsistency, low acceptance, and low knowledge) are associated directly with youth maladjustment (see Figure 8).

Harsh behavioral control. Harsh behavioral control has been associated with externalizing problem behaviors in youth, including increased overall

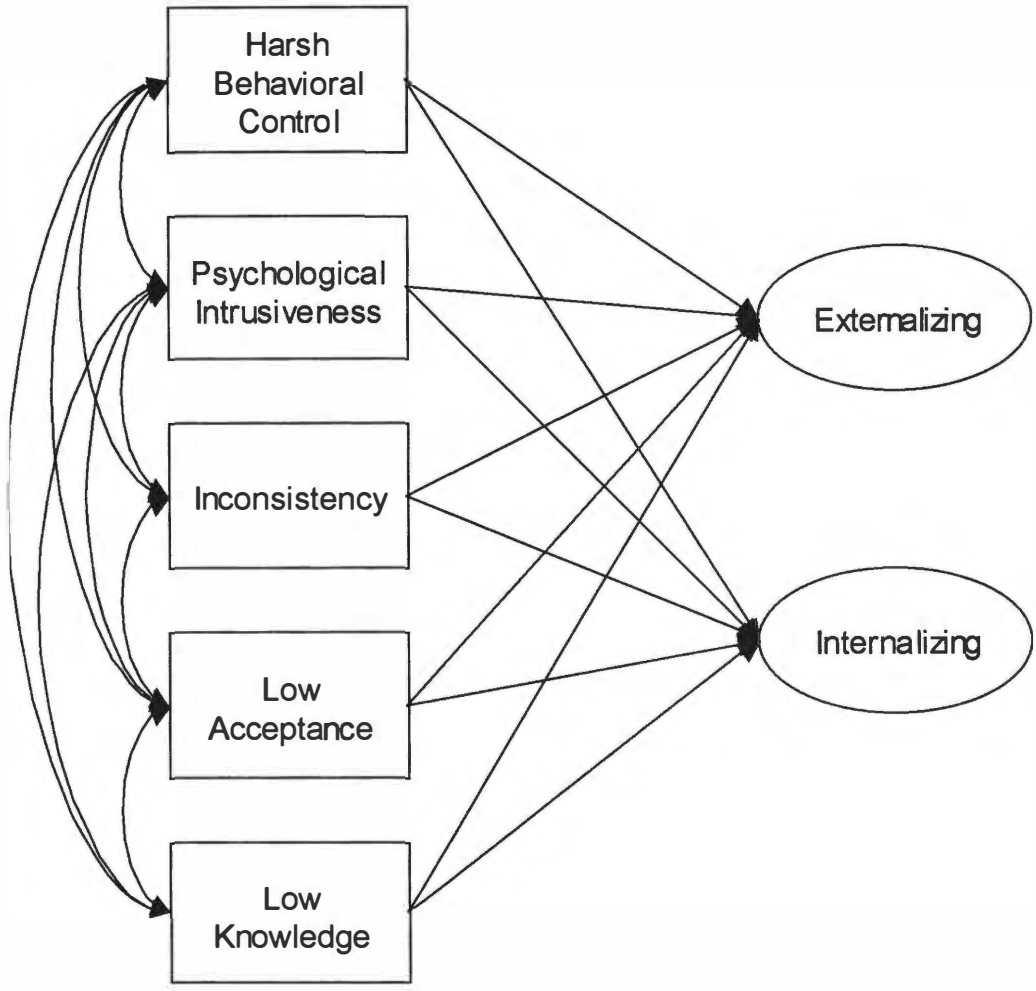


Figure 8. The relationships between compromised parenting behaviors and youth externalizing and internalizing problem behaviors.

aggression (Dodge, Pettit, & Bates, 1994), increased aggression toward peers (Dodge, et al., 1994; Nelson & Crick, 2002), affiliation with deviant peers (Brody et al., 2001), and conduct problems (Hill, Bush, & Roosa, 2003; Kilgore, Snyder, & Lentz, 2000). In a national survey of children ranging in ages from preschool to high school, children who were exposed to verbally aggressive parenting behaviors (i.e., yelling, swearing,) were more likely to be physically aggressive, delinquent, and have social and school problems (Vissing, Straus, Gelles, & Harrop, 1991). This was true for children regardless of age, gender, or socioeconomic status.

There is also evidence linking harsh behavioral control with youth internalizing problem behaviors. Children exposed to frequent harsh discipline methods were more likely to feel anxious and depressed (Rodriguez, 2003) as well as helpless, worthless, and psychologically distressed (Burge & Hammen, 1991; Lara, Klein, & Kasch, 2000; Weiss, Dodge, Bates, & Pettit, 1992). In a retrospective study, young adults who had experienced at least one major depressive episode were more likely to report harsh parental discipline during their childhood even after controlling for current social support (Lara et al., 2000). Furthermore, harsh parental discipline was significantly associated with risk of relapse of depression within a year.

In sum, there is evidence that harsh behavioral control is related to youth externalizing and internalizing problem behaviors. It is hypothesized that harsh behavioral control is related to both youth externalizing and internalizing problem

behaviors and that these relationships are the same for mothers and fathers as well as for sons and daughters.

Psychological intrusiveness. Psychologically intrusive parenting behaviors have been associated with externalizing and internalizing problem behaviors in youth (see Barber & Harmon, 2002 for a review). Several studies have found a consistent relationship between psychologically intrusive parenting and youth internalizing problem behaviors. When controlling for the effects of parental knowledge, Barber (1996) found that increased parental psychological intrusiveness was related to more depression. Other studies have found a consistent relationship between psychological intrusiveness and depression in adolescents (Barber et al., 1994; Bradford et al., 2004). Larson and Gillman (1999) found adolescents were at risk for anxiety when their mothers displayed higher levels of psychological intrusive parenting behaviors. In a study of preadolescents, cross-sectional analyses indicated that higher paternal psychological intrusiveness was related to adolescent internalizing problem behaviors only if maternal psychological intrusiveness was also high (Rogers, Buchanan, & Winchell, 2003). Maternal psychological intrusiveness was related to more internalizing problem behaviors only in daughters. However, longitudinal analyses failed to replicate these findings with neither maternal nor paternal psychological intrusiveness related to internalizing problem behaviors in sons or daughters.

There is mixed evidence regarding the relationship between psychological intrusive parenting behaviors and externalizing problem behaviors. Barber (1996) found increased parental psychological intrusiveness was related to increased antisocial behavior in adolescents. One study found that paternal psychological intrusiveness was related to more externalizing problem behaviors in girls but only if maternal psychological intrusiveness was also high (Rogers et al., 2003). However, longitudinal analyses revealed that paternal psychological intrusiveness predicted higher levels of externalizing problem behaviors in both sons and daughters. In another study, higher levels of paternal psychological intrusiveness were associated with higher levels of aggression for daughters but not for sons and maternal psychological intrusiveness was not related to daughters or sons' aggression (Nelson & Crick, 2002).

In sum, there is evidence that psychological intrusiveness is related to youth externalizing and internalizing problem behavior. It is hypothesized that psychological intrusiveness is related to youth externalizing and internalizing problem behavior and that these relationships are the same for mothers and fathers as well as for sons and daughters.

Inconsistency. Inconsistent parenting behavior has been associated with externalizing and internalizing problem behaviors. In a study of adolescents, inconsistent parenting was related positively to delinquency and depression for both sons and daughters (Lempers, Clark-Lempers, & Simons, 1989). In another study of preadolescent boys, inconsistent parenting was related to antisocial

behavior and lower academic achievement (DeBaryshe, Patterson, & Capaldi, 1993). A study of adolescent boys found a positive relationship between inconsistent parenting and both self-reported and police reports of delinquency (Patterson & Stouthamer-Loeber, 1984). Another study of adolescent boys found a relationship between inconsistent parenting and aggression with siblings and peers (Patterson & Southamer-Loeber, 1984). Additionally, children who fought aggressively were more likely to be exposed to inconsistent parenting behaviors compared with children who did not fight aggressively (Loeber & Dishion, 1984).

In sum, there is evidence that inconsistency is related to youth externalizing and internalizing problem behaviors. it is hypothesized that inconsistent parenting is related to youth externalizing and internalizing problem behaviors and that these relationships are the same for mothers and fathers as well as for sons and daughters.

Low parental acceptance. Low parental acceptance has been associated with externalizing problem behaviors including alcohol use (Whitbeck, Hoyt, Miller, & Kao, 1992a) and sexual activity (Whitbeck et al., 1992b). One study of a national sample linked higher levels of parental acceptance with lower levels of delinquency, school problems and drug and alcohol use in youth (Parker & Benson, 2004). In a study of preadolescent boys, lower levels of mother acceptance were related to aggression with peers and siblings but father acceptance was not related to these outcomes (MacKinnon-Lewis, Starnes, Volling, & Johnson, 1997). In a study of adolescents, lower levels of paternal

acceptance were related to school conduct problems but lower levels of maternal acceptance were not (Forehand & Nousianinen, 1993). One study found that adolescent daughters are affected more by lack of maternal acceptance, being more at risk for alcohol use and sexual activity than were adolescent sons (Whitbeck et al., 1992b).

Low levels of parental acceptance also have been related to youth internalizing problem behaviors including depression (Dumka, Roosa, & Jackson, 1997; Whitbeck, Conger, & Kao, 1993; Whitbeck et al., 1992a). Higher levels of maternal acceptance during adolescence have been associated with lower levels of depression in young adulthood (Jones, Forehand, & Beach, 2000). A meta-analysis found psychological maladjustment in adolescents who reported lack of parental acceptance regardless of gender, race, culture, or geographic location (Khaleque & Rohner, 2002).

In sum, there is evidence that low levels of parental acceptance are related to youth externalizing and internalizing problem behaviors. It is hypothesized that low levels of acceptance are related to youth externalizing and internalizing problem behaviors and that these relationships are the same for mothers and fathers as well as for sons and daughters.

Low parental knowledge. Parental knowledge has been identified as a protective factor against negative youth outcomes. Inadequate parental knowledge has been linked with more externalizing problem behaviors in youth, including deviancy (Forehand, Miller, Dutra, & Chance, 1997), delinquency

(Griffin, Botvin, Scheier, Diax, & Miller, 2000; Patterson & Stouthamer-Loeber, 1984; Pettit & Laird, 2002; Pettit, Laird, Dodge, Bates, & Criss, 2001), associating with antisocial peers (Dishion, Patterson, Stoolmiller, & Skinner, 1991), conduct problems (Kilgore, Snyder, & Lentz, 2000), alcohol use (Webb, Bray, Getz, & Adams, 2002), and risky sexual behavior (Miller, Forehand, & Kotchick, 1999). In a longitudinal study of early adolescents, youth were at risk for more externalizing problem behaviors when parents displayed lower levels of parental knowledge even when controlling for neighborhood and socioeconomic effects (Beyers, Bates, Pettit, & Dodge, 2003). Using a national dataset, Parker and Benson (2004) found that high levels of parental knowledge were associated with lower levels of delinquency, school problems, and drug and alcohol use.

Fewer studies have found an association between inadequate parental knowledge and internalizing problem behaviors. Inadequate parental knowledge has been associated with depression in minority youth (Kim & Ge, 2000; Sagrestano, Paikoff, Holmbeck, & Fendrich, 2003). In a longitudinal study, higher levels of parental monitoring were related to lower levels of anxiety in youth (Pettit & Laird, 2002).

In sum, there is evidence that low levels of parental knowledge are related to youth externalizing and internalizing problem behaviors. It is hypothesized that low levels of parental knowledge are related to youth externalizing and internalizing problem behaviors and that these relationships are the same for mothers and fathers as well as for sons and daughters.

Primary Research Hypotheses

This study explores the relationship between marital hostility, parental depressive affect, compromised parenting behaviors, and youth maladjustment. Emphasis is on the different youth outcomes associated with each predictor. The primary research hypotheses are:

1) Marital hostility and parental depressive affect each are associated significantly with externalizing and internalizing problem behaviors.
    a. When examined independently of parental depressive affect, marital hostility is related to both youth externalizing and internalizing problem behaviors but is related more strongly to youth externalizing than to youth internalizing problem behaviors.
    b. When examined independently of marital hostility, parental depressive affect is related to both youth externalizing and internalizing problem behaviors but is related more strongly to youth internalizing problem behaviors.
    c. The above relationships are the same for mothers and fathers as well as for sons and daughters.
2) When examined conjointly, marital hostility and parental depressive affect have specialized effects on externalizing and internalizing problem behaviors.
    a. When examined conjointly, marital hostility is related significantly to youth externalizing but not to youth internalizing problem behavior.

b. When examined conjointly, parental depressive affect is related significantly to youth internalizing but not to youth externalizing problem behavior.

c. The above relationships are the same for mothers and fathers as well as for sons and daughters.

3) Compromised parenting behaviors partially mediate the relationships between marital hostility, parental depressive affect, and youth externalizing and internalizing problem behaviors. This is the same for mothers and fathers as well as for sons and daughters.

III. Methodology

The sample and data used for this project are part of a larger, ongoing longitudinal study designed to assess the impact of various family processes on adolescent development with a specific focus on the effects of interparental hostility on youth emotions, behavior, and development. This study is funded by a grant from the National Institutes of Health, and Dr. Cheryl Buehler is the primary investigator. The data and sample presented here are from the first year of the study.

Procedures

Before conducting this study, approval was obtained from The University of Tennessee, Knoxville, Institutional Review Board and the Knox County School central administration. After this initial approval, principals for the fourteen middle schools in Knox County, Tennessee were contacted to see if they would allow a survey to be given during school hours to students in the 6th grade. Principals for thirteen of the fourteen middle schools agreed to participate in the project. The fourteenth principal did not respond to the written invitation. Homeroom teachers for 6th grade students for the 13 participating schools were contacted and asked to help with the project in several ways: distributing recruitment letters and consent forms, prompting students to return consent forms, and collecting completed consent forms. Ninety-six percent of the homeroom teachers agreed to assist with the project. Homeroom teachers were paid $50 for assisting with recruitment. An initial consent form with a letter was given to all 6th graders in

each homeroom to take home to their parents or guardians. The letter asked for parental permission for the youth to participate in the study by completing the questionnaire during school. The parents were instructed to indicate whether or not the youth had parental consent to participate and to have the child return the form to their homeroom teacher. Youth who returned the consent form were given a small token of appreciation regardless of whether or not they were participating in the study (e.g., a fancy pencil). Out of 4373 eligible students, 3178 (73%) returned consent forms. Of the 3178 returned consents, 2523 (79%) indicated the child could participate in the school survey. Of the 2523 with consent to participate, 2346 (93%) youth actually completed the school survey. Most of the students who had consent to participate but did not complete the questionnaires were absent from school during data collection.

Questionnaires were administered to small groups of youth in the school cafeteria during the school day with most youth finishing in an hour. A team of trained researchers was available to assist youth with questions and reading items if necessary. All participating youth signed an assent form and were instructed that if they did not want to participate in the survey they could return to class. After completing the questionnaires, the students were treated to a pizza party as compensation for participating in the study.

Families with a participating youth and who identified their family structure as two parents living together with no stepchildren were contacted by phone and asked to participate in the "core" study. Of the 1131 eligible families, 416 (37%)

agreed to participate and completed data collection. This core study consisted of questionnaires and videotaped observations of mothers, fathers, and the 6th grade youth.

Participating families were sent three questionnaires in the mail (each mother, father, and 6th grade youth received a questionnaire) and each person was instructed to complete their respective questionnaires independently. One of the child's teachers (usually the homeroom teacher) also completed a questionnaire. Each participant (mother, father, youth, and teacher) were paid a stipend for compensation for participating in the project.

Home visits were scheduled at the family's convenience. During the home visit, teams of two trained home visitors visited the family to videotape the semi-structured discussion activities and collect the completed questionnaires. During the home visit, the mother, father, and youth also completed additional short questionnaires.

The semi-structured discussion activities included videotaping four tasks. Before the first activity started, the youth and the parents each completed a brief checklist regarding topics that families often disagree about such as chores, transportation, and money. For each discussion activity the participants were given cards that contained questions to be discussed by everyone involved in the activity. The first two activities were similar except that one activity was with the youth and the mother and the other activity was with the youth and the father. The youth flipped a coin to decide whether the mother or the father would go first.

To allow family members involved in the task privacy, the home visitors left the room once the taping began, returning only when the time for the task had elapsed. The first two tasks lasted 15 minutes each and the questions were identical. The youth and each parent answered questions about their daily lives together, including what things they enjoyed doing together, achievements over the past year, and areas of stress. The third task was for 20 minutes and the youth and both parents participated. During this task, the youth and the parents were asked to discuss the areas they had identified as sources of conflict or disagreement for their family on the checklist administered at the beginning of the home visit, including who was involved in the conflict, what happens during the conflict, and ways to resolve the conflict. The fourth task was 20 minutes and only the spouses participated. The spouses discussed areas of daily life together such as things they enjoyed doing together and sources of conflict in their relationship.

Family interactions were coded using the Iowa Family Project Interaction Rating Scales (Melby et al., 1991) and scales developed by Buehler and Stone (1997). Each coder received over 300 hours of training and had to pass extensive written and viewing tests before they could code interactions. In order to minimize coder drift, coders from the Iowa Family Project coder several tapes for this project. Every other week coders were required to code one task from these tapes and to score at least 80% agreement with the Iowa scores. Different observers coded the four tasks (mother-child, father-child, the problem solving

task with all three together, and the marital task) to decrease the possibility of coder bias. About 20% of the tasks were selected randomly and coded by a second observer to estimate interrater reliability.

Measures

All scales were created in SPSS. Refer to Table 1 (see Appendix A for all tables) for descriptive statistics for each scale described in this section. The measures are discussed by construct. A complete list of items for each scale is included in the Appendix B.

Marital Hostility

Parents completed 18 items adapted from the verbal and physical aggression subscales of the Conflicts and Problem-Solving Scales (CPS; Kerig, 1996) and developed by Buehler et al. (1998). Respondents were instructed to think about how often during an argument they do the following behaviors. Sample items were: "I interrupt my spouse," and "I slap my spouse." The response format ranged from 1 *(never)* to 5 *(always).* Scores ranged from 1 to 3.22 for mothers and from 1 to 3.11 for fathers with a high score meaning higher levels of verbal and physical aggression. Cronbach's alpha was .89 for both mothers and fathers.

Four observational rating scales from the Iowa Family Project Interaction Rating Scales (Melby et al., 1991) were used to measure overt parental hostility: hostility, verbal attack, physical attack, and angry coercion. Observers looked for evidence of hostile, angry, critical, and rejecting behaviors directed from one

parent to the other. Scores were obtained for mothers' and fathers' interactions during the problem solving and marital tasks. The scores from the two tasks were averaged together, providing one score for mothers' and one score for fathers' interaction. The response format ranged from 1 *(not at all characteristic)* to 9 *(mainly characteristic).* Scores ranged from 1 to 4.46 with a high score meaning more observed hostile behaviors between the parents. Cronbach's alphas were .77 for mothers and .76 for fathers. Single-item intraclass correlation coefficients based on a one-way random effects ANOVA model were calculated (Choukalas, Melby, & Lorenz, 2000). Average intraclass correlation coefficients were .42 for mothers and .49 for fathers.

Parental Depressive Affect

Each parent reported levels of depressive affect on two common measures: Beck's Depression Inventory (BDI) and the Center for Epidemiological Studies on Depression (CESD). The BDI is a 20-item measure of diverse aspects of depression including feelings of sadness, anxiety, and irritability (Beck, Steer, & Brown, 1996). Respondents were instructed to choose the statement that best describes their feelings during the past week, including today. Sample items were: "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" and "I get as much satisfaction out of things as I used to, I don't enjoy things the way I used to, I don't get real satisfaction out of anything anymore, I am dissatisfied or bored with everything." Scores ranged from 0 to 30 for mothers and from 0 to 45 for fathers with a high

score meaning high levels of depressive affect. According to Beck et al. (1996) the following cut-off scores are used for scoring: minimal depression (0-13), mild depression (14-19), moderate depression (20-28), and severe depression (29-63). Using these categories, 92% of mothers and 96% of fathers were in the minimal depression category, 6% of mothers and 3% of fathers were in the mild depression category, 1% of mothers and fathers were in the moderate depression category, and less than 1% of mothers and fathers were in the severe depression category. Cronbach's alpha was .87 for mothers and .85 for fathers.

The CESD is a 20-item measure of depressive affect (Radloff, 1977). Respondents were instructed to think about their feelings and behavior for the past week. Sample items included: "I was bothered by things that usually don't bother me" and "I felt that everything I did was an effort." The response format ranged from 0 (*rarely or none of the time (less than 1 day)* to 3 *(most or all of the time (5-7 days)*. Scores ranged from 0 to 30 for mothers and from 0 to 45 for fathers with higher scores meaning high levels of depressive affect. Radloff (1977) used scores above 16 to indicate clinical levels of depression. Using this cut-off, 35% of mothers and 24% of fathers. Using the cut-offs for clinical depression, 16% of mothers and 13% of fathers met the criteria for clinical depression. Cronbach's alpha was .82 for mothers and fathers.

The percent of depressed mothers and fathers in this sample is comparable to studies examining community samples for adult depression. In a study of three metropolitan areas, about 6% of adults experience major

depression in a 6-month period with less than 1% of men and 2.9% of women who get along with spouse reporting depression and 15% of men and 46% of women reporting problems with spouse reporting depression (Weissman, 1987). Therefore, this sample of parents appear comparable to community percentages of adult prevalence for depression particularly for adults who are experiencing low levels of stressors.

The sadness observational rating scale from the Iowa Family Project Interaction Rating Scales (Melby et al., 1991) was used to report mother and father's sadness. Observers looked for evidence of sadness, regret, tearfulness, worry and stress expressed by one parent. Scores were obtained for mothers and fathers in the problem solving and the marital task. The scores from the two tasks were averaged together. The response format ranged from 1 *(not at all characteristic)* to 9 *(mainly characteristic)*. Scores ranged from 1 to 7 for mothers and from 1 to 6.33 for fathers with high scores meaning high levels of displayed sad behavior. Cronbach's alphas were .55 for mothers and .57 for fathers. Average intraclass correlations were .55 for mothers and .36 for fathers.

Youth Perceptions of Compromised Parenting Behaviors

To measure perceptions of harsh behavioral control, youth completed the aggression subscale and physical assault subscale from the parent-child version of the Conflict Tactics Scale (PTSPC; Straus et al., 1998). Youth were instructed to think about the past year when answering the questions. Sample items included: "threatened to spank or hit me but did not actually do it," and "shouted,

yelled, or screamed at me." The response format ranged from 0 *(never happened)* to 7 *(not in the last year, but it did happen before).* Response 7 was recoded to be included in response 1 *(once in the past year),* so response 6 *(more than 20 times in the past year)* was the high end of the scale. Scores ranged from 0 to 3.38 for youth reports of mothers and from 0 to 3.88 for youth reports of fathers with high scores meaning high levels of harsh behavioral control. Cronbach's alpha was .72 for youth reports of mothers and .77 for youth reports of fathers.

Youth completed 11 items regarding parental psychological intrusiveness: eight items from the Psychological Control Scale (PCS; Barber, 1996) and three items developed by Bogenschneider et al. (1997). Sample items were: "My mother is always trying to change how I feel or think about things," and "My mother blames me for other family member's problems." The response format ranged from 1 *(not like me)* to 3 *(a lot like me).* Scores ranged from 1 to 3 for youth reports of mothers and from 1 to 2.55 for youth reports of fathers with high scores meaning high levels of psychological intrusive behaviors. Cronbach's alpha was .77 for youth reports of mothers and .74 for youth reports of fathers.

Youth reported on perceived parental inconsistency using eight items from the Revised Children's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965; Schludermann & Schludermann, 1970). Sample items were: "My father only keeps rules when it suits him," and "My mother frequently changes the rules I'm supposed to follow." The response format ranged from 1 *(not like her)* to 3 *(a*

lot like her). Scores ranged from 1 to 3 for youth reports of mothers and from 1 to 2.50 for youth reports of fathers with high scores meaning high levels of parental inconsistency. Cronbach's alpha was .72 for youth reports of mothers and .73 for youth reports of fathers.

Youth reported on perceived parental acceptance using ten items from the CRPBI (Schaefer, 1965; Schludermann & Schludermann, 1970). Sample items were: "My mother makes me feel like the most important person in her life," and "My mother listens to me." The response format ranged from 1 (*not like her) to 3 (a lot like her).* The scores ranged from 1 to 3 for youth reports of mothers and fathers with high scores meaning high levels of parental accepting behaviors. Cronbach's alpha was .83 for youth reports of mothers and .88 for youth reports of fathers.

Youth reported on perceived parental knowledge using five items from Brown et al. (1993). Sample items were: "How well does your mother know how you spend your free time," and "How well does your mother know your friends." The response format ranged from 1 (*doesn't know*) to 3 (*knows a lot).* Scores ranged from 1 to 3 for youth reports of mothers and fathers with high scores meaning high levels of parental knowledge. Cronbach's alphas were .69 for youth reports of mothers and .73 for youth reports of fathers.

Each youth perception of parenting behavior was measured as a manifest variable with estimated error terms. In a further attempt to limit bias due to measurement error, using SEM, confirmatory factor analyses of the parenting

variables were performed. Items that were highly skewed (over 2) or kurtotic (over 7) were eliminated as well as items that did not load primarily on one factor with a loading at least .30 or higher (R.T. Ladd, personal communication, Fall 2004). Parenting behavior scales were computed based on the factor analyses. For mothers, the new parenting computed scales were as follows: 5-item harsh behavioral control (α = .70), 7-item psychological intrusiveness (α = .74), 5-item inconsistency scale (α = .67), and 4-item knowledge scale (α = .65). All of the original items for the maternal acceptance scale were retained (α = .83). For fathers, the same items used for mothers were retained in order to be consistent. The new computed scales were as follows: 5-item harsh behavioral control (α = .73), 7-item psychological intrusiveness (α = .68), 5-item inconsistency scale (α = .62), 4-item knowledge scale (α = .64), and a 10-item acceptance scale (α = .88).

Youth Externalizing Problem Behaviors

The Child Behavior Checklist (CBCL) was used to measure youth externalizing problem behaviors. This subscale has adequate reliability and validity (Achenbach, 1991a, 1991b, 1991c). There were 30 items for youth self-report and 31 items for mothers, fathers, and teachers' report of youth. Sample items for externalizing problem behaviors were: "I destroy my own things," and "I argue a lot." The response format ranged from 0 *[not true (as far as you know)]* to 2 *(very true or often true).* Scores ranged from 0 to 41 for youth reports, 0 to 28 for mother reports, 0 to 36 for father reports, and from 0 to 46 for teacher reports with high scores meaning high levels of externalizing problem behaviors. The

amount of youth scoring in the clinical range of externalizing problem behaviors was as follows: for boys, 3% (teacher report) to 6% (youth self-report) scored in the subclinical range and 3% (teacher report) to 5% (youth self-report) scored in the clinical range; for girls, 1% (teacher report) to 4% (father report) scored in the subclinical range and 2% (youth-self-report and teacher report) to 6% (father report) scored in the clinical range. Cronbach's alpha for externalizing problem behaviors was .84 for youth self-reports, .87 for mothers' reports, .89 for fathers' reports, and .93 for teachers' reports.

Youth Internalizing Problem Behaviors

The Child Behavior Checklist (CBCL) also was used to measure youth internalizing problem behaviors. This subscale has adequate reliability and validity (Achenbach, 1991a, 1991b, 1991c). There were 30 items for youth self-report, and 29 items for mothers, fathers, and teachers' report of youth. Sample items were: "I cry a lot," and "I feel lonely." The response format ranged from 0 *[not true (as far as you know)]* to 2 *(very true or often true).* Scores ranged from 0 to 45 for youth reports, 0 to 31 for mother reports, 0 to 35 for father reports, and 0 to 33 for teacher reports with high scores meaning high levels of youth internalizing problem behaviors. The amount of youth scoring in the clinical range of externalizing problem behaviors was as follows: for boys, less than 1% (teacher report) to 11% (youth self-report) scored in the subclinical range and less than 1% (teacher report) to 8% (youth self-report) scored in the clinical range; for girls, less than 1% (teacher report) to 2% (youth-self report, mother

report, and father report) scored in the subclinical range and 1% (mother report) to 7% (youth self-report) scored in the clinical range. Cronbach's alpha for internalizing problem behaviors was .87 for youth self-reports, .82 for mothers' reports, .85 for fathers' reports, and .87 for teachers' reports.

Previous research has found evidence that youth externalizing and internalizing problem behaviors are correlated (Achenbach, McConaughy, & Howell, 1987). In order to determine whether a two-factor model would be appropriate, two nested models were compared: a one-factor model combining the two constructs and a two-factor model (see Table 2). For both models, error covariances were included between the same reporters (e.g., youth report of externalizing and youth report of internalizing problem behaviors). In the two-factor model, the disturbance terms between the two constructs was correlated as well. The two-factor model indicated a better fit of the data. The resulting analyses use a two-factor model of youth problem behaviors. The three error covariances were estimated in each model by reporter (i.e., youth report of externalizing and internalizing problem behavior). Also, the disturbance terms between the latent constructs, youth externalizing and internalizing problem behavior, was estimated. In order to simplify the figures, these estimated error covariances were not displayed.

Analytic Methods

Data were analyzed using SPSS and the structural equation modeling (SEM) statistical package in Amos 5.0 using maximum likelihood estimation. A

model with all of the latent constructs (marital hostility, maternal and paternal depressive affect, and youth externalizing and internalizing problem behaviors) as well as youth reports of compromised mothering and fathering behaviors was estimated but this model failed to converge probably due to the complexity of this model. Thus, for all of the methods described, two sets of analyses were performed: one set with maternal depressive affect and one set with paternal depressive affect.

Separate zero-order correlations were estimated for the indicators in the mother model and the indicators in the father model. These correlations were a preliminary assessment of significant relationships between the indicators both between and within constructs. Significant relationships between constructs provide evidence for discriminant validity. Significant relationships within constructs provide evidence for construct validity.

Preliminary models that included the direct association between the independent and dependent variables were tested first: a separate model that included only marital hostility and youth problem behaviors, and a separate model that included only parental depressive affect and youth problem behaviors. These models were tested to determine if each of the independent variables was related significantly to both youth externalizing and internalizing problem behaviors as predicted in hypothesis 1. Next, models were tested that combined marital hostility and parental depressive affect as co-varying predictors of the dependent variables. It was predicted that the effects of each independent

variable on each outcome variable would change when controlling for the effects of the other independent variable.

Next, a model that combined the independent, dependent, and mediating variables was tested. The mediational guidelines described by Baron and Kenny (1986) were followed. To determine mediational effects, the following criteria must be met: (a) a statistically significant relationship between the independent (marital hostility and parental depressive affect) and dependent variables (externalizing and internalizing problem behaviors), (b) a statistically significant relationship between the independent and mediating variables (negative parenting behaviors), (c) a statistically significant relationship between the mediating and dependent variables, and (d) the direct relationship between the independent and dependent variables decreases and is still statistically significant (partial mediation) or decreases and is no longer statistically significant (full mediation). Sobel's test of significance was used to test the statistical significance of the mediated pathways. The purpose of the Sobel's test is to determine if the indirect effect of the mediator on the association between the independent and the dependent variable is significantly different from zero (Sobel, 1982). The formula for Sobel's test is included in Appendix C.

Using SEM, nested path models were compared to test for mediation (Arbuckle & Wothke, 1999; Kline, 1998). First, a full model was tested that included the direct paths from marital hostility and parental depressive affect to externalizing and internalizing problem behaviors, as well as the mediated paths

from marital hostility and parental depressive affect through compromised parenting behaviors to the dependent variables. If the direct paths were reduced to nonsignificance when the mediators were included in the model, a mediated model was tested that included only the mediated paths from marital hostility and parental depressive affect through compromised parenting behaviors to youth externalizing and internalizing problem behaviors but did not include the nonsignificant direct paths from the independent to the dependent variables. To determine if the mediated model was the best fit, the χ^2 statistics for the two models were compared (χ^2 difference test). If the test revealed no significant difference between the two models, the mediated model would be accepted as the best fit as it is more parsimonious than the full model and the direct paths do not contribute additional information in explaining the hypothesized relationships (Byrne, 2001).

Standardized regression coefficients were computed for each structural path between constructs. Overall goodness of fit of the models was assessed by the χ^2 statistic, Bentler's comparative fit index (CFI; Bollen & Long, 1993), and Browne and Cudeck's (1993) root mean square error of approximation (RMSEA). Confidence intervals for closeness of fit for the RMSEA were reported as suggested by Byrne (2001).

For a model to fit the data well, ideally the χ^2 statistic would be non-significant. However, when the sample size is large the χ^2 statistic tends to be significant and this could lead to erroneous rejection of the model (Byrne, 2001).

Therefore, other indices regarding the fit of the model were examined. The CFI is based on a comparison of the hypothesized model and the independence model (e.g., there are no relationships between the variables in the model; Byrne, 2001). The CFI ranges from 0 to 1.00 with a cutoff of .95 or higher indicating a well-fitting model and .90 indicating an adequate fit (Byrne, 2001; Hu & Bentler, 1999). The RMSEA compares the model to the projected population covariance matrix (Byrne, 2001). RMSEA values below .05 indicate good model fit with values between .06 and .08 indicating an adequate model (Browne & Cudeck, 1993; Byrne, 2001). Confidence intervals of 90% around the RMSEA are reported with a wide confidence interval indicating less precision and a smaller confidence interval indicating more precision regarding the statistic.

Model Building

There is evidence that using one person to report on multiple constructs in a model inflates the parameter estimates particularly when evaluative judgments are involved (Bank, Dishion, Skinner, & Patterson, 1990). It has been suggested that using parents to rate both their psychological functioning and the functioning of youth could be problematic as both measures might be subject to similar error and bias (Brody & Forehand, 1986; Phares & Compas, 1992). This might be especially problematic with depressed parents who have been found to rate their behavior and their children's behavior more negatively (Boyle & Pickles, 1997; Briggs-Gowan, Carter, & Schwab-Stone, 1996; Brody & Forehand, 1986; Frankel & Harmon, 1996). In an effort to reduce potential bias due to shared method

variance, constructs were developed using as few overlapping agents as possible (Bank, et al., 1990). For this reason, the independent latent constructs contained parent reports and observer reports but not youth reports. For youth problem behavior, all models contained reports by youth and teachers. For the mother models, fathers reported on youth problem behavior and for the father models, mothers reported youth problem behavior. In addition, each parenting behavior was represented as a single indicator—youth perceptions of each parenting behavior. Only youth perceptions were used because it is believed that youth understanding of parenting behavior might be more salient to youth outcomes than parental perceptions of behaviors (Scheck, Emerick, & El-assal, 1973).

Missing Data

Missing data were handled in two ways. In order for each indicator to be computed, a respondent had to complete at least 75% of the individual items. For each computed variable, less than 3% of the data were missing (see Table 3). Missing data analyses indicated that this data were missing at random. In Amos, missing data were handled using the standard option for full-information maximum likelihood estimation computations (FIML; Wothke & Arbuckle, 1996). In FIML, the maximum likelihood function is computed for each case using only the available variables for each case (Chen, Bollan, Paxton, Curran, & Kirby, 2001). Compared to more traditional approaches for handling missing data such as pairwise deletion (using all available cases to compute correlations or

covariances which are imputed into the analysis; Chen et al., 2001) or listwise deletion (eliminating cases where there is any missing values for the variables in the analysis), Wothke and Arbuckle (1996) determined that all 3 methods had negligible estimation bias, but FIML yielded more precise parameter estimates than did pairwise or listwise deletion. Furthermore, when using FIML, tests of model fit and standard errors are computed, no cases are discarded, and there is no imputation of missing values (Chen et al., 2001; Wothke & Arbuckle, 1996).

IV. Results

The results from the statistical analyses are presented here. First, descriptive characteristics of the sample are reported. Next, the statistical findings for the mother models are presented, including zero-order correlations and results from the structural equation models (SEM). Finally, findings for the father models are presented.

Sample Characteristics

The families that took part in this study were a community sample consisting of 416 mothers, fathers, and youth in 6th grade. Families were included in the study if there were no step-children in the home and the 6th grade youth was the biological child of both parents or was adopted by one or both parents at an early age. There were equal numbers of sons and daughters (211 and 205, respectively) with an average age of 11.86 years, *SD* = .69. In terms of ethnicity, the sample was primarily white with 391 (94%) of fathers and 393 (95%) of mothers and youth reporting that they were white only. Most fathers reported being employed full-time with 377 (91%) working 30 or more hours a week. Most mothers reported being employed with 195 (47%) working full-time, 102 (25%) working part-time (less than 30 hours a week) and 87 (21%) not working outside of the home. A range of household incomes was reported with the median level of 2002 household income being $70,000. The mean education level for mothers and fathers was some college.

Using 2000 U.S. Census data on demographic variables, this sample was compared to families in the same southeastern county and to families in the U.S. Compared to families in the same county, there were differences regarding the percentage of African American families (3% vs. 5%; U.S. Census 2000, Table PCT27 of SF4), comparable regarding educational level for men and women (county mean category was some college, no degree; U.S. Census 2000, Table P148A of SF4), and differences regarding median income ($70,000 vs. $51,000; U.S. Census 2000, Table P155a of SF4). Compared with U.S. Census data for the country, the demographic statistics were lower regarding the percentage of African American families (3% vs. 8%; U.S. Census 2000, Table PCT27 of SF4), comparable regarding educational level for men and women (national mean category was some college, no degree; U.S. Census 2000, Table P148A of SF4), and higher regarding median income ($70,000 vs. $53,000; U.S. Census 2000, Table P155a of SF4).

Further comparisons were made between this sample of youth and the larger sample of youth who participated in the school study. Three groups were compared: youth who participated in the follow-up study, youth who were eligible to participate in the follow-up study but declined, and youth who were ineligible to participate in the follow-up study. These three groups were compared on the following variables that were completed on the school questionnaire: youth self-report of externalizing and internalizing problem behaviors, teacher report of youth externalizing and internalizing problem behaviors, youth report of maternal

harsh behavioral control, youth report of paternal harsh behavioral control, youth report of maternal psychological intrusiveness, youth report of maternal inconsintency, youth report of maternal acceptance, and youth report of maternal knowledge. The two groups of eligible youth (youth who participated in the follow-up study and youth who were eligible but did not participate in the follow-up study) did not differ on any of the variables. In essence, the youth who participated in the follow-up study were similar to youth with two-married parents who did not participate. Table 4 has the means on all of the variables for the three groups.

Models

As reported previously, separate models were estimated for mothers and fathers. When a model was attempted including both mothers and fathers' level of depressive affect, the model failed to converge possibly because of the complexity of the model. It was believed that mothers and fathers' level of depressive affect would function similarly. The results for the mother models are reported first followed by the results for the father models.

Mother Models

Correlational analyses. Zero-order correlations for all variables used in the model for mothers are in Table 5. In general, correlations among indicators within constructs are higher than correlations across constructs, indicating adequate construct validity for the various latent constructs. For marital hostility, correlations ranged from .37 (observer report and mother report; $p < .01$) to .51

(mother report and father report; $p < .01$). For maternal depressive affect, correlations ranged from .23 (mother report on the CESD and observer report; $p < .01$) to .67 (mother report on the CESD and mother report on the BDI; $p < .01$). For youth externalizing problem behavior construct, correlations ranged from .19 (youth report and teacher report of externalizing problem behaviors; $p < .01$) to .38 (father report and teacher report of youth externalizing problem behaviors; $p < .01$). For youth internalizing problem behavior construct, correlations ranged from .24 (father report and teacher report of youth internalizing problem behavior; $p < .01$) to .26 (both youth report and father report and youth report and teacher report of youth internalizing problem behavior; $ps < .01$).

As discussed previously, a mediational model has to have a significant relationship between the independent and the dependent variables (Baron & Kenny, 1986). The indicators of the independent constructs (marital hostility and maternal depressive affect) were related significantly to at least one of the indicators of the dependent constructs (externalizing and internalizing problem behavior).

In a mediational model, the second relationship that needs to be significant is between the predictor variables and the mediating variables (Baron & Kenny, 1986). At least one of the indicators for the marital hostility construct correlated significantly with the indicators for harsh behavioral control, inconsistency, psychological intrusiveness, and acceptance. None of the indicators of marital hostility correlated significantly with the indicator of maternal

knowledge. At least one of the indicators for the maternal depressive affect construct correlated significantly with the indicators of the parenting behaviors including maternal knowledge.

A third condition for a mediational model is that the mediator variables need to be related significantly with the dependent variables (Baron & Kenny, 1986). All of the indicators of negative parenting behaviors were correlated significantly with at least one indicator of the youth problem behaviors.

In sum, the correlations supported the testing of a mediational model. There were significant relationships between the independent, potential mediators, and the dependent variables as required (Baron & Kenny, 1986).

Model Fit

Hypothesis 1 was examined first, predicting that marital hostility and maternal depressive affect each are associated significantly with youth externalizing and internalizing problem behaviors. The results for marital hostility are presented in Figure 9. The standardized regression coefficients from the SEM analysis indicated that, as predicted, marital hostility was related significantly and positively to both externalizing (ß = .40, $p < .001$) and internalizing problem behaviors (ß = .35, $p < .001$). Factor loadings were adequate and statistically significant. Model fit was good, χ^2 (22) = 43.46, $p < .01$, CFI = .97, RMSEA = .05 (CI = .03 to .07). This included estimating error covariances between the following error terms: youth reports of externalizing and internalizing problem behaviors (.61), father reports of externalizing and

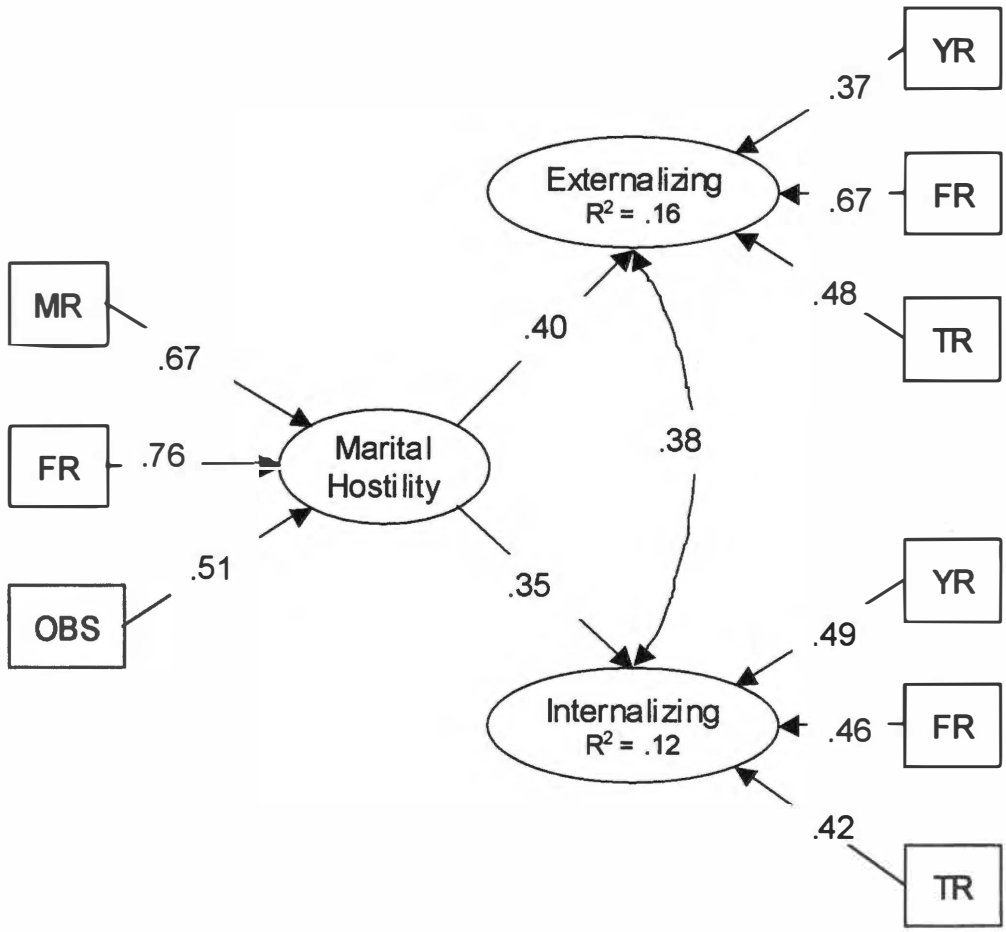


Figure 9. The relationships between marital hostility and youth externalizing and internalizing problem behaviors for mothers.

internalizing problem behaviors (.59), teacher reports of externalizing and internalizing problem behaviors (.26), and the latent constructs for youth externalizing and internalizing problem behavior (.38).

The two structural paths identified in Figure 9 were tested to determine if there were significant differences regarding the strength of the association of marital hostility to each outcome. Using SEM to test for path differences, two models were compared. In the first model, all parameters were unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant ($\Delta\chi^2$ (1) = 1.33, p = .25), indicating that there were no significant substantive differences regarding the strength of the associations.

The model in Figure 9 was tested for moderating effects of youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was not statistically significant [$\Delta\chi^2$ (7) = 12.56, p = .08], indicating that there were not significant differences between sons and daughters regarding measurement of the latent indicators. Next, two models were compared to test for differences in the structural paths. In the first model, all parameters for the two groups were constrained to be equal. In the second model, the structural paths for the two groups were allowed to vary. The χ^2 difference between the two models was not

statistically significant [$\Delta\chi^2$ (2) = .35, p = .84], indicating that there were not significant substantive differences between sons and daughters.

The next model tested the relationships between maternal depressive affect and youth externalizing and internalizing problem behaviors (Figure 10). As predicted, maternal depressive affect was related significantly to both externalizing (ß = .25, p < .001) and internalizing problem behaviors (ß = .31, p < .001). Factor loadings were adequate and statistically significant. Model fit was good, χ^2 (37) = 28.54, p = .10, CFI = .99, RMSEA = .03 (CI = .00 to .06). This included estimating error covariances between the following error terms: youth reports of externalizing and internalizing problem behaviors, (.55), father reports of externalizing and internalizing problem behaviors, (.47), teacher reports of externalizing and internalizing problem behaviors (.22), and the latent constructs for youth externalizing and internalizing problem behaviors (.38).

The two structural paths identified in Figure 10 were tested to determine if there were significant differences regarding the strength of the association of marital hostility to each outcome. Using SEM to test for path differences, two models were compared. In the first model, all parameters were unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant ($\Delta\chi^2$ (1) = 1.98, p = .16), indicating that there were no significant substantive differences regarding the strength of the associations.

The model in Figure 10 was tested for moderating effects of youth gender.

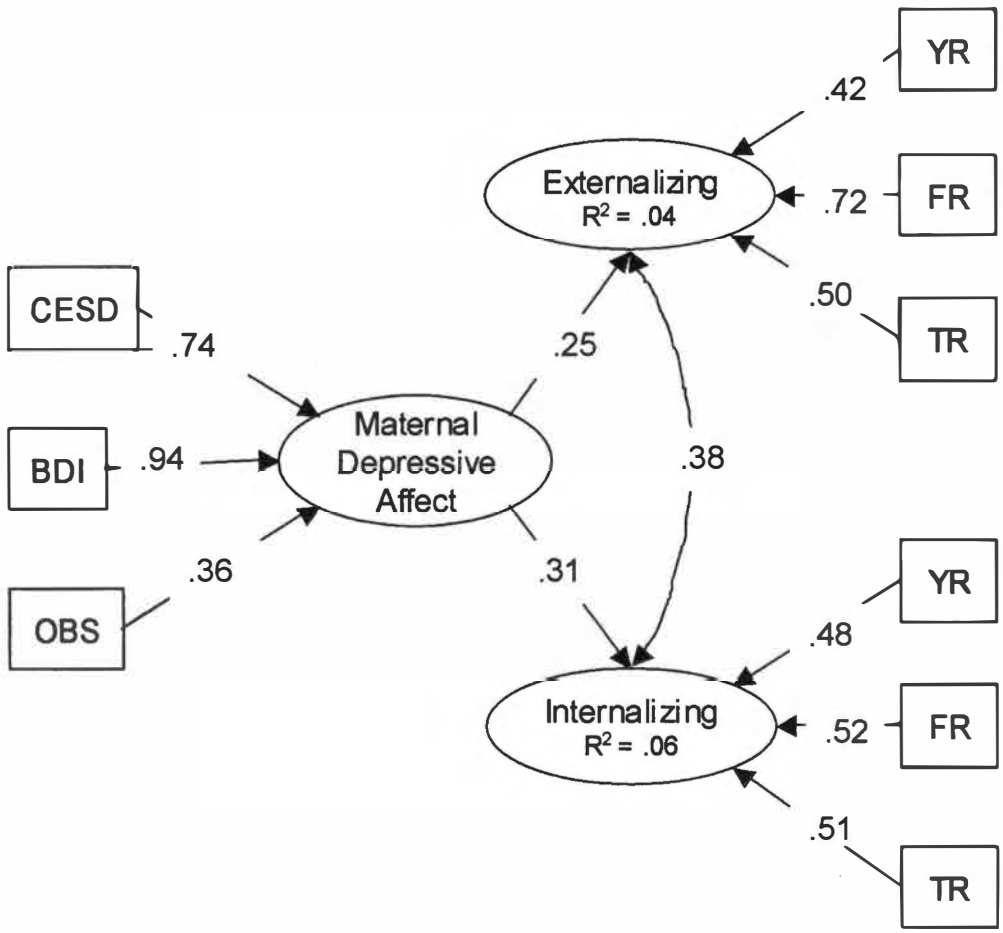


Figure 10. The relationships between maternal depressive affect and youth externalizing and internalizing problem behaviors.

Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was statistically significant [$\Delta\chi^2$ (7) = 16.30, $p < .05$], indicating that there were significant differences between sons and daughters regarding measurement of the latent indicators. Therefore, the structural paths for the two groups could not be compared given the assumption of equal measurement models was violated.

In sum, there was support for hypothesis 1 for mothers: when examined independently, marital hostility and maternal depressive affect were related significantly to both youth externalizing and internalizing problem behavior. It was predicted that, when examined independently, marital hostility would be related more strongly to youth externalizing than to youth internalizing problem behavior. However, the results here did not support this, finding no statistically significant differences between the two paths. Furthermore, it was predicted that, when examined independently, maternal depressive affect would be related more strongly to youth internalizing than to youth externalizing problem behavior. Again, the results did not support this, finding no statistically significant differences between the two paths. There were no statistically significant differences between sons and daughters regarding marital hostility, but the two groups could not be compared regarding maternal depressive affect.

Hypothesis 2 was examined next: when examined conjointly, marital hostility and parental depressive affect have specialized effects on externalizing and internalizing problem behaviors. The next model tested (Figure 11) included the direct effects of marital hostility and maternal depressive affect to youth externalizing and internalizing problem behaviors. In this model, marital hostility and maternal depressive affect were correlated significantly ($r = .34$, $p < .001$). Controlling for the effects of maternal depressive affect, the standardized regression coefficients indicated a significant relationship between marital hostility and youth externalizing problem behaviors (ß = .29, $p < .001$) and youth internalizing problem behaviors (ß = .16, $p < .05$). Furthermore, controlling for the effects of marital hostility, there was a significant relationship between maternal depressive affect and youth internalizing problem behavior (ß = .23, $p < .001$). As predicted, the relationship between maternal depressive affect and youth externalizing problem behaviors was not significant (ß = .10, $p = .10$). Factor loadings for each construct were adequate construct were adequate and statistically significant. Model fit was adequate, $\chi^2 = 71.97$ (44), $p < .01$, CFI = .97, RMSEA = .04 (CI = .02 to .06). This included estimating error covariances between the following error terms: youth reports of externalizing and internalizing (.58), father reports of youth externalizing and internalizing (.55), teacher reports of youth externalizing and internalizing (.23), and the disturbance terms for the latent constructs of youth externalizing and internalizing problem behavior (.37).

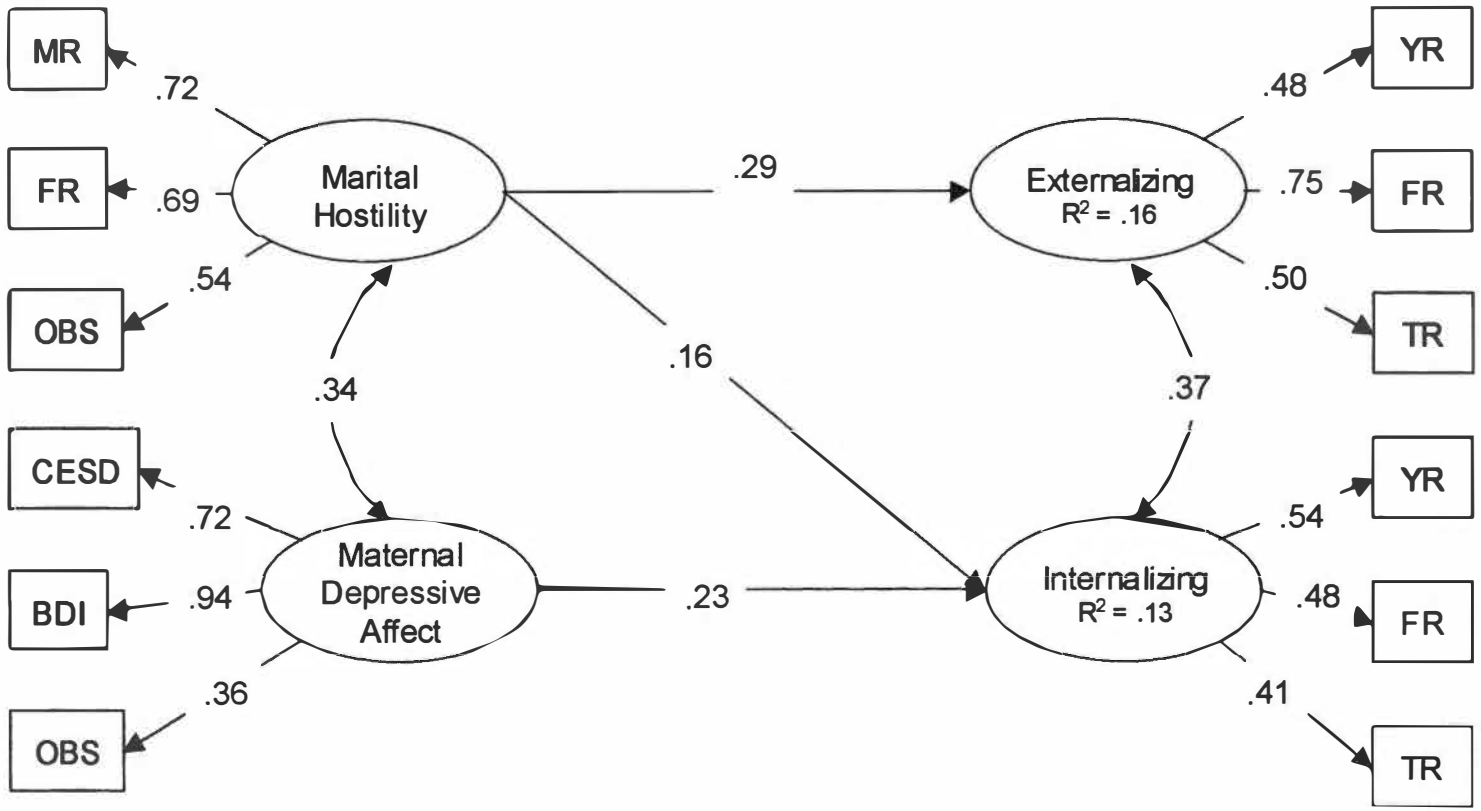


Figure 11. The relationships between marital hostility, maternal depressive affect, and youth externalizing and internalizing problem behaviors.

The two structural paths between marital hostility and youth externalizing and internalizing problem behavior were tested to determine if there were significant differences regarding the strength of the associations. Using SEM to test for path differences, two models were compared. In the first model, all parameters were unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant ($\Delta\chi^2$ (1) = .31, p = .58), indicating that there were no significant statistical differences regarding the strength of the associations.

The model in Figure 11 was tested for moderating effects of youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was not significant [$\Delta\chi^2$ (10) = 16.46, p = .09], indicating that there were no significant substantive differences regarding measurement loadings for the two groups. Next, two models were compared to examine potential differences in the structural paths. Again, in the first model, all parameters for the two groups were constrained to be equal. In the second model, the structural paths for the two groups were allowed to vary. The χ^2 difference between the two models was not significant [$\Delta\chi^2$ (3) = .26, p = .09], indicating that there were no significant substantive differences between sons and daughters.

In sum, there was mixed support for hypothesis 2. When controlling for maternal depressive affect, marital hostility continued to be related significantly to both youth externalizing and internalizing problem behaviors. However, when controlling for the effects of marital hostility, maternal depressive affect was related significantly to youth internalizing problem behavior but not to youth externalizing problem behavior. These findings were the same for sons and daughters.

Mediating effects of parenting. Hypothesis 3 was examined last: youth perceptions of compromised mothering behaviors (harsh behavioral control, psychological intrusiveness, inconsistency, lower acceptance, and lower knowledge) partially mediate the relationship between marital hostility and maternal depressive affect and youth problem behaviors. Controlling for maternal depressive affect, marital hostility was related significantly to harsh behavioral control ($\beta = .23$, $p < .001$) and lower acceptance ($\beta = -.14$, $p < .05$), but not to psychological intrusiveness ($\beta = .12$, $p = .07$), inconsistency ($\beta = .10$, $p = .12$), or lower knowledge ($\beta = -.05$, $p = .43$). Harsh behavioral control was associated significantly with youth externalizing problem behavior ($\beta = .44$, $p < .001$) and internalizing problem behavior ($\beta = .17$, $p < .01$). Lower acceptance was associated significantly with youth internalizing ($\beta = -.19$, $p < .01$), but not with youth externalizing problem behavior ($\beta = .07$, $p = .31$). Harsh behavioral control linked marital hostility and youth externalizing problem behavior [$t\ (414) = 2.91$, $p < .01$] and youth internalizing problem behavior [$t\ (414) = 2.28$, $p < .05$]. Lower acceptance did not link marital

hostility and youth internalizing problem behavior [t (414) = 1.46, p = .10]. When youth perceptions of compromised parenting behaviors were included in the model, marital hostility was no longer associated significantly with youth externalizing problem behavior (β = .13, p = .06) or to youth internalizing problem behavior (β = .09, p = .23). In sum, harsh behavioral control completely mediated the relationship between marital hostility and youth externalizing and youth internalizing problem behavior.

As predicted, maternal depressive affect was related significantly to all the youth perceptions of compromised parenting behavior: harsh behavioral control (β = .16, p < .01), psychological intrusiveness (β = .17, p < .01), inconsistency (β = .20, p < .01), lower acceptance (β = -.15, p < .01), and lower knowledge (β = -.19, p < .01). As discussed above, harsh behavioral control was associated with youth externalizing problem behavior, and, therefore, linked maternal depressive affect and youth externalizing problem behavior [t (414) = 2.76, p < .01]. Harsh behavioral control was associated with youth internalizing problem behavior and, therefore, linked maternal depressive affect and youth internalizing problem behavior [t (414) = 2.20, p < .05]. Psychological intrusiveness was not related significantly to youth externalizing (β = .13, p = .06) or to youth internalizing problem behavior (β = .14, p = .05) Inconsistency was related significantly to youth externalizing problem behavior (β = .26, p < .001) and linked maternal depressive affect and youth externalizing problem behavior [t (414) = 2.71, p < .01]. Inconsistency was related

significantly to youth internalizing problem behavior (β = .32, p < .001) and linked maternal depressive affect and youth internalizing problem behavior [t (414) = 2.99, p < .01]. As discussed previously, lower acceptance was not related significantly to youth externalizing problem behavior. Lower acceptance was related significantly to youth internalizing problem behavior, but did not link maternal depressive affect and youth internalizing problem behavior [t (414) = 1.89, p = .06]. Lower knowledge was related significantly to youth externalizing problem behavior (β = -.26, p < .001) and linked maternal depressive affect and youth externalizing problem behavior [t (414) = 2.47, p < .05]. Lower knowledge was related significantly to youth internalizing problem behavior (β = -.18, p < .01), but did not link maternal depressive affect and youth internalizing problem behavior [t (414) = 2.01, p = .05]. When the parenting behaviors were included in the model, maternal depressive affect was not related significantly to youth internalizing problem behavior (β = .02, p = .73). In sum, harsh behavioral control and inconsistency completely mediated the relationship between maternal depressive affect and youth internalizing problem behavior. Furthermore, maternal depressive affect was related indirectly to youth externalizing problem behavior through harsh behavioral control, inconsistency, and lower knowledge.

A nested model that included only the significant structural paths was compared with the model with all the structural paths and there was no statistical difference between the models ($\Delta\chi^2$ (9) = 15.90, p = .07) so the more parsimonious model is presented here (Figure 12).

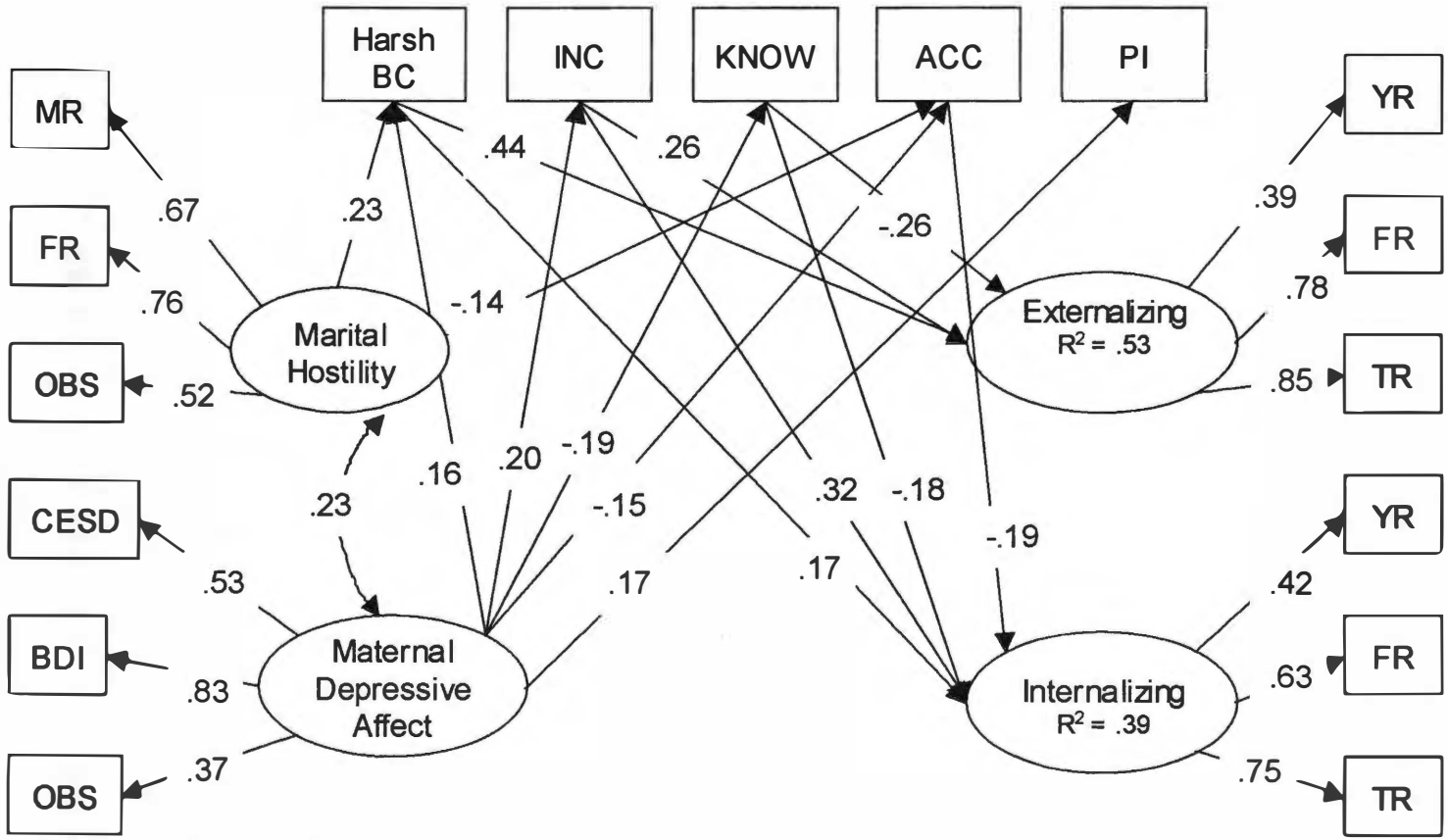


Figure 12. The significant relationships between marital hostility, maternal depressive affect, compromised parenting behaviors, and youth externalizing and internalizing problem behaviors. Harsh BC = Harsh behavioral control; INC = inconsistency; PI = psychological intrusiveness; ACC = acceptance; KNOW = knowledge

All of the parenting behaviors were correlated significantly with associations ranging from -.20 (acceptance and harsh behavioral control, $p <$ .001) to .63 (psychological intrusiveness and inconsistency, $p < .001$). The correlations between the parenting behaviors are not presented in Figure 12. All of the indicators were statistically significant and had adequate factor loadings for the constructs.

The overall model fit for the mediated model was adequate, $\chi^2 = 200.35$ (97), $p < .001$, CFI = .94, RMSEA = .05 (CI = .04 - .06). This included estimating error covariances for the following indicators: youth report of externalizing and youth report of internalizing problem behaviors (.52), father report of externalizing and internalizing problem behaviors (.68), and the teacher report of externalizing and internalizing problem behaviors (.28). The error covariance for the disturbance terms between youth externalizing and internalizing problem behaviors was not significant so this estimation was dropped from the final model presented in Figure 12.

The model in Figure 12 was tested for moderating effects of youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The model with the free factor loadings did not converge so it was not possible to compare the two groups.

In conclusion, there was some support for hypothesis 3. Harsh behavioral control completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behavior. Harsh behavioral control and inconsistency completely mediated the relationship between maternal depressive affect and youth internalizing problem behavior. Furthermore, harsh behavioral control, inconsistency, and lower knowledge linked maternal depressive affect and youth externalizing problem behavior.

Father Models

Correlational analyses. Table 6 has the zero-order correlations for the variables used in the model for fathers. In general, the correlations between indicators for each construct were higher than correlations among constructs. For the marital hostility construct, correlations ranged from .37 (mother report and observer report; $p < .01$) to .51 (father report and mother report; $p < .01$). For the father depression construct, correlations ranged from .22 (father report on the CESD and observer report; $p < .01$) to .55 (father report on the CESD and father report on the BDI; $p < .01$). For the externalizing problem behavior construct, correlations ranged from .19 (youth report and teacher report of youth externalizing problem behaviors; $p < .01$) to .40 (mother report and teacher report of youth externalizing problem behavior; $p < .01$). For the internalizing problem behavior construct, correlations ranged from .16 (youth report and teacher report of youth internalizing problem behaviors, $p < .01$) to .29 (mother report and teacher report of youth internalizing problem behavior; $p < .01$).

As with the mother models, the guidelines for a mediational relationship established by Baron and Kenny (1986) were followed for the father model. The first required relationship is between the independent and the dependent variables. At least one of the indicators of the independent constructs (marital hostility and paternal depressive affect) was related significantly to at least one of the indicators of the dependent constructs (externalizing and internalizing problem behavior).

The second relationship that needs to be significant for a mediational model is between the predictor and mediating variables (Baron & Kenny, 1986). At least one of the indicators for marital hostility was related significantly with the parenting behaviors. However, none of the indicators for paternal depressive affect were related to any of the parenting behaviors.

A third condition for a mediational model is that the mediator variables need to be related significantly with the dependent variables (Baron & Kenny, 1986). All of the indicators of negative parenting behaviors were correlated significantly with at least one indicator of youth problem behaviors.

In sum, the correlations supported the testing of a mediational model for fathers although it is likely that paternal depressive affect will not be related to any of the parenting behaviors (Baron & Kenny, 1986).

Model fit. Hypothesis 1 was examined first, predicting that marital hostility and paternal depressive affect are each associated significantly with youth externalizing and internalizing problem behaviors. The results for marital hostility

are presented in Figure 13. The standardized regression coefficients from the SEM analysis indicated that, as predicted, marital hostility was related significantly and positively to both externalizing (ß = .27, $p < .001$) and internalizing problem behaviors (ß = .28, $p < .001$). Factor loadings were adequate and statistically significant. Model fit was good, χ^2 (21) = 46.88, $p < .01$, CFI = .97, RMSEA = .05 (CI = .03 to .08). This included estimating error covariances between the following: youth reports of externalizing and internalizing problem behaviors (.61), mother reports of externalizing and internalizing problem behaviors (.59), and teacher reports of externalizing and internalizing problem behaviors (.26), and the latent constructs of youth externalizing and internalizing problem behavior (.40).

The two structural paths identified in Figure 13 were tested to determine if there were significant differences regarding the strength of the association of marital hostility to each outcome. Using SEM to test for path differences, two models were compared. In the first model, all parameters were unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant [$\Delta\chi^2$ (1) = 1.71, $p = .19$], indicating that there were no statistically significant differences regarding the strength of the associations.

The model in Figure 13 was tested for moderating effects of youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained

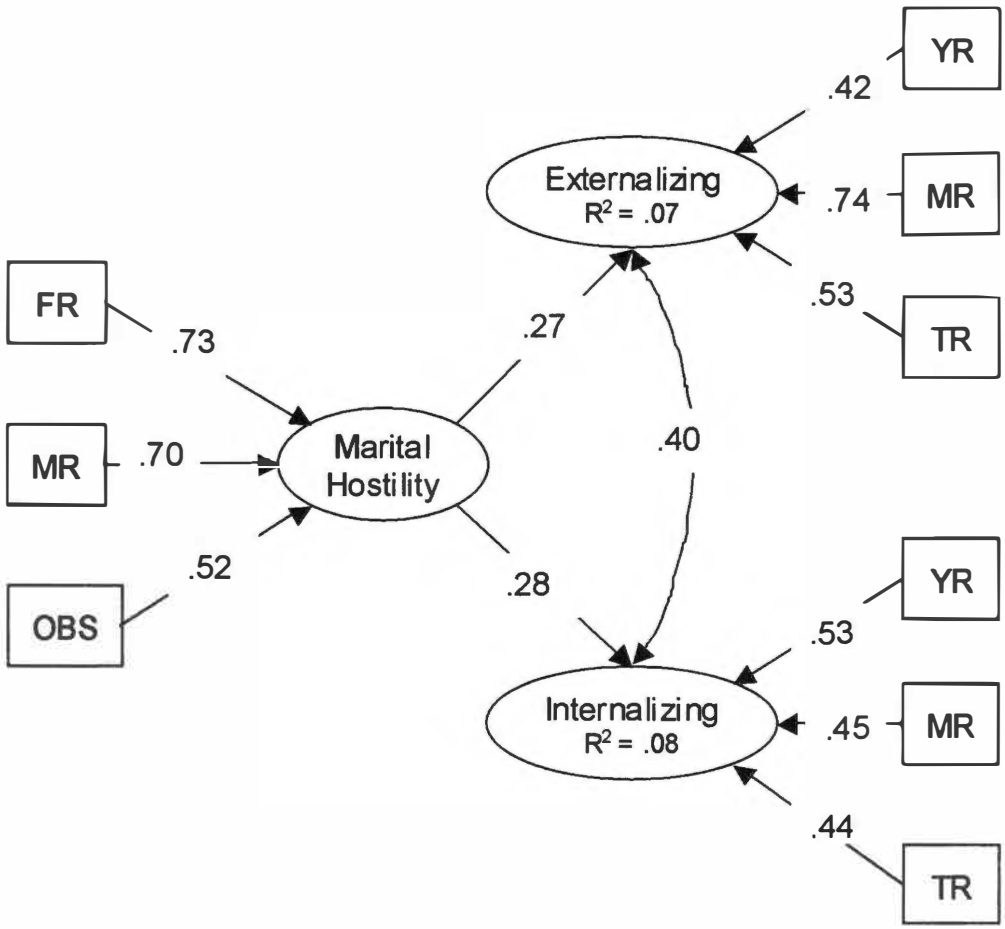


Figure 13. The relationships between marital hostility and youth externalizing and internalizing problem behaviors for fathers.

to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was significant [$\Delta\chi^2$ (10) = 15.72, $p < .01$], indicating that there were significant substantive differences regarding measurement loadings for the two groups. Therefore, group comparisons could not be made since the assumption that equal measurement models was violated.

A model was tested for the associations between paternal depressive affect and youth externalizing and internalizing problem behaviors (Figure 14). Paternal depressive affect was correlated significantly with youth externalizing ($\beta = .25$, $p < .001$) and youth internalizing problem behaviors ($\beta = .26$, $p < .001$). Factor loadings for the constructs were adequate and statistically significant. Model fit was good with $\chi^2 = 41.34$ (21), $p < .01$, CFI = .97, RMSEA = .05 (CI = .03 to .07). This included estimating error covariances between the following indicators: youth reports of externalizing and internalizing problem behaviors (.56), mother reports of externalizing and internalizing problem behaviors (.63), teacher reports of externalizing and internalizing problem behaviors (.23), and the disturbance terms between youth externalizing and youth internalizing constructs (.40).

The two structural paths identified in Figure 14 were tested to determine if there were significant differences regarding the strength of the association of paternal depressive affect to each outcome. Using SEM to test for path differences, two models were compared. In the first model, all parameters were

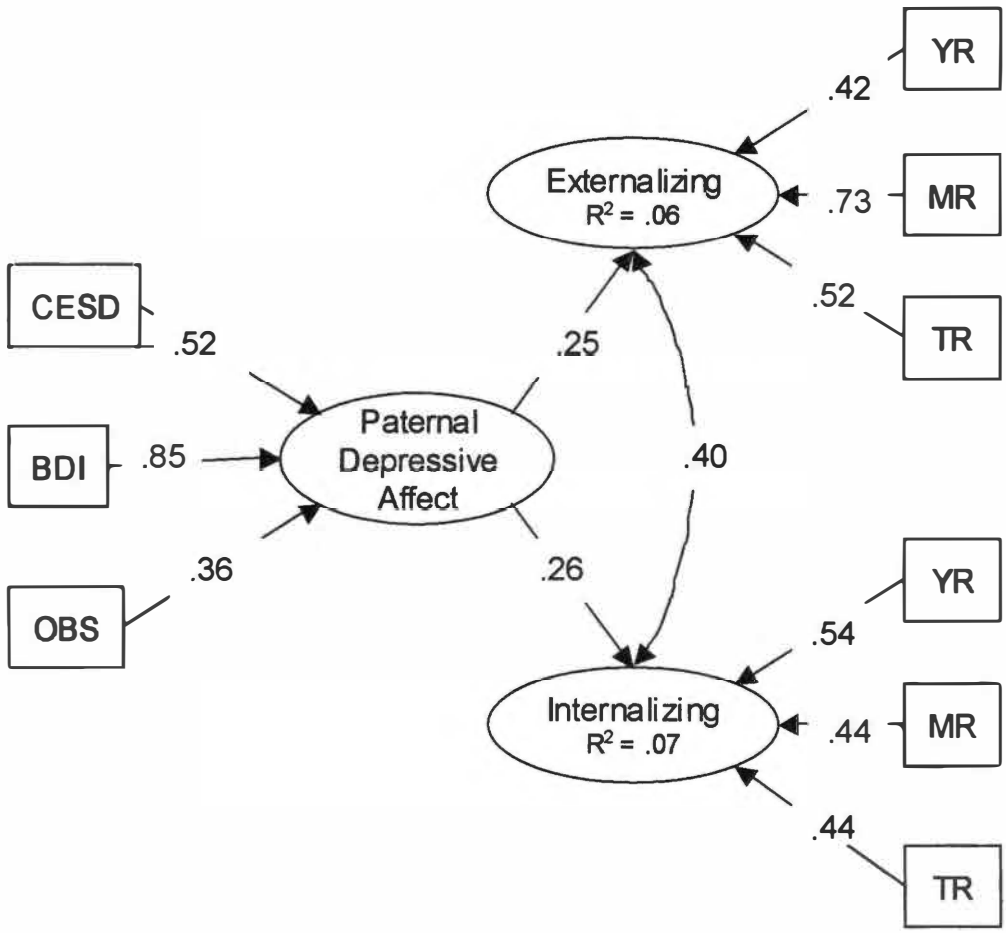


Figure 14. The relationships between paternal depressive affect and youth externalizing and internalizing problem behaviors.

unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant [$\Delta\chi^2$ (1) = 1.62, p = .20], indicating that there were no statistically significant differences regarding the strength of the associations.

The model in Figure 14 was tested for moderating effects by youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was significant [$\Delta\chi^2$ (7) = 23.93, $p < .001$], indicating that there were statistically significant differences between sons and daughters. Therefore, the potential differences in the structural paths between the two groups could not be examined given that the assumption of equal measurement models was violated.

In sum, there was support of hypothesis 1 for fathers: when examined independently, marital hostility and paternal depressive affect were related significantly to both youth externalizing and internalizing problem behavior. It was predicted that, when examined independently, marital hostility would be related more strongly to youth externalizing than to youth internalizing problem behavior. However, the results did not support this, finding not statistically significant differences between the two paths. Furthermore, it was predicted that, when examined independently, paternal depressive affect would be related more strongly to youth internalizing than to youth externalizing problem behavior. The

results did not support this, finding no statistically significant differences between the two paths. It was not possible to compare the structural paths for sons and daughters.

Hypothesis 2 was examined next: when examined conjointly, marital hostility and paternal depressive affect have specialized effects on externalizing and internalizing problem behaviors. The next model tested (Figure 15) included the direct effects of marital hostility and paternal depressive affect to youth externalizing and internalizing problem behaviors. In this model, marital hostility and paternal depressive affect were correlated significantly ($r = .28$, $p < .001$). Controlling for the effects of paternal depressive affect, the standardized regression coefficients indicated a significant relationship between marital hostility and youth externalizing problem behaviors ($\beta = .22$, $p < .001$) and youth internalizing problem behavior ($\beta = .22$, $p < .001$). Furthermore, controlling for the effects of marital hostility, there was a significant relationship between paternal depressive affect and youth externalizing problem behavior ($\beta = .22$, $p < .001$) and youth internalizing problem behavior ($\beta = .20$, $p < .001$). Model fit was good with $\chi^2 = 73.19$ (45), $p < .001$, CFI = .97, RMSEA = .04 (CI = .02 to .06, $p = .87$). This included estimating error covariances between the following indicators: youth reports of externalizing and internalizing problem behaviors (.58), mother reports of externalizing and internalizing problem behaviors (.65), teacher reports of externalizing and internalizing problem behaviors (.23), and the disturbance

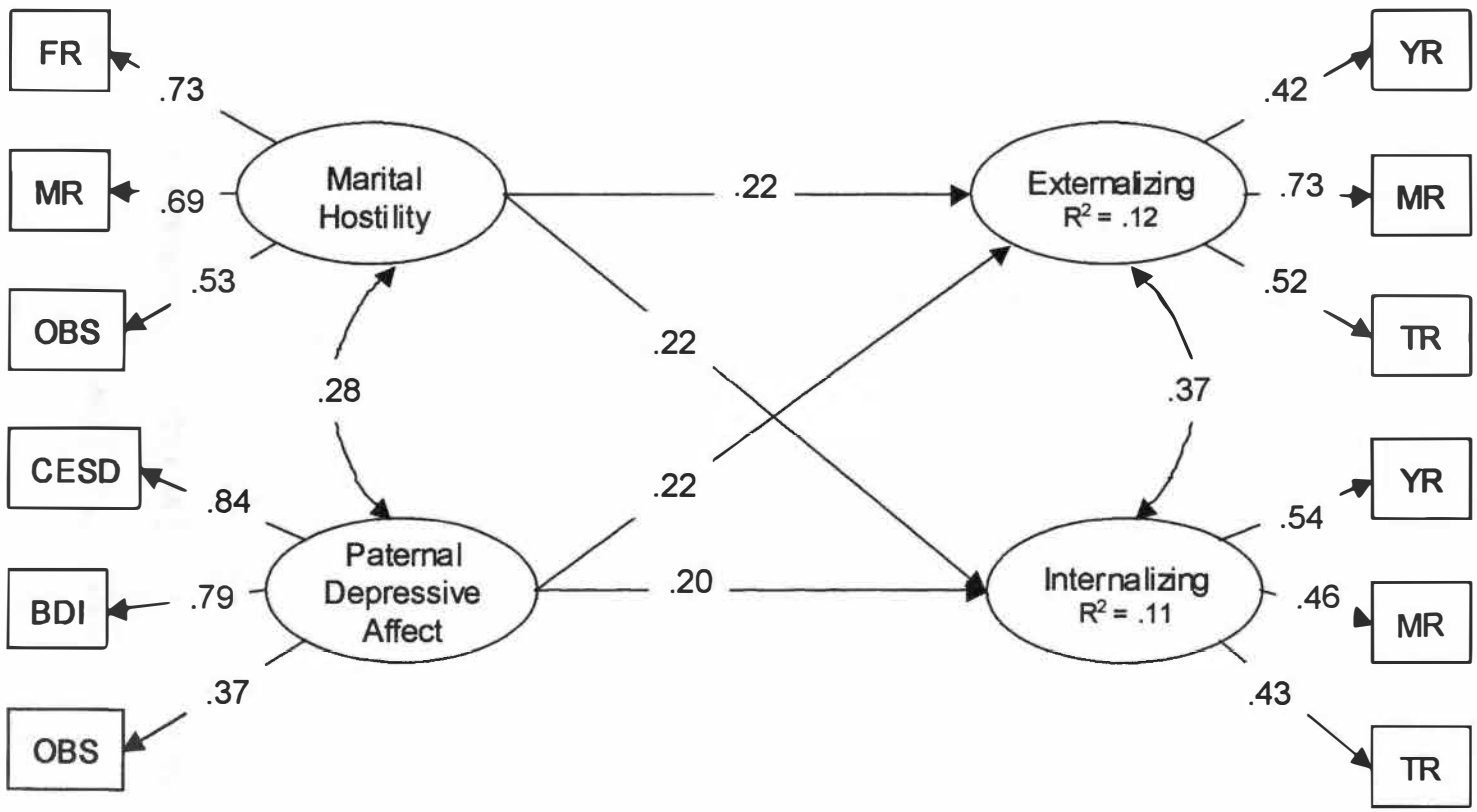


Figure 15. The relationships between marital hostility, paternal depressive affect, and youth externalizing and internalizing problem behaviors.

terms for the latent constructs of youth externalizing and internalizing problem behaviors (.37).

Because the two structural paths between marital hostility and youth externalizing and internalizing problem behaviors were equal, these two structural paths were not tested to determine differences regarding the strength of these associations. The two structural paths between paternal depressive affect and youth externalizing and internalizing problem behavior were tested to determine if there were significant differences regarding the strength of the associations.

The strength of the associations between paternal depressive affect and youth externalizing and internalizing problem behaviors was compared. Using SEM to test for path differences, two models were compared. In the first model, all parameters were unconstrained or allowed to vary. In the second model, the two structural paths were constrained to be equal. The χ^2 difference between the two models was not significant [$\Delta\chi^2$ (1) = .98, p = .32], indicating that there were no statistically significant differences regarding the strength of the associations.

The model in Figure 15 was tested for moderating effects of youth gender. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The χ^2 difference between the two models was significant [$\Delta\chi^2$ (10) = 28.70, $p < .01$], indicating that there were significant substantive

differences regarding measurement loadings for the two groups. Therefore, group comparisons could not be made since the assumption that equal measurement models was violated.

In sum, hypothesis 2 was not supported for fathers. When controlling for the effects of paternal depressive affect, marital hostility continued to be associated significantly with youth externalizing and internalizing problem behaviors and, when controlling for the effects of marital hostility, paternal depressive affect continued to be associated significantly with youth externalizing and internalizing problem behaviors.

Mediating effects of parenting. Hypothesis 3 was examined last: youth perceptions of fathers' parenting behaviors (harsh behavioral control, psychological intrusiveness, inconsistency, lower acceptance, and lower knowledge) partially mediate the relationship between marital hostility and paternal depressive affect and youth problem behaviors. Controlling for paternal depressive affect, marital hostility was related significantly to harsh behavioral control ($\beta = .26$, $p < .001$), psychological intrusiveness ($\beta = .19$, $p < .01$), inconsistency ($\beta = .20$, $p < .001$), lower acceptance ($\beta = -.23$, $p < .001$), and less knowledge ($\beta = -.13$, $p < .05$). Furthermore, when youth perceptions of compromised fathers' parenting behaviors were included in the model, marital hostility was not related significantly to youth externalizing ($\beta = .06$, $p = .44$) or youth internalizing problem behavior ($\beta = .10$, $p = .21$). However, when controlling for the effects of marital hostility, paternal depressive affect was not

related significantly to any of the youth perceptions of compromised parenting behaviors. When youth perceptions of compromised fathers' parenting behaviors were included in the model, paternal depressive affect continued to have a significant association with youth externalizing (β = .23, p < .01) and internalizing problem behavior (β = .22, p < .01).

Harsh behavioral control was related significantly to youth externalizing problem behavior (β = .38, p < .001) and linked marital hostility and youth externalizing problem behavior [t (414) = 3.38, p < .001]. Harsh behavioral control was related significantly to youth internalizing problem behavior (β = .22, p < .001) and linked marital hostility and youth internalizing problem behavior [t (414) = 2.72, p < .001]. Psychological intrusiveness was related significantly to youth externalizing problem behavior (β = .34, p < .001) and linked marital hostility and youth externalizing problem behavior [t (414) = 2.26, p < .05]. Psychological intrusiveness was related significantly to youth internalizing problem behavior (β = .28, p < .001) and linked marital hostility and for youth internalizing problem behavior [t (414) = 2.17, p < .05]. Marital hostility was related significantly to lower acceptance and less knowledge but neither of these parenting behaviors was related significantly to externalizing or internalizing problem behavior.

A nested model that included only the significant structural paths was compared with the model with all the structural paths and there was no statistical

difference between the models ($\Delta\chi^2(13) = 20.87$, $p = .08$) so the more parsimonious model is presented here (Figure 16).

All of the parenting behaviors were associated significantly with correlations ranging from -.10 (harsh behavioral control and knowledge, $p < .05$) to .61 (psychological intrusiveness and inconsistency, $p < .001$). The correlations between the parenting behaviors are not indicated in Figure 16. All of the indicators were statistically significant and there were adequate factor loadings for the constructs.

The overall model fit was adequate, $\chi^2 = 179.24$ (98), $p < .001$, CFI = .94, RMSEA = .05 (CI = .03 to .06). This included estimating error covariances between the following indicators: youth reports of externalizing and internalizing problem behaviors (.56), mother reports of externalizing and internalizing problem behaviors (.62), and teacher reports of externalizing and internalizing problem behaviors (.23). The error covariance for the disturbance terms between youth externalizing and internalizing problem behaviors was not significant so this estimation was dropped from the final model presented in Figure 16.

The model in Figure 16 was tested for moderating effects of youth gender. The above model was tested for possible interaction effects by gender of youth. Two models were tested. Using SEM to test for group differences, two models were compared. In the first model, all parameters for the two groups (daughters and sons) were constrained to be equal. In the second model, the factor loadings for the two groups were allowed to vary. The model with the free factor loadings

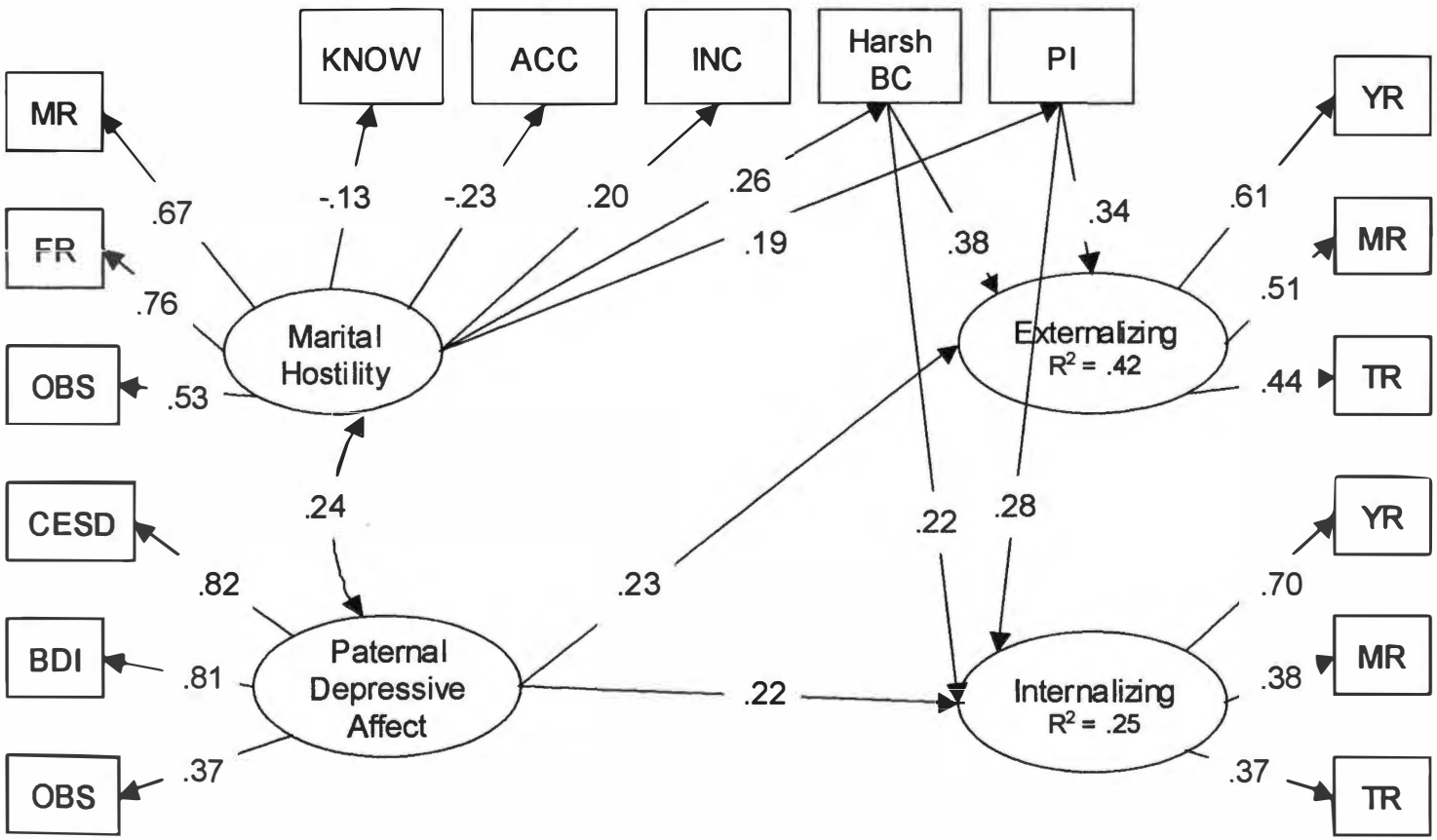


Figure 16. The significant relationships between marital hostility, paternal depressive affect, compromised parenting behaviors, and youth externalizing and internalizing problem behaviors.

did not converge so it was not possible to compare the two groups.

In conclusion, there was mixed support for hypothesis 3 for fathers. Harsh behavioral control and psychological intrusiveness completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behaviors. Paternal depressive affect was not related to any of the youth perceptions of parenting behaviors. Furthermore, controlling for marital hostility and youth perceptions of parenting behaviors, a direct association remained between paternal depressive affect and youth externalizing and internalizing problem behaviors.

Summary of Findings

This section reviews the stated hypotheses and summarizes the key mother and father model findings.

Hypothesis 1

Marital hostility and parental depressive affect are associated significantly with externalizing and internalizing problem behaviors.

a. When examined independently of parental depressive affect, marital hostility is related to both youth externalizing and internalizing problem behaviors but is related more strongly to youth externalizing than to youth internalizing problem behaviors.
b. When examined independently of marital hostility, parental depressive affect is related to both youth externalizing and

internalizing problem behaviors but is related more strongly to youth internalizing problem behaviors.

c. The above relationships are the same for sons and daughters.

Marital hostility was related to both youth externalizing and internalizing problem behaviors. There were no differences regarding the strength of these relationships. This was true for both the mother and the father models.

Parental depressive affect was related to both youth externalizing and internalizing problem behaviors. There were no differences regarding the strength of these relationships. This was true for both maternal and paternal depressive affect.

For marital hostility, there were no differences between sons and daughters for both the mother and father models. For parental depressive affect, the factor loadings differed between the two groups so potential differences could not be examined.

Hypothesis 2

When examined conjointly, marital hostility and parental depressive affect have specialized effects on youth externalizing and internalizing problem behaviors.

a. When examined conjointly, marital hostility is related significantly to youth externalizing but not to youth internalizing problem behavior.

b. When examined conjointly, parental depressive affect is related significantly to youth internalizing but not to youth externalizing problem behavior.

c. The above relationships are the same for sons and daughters.

Controlling for parental depressive affect, marital hostility was related to both youth externalizing and internalizing problem behavior. There were no statistically significant differences regarding the strength of these associations.

For mother, when controlling for marital hostility, maternal depressive affect was not associated significantly with youth externalizing problem behavior but was associated significantly with youth internalizing problem behavior. For fathers, when controlling for marital hostility, paternal depressive affect was associated significantly with both youth externalizing and internalizing problem behavior. There were no statistically significant differences regarding the strength of these associations.

The factor loadings for sons and daughters differed so potential differences could not be examined.

Hypothesis 3

Compromised parenting behaviors partially mediate the relationships between marital hostility, parental depressive affect, and youth externalizing and internalizing problem behaviors. This is the same for mothers and fathers as well as for sons and daughters.

For mothers, harsh behavioral control completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behavior. Controlling for the effects of maternal depressive affect, marital hostility was not related significantly to psychological intrusiveness, inconsistency, or to less knowledge. Harsh behavioral control and inconsistency completely mediated the relationship between maternal depressive affect and youth internalizing problem behaviors. Harsh behavioral control, inconsistency, and less knowledge all linked maternal depressive affect and youth externalizing problem behavior. Controlling for the effects of marital hostility, maternal depressive affect was related significantly to all of the parenting behaviors.

For fathers, paternal depressive affect was not related significantly to any of the youth perceptions of parenting behaviors. Harsh behavioral control and psychological intrusiveness completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behaviors. Marital hostility was related significantly to inconsistency, lower acceptance, and less knowledge but these behaviors were not related significantly to youth outcomes. Paternal depressive affect was related significantly to youth externalizing and internalizing problem behaviors after including marital hostility and youth perceptions of fathers' parenting behaviors in the model.

The model comparing factor loadings for sons and daughters failed to converge for either the model or father models so comparisons by gender of youth could not be made.

V. Discussion

The primary objective of this study was to examine the relationships among marital hostility, parental depressive affect, compromised parenting behaviors, and youth maladjustment. A model of youth maladjustment was proposed where compromised parenting behaviors partially mediate the relationships between marital hostility, parental depressive affect, and youth externalizing and internalizing problem behaviors. The model was based on ideas from social learning theory and family systems theory.

Supporting Evidence

Social Learning Theory

Using ideas from this theory, two main processes were expected to explain the relationships among the parental risk factors and youth outcomes in the proposed model: modeling observed parental behaviors and coercive family processes. It was believed that youth would be at direct risk for maladjustment through observing and modeling of parental behaviors. Specifically, youth exposed to the angry and aggressive behaviors associated with marital hostility were believed to be at risk for externalizing problem behaviors whereas youth exposed to the sad and dysphoric behaviors associated with parental depressive affect were believed to be at risk for internalizing problem behaviors. These associations were found for both the mother and father models, supporting the idea that youth are at direct risk for problem behaviors through observing and modeling these parental behaviors.

Furthermore, it was believed that youth would be at risk for problem behaviors through reinforcement of aversive behaviors through the processes of a coercive family environment. Specifically, marital hostility would be related to more compromised parenting behaviors and that, in turn, youth would respond to these compromised parenting behaviors with externalizing and internalizing problem behaviors. As expected, for both mothers and fathers, marital hostility was related to harsh behavioral control. In turn, harsh behavioral control mediated the relationship between marital hostility and youth externalizing and internalizing problem behaviors. This finding provided evidence for the a coercive environment where family relationships are characterized by aversive behaviors, including the marital dyad (through marital hostility) and the parent-child dyad (through harsh behavioral control), resulting in the youth displaying more aversive behaviors (through externalizing and internalizing problem behaviors).

In sum, there was evidence to support ideas from the social learning theory; specifically that youth are at risk for problem behavior through observing and modeling parental behaviors and that youth are at risk for problem behavior through coercive family processes. However, ideas from this theory do not explain all of the findings (i.e., the relationship between marital hostility and youth internalizing problem behavior, the relationship between paternal depressive affect and externalizing problem behavior, and the relationships between parental depressive affect, compromised parenting behaviors, and youth problem

behaviors) so other proposed processes as indicated by ideas from family systems theory are considered next.

Family Systems Theory

Using ideas from this theory, the main process expected to explain the relationships among the parental risk factors and youth outcomes in the proposed model was that parental stressors (i.e., marital hostility and parental depressive affect) were expected to disrupt the parent-child relationship resulting in more compromised parenting behaviors and that the youth was expected to respond to these compromised parenting behaviors with problem behaviors. Therefore, marital hostility and parental depressive affect were linked indirectly to youth problem behavior through compromised parenting behaviors.

There was evidence that, for mothers and fathers, marital hostility was related to more compromised parenting behaviors. In particular, marital hostility was related harsh behavioral control and lower levels of acceptance. In turn, harsh behavioral control completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behaviors. For mothers, marital hostility was related only to two compromised parenting behaviors: harsh behavioral control and lower acceptance. For fathers, marital hostility was related to all of the youth perceptions of compromised fathering behaviors. In addition, to harsh behavioral control mediating the relationship between marital hostility and youth externalizing and internalizing problem behaviors, for fathers, psychologically intrusiveness completely mediated the

relationships between marital hostility and youth externalizing and internalizing problem behaviors. It has been suggested that, in families experiencing marital hostility, parents might perceive psychologically intrusive parenting behaviors as requiring less effort than consistent or authoritative parenting behaviors (Stone et al., 2002). Another aspect of psychologically intrusive parenting behaviors is the potential weakening of boundaries in the parent-child relationship where parents display these behaviors in an attempt to prevent the child from becoming autonomous (Stone et al., 2002). It is possible that some fathers experiencing disruptions in the marital relationship as the result of marital hostility attempt to compensate through enmeshment with the child (Minuchin, 1974) and that this parent-child alliance is maintained through psychologically intrusive parenting behaviors as a way of inhibiting the child from developing his/her autonomy.

These findings supported previous research that has found fathers were more likely to have more hostile and negative interactions with children following marital conflicts than were mothers (Almeida et al., 1999; Cox, Paley, Payne, & Burchinal, 1999; Katz & Gottman, 1996). Furthermore, previous research has found that fathers who make negative attributions about their wives were more likely to extend these negative attributions to their children than were mothers who made negative attributions about their husbands (Brody, Arias, & Fincham, 1996). It appears that fathers might be more vulnerable to the negative emotions and behaviors that occur during marital hostility and are less able to contain these behaviors when interacting or parenting their children than are mothers.

It was expected that parental depressive affect would be related to compromised parenting behaviors as well. For mothers, maternal depressive affect was related to all of the youth perceptions of compromised mothering behaviors. Harsh behavioral control and inconsistency completely mediated the relationship between maternal depressive affect and youth internalizing problem behaviors. Furthermore, harsh behavioral control, inconsistency, and lower levels of knowledge indirectly linked maternal depressive affect and youth externalizing problem behaviors. For mothers, it appears that the negative behaviors and emotions associated with higher levels of depressive affect such as negative and irritable social interactions result in more compromised parenting behaviors (see Gotlib & Beach, 1995, for a review; Zahn-Waxler, Denham, Iannotti, & Cummings, 1992).

In sum, there was evidence to support ideas from family systems theory; specifically that marital hostility and maternal depressive affect result in compromised parenting behaviors and that youth respond to these parenting behaviors with problem behaviors. Therefore, ideas from social learning theory and family systems theory account for many of the findings, including the direct relationships between marital hostility and youth externalizing problem behavior and between parental depressive affect and youth internalizing problem behavior as well as the indirect relationships between marital hostility and maternal depressive affect and youth problem behavior through compromised parenting behaviors. However, ideas from these two theories do not explain some of the

findings (i.e., the relationship between marital hostility and youth internalizing problem behavior, the relationship between paternal depressive affect and externalizing problem behavior, and the lack of relationship between paternal depressive affect and compromised parenting behaviors) so other frameworks and processes need to be examined.

Divergent Evidence

Marital Hostility and Youth Internalizing Problem Behaviors

Using ideas regarding modeling behaviors, it was not expected that marital hostility would be related to youth internalizing problem behaviors. However, for both mothers and fathers, marital hostility was related significantly to youth internalizing problem behaviors. The proposed model is primarily a parent model with parental behaviors interacting to explain youth problem behavior. However, it is possible that youth appraisals and emotions regarding marital hostility account for these findings.

Cognitive-contextual framework. Grych and Fincham (1990) proposed a cognitive-contextual framework where, when exposed to marital conflict, children are at risk for different outcomes based on differences in appraisals and responses to the conflict. When witnessing marital hostility, it is believed that youth appraisals of the conflict are based on both how the conflict is expressed and contextual factors (Grych & Cardoza-Fernandes, 2001; Grych & Fincham, 1990). Youth are believed to be at increased risk for problem behaviors when exposed to certain conflict characteristics, including frequent and intense

conflicts as well as conflicts that are not resolved (Grych & Fincham, 1990). Furthermore, it is believed that certain cognitions place youth at greater risk for maladjustment: perceived threat (e.g., feeling that their well-being is threatened), self-blame, and coping efficacy (e.g., feeling that they can do something about the conflict or manage their own feelings regarding the conflict; Grych & Fincham, 1990). Youth who perceive the conflict as relevant or threatening to their well-being are more likely to move into secondary processing where they formulate coping responses (Grych & Cardoza-Fernandes, 2001).

Previous research has found that marital hostility is associated with youth internalizing problem behavior through these cognitive appraisals of perceived threat, self-blame, and coping efficacy (Grych, Fincham, Jouriles, & McDonald, 2000). In a longitudinal study of adolescents, Grych and colleagues (2003) found that perceived threat partially mediated the relationship between marital hostility and youth internalizing problem behaviors. Several studies have found perceived threat and self-blame to be mediators for the relationship between marital hostility and internalizing problem behaviors (Dadds, Atkinson, Turner, Blums, & Lendich, 1999; Davies & Cummings, 1998; Gerard, Buehler, Franck, & Anderson, in press; Grych et al., 2000). One study found that perceived threat and self-blame mediated the relationship between marital conflict and youth internalizing problem behaviors for daughters but not for sons (Turner & Barrett, 1998).

Emotional security hypothesis. Similar to the cognitive-contextual framework, the emotional security hypothesis was developed to explain primarily how children appraise and react to marital and family conflict (Cummings & Wilson, 1999). Emotional security has been defined as "a set goal by which children regulate their own functioning in social contexts, thereby directing social, emotional, cognitive, and physiological reactions" (Cummings & Wilson, 1999, p. 108). Exposure to marital hostility is believed to impair the child's sense of emotional security, increasing the likelihood of maladjustment (Davies & Cummings, 1994; Davies, Harold, Goeke-Morey, & Cummings, 2002). The child's goal of emotional security is a driving force for the child's reactions and behaviors to marital hostility. Prolonged exposure to marital hostility places the child at increased risk for both externalizing and internalizing problem behaviors as the child attempts to deal with his/her feelings of insecurity by either intervening in or avoiding the conflict (Davies et al., 2002).

Research has found that emotional insecurity links marital hostility and youth problem behaviors. In a study of preadolescents, emotional insecurity, particularly internal representations and emotional reactivity, linked marital conflict and youth internalizing problem behaviors (Davies & Cummings, 1998). In a longitudinal study, children in families characterized by high levels of conflict displayed more symptoms of emotional insecurity and these were related to more externalizing and internalizing problem behaviors both concurrently and one year later (Davies, Cummings, & Winter, 2004).

These ideas are consistent with the evidence that there was a relationship between marital hostility and youth internalizing problem behaviors. It is likely that youth who witness these verbally and physically aggressive behaviors respond with more feelings of distress, fear, and insecurity regarding their well-being and the well-being of the family. These youth might feel overwhelmed, responsible for the marital hostility, and hopeless and powerless to change these parental behaviors, resulting in more feelings of depression and low self-esteem. Therefore, it is possible that youth exposed to marital hostility are at risk for externalizing problem behaviors through modeling aggressive parental behavior and for internalizing problem behaviors through negative appraisals and disturbances in the emotional security of the youth.

Paternal Depressive Affect and Youth Externalizing Problem Behaviors

Using ideas regarding modeling behaviors, it was not expected that parental depressive affect would be related to youth externalizing problem behaviors. However, for fathers, paternal depressive affect was related directly to youth externalizing problem behaviors. One possible explanation is that other paternal characteristics are contributing to youth externalizing problem behaviors. For example, characteristics such as antisocial personality disorder and alcoholism have been related to depression in men as well as more negative outcomes in youth (Chassin, Pitts, DeLucia, & Todd, 1999; Eiden, Chavez, & Leonard, 1999; El-Sheikh & Flanagan, 2001). It is possible that youth are at risk for externalizing problem behaviors because of the association between other

paternal psychopathology rather than paternal depressive affect per se—an association that has found this relationship when both paternal alcoholism, antisocial personality disorder, and paternal depression were included in the model (Chassin et al., 1999). It is important to note that other studies have posited that parental depression is related to youth externalizing problem behavior because of concomitant marital conflict or physical abuse (Downey & Coyne, 1990; Kane & Garber, 2004). However, these explanations are not supported here where paternal depressive affect continued to be related significantly to youth externalizing problem behaviors controlling for marital hostility and harsh behavioral control. Furthermore, paternal depressive affect was not related to youth perceptions of harsh behavioral control—a parenting behavior that included possible physically abusive behaviors such as hitting and kicking. Therefore, it is possible that paternal depressive affect is related to youth externalizing problem behaviors because of the association with other paternal psychopathology.

Differential Effects of Parenting Behaviors

It was expected that marital hostility and parental depressive affect would be related to all of the youth perceptions of compromised parenting behaviors and that these parenting behaviors would act as partial mediators of the relationships between these two risk factors and youth outcomes. However, these relationships varied by the type of parenting behavior and by gender of parent.

Marital hostility. As expected, for fathers, marital hostility was related to all of the youth perceptions of compromised fathering behaviors. Furthermore, paternal harsh behavioral control and psychological intrusiveness completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behaviors. It is possible that youth are more susceptible to these two paternal behaviors, responding both with more acting out and feelings of helplessness regarding these paternal attempts to control either through more overtly negative behaviors or through more psychological behaviors.

For mothers, marital hostility was related to harsh behavioral control and lower levels of acceptance but was not related to psychological intrusiveness, inconsistency, or lower levels of knowledge. Furthermore, maternal harsh behavioral control completely mediated the relationships between marital hostility and youth externalizing and internalizing problem behaviors. It is possible that youth who are exposed to marital hostility are more sensitive to harsh behavioral control behaviors and less accepting behaviors in their mothers. Youth who witness negative and aggressive marital behaviors might be more attuned or hypersensitive to these maternal behaviors in other situations including parenting. It is possible that mothers who are experiencing marital hostility are more likely to be negatively engaged with their children rather than to be distracted or uninvolved. The mother might compensate by becoming more physically and verbally controlling rather than withdrawing from parenting.

Parental depressive affect. As expected, maternal depressive affect was related to all of the youth perceptions of compromised mothering behaviors. Harsh behavioral control and inconsistency completely mediated the relationship between maternal depressive affect and youth internalizing problem behaviors. Furthermore, harsh behavioral control, inconsistency, and lower levels of knowledge linked maternal depressive affect and youth externalizing problem behaviors. The relationships between maternal depressive affect and youth perceptions of compromised mothering behaviors support previous research findings where depressed mothers' parenting behaviors were divided into two groups of behaviors: one group characterized by angry, rejecting, and harsh parenting and the other group characterized by apathy, self-absorption, and inconsistency (Gelfand & Teti, 1990; see Gotlib & Lee, 1989 for a review; Hammen, 1997; Lyons-Ruth et al., 2002). There is increasing evidence that depressed mothers alternate between the two styles rather than displaying only one style (Field, 2002). In one study, both mothers and youth reported depressed mothers displaying both of these parenting behaviors with youth reporting that these parenting behaviors provoked feelings of helplessness and stress (Compas, Langrock, Keller, Merchant, & Copeland, 2002). Goodman and Brumley (1990) found that depressed mothers endorsed more controlling behaviors with their children but tended to abandon these discipline attempts more easily than did nondepressed mothers.

However, youth outcomes were not related to all of the compromised mothering behaviors. It is possible that how youth cope with these behaviors is related to the outcomes. In a study of youth coping responses to maternal depressive affect, Compas et al. (2002) found that, as parental stressors such as level of depressive affect and marital problems increased, youth were more likely to respond with disengagement (i.e., avoiding, withdrawing, or fantasizing that everything was all right). When depressed mothers engage youth through harsh behavioral control, it is possible that youth are at increased risk for problem behaviors because they cannot disengage from the interaction, increasing the level of stress and the likelihood that youth would choose another maladaptive coping response such as rumination and emotional and physiological responses. Youth who displayed these latter coping responses were at higher risk for externalizing and internalizing problem behaviors than were youth who displayed disengagement coping responses (Compas et al., 2002).

Paternal depressive affect was not related significantly to any of the youth perceptions of compromised fathering behaviors. A significant relationship did remain between paternal depressive affect and youth externalizing and internalizing problem behaviors when controlling for the effects of marital hostility and youth perceptions of compromised fathering behaviors. This was an unexpected result and difficult to explain. A model was examined where the effects of marital hostility were removed from the model and paternal depressive affect was related significantly to several of the indicators of compromised

fathering behaviors. For fathers, it appears that marital hostility is linked indirectly to youth maladjustment through compromised fathering behaviors whereas paternal depressive affect is related directly to youth maladjustment. These findings emphasize the importance of examining models where both marital hostility and parental depressive affect are included (Downey & Coyne, 1990; Kane & Garber, 2004).

Strengths

One of the strengths of this study is that the role of paternal depressive affect was studied, adding to the limited knowledge of parental depressive affect and youth outcomes. Most of the studies regarding parental depressive affect have focused primarily on maternal depressive affect. This study reinforces the importance of examining the relationship of fathers and children and the importance of fathering to youth outcomes. Furthermore, it appears important that, when considering the effects of paternal depressive affect on youth outcomes, the effects of marital hostility on fathers needs to be accounted for since fathers appear to be more sensitive to the stressors of marital hostility.

Another strength was the use of multiple reporters and multiple methods for the latent constructs. For marital hostility and parental depressive affect, both self-reports and observer reports were used, reducing the potential for method bias. Furthermore, both mothers and fathers' reports of marital hostility were used, reducing the potential for reporter bias. For youth outcomes, youth reports, parent reports, and teacher reports were included, including a more

comprehensive view of youth behavior across situations and settings (i.e., home and school).

Two controls for the potential negative bias of the depressed parent were used: only youth reports of parenting behaviors were included and the latent constructs for the youth problem behaviors did not include reports from the depressed parent. Several studies have found that depressed parents tend to rate both their children's behaviors and their own parenting behaviors more negatively than do other reporters such as the youth, teachers, and observers (Boyle & Pickles, 1997; Briggs-Gowan et al., 1996; Brody & Forehand, 1986; Frankel & Harmon, 1996). It has been suggested that using parents to rate both their psychological functioning and the functioning of youth could be problematic as both measures might be subject to similar error and bias (Phares & Compas, 1992).

Finally, the effects of the individual parenting behaviors were studied rather than creating a parenting style that combined one or more behaviors. This is important because there were different relationships between the dependent variables, the parenting behaviors, and the youth outcomes. These findings illustrate the importance of examining different parenting behaviors in one model—both to control for the effects of the other parenting behaviors and to examine unique effects of both the independent and dependent variables on each parenting behavior.

Limitations

The data presented here were cross-sectional data, limiting the findings for several reasons. First, mediated relationships indicate causal paths and time-ordered variables so the findings need to be replicated with longitudinal data in order to describe more accurately the relationships among these variables. Although presented here as concurrent risks, it is likely that, for some families, marital hostility precedes parental depressive affect whereas for other families, parental depressive affect precedes marital hostility. It is likely that youth outcomes vary regarding the sequence of these risk factors.

Furthermore, these findings are unable to account for reciprocal effects where the youth's behavior affects marital hostility and parental depressive affect as well as parenting behaviors. An alternative explanation for these relationships is that youth behaviors and characteristics precede marital hostility, parental depressive affect, and compromised parenting behaviors. The directionality of these behaviors is impossible to determine without additional waves of data. However, previous longitudinal research in the areas of marital hostility, parental depressive affect, and compromised parenting behaviors have found consistent evidence that the causal linkages move from parental effects to youth outcomes. These findings have been replicated using a variety of statistical methods including hierarchical multiple regressions and cross-lagged regression models. For example, Grych and colleagues (2003) found that interparental conflict at time one indirectly predicted externalizing and internalizing problem behaviors at

time two through youth's appraisals of perceived threat and self-blame when controlling for the effects of time one appraisals and youth adjustment. Using a cross-lagged regression design in a 7-year longitudinal study, Hops (1996) examined the relationship between fluctuations in parental and adolescent levels of depressive affect. Mothers' initial levels of depression predicted concurrent and subsequent levels of daughters' depression, but daughters' initial levels of depression did not predict subsequent levels of mothers' depression. However, mothers' initial levels of depression predicted subsequent levels of sons' depression and sons' initial levels of depression predicted subsequent levels of mothers' depression. For fathers, levels of paternal depressive affect and levels of sons' depression were related concurrently. However, fathers' levels of depression did not predict subsequent levels of depression in sons or daughters, and sons and daughters' levels of depression did not predict subsequent levels of depression in fathers.

It is not possible to generalize the findings from this sample to other samples for several reasons. First, this sample consisted of families from the same geographic area so it is not possible to generalize these findings to families from other areas. Second, the sample was not ethnically diverse so it is difficult to generalize these findings to other groups. Furthermore, although there was a range of incomes, most of the families studied had a middle-class income so it is difficult to generalize these findings to lower and higher socioeconomic groups. However, it is interesting to note that, even in families where poverty was not an

issue, marital hostility and parental depressive affect were associated with more negative outcomes in youth. For families living in poverty, it is likely that these stressors combined with limited incomes place youth at higher risk for problem behavior.

In conclusion, the complex relationships between marital hostility, parental depressive affect, compromised parenting behaviors, and youth outcomes are symptomatic of the overall family functioning. In essence, parents set the tone for youth maladjustment but it is likely the youth's response to these parental risk factors determines the nature of the youth's problems.

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Appendices

Appendix A

Table 1

Reports of Marital Hostility, Parental Depressive Affect, Compromised Parenting Behaviors, and Youth Problem Behaviors: Descriptive Statistics (N = 416 families)

Variables	*M*	*Median*	*Mode*	*SD*	Range
Overt marital hostility – MR	1.78	1.78	1.72	.41	1-3.22
Overt marital hostility – FR	1.72	1.67	1.67	.39	1-3.11
Overt marital hostility – OR	1.83	1.67	1.25	.65	1-4.46
Parental depressive affect – MR CESD	7.15	5.00	.00	7.04	0-48
Parental depressive affect – MR BDI	5.49	4.00	4.00	4.97	0-30
Maternal depressive affect – OR	2.71	2.67	2.33	1.14	1-7
Parental depressive affect – FR CESD	6.44	5.00	.00	6.41	0-48
Parental depressive affect – FR BDI	4.32	3.00	.00	4.56	0-45
Paternal depressive affect – OR	2.47	2.33	2.00	1.07	1-6.33
Harsh discipline – YR of mother	.62	.38	.00	.63	0-3.38
Harsh discipline – YR of father	.51	.25	.00	.61	0-3.88

Table 1, continued

Variables	*M*	*Median*	*Mode*	*SD*	Range
Psychological intrusiveness – YR of mother	1.36	1.27	1.18	.32	1-3
Psychological control – YR of father	1.28	1.18	1.00	.27	1-2.55
Inconsistency – YR of mother	1.37	1.25	1.00	.24	1-3
Inconsistency – YR of father	1.26	1.13	1.00	.30	1-2.50
Acceptance – YR of mother	2.74	2.90	3.00	.32	1-3
Acceptance – YR of father	2.59	2.70	3.00	.40	1-3
Knowledge – YR of mother	2.78	3.00	3.00	.32	1-3
Knowledge – YR of father	2.69	2.75	3.00	.35	1-3
Externalizing problem behaviors – YR	9.47	9.00	10.00	5.98	0-41
Externalizing pb – MR	7.30	6.00	5.00	5.89	0-28
Externalizing pb – FR	7.35	6.00	5.00	6.29	0-36

Table 1, continued

Variables	*M*	*Median*	*Mode*	*SD*	Range
Externalizing pb – TR	3.10	1.00	.00	5.89	0-46
Internalizing problem behaviors – YR	10.96	10.00	10.00	7.50	0-45
Internalizing pb – MR	6.90	6.00	1.00	5.28	0-31
Internalizing pb – FR	6.53	5.00	2.00	5.49	0-35
Internalizing pb – TR	3.48	2.00	.00	4.84	0-33

Table 2

Missing Data by Indicator (N = 416 families)

Variables	N	%
Marital hostility – MR	0	0
Marital hostility – FR	0	0
Marital hostility – OR	12	2.9
Parental depressive affect – MR CESD	0	0
Parental depressive affect – MR BDI	2	.5
Parental depressive affect – OR of mother	2	.5
Parental depressive affect – FR CESD	0	0
Parental depressive affect – FR BDI	1	.2
Parental depressive affect – OR of father	2	.5
Harsh discipline – YR of mother	0	0
Harsh discipline – YR of father	0	0
Psychological control – YR of mother	0	0
Psychological control – YR of father	0	0
Inconsistency – YR of mother	0	0
Inconsistency – YR of father	0	0
Acceptance – YR of mother	0	0
Acceptance – YR of father	0	0
Knowledge – YR of mother	0	0
Knowledge – YR of father	1	.2

Table 2, continued

Variables	N	%
Externalizing problem behavior – YR	0	0
Externalizing problem behavior - MR	1	.2
Externalizing problem behavior – FR	0	0
Externalizing problem behavior – TR	1	.2
Internalizing problem behavior – YR	0	0
Internalizing problem behavior - MR	0	0
Internalizing problem behavior – FR	0	0
Internalizing problem behavior – TR	1	.2

Table 3

Means of Selected Variables by Eligibility Status

	Eligibility Status		
Eligibility	Eligible & participating *n* = 416	Eligible & not participating *n* = 697	Ineligible *n* = 792
Maternal harsh behavioral control	$.30_{b}$	$.37_{a,c}$	$.43_{b}$
Paternal harsh behavioral control	$.24_{b}$	$.26_{a,c}$	$.32_{b}$
Maternal psychological Intrusiveness	1.37_{b}	1.37_{a}	1.46
Maternal inconsistency	1.37_{b}	1.39_{a}	1.50
Maternal acceptance	2.75_{b}	2.70_{a}	2.60
Maternal Knowledge	2.81_{b}	2.81_{a}	2.68
Externalizing problem behavior—YR	9.46_{b}	9.49_{a}	11.07
Internalizing PB—YR	10.83_{b}	11.28_{a}	12.89
Externalizing PB—TR	3.11_{b}	3.64_{a}	6.33
Internalizing PB--TR	$3.45_{b,c}$	$3.57_{a,c}$	$3.93_{a,b}$

Note: Means in the same row that do not share subscripts differ at $p < .05$ in the Tukey B comparison.

Table 4

Goodness-of-Fit Indicators of Models for Youth Externalizing and Internalizing Problem Behaviors (N = 416 families)

Model	χ^2	*df*	χ^2/df	*CFI*	*RMSEA*
Mothers					
One Factor	82.16***	6	13.69	.84	.18
Two Factor	10.87	5	2.16	.99	.05
Fathers					
One Factor	71.25***	6	11.87	.87	.16
Two Factor	18.76**	5	3.75	.97	.08

Note. CFI= comparative fit index; RMSEA= root-mean-square error of approximation.

**$p < .01$, ***$p < .001$.

Table 5

Correlations of Hostility Variables, Maternal Depressive Affect, Parenting Variables, and Youth Problem Behaviors (N = 416)

Variables	1	2	3	4	5	6	7	8	9
1. Marital hostility – MR	_								
2. Marital hostility – FR	.51**	_							
3. Marital hostility – OR	.37**	.39**	_						
4. Maternal depressive affect – CESD	.17**	.10	.22**	_					
5. Maternal depressive affect – BDI	.25**	.13**	.27**	.67**	_				
6. Maternal depressive affect – OR	.25**	.13**	.22**	.23**	.34**	_			
7. Harsh behavioral control – YR	.21**	.16**	.18**	.11*	.22**	.07	_		
8. Psychological intrusiveness – YR	.12*	.11*	.11*	.07	.20**	.01	.35**	_	
9. Inconsistency – YR	.11*	.09	.07	.11*	.19**	.03	.31**	.68**	_

Table 5, continued

Variables	1	2	3	4	5	6	7	8	9
10. Acceptance - YR	-.14**	-.15**	-.14**	-.13**	-.20**	-.03	-.30**	-.38**	-.25**
11. Knowledge – YR	-.07	-.08	-.05	-.11*	-.18**	-.02	-.29**	-.37**	-.38**
12. Externalizing PB – FR	.20**	.25**	.07	.11*	.12*	.10*	.25**	.16**	.14**
13. Externalizing PB – YR	.09	.07	.13**	.08	.14**	.05	.41**	.37**	.38**
14. Externalizing PB – TR	.08	.13**	.04	.03	.05	.03	.22**	.17**	.12*
15. Internalizing PB – FR	.10*	.20**	.06	.10*	.14**	.07	.14**	.15*	.10*
16. Internalizing PB – YR	.07	.09	.14**	.10*	.15**	.04	.15**	.41**	.40**
17. Internalizing PB – TR	.04	.09	.00	-.01	.03	.13**	.03	.14**	.11*

Table 5, continued

Variables	10	11	12	13	14	15	16	17
10. Acceptance - YR	_							
11. Knowledge – YR	.41**	_						
12. Externalizing PB – FR	-.16**	-.16**	_					
13. Externalizing PB – YR	-.16**	-.34**	.26**	_				
14. Externalizing PB – TR	-.15**	-.19**	.38**	.19**	_			
15. Internalizing PB – FR	-.13**	-.17**	.49**	.09	.10*	_		
16. Internalizing PB - YR	-.29**	-.32**	.09	.54**	.01	.26**	_	
17. Internalizing PB – TR	-.14**	-.12*	.24**	.12*	.25**	.26**	.24**	_

*$p < .05$, **$p < .01$

Table 6

Correlations of Hostility Variables, Paternal Depressive Affect, Parenting Variables, and Youth Problem Behaviors (N = 416)

Variables	1	2	3	4	5	6	7	8	9
1. Marital hostility – FR	_								
2. Marital hostility – MR	.51**	_							
3. Marital hostility – OR	.39**	.37**	_						
4. Father CESD	.10*	.06	.12*	_					
5. Father BDI	.14**	.12*	.15**	.55**	_				
6. Father depression - OR	.12*	.07	.19**	.22**	.27**	_			
7. Harsh parenting – YR	.20**	.16**	.16**	.08	.10	.08	_		
8. Psychological intrusiveness – YR	.21**	.14**	.05	.04	.04	.12*	.19**	_	
9. Inconsistency – YR	.19**	.12*	.10*	.10*	.05	.05	.24**	.58**	_

Table 6, continued

Variables	1	2	3	4	5	6	7	8	9
10. Acceptance – YR	-.17**	-.15**	-.14*	.00	.03	-.07	-.22**	-.34**	-.27**
11. Knowledge – YR	-.09	-.08	-.11*	-.09	-.04	-.08	-.17**	-.25**	-.25**
12. Externalizing PB – MR	.15**	.22**	.02	.09	.17**	.08	.21**	.18**	.18**
13. Externalizing PB – YR	.07	.09	.13**	.14**	.14**	.09	.35**	.34**	.34**
14. Externalizing PB – TR	.13**	.08	.04	.00	.10	.08	.20**	.10*	.10*
15. Internalizing PB – MR	.09	.19**	.10*	.10*	.10*	.13**	.08	.08	.08
16. Internalizing PB – YR	.09	.07	.14**	.16**	.13**	.09	.25**	.21**	.21**
17. Internalizing PB – TR	.09	.04	.00	.03	.06	.13**	.13**	.04	.04

Table 6, continued

Variables	10	11	12	13	14	15	16	17
10. Acceptance – YR	_							
11. Knowledge – YR	.43**	_						
12. Externalizing PB – YR	-.16**	-.16**	_					
13. Externalizing PB – MR	-.09	-.18**	.29**	_				
14. Externalizing PB – TR	-.16**	-.13*	.19**	.40**	_			
15. Internalizing PB – YR	-.05	-.15**	.56**	.16**	.08	_		
16. Internalizing PB – MR	-.09	-.14**	.13**	.54**	.01	.29**	_	
17. Internalizing PB – TR	-.09	-.07	.22**	.12*	.28**	.16**	.24**	_

*$p < .05$, **$p < .01$

Appendix B

Formula for Sobel's test

value = $a * b / \text{SQRT} (b^2 * s_a^2 = a^2 * s_b^2)$

a = raw (unstandardized) regression coefficient for the association between the independent variable and the mediator

s_a = standard error of *a*

b = raw coefficient for the association between the mediator and the dependent variable

s_b = standard error of *b*

Appendix C

Measures

Marital hostility

When you and your spouse disagree, how often do you . . .

1. Call my spouse names
2. Threaten my spouse
3. Yell at my spouse
4. Insult (show disrespect for) my spouse
5. Tell my spouse to shut up
6. Make accusations
7. Become sarcastic
8. Insist on my point of view
9. Beat up my spouse
10. Slap my spouse
11. Strike, kick, or bite my spouse
12. Push, pull, or grab my spouse
13. Throw things, slam doors, or break things
14. Blame my spouse
15. Criticize my spouse
16. Demand that my spouse change
17. Interrupt my spouse
18. Talk louder than my spouse so he or she can't interrupt me

Response Format: (1) Never; (2) Rarely; (3) Sometimes; (4) Usually; (5) Always

Sources: Buehler, C., Krishnakumar, A., Stone, G., Anthony, C., Pemberton, S., Gerard, J., & Barber, B. (1998). Inteparental conflict styles and youth problem behaviors: A two-sample replication study. *Journal of Marriage and the Family, 60,* 119-132.

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Parental Depressive Affect

CES-D

Using the scale below, fill in the circle by the statement that best describes how often YOU felt or behaved this way – DURING THE PAST WEEK.

1. I was bothered by things that usually don't bother me
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from family or friends
4. I felt that I was just as good as other people (R)
5. I had trouble keeping my mind on what I was doing
6. I felt depressed
7. I felt that everything I did was an effort
8. I felt hopeful about the future (R)
9. I thought my life had been a failure
10. I felt fearful
11. My sleep was restless
12. I was happy (R)
13. I talked less than usual
14. I felt lonely
15. People were unfriendly
16. I enjoyed life (R)
17. I had crying spells

18. I felt sad

19. I felt that people disliked me

20. I could not get going

Response format: (1) Rarely or none of the time (less than 1 day); (2) Some or a little of the time (1-2 days); (3) Occasionally or a moderate amount of time (3-4 days); (4) Most or all of the time (5-7 days)

Source: Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385-401.

BDI

Here are groups of four statements. Please read each group of statements carefully. Fill in the circle of the one statement in each group that best describes the way you have been feeling during the PAST WEEK, INCLUDING TODAY.

1. 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.

2. I do not feel like a failure.

   I feel I have failed more than the average person.

   As I look back on my life, all I can see is a lot of failures.

   I feel I am a complete failure as a person.

3. I don't feel particularly guilty.

   I feel guilty a good part of the time.

   I feel quite guilty most of the time.

   I feel guilty all of the time.

4. I don't feel disappointed in myself.

   I am disappointed in myself.

I am disgusted with myself.

I hate myself.

5. I don't have any thoughts of killing myself.

   I have thoughts of killing myself, but I would not carry them out.

   I would kill myself.

   I would kill myself if I had a chance.

6. I am not particularly discouraged about the future.

   I feel discouraged about the future.

   I feel I have nothing to look forward to.

   I feel that the future is hopeless and that things cannot improve.

7. I get as much satisfaction out of things as I used to.

   I don't enjoy things the way I used to.

   I don't get any real satisfaction out of anything any more.

   I am dissatisfied or bored with everything.

8. I don't feel I am being punished.

   I feel I may be punished

   I expect to be punished.

   I feel I am being punished.

9. I don't feel I am any worse than anybody else.

   I am critical of myself for my weaknesses or mistakes.

   I blame myself for all my faults.

   I blame myself for everything bad that happens.

10. I don't cry any more than usual.

    I cry now more than I used to.

    I cry all the time now.

    I used to be able to cry, but now I can't even though I want to.

11. I am no more irritated now than I ever am.

    I get annoyed or irritated more easily than I used to.

    I feel irritated all the time now.

    I don't get irritated at all the things that used to irritate me.

12. I make decisions about as well as I ever could.

    I put off making decisions more than I used to.

    I have greater difficulty in making decisions than before.

    I can't make decisions at all anymore.

13. I can work about as well as before.

    It takes an extra effort to get started at doing something.

I have to push myself hard to do anything.

I can't do any work at all.

14. I don't get more tired than usual.

I get tired more easily than I used to.

I get tired from doing almost anything.

I am too tired to do anything.

15. I haven't lost much weight if any, lately.

I have lost more than 5 pounds.

I have lost more than 10 pounds.

I have lost more than 15 pounds.

I am purposely trying to lose weight: yes or no

16. I have not lost interest in other people.

I am less interested in other people than I used to be.

I have lost most of my interest in other people.

I have lost all my interest in other people.

17. I don't feel I look worse than I used to.

I am worried that I am looking old or unattractive.

I feel that there are permanent changes in my appearance.

I believe that I look ugly.

18. I can sleep as well as usual.

    I don't sleep as well as I used to.

    I wake up 1-2 hours earlier than usual and find it hard to get back to sleep

    I get too tired to do anything.

19. My appetite is no worse than usual.

    My appetite is not as good as it used to be.

    My appetite is much worse now.

    I have no appetite at all any more.

20. I am no more worried about my health than usual.

    I am worried about my physical problems such as aches and pains, upset stomach, or constipation.

    I am very worried about physical problems, and it's hard to think of much else.

    I am so worried about my physical problems that I cannot think about anything else.

Source: Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the BDI-II*. San Antonio, TX: The Psychological Corporation.

Compromised Parenting Behaviors

Harsh behavioral control

Think about the past year and answer the following questions about your mother.

1. My mom threatened to spank or hit me but did not actually do it
2. My mom shouted, yelled, or screamed at me
3. My mom swore or cursed at me
4. My mom called me dumb or lazy or some other name like that
5. My mom slapped or spanked me

Response format: (0) This has never happened; (1) Once in the past year; (2) Twice in the past year; (3) 3-4 times in the past year; (4) 6-10 times in the past year; (5) 11-20 times in the past year; (6) More than 20 times in the past year; (7) Not in the last year, but it did happen before

Source: Straus, M. A., Hamby, S. L., Finkelhor D., Moore D. W., & Runyan, D. (1998). Identification of child maltreatment with parent-child conflict tactics scales: Development and psychometric data for a national sample of American parents. *Child Abuse and Neglect, 22(11),* 1177.

Acceptance

My mother is a person who. . .

1. makes me feel better after talking over my worries with her.
2. gives me a lot of care and attention
3. believes in showing her love for me

4. is able to make me feel better when I am upset
5. cheers me up when I am sad
6. enjoys doing things with me
7. smiles at me often
8. makes me feel like the most important person in her life
9. often praises me
10. is easy to talk to

Response format: (1) Not like her; (2) Somewhat like her; (3) A lot like her

Sources: Schaefer, E.S. (1965). Children's reports of parental behavior: An inventory. *Child Development, 36,* 413-426.

Schludermann, E., & Schludermann, S. (1970). Replicability of factors in the Children's Report of Parental Behavior Inventory (CRPBI). *Journal of Psychology, 96,* 15-23.

Knowledge

How much does your mother REALLY know about . . .

1. who your friends are
2. where you go out at night
3. what you do with your free time
4. where you are most afternoons after school

Response format: (1) Doesn't know; (2) Knows a little; (3) Knows a lot

Source: Brown, B.B., Mounts, N., Lamborn, S.D., & Steinberg, L. (1993). Parenting practices and peer group affiliation in adolescence. *Child Development, 64(2),* 467-482.

Psychological intrusiveness

My mother is a person who. . .

1. changes the subject whenever I have something to say
2. often interrupts me
3. brings up my past mistakes when she criticizes me
4. is less friendly with me if I don't see things her way
5. if I have hurt her feelings she stops talking to me until I please her again
6. feels hurt when I don't follow her advice
7. says if I loved her, I'd do what she wants me to do
8. feels hurt by the things I say or feel

Response format: (1) Not like her; (2) Somewhat like her; (3) A lot like her

Sources: Barber, B.K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67,* 3296-3319.

Bogenschneider, K., Small, S.A., & Tsay, J.C. (1997). Child, parent, and contextual influences on perceived parenting competence among parents of adolescents. *Journal of Marriage and the Family, 59(2),* 345-362.

Inconsistency

My mother is a person who . . .

1. frequently changes the rules I am supposed to follow

2. lets me do something one day and the next day I get into trouble for doing the same thing
3. it depends on her mood whether a rule is enforced or not
4. soon forgets rule she has made
5. gives up trying to get me to behave or follow the rules

Response format: (1) Not like her; (2) Somewhat like her; (3) A lot like her

Source: Schaefer, E.S. (1965). Children's reports of parental behavior: An inventory. *Child Development, 36,* 413-426.

Schludermann, E., & Schludermann, S. (1970). Replicability of factors in the Children's Report of Parental Behavior Inventory (CRPBI). *Journal of Psychology, 96,* 15-23.

Youth Problem Behaviors

Youth externalizing problem behaviors

Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please fill in the 2 if the item is very true or often true of you. Fill in the 1 if the item is somewhat true of you. If the item is not true of you, fill in the 0.

1. I argue a lot
2. I brag
3. I am mean to others
4. I try to get a lot of attention
5. I destroy my own things
6. I destroy things belonging to others
7. I disobey at school
8. I don't feel guilty after doing something I shouldn't
9. I am jealous of others
10. I get in many fights
11. I hang around with kids who get in trouble
12. I lie or cheat
13. I physically attack people
14. I would rather be with older kids than with kids my own age
15. I run away from home
16. I scream a lot

17. I set fires

18. I show off or clown

19. I steal at home

20. I steal from places other than home

21. I am stubborn

22. My moods or feelings change suddenly

23. I swear or use dirty language

24. I talk too much

25. I tease others a lot

26. I have a hot temper

27. I threaten to hurt people

28. I cut classes or skip school

29. I am louder than other kids

30. I use alcohol or drugs for nonmedical purposes

Response format: (0) Not true (as far as you know); (1) Somewhat or sometimes true; (2) Very true or often true

Source: Achenbach, T.M. (1991c). *Manual for the Youth Self-Report and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.

Youth internalizing problem behaviors

Below is a list of items that describe kids. For each item that describes you now or within the past 6 months, please fill in the 2 if the item is very true or often true

of you. Fill in the 1 if the item is somewhat true of you. If the item is not true of you, fill in the 0.

1. I feel lonely
2. I cry a lot
3. I deliberately try to hurt or kill myself
4. I am afraid I might think or do something bad
5. I feel that I have to be perfect
6. I feel that no one loves me
7. I feel that others are out to get me
8. I feel worthless or inferior
9. I would rather be alone than with others
10. I am nervous or tense
11. I am fearful or anxious
12. I feel dizzy
13. I feel too guilty
14. I have aches or pains (not headaches)
15. I have headaches
16. I have nausea, feel sick
17. I have problems with my eyes
18. I have rashes or other skin problems
19. I have stomachaches or cramps
20. I have vomiting, throwing up

21. I refuse to talk

22. I am secretive or keep things to myself

23. I am self conscious or easily embarrassed

24. I am shy

25. I am suspicious

26. I think about killing myself

27. I don't have much energy

28. I am unhappy, sad, or depressed

29. I keep from getting involved with others

30. I worry a lot

Response format: (0) Not true (as far as you know); (1) Somewhat or sometimes true; (2) Very true or often true

Source: Achenbach, T.M. (1991c). *Manual for the Youth Self-Report and 1991 Profile.* Burlington, VT: University of Vermont Department of Psychiatry.

Vita

Karen L. Franck was born in Massachusetts and was raised in Massachusetts and North Carolina. She attended the University of North Carolina at Chapel Hill and Appalachian State University in Boone, North Carolina where she graduated with a bachelor's of science degree in English literature and a minor in Women's Studies. She spent several years as a social worker working with foster care children, birth parents, and foster parents in Georgia and Tennessee. She completed her master's degree in Child & Family Studies at the University of Tennessee with a thesis comparing kinship care and nonkinship care foster children and their families. While working on her PhD in Child & Family Studies at the University of Tennessee, she worked as project coordinator for Dr. Cheryl Buehler's UT Family Life Project, a longitudinal research project funded by the National Institutes of Mental Health with an emphasis on how interparental conflict influences adolescent development.

She enjoys spending time with her husband, her animals, and her garden.

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