CHILDREN OF DEPRESSED PARENTS:

INTERPARENTAL CONFLICT, SELF-BLAME, AND COPING

By

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INTRODUCTION

Research examining psychopathology in youth has documented rates of disorders in children and adolescents approaching those present in adult populations. For instance, data from the Great Smoky Mountains Study of Youth indicate that 39.8% of the children in their sample met criteria for a psychiatric diagnosis or functional impairment across any of their four annual time points (Farmer, Burns, Phillips, Angold, & Costello, 2003). In comparison, the National Comorbidity Survey reported a lifetime prevalence rate for any psychiatric disorder in 48.0% of a representative population of adults (Kessler, et al., 1994). These elevated rates of disorders across children, adolescents and adults are striking and demand future research examining risk and protective factors associated with the development of internalizing and externalizing disorders in children and adolescents, in an effort to decrease risk for psychopathology in youth.

Two important risk factors for child and adolescent psychopathology are parental depression and interparental conflict. Research examining parental depression and interparental conflict has clearly documented a unique link between each source of risk and the development of emotional and behavioral problems in children and adolescents (e.g., Emery, 1982; Weissman et al., 1997). However, a smaller amount of research has examined the potential additive or interactive effects of the combination of these two risk factors on children's mental health, and has yielded inconsistent results (e.g., Fendrich, Warner, & Weissman, 1990; Hammen, Brennan, & Shih, 2004). The inconsistency of

results in this area therefore warrants more research examining the possibility that the combination of these two risk factors may place children at an even greater disadvantage for emotional and behavioral problems.

In contrast to these sources of risk, research in the broader stress and coping field has found that children's use of adaptive coping skills may account for the effects of stress on emotional and behavioral symptoms (e.g., Compas et al., 2001). Consequently, children's coping behavior has been implicated as a protective factor for many populations of children at risk for psychopathology, including children of depressed parents and children exposed to interparental conflict (Jaser et al., 2005; Nicolotti, et al., 2003). However, research in this area has been limited by confusion and inconsistency in the conceptualization and measurement of coping used across studies. Further, research to-date has failed to examine children's coping behavior relative to interparental conflict in children of parents with a history of Major Depressive Disorder (MDD). It is therefore important to examine empirically-supported coping strategies which may increase or decrease risk for psychological problems in children exposed to these risk factors. The current study examines an empirically supported model of children's coping behavior in children of depressed parents exposed to interparental conflict.

Parental Depression

Prior research has established that parental depression is a significant risk factor for psychopathology in children of depressed parents (e.g., Goodman & Gotlib, 1999). These children have been shown to be at increased risk of developing both internalizing (e.g., depression, anxiety) and externalizing (e.g., substance abuse, conduct disorder)

disorders, relative to children of nondepressed parents. Research has also documented a link between parental depression and social and academic functioning, such that children exposed to this risk factor often experience lower social competency as well as more academic and school-related problems (Hammen et al., 1987).

In a seminal study, Hammen et al. (1987) compared children of mothers with affective disorders (unipolar or bipolar depression), children with mothers dealing with chronic medical illness, and children with healthy control mothers on measures of psychological functioning and well-being. Results indicated that children whose mothers had an affective illness were more impaired psychologically and academically than children of medically ill or non-ill mothers. In particular, children whose mothers had unipolar depression experienced higher rates of diagnoses of both affective disorders, behavior disorders, and other emotional disorders (Hammen et al.). Compared to samples of children whose parents are struggling with other forms of illness, children of depressed parents appear to be at highest risk for later adjustment and psychological problems.

Beardslee et al. (1993) examined rates of major depressive disorder and other psychopathology in children of a nonreferred sample of depressed parents. Results from their work were striking, with 26% (27 out of 105) of children of depressed parents developing major depressive disorder (MDD) compared to only 12% (4 out of 34) of children whose parents had a different form of psychopathology (nonaffective disorder), and to 10% (2 out of 20) of children who had a parent with no disorder. Furthermore, the frequency and severity of MDD episodes were more serious and tended to have an earlier age of onset for children of depressed parents. Finally, findings from this study also

indicated that children of depressed parents were 40% more likely than children of non-depressed parents to have experienced an episode of MDD by the time they were 20 years old, and 60% more likely by the time they reach age 25 (Beardslee et al.). Risk for psychopathology therefore appears to be strongest for children exposed to parental depression as opposed to other forms of parental psychopathology and no psychopathology.

Consistent with prior research, a 10 year longitudinal study showed that children of depressed parents were three times more likely to be diagnosed with MDD or Phobias, as well as five times more likely to be diagnosed with Panic disorder or alcohol dependence, as compared to children of non-depressed parents (Weissman et al., 1997). In addition, children between the ages of 15 and 20 years old were at greatest risk for experiencing the first occurrence or initial onset of any disorder, implicating late adolescence as the "peak time" of risk. Thus, the risk for psychopathology in children of depressed parents may actually increase throughout late adolescence into early adulthood (25 years of age), which suggests that there may be a cumulative and long-term negative impact of maternal depression on children's psychological well-being.

Although the vast majority of research on children of depressed parents has focused on the specific risk of maternal depression, a new body of literature is slowly emerging which suggests that children of depressed fathers are also at increased risk for emotional and behavior problems (e.g., Connell & Goodman, 2002; Kane & Garber, 2004; Phares & Compas, 1992). General research in this area indicates that paternal psychopathology (non-specific) places children at greater risk for externalizing disorders than internalizing disorders (Phares & Compas; Connell & Goodman). A meta-analysis

examining research specific to depressed fathers revealed that paternal depression is positively related to more internalizing and externalizing symptoms in children, with mean effect sizes similar to those found in research examining the risk for children of depressed mothers (Kane & Garber). However, literature focusing on the role of paternal depression on child functioning is relatively rare compared with research on depressed mothers.

Mechanisms of risk transmission. Once the link between parental depression and children's psychopathology was established, research began to focus on the underlying processes and mechanisms which account for the increased risk for psychopathology in this population. Research on this topic includes both genetic and environmental mechanisms of risk transmission, but this paper will examine specifically the environmental mechanisms thought to account for the effect of parental depression on children's psychological functioning.

Goodman and Gotlib (1999) proposed four mechanisms of risk transmission for psychopathology from parent to child: 1) heritability of depression, 2) innate dysfunctional neuroregulatory mechanisms, 3) exposure to negative maternal cognitions, behaviors, and affect, and 4) the stressful context of the children's lives. These four mechanisms are considered interrelated, such that each mechanism contributes to a child's risk for depression by interacting with another mechanism (as opposed to acting in isolation). In this model, having a mother with depression puts the child at increased risk for experiencing one or more of the four proposed mechanisms. These mechanisms then lead to vulnerability for psychopathology in the child by impacting his/her

psychological, psychobiological, and social functioning (Goodman & Gotlib). With Goodman and Gotlib's model, exposure to negative maternal cognitions, behaviors, affect, and stressful life context reflect characteristics of the social environment of families of depressed parents. Therefore, one way to conceptualize the effect of parental depression on children's risk for psychopathology is to examine the resultant stressful family environment for these children. In particular, a stressful family environment may be manifested through either stressful parent-child interactions or through stressful interactions between parents (interparental conflict).

In a recent attempt to explain the impact of parental depression on children's risk for psychopathology, Hammen, Shih, and Brennan (2004) proposed an intergenerational stress model of risk transmission for children of depressed parents. This model posits that depressed parents engage in dysfunctional ways of adapting to and coping with stressful situations in the interpersonal, social, and work aspects of their lives. Further, depressed parents' maladaptive patterns of handling stress, coupled with a stressful family environment, increase children's own risk of acquiring similar dysfunctional patterns of coping with stress. This potentially causes children of depressed parents to acquire both a similar dysfunctional pattern of adapting to stress and a tendency to create or contribute to stressful interpersonal life events. The increased stress load consequently experienced by these children may then lead to the onset of initial or repeated depressive episodes (Hammen, Shih, & Brennan). In particular, the quality of ongoing relationships (including both parent-child and marital relations) experienced by the mothers is implicated as a key risk factor for these children. The significant contribution of the family environment to children of depressed parent's subsequent psychopathology is thus

clearly delineated in Hammen et al.'s intergenerational stress model of risk transmission, and will therefore be important to examine further in future research.

Coping with parental depression. Relatively little research has examined children's coping responses specific to the stress associated with parental depression. The earliest research examined children's descriptions of their coping behavior in a sample of children whose families were characterized by a high degree of stress in addition to both parents suffering from psychopathology (mothers were classified as severely depressed; fathers diagnosed with either depression, anxiety, or substance abuse; Radke-Yarrow & Brown, 1993). Results indicated no differences in coping behavior between children classified as resilient and as vulnerable. However, this study was exploratory in nature and was limited by problems in the conceptualization and measurement of children's coping.

Klimes-Dougan, and Bolger (1998) examined children's coping responses to maternal negative affect in children whose parents had depression or bipolar disorder compared to children of well parents. Coping was operationalized in this study in terms of Lazarus and Folkman's (1984) model, which emphasizes a distinction between emotion-focused coping (i.e., changing something about how you feel) and problem-focused coping (i.e., changing an aspect of the stressful situation). Results yielded few differences between general coping patterns of children of depressed and well parents; rather, all children (regardless of risk status as defined by parental illness) tended to use problem-focused and support-seeking strategies more than other strategies. Klimes-Dougan and Bolger therefore concluded that parental depression in general, as opposed to

children's coping behaviors relative to parental depression, may be a more important predictor of children's subsequent psychological well-being.

Recently, research has examined children's stress responses specific to coping with parental depression, and the association of coping with children's internalizing and externalizing symptoms (Jaser et al., 2005; Langrock et al., 2002). Stress associated with parental depression was quantified in terms of intrusive (e.g., My mom is upset, tense, grouchy, angry, and easily frustrated) and withdrawn (e.g., I wish my mom would spend more time with me) behavior patterns of parents with a history of depression, and these studies were based on an empirically supported, dual-process model of coping (Compas et al., 2001; Connor-Smith et al., 2000). Results from these studies indicated a consistent association between children's coping responses and their concurrent level of anxious/depressed and aggressive symptoms (Jaser et al.; Langrock et al.). Specifically, secondary control coping (attempts to adapt to a stressful situation through acceptance, distraction, cognitive restructuring, activities) was correlated significantly negatively with adolescent anxious/depressed symptoms, such that greater use of this form of coping was associated with fewer symptoms of psychopathology (Jaser et al.). In parent reports of adolescents' coping and behavior symptoms, primary control coping (attempts to directly change the stressful situation, through use of such techniques as problem solving, emotional expression, and emotional regulation) was also modestly negatively related to anxious/depressed symptoms, but not as strongly as secondary control engagement coping (Langrock et al.). Furthermore, adolescent reports of both their secondary control coping strategies and levels of stress reactivity (e.g., emotional and physiological arousal) mediated the relationship between adolescent reports of parental intrusiveness and

parents' reports of anxious/depressed symptoms in children (Jaser et al.). These cross-informant findings provide strong support for the role of children's coping and stress responses as factors which can account for the effects of parental stress related to depression on children's internalizing symptoms.

Interparental Conflict

Interparental conflict is an important correlate of parental depression. It has been examined as a risk factor contributing to emotional and behavioral problems in children and adolescents, both in conjunction with and independent of parental depression (e.g., Emery, 1982; Hammen, Brennan, & Shih, 2004). Research in this area has consistently documented a positive association between levels of interparental conflict and child adjustment, such that greater exposure to conflict between parents is related to increased levels of both internalizing and externalizing symptoms, as well as subsequent psychological disorders in children and adolescents (e.g., Emery, 1982; Turner & Kopiec, 2006).

Emery's (1982) seminal review of the literature was the first to conclusively delineate the negative effects of interparental conflict on children's adjustment. This review examined evidence for the effects of parental divorce on children's adjustment, and found that interparental conflict (as opposed to parental divorce) was the primary predictor of emotional and behavioral problems in children and adolescents. Emery's review also proposed several different mechanisms through which interparental conflict may affect children, such as the increased levels of stress these children experience. This implicates the role of children's coping as a potential target for interventions designed to

decrease the negative effect of the stress children face as a result of interparental conflict. In addition, Emery acknowledged that children's responses to conflict may be influenced by children's own appraisals or interpretations of the conflict.

Research since Emery's (1982) landmark review has continued to document and extend the link between interparental conflict and child adjustment (e.g., Grych & Fincham, 1990; Turner & Kopiec, 2006). In particular, research has established that specific properties or dimensions of interparental conflict, including the frequency, intensity, and degree of resolution, are important predictors of child outcome (i.e., conflict which is more frequent, more intense, and poorly resolved leads to worse adjustment by children; Grych & Fincham). Other research examining directional links between interparental conflict and children's emotional and behavioral problems found that family conflict predicted a subsequent increase in adolescent depressive symptoms, but that adolescent depressive symptoms did not predict a subsequent increase in levels of family conflict (Sheeber, Hops, Alpert, Davis, & Andrews, 1997). In addition, more recent research has shown that college students who were exposed to high levels of interparental conflict as children or adolescents were 2.6 times more likely to develop an episode of major depressive disorder, and 1.6 times more likely to experience alcohol abuse or dependence problems compared to students who had not been exposed to high levels of conflict (Turner & Kopiec).

Although research examining the effect of interparental conflict on children has been quite consistent, other research examining the effects of conflict as a function of child gender has yielded inconsistent results. For instance, some research suggests that interparental conflict has a greater impact on girls, specifically leading to increased

internalizing symptoms, while results from other research suggest that interparental conflict has an equal impact on both boys and girls (Davies & Lindsay, 2004; Sheeber, et al., 1997). Thus, the differential effect of interparental conflict on girls' vs. boys' functioning is an unresolved question for future research to explore.

Interparental conflict, family constellations, and effects on children. Building specifically on Emery's (1982) review, research has continued to examine the effects of interparental conflict on children within the context of parental divorce (e.g., Emery Matthews, & Kitzmann, 1994). Findings indicate that the amount of conflict, as opposed to the divorce itself, is the most important predictor of children's emotional and behavioral well-being (Grych & Fincham, 1990). In addition, research suggests that interparental conflict does not end when parents divorce; rather, it continues or may even increase following a divorce (e.g., Emery et al. 1994; Forehand et al, 1990). Furthermore, Kline, Johnston, and Tschann (1991) found that higher levels of marital conflict prior to divorce predicted greater interparental conflict post-divorce. Finally, in a meta-analysis of the effects of parental divorce on children, Amato and Keith (1991) found that the properties of the conflict, rather than the structure of the family, were related to children's well-being. Therefore, both children of divorce and children from intact families are likely to be exposed to detrimental levels of interparental conflict, suggesting the importance of opening future research samples to all children exposed to conflict, regardless of family structure.

Conceptual models of interparental conflict and child adjustment. Research has also examined potential mechanisms through which interparental conflict may affect child functioning. In particular, research has examined the impact of interparental conflict on children as a function of the emotional security hypothesis, from a process-oriented approach, and within a cognitive-contextual framework.

Davies and Cummings (1994) proposed an emotional security theory to explain the negative effects of interparental conflict on child functioning. Their theory suggests that interparental conflict compromises children's sense of emotional security and consequently leads to emotional and behavioral problems. Research testing the emotional security theory has yielded support for this model (e.g., Davies & Cummings, 1998; Davies & Forman, 2002). For instance, results from longitudinal research support the notion that children's emotional security mediates the relationship between interparental conflict and child emotional and behavioral problems, therefore accounting for the negative effects of conflict on child adjustment (Cummings et al., 2006).

From a process-oriented approach, Cummings and Cummings (1988) proposed a model which suggests that interparental conflict impacts children via children's background characteristics, coping responses, the effects of time, and as a function of the context and outcome of the conflict. In an updated version of their model, Cummings and Davies (2002) clarify that marital relationships (which are divided into destructive or constructive categories) have both direct and indirect effects (through parenting, parent-child relationship) on children's psychological well-being, mediated by children's emotional/cognitive and physiological reactions (which change as a function of development). Furthermore, their model draws on the emotional security theory by

suggesting that children's emotional security, as impacted by interparental conflict, plays an important role in later adjustment. Consequently, Cummings and Cummings' process-oriented model overlaps with the emotional security theory, but then attempts to explain children's maladjustment to interparental conflict as a function of a broader range of experiences and history the child has already experienced.

Finally, Grych and Fincham (1990) proposed a cognitive-contextual framework through which children's perceptions of interparental conflict mediate the stressfulness of the conflict on their adjustment. In this framework, children's appraisals of interparental conflict in terms of perceptions of threat (i.e., threat to family or self), attributions of cause or self-blame, and ability to cope effectively with the conflict are important for ascertaining children's overall risk for maladjustment, and are shaped by both conflict properties (i.e., intensity, conflict) and contextual factors (e.g., prior exposure to conflict; Grych & Fincham). Research examining the cognitive-contextual model suggests that content, intensity, and degree of hostility of interparental conflict, along with age of the child (i.e., older children felt less threatened and more able to cope effectively with conflict), are important factors which shape children's attributions in terms of feelings of shame, self-blame, coping efficacy, and fear of being drawn into their parents' argument (Grych & Fincham, 1993; Grych, 1998).

In addition, longitudinal research has provided evidence to suggest that interparental conflict indirectly affects child adjustment through children's perceptions of threat and self-blame (Grych, Harold, & Miles, 2003). Specifically, for all children, perceptions of threat were associated with more internalizing symptoms, and attributions of self-blame were correlated positively with externalizing symptoms. However,

additional analyses indicated that perceived threat was associated with externalizing symptoms in boys only, while child self-blame was related to internalizing symptoms in girls but not boys (Grych, Harold, & Miles). Furthermore, results from more recent research indicate that both children's perceptions of threat and self-blame mediate the link between the effects of interparental conflict on children's internalizing, but not externalizing, symptoms (McDonald & Grych, 2006). Thus, although a somewhat inconsistent pattern has emerged in terms of type of symptoms associated with interparental conflict (internalizing vs. externalizing) and impact of gender, research has generally supported the impact of interparental conflict on child adjustment within a cognitive-contextual framework.

Coping with Interparental Conflict. In the past decade, research has begun to examine children's coping behaviors within the context of interparental conflict. As mentioned previously, coping has been defined and measured in multiple ways; however, regardless of its conceptualization, coping has been shown to be an important factor in predicting children's reactions to and subsequent symptoms associated with interparental conflict. In one study, O'Brien, Bahadur, Gee, Balto and Erber (1997) defined coping based on four factors: self-involve coping (behavioral and cognitive responses by children which involve them in the conflict), threatened/critical coping (negative cognitions regarding the conflict and the outcome of the conflict), confident avoidance coping (children feel able to handle the conflict and decide to stay out of the situation), and worried avoidance coping (children feel as if they may lose parent's support or love and withdraw from the conflict). Results indicated that children's use of self-involve,

threatened/critical, and worried avoidance coping were positively related to depressive symptoms in children, whereas confident avoidance coping was not associated with children's internalizing symptoms (O'Brien et al.). Thus, this study implicates maladaptive patterns of coping as potential risk factors for children's emotional symptoms, but fails to provide support for any adaptive coping strategies.

In more recent research, Nicolotti, El-Sheikh, and Whitson (2003) examined children's coping strategies as predictors and moderators of the relationship between marital conflict and children's emotional, behavioral and physical health problems. They conceptualized coping in terms of a combination of active and support coping (problem solving and seeking support, respectively), avoidance coping (cognitive and behavioral avoidance of the stressful situation), and distraction coping (any activity which keeps the individual from focusing on the stressful situation). Evidence was found for moderation effects, such that active and support coping served as a protective factor for girls' depressive symptoms but as a vulnerability factor for boys' depressive symptoms. In contrast, avoidance coping was a vulnerability factor for internalizing and externalizing problems in both boys and girls, while distraction coping protected both boys and girls from depressive symptoms and physical health problems (Nicolotti et al.).

Finally, Shelton, Harold, Goeke-Morey, and Cummings (2006) examined children's coping behaviors as a function of child gender and the expression of conflict (i.e., the intensity and content of the conflict). Children's coping was examined in terms of the mediation and avoidance strategies they displayed across various expressions and topics of conflict. Results indicated that children's coping responses remained the same across varied expressions and topics of conflict, with a few exceptions. For instance,

girls demonstrated use of more mediation techniques than boys, and mediation attempts in general were more likely to occur if the conflict involved a component of physical aggression and verbal anger, or if the content of the argument was related to the child. However, the two-dimensional model of coping examined in this study may have lacked the specificity of the four-factor model used in prior research (Nicolotti, El-Sheikh, & Whitson, 2003). This fundamental difference therefore limits the ability to draw conclusions across studies.

Parental Depression, Marital Discord, and Interparental Conflict

Given the importance of parental depression and interparental conflict as risk factors for child/adolescent psychopathology, it is important to consider the possible effects of exposure to the risk of interparental conflict within the context of parental depression. Depression is a debilitating psychological disorder characterized in parents by both intrusive and withdrawn behavior patterns with their children (Langrock, et al., 2002). Furthermore, high rates of interparental conflict and marital discord often accompany interpersonal relationships where one member is suffering from depression (Gotlib & Whiffen, 1989). For example, Gotlib and Whiffen found that depressed couples were worse on every aspect of marital satisfaction compared with non-depressed control couples based on both self-report and observational methods. This suggests that there is greater marital dissatisfaction and lower levels of marital functioning specific to couples coping with depression. Furthermore, some research suggests that individuals suffering from a psychological disorder tend to marry spouses with increased rates of psychopathology (Rutter & Quinton, 1984). This increased level of general

psychopathology could also contribute to higher levels of marital discord and conflict. Still other research has provided evidence that children of depressed parents are exposed to higher rates of poor marital adjustment and parental divorce than children of non-depressed parents (Fendrich, Warner, & Weissman 1990; Nomura, Wickramaratne, Warner, Mufson, & Weissman, 2002). Therefore, when establishing risk for psychopathology in children, it is important to examine exposure to high levels of interparental conflict within the context of parental depression.

Research examining the link between parental depression, interparental conflict, and child emotional and behavioral problems has yielded inconsistent results (e.g., Fendrich, Warner, & Weissman, 1990; Hammen, Brennan, & Shih, 2004). In early research examining the effect of parental psychiatric disorders on children's psychopathology, Rutter and Quinton (1984) found that family discord and hostility were two of the most important mediating variables in the link between parental psychopathology and child psychopathology. More recent research on this topic has suggested that interparental conflict is a more significant risk factor for psychopathology in children of non-depressed parents rather than depressed parents (Fendrich, Warner, & Weissman). For instance, family risk factors such as poor marital adjustment and parental divorce were shown to occur more frequently in children of depressed parents, but children of non-depressed parents displayed a substantially increased risk for experiencing a psychological disorder as a result of the presence of these family risk factors (Fendrich, Warner, & Weissman). Similarly, results from longitudinal research indicated that the rate of MDD diagnoses in all children was increased by the rate of parental depression and divorce, whereas the presence of family discord was more

predictive of other disorders in children of non-depressed parents (Nomura, Wickramaratne, Warner, Mufson, & Weissman, 2002; Pilowsky, Wickramaratne, Nomura, & Weissman, 2006). Further analyses indicated that across all children, parental depression was a better predictor of adolescent MDD and anxiety than discord, while family discord was a better predictor of subsequent substance use (Nomura et al.). Significant limitations of this study include the lack of an empirically-validated measure assessing interparental conflict and the use of binary as opposed to continuous variables for conflict and discord.

In contrast, one recent study has shown an interactive effect for interparental conflict and parental depression on children's mental health (Hammen, Brennan, & Shih, 2004). When levels of family discord were similar across groups (i.e., similar for children of depressed parents and children of non-depressed parents), children of depressed mothers were more likely to be depressed (Hammen et al.). However, these researchers also found an interaction effect, such that within the sample of children of depressed mothers, those children exposed to high levels of family discord were more likely to become depressed than those exposed to low levels of family discord. This study provides evidence that family discord contributes to children's risk for depression, above and beyond the risk contributed by maternal depression.

Other research attempted to delineate whether different types of marital conflict specific to parental dysphoria (depression) mediated the association between conflict and child adjustment (Du Rocher Schudlich & Cummings, 2003). Results from this research indicated that on average, parental dysphoria was associated with more use of destructive conflict styles and less use of constructive conflict styles. Further, conflict styles specific

to dysphoria (termed depressive marital conflict styles) were found to significantly mediate the association between parental dysphoria and children's internalizing symptoms (Du Rocher Schudlich & Cummings). This research therefore suggests that interparental conflict may manifest differently in couples with depression, consequently increasing risk for internalizing problems in children.

Downey and Coyne (1990) provided an integrative framework for the role of parental depression and interparental conflict as risk factors for internalizing and externalizing psychopathology in children. They proposed five alternative models to account for the relations between marital discord, parental depression, and child adjustment, including mediated models (e.g., parental depression leads to marital discord which leads to both internalizing and externalizing problems); bidirectional models in which parental depression, marital discord, and child problems mutually influence one another; and a correlated risk model in which marital discord uniquely leads to externalizing problems, parental depression uniquely contributes to internalizing problems, and the two risk factors are correlated with each other. Unfortunately, research since this review has thus far failed to resolve which of these models best accounts for the effects of interparental conflict and parental depression. For instance, one early study reported that family discord mediated the association between maternal depressive symptoms and girls' externalizing behaviors, and remained a significant predictor of girls' externalizing problems even after partialling out the effect for maternal depressive symptoms (Davies & Windle, 1997). However, in the same study, both interparental conflict and family discord shared considerable variance in predicting adolescent

depression, which made it difficult to ascertain which risk factor made a greater contribution to adolescent depression.

More recent research results showed that marital conflict mediated the link between maternal depressive symptoms and both children's internalizing and externalizing problems (Cummings, Keller, & Davies, 2005). However, after controlling for conflict, there continued to be a significant effect for maternal depressive symptoms on children's problems, which suggests that the two risk factors may again share considerable variance in predicting internalizing and externalizing symptoms (Cummings, Keller, & Davies). Still other research has examined the possibility that parental depression and interparental conflict affect children's risk for psychopathology via separate pathways (Davies, Dumenci, & Windle, 1999). Findings from a study conducted by Davies, Dumenci, and Windle provide evidence suggesting that maternal depressive symptoms mediate the association of interparental conflict and adolescent depressive symptoms, but interparental conflict mediates the link between maternal depressive symptoms and adolescent externalizing behaviors. Consequently, these results underscore the importance of examining the effects for parental depression and interparental conflict on children's risk for psychopathology via different pathways. The inconclusive nature of results from studies specifically attempting to delineate the pathways of these risk factors therefore depicts the difficulty and also the significance of examining interparental conflict and parental depression in conjunction with one another.

Research has further suggested that parent and child gender may moderate the effects of interparental conflict and parental depression on children's emotional and behavioral problems. In particular, the findings from one study suggest that interparental

conflict is a significant predictor of girls' internalizing and externalizing symptoms within a mother-daughter dyad, but did not significantly predict internalizing and externalizing symptoms in mother-son, father-daughter, or father-son dyads (Bosco, et al., 2003). In other research examining the impact of parent gender on children's symptoms, a significant interaction effect for maternal (but not paternal) psychological symptoms and marital functioning was found (Papp, Goeke-Morey, & Cummings, 2004). Finally, other research reported that marital distress mediated the association between paternal psychological symptoms (but not maternal psychological symptoms) and child outcome (Papp, Cummings, & Schermerhorn, 2004). Thus, research examining both child gender as a moderator and parent-child gender pathways appears to be an important area to further explore in future research.

In general, research examining the combination of both parental depression and interparental conflict has been inconsistent and therefore inconclusive in delineating the nature and pathway of the effects of these two risk factors on children's risk for psychopathology. Furthermore, it is noteworthy that no study to date has examined the role of coping with interparental conflict within the context of parental depression. Given the strong correlation between depression and interparental conflict, it is important to determine how coping differentially impacts or protects children of depressed parents exposed to high levels of interparental conflict. Future research should therefore focus on examining the independent and interactive effects of parental depression and interparental conflict on children's internalizing and externalizing symptoms, in addition to children's abilities to effectively cope with these sources of stress.

Dual Process Model of Coping

The current study was based on a dual-process model of coping that distinguishes between two dimensions of responses to stress (Compas et al., 2001). First, responses to stress can be either automatic, involuntary responses to stress (e.g., physiological arousal, intrusive thoughts) or controlled, volitional coping responses (i.e., conscious attempts to regulate emotion, behavior, thoughts, or physiology). Both involuntary and voluntary processes are further divided into engagement coping responses (i.e., orienting toward the source of stress or one's related thoughts and emotions) and disengagement responses (i.e., orienting away from the source of stress). Coping responses are specifically divided into three factors: Primary control coping, secondary control coping, and disengagement coping. Primary control coping is an individual's attempt to directly change the stressful situation, and includes such techniques as problem solving, emotional expression, and emotional regulation. Secondary control coping involves an individual's attempts to adapt to a stressful situation through cognitive restructuring, positive thinking, acceptance, and distraction. On the other hand, disengagement coping includes techniques such as wishful thinking, avoidance, and denial, which are all attempts to distance oneself from the stressor. Confirmatory factor analytic studies have confirmed this three factor model of coping responses (e.g., Connor-Smith et al., 2000; Wadsworth et al., 2004).

Prior research has consistently found a negative association between adolescents' self-reported use of primary and secondary control coping and their concurrent internalizing and externalizing symptoms, suggesting a protective role for these types of coping in buffering children from the effects of stress (e.g., Compas et al., 2006; Connor-

Smith et al., 2000; Jaser et al., 2005; Langrock et al., 2002; Wadsworth & Compas, 2002). Specifically, more use of primary control coping was associated with fewer self-reported internalizing symptoms in children coping with peer-related stressors and adolescents coping with family conflict and economic strain (Connor-Smith et al.; Wadsworth & Compas). More use of secondary control coping has been associated with lowers levels of depression and anxiety in a sample of children coping with parental depression (Jaser et al.; Langrock et al.). In particular, secondary control coping may be most beneficial for children and adolescents coping with a source of stress that is beyond their control (i.e., uncontrollable stress such as parental depression or recurrent pain; Compas et al.; Langrock et al.). In contrast, disengagement coping has typically been positively associated with adolescent's internalizing and externalizing symptoms (Connor-Smith et al.). Essentially, the model utilized in this paper has shown consistent results across populations of children and adolescents coping with various sources of stress. Both parental depression and interparental conflict are sources of uncontrollable stress for children, which implicates secondary control coping as a possible beneficial coping response for this population of children and adolescents. In contrast, primary control coping was shown to be adaptive in a population of children coping with family conflict and economic strain (Wadsworth & Compas). Thus, it is important to ascertain which forms of coping are potentially beneficial for children of depressed parents coping with interparental conflict.

Synthesis and the Current Study

Prior research has made progress in explaining the pathways among parental depression, interparental conflict, children's coping, and child functioning. However, several limitations of this research need to be addressed, including inconsistencies and problems in the conceptualization of parental depression, interparental conflict, and children's coping. Building on previous research and in an attempt to address some of these limitations, the present study addressed the following hypotheses in a sample of children of parents with a history of MDD:

1) Higher levels of both parent and child reported interparental conflict would be (a) positively associated with more parent and child reported internalizing (anxiety/depression) symptoms and externalizing (aggression) symptoms, and children's use of more disengagement coping; (b) negatively associated with children's use of secondary control coping and primary control coping; and (c) positively associated with children's perceived coping inefficacy and children's perceptions of self-blame for the conflict.
2) Both parent and child reported use of both secondary control coping and primary control coping would be negatively associated with fewer internalizing (anxiety/depression) and externalizing (aggression) symptoms; and use of disengagement coping would be positively associated with both types of children's symptoms.
3) Children's perceived coping inefficacy and perceptions of self-blame would be (a) be positively associated with internalizing (anxiety/depression) and externalizing (aggression) symptoms and children's use of more disengagement coping; and (b)

negatively associated with children's use of secondary control coping and primary control coping.

4) Children's use of secondary control coping, primary control coping, and disengagement coping, and children's perceived coping inefficacy and their perceptions of self-blame, would significantly account for the association between interparental conflict and internalizing (anxiety/depression) and externalizing (aggression) symptoms.

CHAPTER II

METHOD

Participants

Participants were recruited as part of a two-site randomized intervention trial being conducted at Vanderbilt University (R01 MH069940) and the University of Vermont (R01MH69928). Recruitment and randomization procedures, measures, and diagnostic interviews were matched across sites.

Participants were drawn from the sample of families recruited to participate in a family-based, cognitive-behavioral intervention for children of depressed parents from 2/1/06 to 3/1/07. Families include parents and their children (one randomly selected child per family; age 9-16-years-old), and were chosen for these analyses as a function of complete data on relevant measures, followed by randomly selecting one child per family. This resulted in a sample of 77 children (37 males and 40 females; mean age = 11.53 years) and their parents (13 fathers and 64 mothers; mean age = 42.48 years). Furthermore, 71.4% of parents in this sample were married or living with someone as if married, 15.6% were divorced or annulled, 3.9% were separated, and 9.1% were never married. Parents were screened to determine that at least one parent met criteria for at least one episode of major depressive disorder during the lifetime of their children. Participants were excluded if they had no current or past history of depression, or if they met criteria for lifetime Bipolar Disorder Type I (BP-I) or lifetime Schizophrenia. In addition, families where one child within the age range met criteria for current Conduct

Disorder or current Substance Abuse were permanently excluded, as were children with mental retardation or a history of an autism spectrum disorder. Furthermore, if any family member was acutely suicidal they were temporarily placed on-hold, as were families where any participating child was currently depressed. If any parent was currently depressed, the family was permitted to participate as long as extreme functional impairment (i.e., GAF<50, or unable to attend work and take care of children) or active suicidal ideation was not present.

Procedure

Families were primarily recruited via mental health clinics/practices. Brochures were placed in appropriate waiting rooms, and mental health specialists were educated about the intervention and provided referrals accordingly. Other methods of recruitment were implemented as necessary, including advertising through the media and mass email mailing lists. Potential participants contacted the research staff and participated in a 30-45 minute phone screening interview. Upon completion of this initial screening, families placed on-hold were re-contacted in two months, while families who did not meet any exclusionary criteria (i.e., no history of BP-I or Schizophrenia, no history of autism or current Conduct Disorder, Substance, or Major Depression in participating children) were eligible to come in for further interviews.

Potential participants who came into the laboratory for further interviews participated in an extensive battery of assessments. The identified target parent (i.e., the parent with the history of depression) was interviewed using the Structured Clinical Interview for DSM-IV (SCID, First et al., 2001) about their history of psychopathology.

Both children and parents were interviewed with the Schedule for Affective Disorders and Schizophrenia for School-Aged Children – Present and Lifetime Version (KSADS-PL, Kaufman et al., 1997) to assess for exclusion criteria (e.g., Conduct Disorder). Upon completion of these tasks, the parent and child completed questionnaires.

Measures

Parental and familial psychopathology. The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID, First et al., 2001) is a semi-structured psychiatric interview that will be used to assess for both current and lifetime psychopathology in the identified target parent. SCID interviews were used to screen for eligibility but were not included in any analyses.

Child/adolescent psychopathology. The Schedule for Affective Disorders and Schizophrenia for School-aged Children--Present and Lifetime Version (K-SADS-PL) (Kaufman et al., 1997) is a semi-structured interview administered to parents (reporting on their children) and children to ascertain present episode and lifetime history of psychiatric illness according to DSM-IV criteria. Inter-rater and test- re-test reliability have been established, as well as convergent and discriminant validity (Kaufman et al., 1997). The K-SADS-PL interviews were used to screen for eligibility but were not included in any analyses.

The Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) was used to assess symptoms of anxiety/depression and aggression in children and adolescents. The

CBCL is a 118-item checklist of problem behaviors which parents rate as not true (0), somewhat or sometimes true (1), or very true or often true (2) about their child in the past six months. Adolescents will complete the Youth Self-Report (YSR; Achenbach & Rescorla), the self-report version of the CBCL that is completed by adolescents' ages 11 to 18-years-old. The Achenbach System of Empirically Based Assessment has strong test-retest reliability (.79-.95), and criterion-related validity has been established.

Interparental Conflict. The parental depression version of the Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000; Langrock, et al. 2002) is a two part questionnaire completed by parents and children reporting on both the frequency with which children were exposed to various stressors associated with parental depression (in the most recent six months) and children's coping responses relative to these stressors. In the parental depression version of the RSQ, the first part consists of 12 items, ranging from 0 "never" to 3 "almost every day", assessing the frequency of stressful parent behaviors, including interparental conflict, intrusive, and withdrawn behavior patterns. For the purposes of this study, the four items specifically assessing interparental conflict from both the parent and adolescent self-report versions (e.g., example from adolescent self-report version: "My parents shout at each other") were used as the overall measure of levels of interparental conflict.

The Children's Perception of Interparental Conflict Scale (CPIC; Grych, Seid, & Fincham, 1992) was used to assess interparental conflict from the child's perspective. Specifically, this study used the coping efficacy subscale (i.e., the degree to which children feel unable to cope with perceived conflict) and the self-blame subscale (i.e., the

degree to which children blame themselves for their parents' conflict) to assess children's appraisals and attributions of perceived interparental conflict. Please note that although the authors refer to the former as a coping *efficacy* scale, for the purposes of this paper it will be referred to hereafter as a coping *inefficacy* scale, due to the fact that higher scores on this subscale indicate that an individual feels he/she is unable to effectively cope with the situation. The CPIC has demonstrated good psychometric properties in terms of both acceptable levels of internal consistency and adequate convergent validity (Grych, Seid, & Fincham). Further, adequate reliability and external validity have been reported for this measure in school-age children (Grych, Seid, & Fincham) and in adolescents (Bickham & Fiese, 1997).

Coping and stress responses. The Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000; Langrock et al., 2002) was also given to both the adolescent and parent to assess adolescents' coping style in response to family stressors (associated with parental depression) within the past six months. The RSQ has been shown to have good reliability and validity, including internal consistency (alphas from .73 to .85), test-retest reliability over 2-weeks (from .69 to .81), convergent validity in reports of parents and children, and construct validity as reflected in results of confirmatory factor analyses (Connor-Smith et al., 2000). Factor analyses of the RSQ have identified five primary factors (Connor-Smith et al.): *primary control engagement coping* (problem solving, emotional expression, emotional modulation), *secondary control engagement coping* (cognitive restructuring, positive thinking, acceptance, distraction), *disengagement coping* (avoidance, denial, wishful thinking), *involuntary engagement* (e.g., emotional

arousal, intrusive thoughts), and *involuntary disengagement* (e.g., cognitive interference, escape). The first three factors reflect voluntary coping processes, and the latter two factors reflect involuntary stress responses. The present study focused specifically on volitional attempts to cope with interparental conflict, and thus excluded children's involuntary engagement and involuntary disengagement from analyses.

Creation of Composite Variables

Since there were multiple informants (parent and child reports) across six of the eight measures assessed (i.e., the CBCL and YSR to assess children's anxiety/depression and aggression symptoms, and the RSQ completed by parents and children about children's exposure to interparental conflict and children's coping responses), the degree of intercorrelation across informant was examined for each measure for which there was a parent and child report. Parent and child reports were moderately to highly and significantly correlated with each other on measures of interparental conflict ($r = .58$, $p < .001$), children's anxious/depressed symptoms ($r = .43$, $p < .001$), and children's aggressive behavior problems ($.50$, $p < .001$). Therefore, composite variables were created for these measures by converting parent and child reports to standardized scores (z-scores) based on the distribution of these scores for this sample and summing the z-scores for each variable. These composite variables were used in all analyses in addition to raw scores. Parent and child reports of children's coping behaviors were not significantly correlated, and measures of coping inefficacy and self-blame were assessed via child report only; consequently, these scores were converted to standardized scores (z-scores) but were not combined to create composite variables. All analyses first

examined parent and child reports of all variables separately (using raw scores on all variables), and then examined composite variables and standardized scores in an attempt to begin controlling for method variance.

CHAPTER III

RESULTS

Descriptive Analyses

Means and standard deviations for parent and child reports of anxious/depressed and aggressive behavior symptoms, interparental conflict, and coping, along with child reports of perceptions of self-blame and coping inefficacy are reported in Table 1. For purposes of comparisons to national norms, normalized *T* scores are reported for the CBCL and YSR. As expected, based on parent and child reports on the CBCL and YSR, this sample of children of depressed parents was elevated in both anxious/depressed symptoms (CBCL mean $T = 59.75$; YSR mean $T = 56.67$) and aggressive behavior problems (CBCL mean $T = 56.47$; YSR mean $T = 54.55$). These scores were also considered in terms of the percentage of children who exceeded the recommended clinical cut-off on the CBCL and YSR, which is set at the 98th percentile of the normative sample; i.e., 2% of the population exceeds this cut-off. For the anxious/depressed syndrome, 16.6% of children based on the CBCL and 7.9% of children based on the YSR exceeded the cut-offs for the clinical range, which is approximately four to eight times greater than what would be expected in the normative population. On the other hand, 3.9% of children based on the CBCL and 2.6% of children based on the YSR exceeded the cut-offs for the clinical range for aggressive behavior problems. This sample therefore appears to be above average on symptom levels and a substantially higher

portion of the sample falls in the clinical range for anxious/depressed symptoms, indicating these children are at high-risk for developing psychopathology in the future.

Mean scores for parent and child reports of interparental conflict from the RSQ were similar to each other, with children reporting a mean level of conflict of 2.92 and parents reporting a mean level of 3.36. Scores could range from 0 to 12 for interparental conflict, suggesting that children and parents were reporting low to moderate levels of interparental conflict overall. This suggests that on average, children and parents were reporting at least some stress on at least three of the four items assessing interparental conflict, or a lot of stress on one of the items. The mean level of conflict based on parent reports was consistent with the mean level of conflict reported by parents in the only prior study using this measure (Langrock et al., 2002). The mean score on the coping inefficacy scale from the CPIC was 5.26, with scores again ranging from 0 to 12. The mean score on the child reported perceptions of self-blame subscale from the CPIC was 1.74, with scores on this subscale only ranging from 0 to 10. This indicates that the distribution of children who felt that they were at fault for their parents' conflict was highly skewed towards zero.

Table 1.
Descriptive Statistics

	Mean	SD	Percent Clinical
CBCL Anx/Dep	59.75	8.28	16.6%
CBCL Aggressive	56.47	7.44	3.9%
YSR Anx/Dep	56.67	7.95	7.9%
YSR Aggressive	54.55	7.18	2.6%
CR RSQ Conflict	2.92	2.79	---
PR RSQ Conflict	3.36	2.72	---
CPIC Coping Inefficacy	5.26	2.42	---
CPIC Self-Blame	1.74	2.15	---

Note. SD = Standard Deviation; CBCL = Child Behavior Checklist; YSR = Youth Self-Report Anx/Dep = Anxious/Depressed; CR = Child Report; PR = Parent Report; CPIC = Child Perceptions of Interparental Conflict

Hypothesis 1: Correlates of Interparental Conflict

To test the first hypothesis, correlations were examined between levels of interparental conflict, children's anxiety/depression symptoms and aggression, coping, and children's perceptions of self-blame and coping inefficacy (see Tables 2 and 3). Partial support was found for the hypothesis that interparental conflict would be associated with emotional and behavioral problems in children. Higher levels of child reports of interparental conflict were positively correlated with self-reported symptoms. Specifically, child reports of conflict were positively correlated with self-reports of anxious/depressed symptoms ($r = .25$, $p = .03$) and self-reports of aggressive behavior symptoms ($r = .34$, $p < .01$), which suggests that greater amounts of interparental conflict

Table 2.
Correlations Between Conflict, Symptoms, Attributions, and Coping

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. CR Conflict	---													
2. PR Conflict	.58**	---												
3. YSR Anx/Dep	.25*	.12	---											
4. YSR Aggressive	.34**	.18	.76**	---										
5. CBCL Anx/Dep	.05	.19†	.44**	.25*	---									
6. CBCL Aggressive	.04	.13	.55**	.50**	.56**	---								
7. CPIC Coping Inefficacy	.27*	.16	.16	.20†	-.07	.16	---							
8. CPIC Self-Blame	.10	.08	.50**	.51**	.26*	.41**	.16	---						
9. CR Primary Control Coping	-.14	-.12	-.34**	-.28*	-.07	-.21†	-.19†	-.06	---					
10.CR Secondary Control Coping	-.14	.09	-.55**	-.43**	-.19†	-.36**	-.21†	-.39**	.08	---				
11.CR Disengagement Coping	.23*	.15	.25*	.17	.07	.12	.25*	.05	-.63**	-.22†	---			
12.PR Primary Control Coping	-.31**	-.51**	-.07	-.09	-.37**	-.27**	-.03	-.12	.06	.01	.01	---		
13.PR Secondary Control Coping	.01	-.25*	-.27*	-.16	-.45**	-.35**	.18	-.07	.10	.13	-.14	.33**	---	
14.PR Disengagement Coping	.33**	.52**	.02	-.00	.13	-.02	.01	-.03	-.18	.14	.12	-.70**	-.39**	---

Note. CR = Child Report; PR = Parent Report; YSR = Youth Self-Report; CBCL = Child Behavior Checklist; CPIC = Children's Perceptions of Interparental Conflict Questionnaire
†$p < .10$; *$p < .05$; **$p < .01$

Table 3.
Correlations Between Composite and Standardized Scores (z-scores)

	1	2	3	4	5	6	7	8	9	10	11
1. Composite Conflict	---										
2. Composite Anx/Dep	.20†	---									
3. Composite Aggressive	.23*	.72**	---								
4. CPIC Coping Inefficacy	.24*	.05	.21†	---							
5. CPIC Self-Blame	.10	.45**	.53**	.16	---						
6. CR Primary Control Coping	-.15	-.24*	-.28*	-.19†	-.06	---					
7. CR Secondary Control Coping	-.03	-.44**	-.46**	-.21†	-.39**	.08	---				
8. CR Disengagement Coping	.21†	.19	.17	.25*	.05	-.63**	-.22†	---			
9. PR Primary Control Coping	-.46**	-.26*	-.21†	-.03	-.12	.06	.01	.01	---		
10.PR Secondary Control Coping	-.14	-.43**	-.30**	.18	-.07	.10	.13	-.14	.33**	---	
11.PR Disengagement Coping	.48**	.09	-.01	.01	-.03	-.18	.14	.12	-.70**	-.39**	---

Note. CR = Child Report; PR = Parent Report; YSR = Youth Self-Report; CBCL = Child Behavior Checklist; CPIC = Children's Perceptions of Interparental Conflict Questionnaire
†$p < .10$; *$p < .05$; **$p < .01$

as reported by children was associated with more child-reported symptoms. In contrast, there were no significant correlations between parent reports of interparental conflict and parent or child reports of symptoms on the CBCL and YSR. However, there was a trend for parent reports of conflict to be correlated with parent reported anxious/depressed symptoms in children ($r = .19$, $p = .095$). In addition, the composite conflict variable was significantly positively correlated with the composite aggressive problems variable ($r = .23$, $p = .05$), with a trend for the composite conflict variable to be positively correlated with the composite anxious/depressed variable ($r = .20$, $p = .075$).

Furthermore, interparental conflict was significantly associated with some aspects of children's coping responses. Child reports of conflict were positively associated with both child and parent reports of disengagement coping ($r = .23$, $p = .05$; $r = .33$, $p < .01$; respectively), and parent reports of conflict were correlated positively with parent reports of children's disengagement coping ($r = .52$, $p < .001$). Additionally, the composite conflict variable was significantly positively associated with standardized scores of parent reports of children's disengagement coping ($r = .48$, $p < .001$), with a trend approaching significance for child self-reports of disengagement coping ($r = .21$, $p = .064$). This suggests that as reported levels of interparental conflict increase, children cope by using more disengagement strategies (i.e., avoidance, denial, wishful thinking). In addition, reports of interparental conflict were also associated with children's use of both primary control and secondary control coping. As expected, children's reports of conflict were significantly negatively correlated with parent reports of children' use of primary control coping ($r = -.31$, $p < .01$), suggesting that higher amounts of child-reported conflict are associated with parent reports of decreased use of primary control

coping strategies. However, child reports of conflict were not correlated with self-reports of primary and secondary control coping. In addition, parents' reports of interparental conflict were significantly negatively associated with parents' reports of children's use of both primary control coping ($r = -.51$, $p < .001$) and secondary control coping ($r = -.25$, $p = .03$). Thus, greater amounts of interparental conflict were related to less use of primary control and secondary control coping in children. Further, the composite conflict variable was significantly negatively correlated with standardized scores of parent reports of primary control coping (-.46, $p < .001$). There were no significant correlations between the composite conflict variable and standardized scores of child reports of primary control coping, or parent and child reports of secondary control coping.

In addition, children's reports of perceived coping inefficacy were positively correlated with child reports of conflict on the RSQ ($r = .27$, $p = .017$), but not to parent reports of conflict. Similarly, the composite conflict variable was significantly positively correlated with standardized scores of children's coping inefficacy (.24, $p = .035$). This suggests that a higher level of interparental conflict perceived by children was associated with a greater sense by children that they were unable to effectively cope with their parents' conflict. Contrary to expectations, there were no significant correlations found for interparental conflict (parent, child, or composite variable) and children's attributions of self-blame.

Hypothesis 2: Association of Coping and Emotional/Behavioral Problems

It was also hypothesized that children's use of primary control and secondary control coping strategies would be inversely associated with fewer symptoms. As

expected, children's self-reported use of primary control coping was significantly negatively associated with child reports of anxious/depressed symptoms ($r = -.34$, $p < .01$) and aggressive behavior symptoms ($r = -.28$, $p = .01$), which suggests that greater use of primary control coping strategies was related to fewer symptoms. Children's use of secondary control coping was also significantly negatively correlated with children's reports of anxious/depressed symptoms ($r = -.55$, $p < .001$) and aggressive behavior problems ($r = -.43$, $p < .001$), with a significant cross-informant correlation between child reports of secondary control coping and parent reports of aggressive behavior problems ($r = -.36$, $p = .001$). This indicates that greater use of secondary control coping responses were associated with fewer anxiety/depression symptoms. Parent reports of children's use of primary control coping was significantly negatively correlated with parent reports of children's anxious/depressed symptoms ($r = -.37$, $p = .001$) and aggressive behavior ($r = -.27$, $p = .019$). Parent reports of children's secondary control coping was also negatively associated with parent reported anxious/depressed symptoms ($r = -.45$, $p < .001$), parent-reported aggressive behavior problems ($r = -.35$, $p < .01$), and with child reported anxious/depressed symptoms ($r = -.27$, $p = .018$).

Further, standardized scores of both parent and child reports of primary control coping and secondary control coping were significantly negatively associated with the composite anxious/depressed variable (correlations ranged from $r = -.24$ to $r = -.44$; see Table 3). In addition, standardized scores of child reports of primary control coping (with a trend for parent reports of primary control coping) and both parent and child reports of secondary control coping were significantly negatively associated with the composite variable for aggressive behavior problems (correlations ranged from $r = -.21$ to

r = -.46; see Table 3). These results indicate that greater use of both primary control coping and secondary control coping are related to fewer anxiety/depression and aggressive symptoms on the CBCL and YSR, and implicates these adaptive coping strategies as potential protective factors for emotional and behavioral problems in children.

Children's use of disengagement coping was hypothesized to be associated with more emotional and behavioral problems in children. Results indicated that children's reports of their own use of disengagement coping was significantly positively correlated with self-reports of anxious/depressed symptoms ($r = .25$, $p = .028$), such that the more children reported engaging in disengagement strategies, the more anxious/depressed symptoms they experienced. In contrast, no significant correlations were found for parent reports of disengagement coping as compared to parent and child reports of symptoms, or for standardized scores of both parent and child reported disengagement coping and the composite symptom variables.

Hypothesis 3: Association of Appraisals, Symptoms, and Coping

It was further hypothesized that a perceived inability to cope with stress and attributions of self-blame (in reference to interparental conflict) would be related to more symptoms in children (see Table 2). Contrary to expectations, children's self-reported perceptions of coping inefficacy were not associated with child or parent reports of symptoms. However, trends approaching significance emerged for the correlation between children's coping inefficacy and child reports of aggressive behavior problems ($r = .20$, $p = .078$), as well as for children's standardized coping inefficacy scores and the

composite variable of aggressive problems ($r = .21$, $p = .069$). In contrast, children's perceptions of self-blame were significantly positively associated with both child and parent reports of anxious/depressed symptoms ($r = .50$, $p < .001$; $r = .26$, $p = .024$; respectively) and child and parent reports of aggressive behavior problems ($r = .51$, $p < .001$; $r = .41$, $p < .001$; respectively). Similarly, children's standardized scores for attributions of self-blame were significantly positively associated with the composite variables of anxious/depressed symptoms and aggressive behavior problems ($r = .45$, $p < .001$; $r = .53$, $p < .001$; respectively). This suggests that more self-blaming attributions were related to more symptoms.

In addition, children's perceptions of coping inefficacy were significantly positively associated with child reports of disengagement coping ($r = .25$, $p = .027$) with trends approaching significance for a negative association between coping inefficacy and child reports of primary control coping ($r = -.19$, $p = .098$) and secondary control coping ($r = -.21$, $p = .063$). In contrast, children's perceived coping inefficacy was unrelated to parent reports of children's coping behavior. This indicates that children who report feeling unable to effectively cope with high levels of interparental conflict report greater use of disengagement coping techniques. Further, children's reports of attributions of self-blame were significantly negatively associated with child reports of secondary control coping ($r = -.39$, $p = .001$) but were not associated with child reports of other forms of coping or parent reports of children's coping behavior. This suggests that the more children blame themselves for their parents' conflict, the less they report using secondary control coping strategies.

Hypothesis 4: Regression Analyses

Finally, a series of hierarchical regression analyses were conducted to determine the relative contribution of interparental conflict, children's attributions of self-blame and coping inefficacy, and children's coping with interparental conflict in the prediction of children's emotional and behavioral problems. Four regression models were examined using the composite variables for conflict and anxious/depressed symptoms and aggression, but entering standardized scores for parent and child reports of children's coping independently.

Anxious/depressed symptoms. Two hierarchical regression models predicting anxious/depressed symptoms were examined (see Table 4), both yielding similar results. In these two models, the first, second, and third steps were the same, differing only on the informant of coping (parent vs. child report) in the final step. In both models, child sex was entered first, and this step was significant ($F = 4.15$, $p = .045$, $R^2 = .04$), indicating children's sex differentially predicted children's scores on anxious/depressed symptoms. Level of interparental conflict was entered next, and this step remained significant ($F = 3.96$, $p = .023$, $R^2 = .07$). Specifically, the effect for child sex/gender remained significant ($\beta = .24$, $p = .037$), with the effect for interparental conflict approaching significance ($\beta = .21$, $p = .061$).

In the third step, children's perceived coping inefficacy and perceptions of self-blame were both entered into the equation, which remained significant ($F = 6.23$, $p <$

Table 4

Regression Equations Predicting Anxious/Depressed Symptoms from Conflict, Appraisals, and Coping

Equation 1 – Composite Anxious/Depressed		Final R^2 = .31	F (7,76) = 5.93, p < .001
Step 1: R^2 change = .05*	β	sr^2	
Child Sex	.23*	.05	
Step 2: R^2 change = .04			
Child Sex	.24*	.06	
Interparental Conflict	.21†	.04	
Step 3: R^2 change = .16**			
Child Sex	.18†	.03	
Interparental Conflict	.17	.03	
CPIC Coping Inefficacy	-.02	.00	
CPIC Self-Blame	.41***	.16	
Step 4: R^2 change = .12**			
Child Sex	.14	.02	
Interparental Conflict	.17†	.03	
CPIC Coping Inefficacy	-.11	.01	
CPIC Self-Blame	.30**	.07	
CR Primary Control	-.23†	.03	
CR Secondary Control	-.30**	.07	
CR Disengagement	-.04	.00	
Equation 2 – Composite Anxious/Depressed		Final R^2 = .41	F (7,76) = 6.93, p < .001
Step 1: R^2 change = .05*	β	sr^2	
Child Sex	.23*	.05	
Step 2: R^2 change = .04			
Child Sex	.24*	.06	
Interparental Conflict	.21†	.04	
Step 3: R^2 change = .16**			
Child Sex	.18†	.03	
Interparental Conflict	.17	.03	
CPIC Coping Inefficacy	-.02	.00	
CPIC Self-Blame	.41***	.16	
Step 4: R^2 change = .16**			
Child Sex	.10	.01	
Interparental Conflict	.14	.01	
CPIC Coping Inefficacy	.05	.00	
CPIC Self-Blame	.35**	.11	
PR Primary Control	-.20	.02	
PR Secondary Control	-.41**	.13	
PR Disengagement	-.27†	.03	

Note: β = standardized beta; sr^2 = semi-partial correlation squared;
CPIC = Children's Perceptions of Interparental Conflict Questionnaire;
CR = Child Report; PR = Parent Report;
†p < .10; * p<.05; **p < .01; ***p < .001.

.001, R^2 = .22), and the change from the second step was significant (R^2 change = .16, F change = 7.77, p = .001). Child sex/gender was no longer a significant predictor, and coping inefficacy was not a significant predictor, whereas children's perceptions of self-blame was a significant predictor of children's anxious/depressed symptoms (β = .41, p < .001).

In the final step, measures of children's primary control, secondary control, and disengagement coping behaviors were added. The regression equations again remained significant for both the models using child and parent reports of children's coping (F = 5.93, P < .001, R^2 = .31; F = 6.93, p < .001, R^2 = .35; respectively), and the change from the third step was also significant for both models (R^2 change = .12, F change = 4.37, p = .007; R^2 change = .16, F change = 6.10, p = .001; respectively). In both models, children's perceptions of self-blame remained a significant predictor (β = .30, p < .01; β = .35, p = .001; respectively), and children's use of secondary control coping emerged as a significant predictor (β = -.30, p < .01; β = -.41, p < .001; respectively). Differences emerged between the models using child and parent reports of coping in terms of trends, with children's reports of their use of primary control coping approaching significance in the first model (β = -.23, p = .064), and parent reports of children's use of disengagement coping behaviors approaching significance in the second model (β = -.27, p = .063).

Both full models, regardless of whether parent or child reports of coping were used in the final step, accounted for a significant portion of the variance in children's anxious/depressed symptom scores, explaining 31.2% and 35.3% of the variance, respectively. Results for both regression equations indicated that more attributions of self-blame predicted more anxious/depressed symptoms in children, while children's use

of secondary control coping predicted fewer anxious/depressed symptoms and therefore served as a protective factor. These regression equations further indicated that children's perceptions of self-blame and their use of secondary control coping techniques explain more of the variance in children's anxious/depressed scores than do interparental conflict and other forms of children's coping.

Aggressive behavior problems. Next, two hierarchical regression models predicting aggressive behavior problems were examined (see Table 5). Again, the first three steps of these two models were identical, with the final step differing on whether parent or child reports of coping were added into the regression equations. In both models, child sex/gender was entered as the first step, with no significant effects for child sex/gender predicting aggressive behavior problems. Interparental conflict was again added in the second step in both models, and the overall regression equation became significant ($F = 3.00$, $p = .056$, $R^2 = .05$), with the change from the first step also achieving significance (R^2 change = .052, F change = 4.19, $p = .044$). In particular, the effect for child sex/gender remained non-significant, whereas interparental conflict emerged as a significant predictor of children's aggressive behavior problems ($\beta = .23$, $p = .044$).

At the third step of these models, children's perceived coping inefficacy and perceptions of self-blame were both added, and the overall regression equation remained significant ($F = 8.87$, $p < .001$, $R^2 = .29$), and the change from the second step was also significant (R^2 change = .26, F change = 13.71, $p < .001$), explaining 29.3% of the variance in children's aggressive behavior problems. At this step, the effect for

Table 5.
Regression Equations Predicting Aggressive Symptoms from Conflict, Appraisals, and Coping

Equation 1 – Composite Aggressive Behavior		Final R^2 = .40 F (7,76) = 8.08, p < .001
Step 1: R^2 change = .02	β	sr^2
Child Sex	.15	.02
Step 2: R^2 change = .05*		
Child Sex	.16	.02
Interparental Conflict	.23*	.05
Step 3: R^2 change = .26***		
Child Sex	.12	.01
Interparental Conflict	.15	.02
CPIC Coping Inefficacy	.12	.01
CPIC Self-Blame	.48***	.22
Step 4: R^2 change = .12**		
Child Sex	.08	.01
Interparental Conflict	.16†	.02
CPIC Coping Inefficacy	.04	.00
CPIC Self-Blame	.37**	.11
CR Primary Control	-.31*	.06
CR Secondary Control	-.30**	.07
CR Disengagement	-.14	.01
Equation 2 – Composite Aggressive Behavior		Final R^2 = .40 F (7,76) = 8.00, p < .001
Step 1: R^2 change = .02	β	sr^2
Child Sex	.15	.02
Step 2: R^2 change = .05*		
Child Sex	.16	.02
Interparental Conflict	.23*	.05
Step 3: R^2 change = .26***		
Child Sex	.12	.01
Interparental Conflict	.15	.02
CPIC Coping Inefficacy	.12	.01
CPIC Self-Blame	.48***	.22
Step 4: R^2 change = .12**		
Child Sex	.05	.00
Interparental Conflict	.18	.02
CPIC Coping Inefficacy	.17†	.02
CPIC Self-Blame	.42***	.16
PR Primary Control	-.21	.02
PR Secondary Control	-.33**	.08
PR Disengagement	-.36*	.06

Note: β = standardized beta; sr^2 = semi-partial correlation squared;
CPIC = Children's Perceptions of Interparental Conflict Questionnaire;
CR = Child Report; PR = Parent Report;
†p < .10; * p<.05; **p < .01; ***p < .001.

interparental conflict was no longer significant and the effect for children's perceived coping inefficacy was also not significant; however, children's perceptions of self-blame for their parents' conflict was a significant predictor ($\beta = .48$, $p < .001$). This suggests that the effects of interparental conflict on children's aggressive behavior problems are fully accounted for by the tendency for children to blame themselves.

The final step added children's use of primary control, secondary control, and disengagement coping techniques, and the regression equations remained significant for both models ($F = 8.08$, $p < .001$, $R^2 = .40$; $F = 8.00$, $p < .001$, $R^2 = .39$; for child and parent reports, respectively), with significant changes occurring from the third to fourth step for both models (R^2 change = .12, F change = 5.04, $p = .003$; R^2 change = .12, F change = 4.91, $p = .004$; respectively). In both models, children's perceptions of self-blame remained significant ($\beta = .37$, $p < .001$; $\beta = .42$, $p < .001$; child and parent reports of coping, respectively), and children's use of secondary control coping was also a significant predictor regardless of informant of coping (child vs. parent) ($\beta = -.30$, $p < .01$; $\beta = -.33$, $p < .01$; respectively). However, in the regression model with children's reports of coping, self-reported use of primary control coping also emerged as a significant predictor of aggressive behavior problems ($\beta = -.31$, $p = .01$). On the other hand, in the regression model examining parent reports of their children's coping behaviors, the effect for primary control coping was not significant, whereas parent reports of children's use of disengagement strategies was significant ($\beta = -.36$, $p = .01$).

Both full models explained a significant amount of the variance in predicting children's aggressive behavior problems, with the model using child reports of coping accounting for 39.5% of the variance and the model using parent reports of coping

accounting for 39.2% of the variance. Thus, the similarities across both models indicate that more attributions of self-blame predicted more aggressive behavior problems, whereas greater use of secondary control coping predicted fewer aggressive behavior problems, thereby serving to protect children from the negative effects of conflict. Results also suggested that greater use of primary control coping (as reported by children) and greater use of disengagement coping (as reported by parents) predicted fewer symptoms, and therefore may also serve to buffer children from the negative impact of interparental conflict; however, results were inconsistent for these findings across the two regression models.

CHAPTER IV

DISCUSSION

This study builds on prior research by examining children's attributions and coping responses relative to interparental conflict in children of parents with a history of depression. Consistent with prior research, the findings from this study provide evidence that children of depressed parents are at increased risk for developing internalizing and externalizing behavior problems. Findings from this study indicate that higher levels of interparental conflict are in part related to children's anxious/depressed and aggressive behavior problems, are partially associated with less use of potentially adaptive forms of coping (primary control coping and secondary control coping), and positively associated with greater use of disengagement coping. Strong evidence was also found to indicate that the more children blame themselves for their parents' conflict the more emotional and behavioral symptoms they report. More importantly, results indicate that children's perceptions of self-blame and use of secondary control coping were significant, independent predictors of both children's anxious/depressed symptoms and aggressive behavior problems. This was a robust pattern which was replicated across both parent and child reports of coping, was not symptom or method specific, and occurred in spite of the significant negative correlation between self-blame and secondary control coping. The latter provides further evidence for the strong independent effects of these two predictors, and suggests that attempts to bolster or change only one of these predictors may not be enough to protect children against the negative effects of the other predictor

(i.e., bolstering children's secondary control coping skills may not protect children from the negative effects of self-blaming attributions). Results from this study therefore have important implications for intervention research, suggesting the need for clinical interventions designed to both decrease children's feelings of self-blame and increase children's use of secondary control coping techniques (i.e., acceptance, distraction, cognitive restructuring).

As expected, children in this study presented with elevated levels of both emotional and behavioral symptoms, indicating this sample of children was at high risk for developing psychopathology. Specifically, four to eight times more children in this sample than would be expected in the normative population exceeded the clinical cut-off for anxious/depressed symptom levels. In contrast, the proportion of children exceeding the clinical cut-off for aggressive behavior problems was comparable to that found in the normative population, indicating that this sample of children of depressed parents was at greater risk for emotional problems than behavior problems. Furthermore, parents and children participating in this study reported low to moderate levels of interparental conflict, which was consistent with levels of conflict reported in prior research, and suggests that this was a stressor which most children had experienced in the previous six months (Langrock et. al, 2002).

Partial support was found for the first hypothesis. In particular, this study provided evidence for the significant effect of interparental conflict on aggressive behavior problems, but less support for the effect of interparental conflict on anxious/depressed symptoms. Specifically, within child informant only, there was evidence to suggest that interparental conflict was associated with higher levels of both

anxious/depressed symptoms and aggressive behavior problems. However, parent reports of interparental conflict were not correlated with either child or parent reports of symptoms of anxiety/depression or aggression. In addition, when composite variables were used there was evidence for a significant association between interparental conflict and aggression, with a trend approaching significance for the correlation between interparental conflict and symptoms of anxiety/depression. Results from prior research have been inconsistent in terms of the specificity of effects for interparental conflict on children's symptoms (e.g., Davies & Lindsay, 2004; Sheeber, et al., 1997). This study provides evidence to suggest that interparental conflict is by and large a non-specific risk factor for internalizing and externalizing symptoms of psychopathology in children.

Findings from the present study also provide partial support for the hypothesis that as level of interparental conflict increases, children cope less effectively. Consistent with patterns in prior research examining children's coping responses relative to other sources of risk associated with parental depression (intrusive and withdrawn parent behaviors), higher levels of interparental conflict were related to less use of primary control coping and greater use of disengagement coping (e.g., Jaser, et al., 2005; Langrock, et al., 2002; Wadsworth & Compas, 2002). That is, as levels of interparental conflict in parents with a history of depression increased, children's use of potentially adaptive coping strategies decreased. Contrary to expectations, the findings from this study offer only weak evidence (only one significant within informant correlation) to suggest that elevated levels of interparental conflict were associated with decreased use of secondary control coping. Secondary control coping may therefore be less adversely

affected by this form of stress than other forms of coping, and thus may be an important coping skill to target in future interventions.

Moreover, results from this study indicate that as levels of conflict increased, children felt less able to effectively manage the stressful situation. This is likely reflected in children's tendency to cope less effectively as conflict increased (e.g., children engage in more disengagement coping), and suggests that intervention trials targeting children's beliefs in their own abilities to deal with stress may lead to greater use of appropriate coping strategies. There was no evidence to suggest that as conflict increased, children were more likely to blame themselves. This may therefore be an attribution children make independent of the amount of conflict itself, and may depend on other features of the conflict (e.g., content of the conflict), or the internal attribution styles of the children themselves. Future research should examine possible connections between children's tendency to blame themselves for their parents' conflict as compared to their attribution style in general. This would be particularly important to examine in a sample of children of depressed parents, as prior research has already shown these children to be more vulnerable to negative attribution styles (e.g., Bruce, et al., 2006).

Results in support of hypothesis two for this study replicate and extend prior research which independently examined children's coping with interparental conflict and children's coping with parental depression. In particular, consistent with prior research examining children's coping with parental depression, children's use of both primary control coping and secondary control coping appear to be more adaptive in this context than disengagement coping (Langrock, et al., 2002; Jaser, et al., 2005). There is better evidence for these two forms of coping to be associated with fewer symptoms of

anxiety/depression and aggression, than for disengagement coping to be related to more symptoms. Further, secondary control coping may be more beneficial for children of depressed parents than primary control coping, as the negative association between this form of coping and symptoms was stronger in magnitude and was evident across both child and parent reports. Moreover, primary control coping and secondary control coping are similar to conceptualizations of active/support and distraction coping, respectively, found to be protective factors for children coping with interparental conflict independent of parental depression (Nicolotti, et al., 2003). Thus, similar coping strategies across both sources of risk may prove beneficial for children, but children may engage in less of these adaptive strategies (in particular, less primary control coping) as a result of higher levels of conflict. The strong association between increased use of both primary control coping and secondary control coping with fewer emotional and behavioral symptoms therefore warrants future research prospectively examining the specific vulnerability and protective factors of these two forms of coping relative to a similar sample of children of depressed parents coping with interparental conflict.

Hypothesis three also received only partial support. Although children's perceptions of their ability to cope effectively with interparental conflict were related to greater use of disengagement coping, these perceptions were not associated with other reports of emotional and behavioral problems. This suggests that the effects of children's perceptions of coping inefficacy may be reflected in their tendency to use more disengagement coping, which was associated with more anxious/depressed symptoms. Further, this indicates that children's reports of how they actually cope may be more important than their perceptions of whether or not they felt able to effectively cope with

their parents' conflict. In contrast, children's perceptions of self-blame were strongly associated with emotional and behavioral symptoms, implicating this as a significant potential mechanism of risk to target in future intervention research. This replicates and extends prior research, which has found an association between self-blame and externalizing symptoms (Grych, Harold, & Miles, 2003) and self-blame with internalizing symptoms (McDonald & Grych, 2006), but not both types of symptoms at the same time. This study therefore provides evidence that self-blame is strongly associated with *both* emotional and behavioral symptoms in children. Furthermore, children who engaged in more self-blaming attributions also were much less likely to use secondary control coping strategies, which appears to be a beneficial form of coping in this context. Thus, changing children's attributions of self-blame may substantially decrease children's risk for future psychopathology.

Regression analyses conducted to examine hypothesis four provide strong, consistent support across all regression models tested for the role of children's attributions of self-blame and use of secondary control coping as significant, independent predictors of both anxious/depressed symptoms and aggressive behavior problems in children. The independent contribution of these two factors alone accounts for approximately half of the variance explained in the dependent variable using the full model (for all models tested). Specifically, children's tendency to blame themselves predicted more symptoms of psychopathology, but the more children coped by using secondary control coping strategies the fewer symptoms they experienced. Thus these two predictors emerged in this sample as vulnerability and protective factors, respectively, for children of depressed parents coping with interparental conflict.

Moreover, these two factors predicted symptoms regardless of informant of coping (parent vs. child), and this therefore appears to be a strong, consistent pattern. The strong independent effects for children's self-blame and use of secondary control coping techniques is further supported by the fact that these two predictors were significantly negatively correlated, yet still emerged as significant predictors. Finally, children in this sample were reporting, on average, relatively low levels of perceived self-blame. Thus, children's tendency to engage in any amount of self-blaming behavior appears to significantly increase children's vulnerability to emotional and behavior symptoms.

This study had several limitations. First, this study examined baseline levels of interparental conflict and coping with conflict in children of depressed parents recruited for participation in a preventive intervention, and would benefit from the inclusion of a control group (comparing levels of interparental conflict and emotional and behavioral symptoms in children with depressed parents to children with parents without a history of major depressive disorder). Furthermore, the cross-sectional nature of this study prevents causal conclusions for the association of children's coping and emotional and behavior problems. Specifically, the findings from this study may simply be an indication that children with fewer emotional and behavioral problems engage in more effective coping strategies. Future research should therefore examine children of depressed parents' coping behaviors in prospective, longitudinal designs, in order to better confer causality and ascertain which coping responses are more beneficial to children exposed to interparental conflict. In addition, the present study focused solely on children's volitional attempts to cope, and future research may benefit by examining children of depressed parents' involuntary responses to the stress of interparental conflict, as prior

research has indicated that interparental conflict may disrupt children's biological regulation (e.g., by impacting sleep and vagal regulation; El-Sheikh, Buckhalt, Mize, & Acebo, 2006; El-Sheikh & Whitson, 2006; respectively). Moreover, this sample of children appeared to be limited in exposure to interparental conflict, with approximately 20% of the sample exposed to no interparental conflict within the last 6 months. This could be a consequence of the measure used, as it assesses interparental conflict based on four rather broad items, and a more specific measure may capture a wider range of discordant and conflictual behavior between parents. Finally, results from this study were based solely on questionnaire data, and future research would benefit from assessing conflict and coping using multiple methods.

Overall, the most striking finding from this study is the strong, independent effects found for children's perceptions of self-blame and use of secondary control coping in predicting both emotional and behavioral symptoms in children. This replicates and extends prior research by examining both parent and child reports of coping in children of depressed parents exposed to interparental conflict. This study is a substantial step beyond prior research due to the creation of composite variables for interparental conflict and emotional and behavioral symptoms, which begin to account for method variance, a common confound in analyses in prior research. Thus, children who blame themselves for their parents' conflict may be at higher risk for emotional and behavioral symptoms, whereas children who cope by using more secondary control coping strategies may be at decreased risk for emotional and behavioral symptoms. The independence of these two factors further suggests that attempts to change only one of these predictors may not be enough to protect children from the negative effect of the

other predictor (i.e., interventions which just bolster secondary control coping may not protect children from the negative effects of self-blame). Results from this study therefore have important implications for intervention research, suggesting the need for interventions designed to both decrease children's feelings of self-blame and increase use of secondary control coping strategies.

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