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INTERPARENTAL CONFLICT AND CHILD ADJUSTMENT: THE ROLE OF CHILD OPTIMISM

by

Julia Howe Robinson

An Abstract

Of a thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Psychological and Quantitative Foundations
in the Graduate College of
The University of Iowa

December 2009

Thesis Supervisor: Professor John Westefeld

ABSTRACT

The role of child optimism as a mediator and moderator in the relationship between interparental conflict and child adjustment was examined for 36 children between the ages of 9 and 12 years who resided in a two adult home. Child participants completed self-report measures of dispositional and attributional optimism, as well as a self-report measure of interparental conflict. Mothers of child participants completed measures of child internalizing and externalizing symptoms. Multiple regression analyses found that dispositional optimism mediated the relationship between interparental conflict and both child internalizing and externalizing symptoms. Attributional optimism was found to mediate the relationship between interparental conflict and child internalizing symptoms. No significant moderating effects of optimism were found. The relationships between optimism and child appraisals of threat and self-blame related to interparental conflict were examined using correlations. Both dispositional and attributional optimism were significantly negatively related to child appraisals of threat and self-blame regarding interparental conflict. Implications and suggestions for future research are discussed.

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Graduate College
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Iowa City, Iowa

CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

Julia Howe Robinson

has been approved by the Examining Committee
for the thesis requirement for the Doctor of Philosophy
degree in Psychological and Quantitative Foundations at
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I dedicate this work to the two most influential women in my life who each taught me unique lessons about optimism. To my loving mother who taught me about the optimism that can only be found when you see the best in others and in yourself. And to my courageous sister who taught me about the optimism that can only be found when you face darkness and discover the depths of your ability to survive. Thank you

I am an optimist. It does not seem too much use being anything else.

Winston Churchill
Speech November 9, 1954

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ABSTRACT

The role of child optimism as a mediator and moderator in the relationship between interparental conflict and child adjustment was examined for 36 children between the ages of 9 and 12 years who resided in a two adult home. Child participants completed self-report measures of dispositional and attributional optimism, as well as a self-report measure of interparental conflict. Mothers of child participants completed measures of child internalizing and externalizing symptoms. Multiple regression analyses found that dispositional optimism mediated the relationship between interparental conflict and both child internalizing and externalizing symptoms. Attributional optimism was found to mediate the relationship between interparental conflict and child internalizing symptoms. No significant moderating effects of optimism were found. The relationships between optimism and child appraisals of threat and self-blame related to interparental conflict were examined using correlations. Both dispositional and attributional optimism were significantly negatively related to child appraisals of threat and self-blame regarding interparental conflict. Implications and suggestions for future research are discussed.

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

The relationship between interparental conflict and child adjustment problems is well established. Interparental conflict, also referred to as marital conflict, consists of disagreements, arguments, and disputes between parents. Children of parents who engage in significant conflict are more likely to experience internalizing and externalizing symptoms (Buehler, Anthony, Krishuakumar, Stone, Gerard, & Pemberton, 1997). Child externalizing symptoms typically refer to negative behaviors directed at others, such as verbal and physical aggression, destruction of property, and theft, while internalizing behaviors typically refer to difficult feelings that are turned inward, such as anxiety, depression, and somatic symptoms (Mash & Dozois, 2003, p.27). Parents who engage in significant interparental conflict are more likely to have negative relationships with their children. A significant portion of the recent literature regarding the relationship between interparental conflict and child outcomes has focused on identifying the relative significance of different factors that affect this relationship, namely mediators and moderators. A mediator is a variable that accounts for or explains the relationship between to two variables, while a moderator is a variable that influences the direction or strength of a relationship between two variables (Baron & Kenny, 1986, p. 1174). The role of children's thoughts and appraisals regarding interparental conflict has received particular attention and has been found by researchers to be an important variable in the pathway between interparental conflict and child outcomes. This relationship is important because it provides a possible avenue for intervention.

While research on interparental conflict and child cognitions has focused primarily on cognitions specific to interparental conflict, other researchers have been examining the broader role of optimism on child outcomes. Optimism is generally viewed as an expectation of positive future outcomes and is thought to influence how life events are experienced and interpreted. Children who are more optimistic are

significantly less likely to be depressed and more likely to have higher self-esteem and more coping skills than less optimistic children (Schwartz, Kaslow, Seeley, & Lewinsohn, 2000). Research has supported the role of optimism as a protective factor in the development of depression in children (Feiring, Taska, & Lewis, 2002). Not yet examined in the research is whether child optimism is related to children's cognitions about interparental conflict and whether child optimism plays a significant role in the relationship between interparental conflict and child adjustment.

The present literature review will evaluate the research in the area of interparental conflict and child adjustment as well as the area of child optimism. Numerous factors have been examined in the literature regarding interparental conflict and child outcomes; however, these factors generally fall into one of five categories: conflict factors, cultural factors, family factors, parental factors, or child factors. The following subsections will include a review of the research in this area and will be organized by the type of factors investigated. Studies that include findings on more than one type of factor will be described in greater depth in the section most closely related to that study's primary hypothesis, though the study may be mentioned in other subsections as appropriate. Following these five subsections related to interparental conflict and child outcomes, the literature on child optimism will be reviewed and the possible overlap between these two areas of research will be examined. Finally, research questions about the relationship between these variables will be posed.

Conflict Factors

Early research in this area focused primarily on establishing whether a relationship between parental relationship quality and child outcomes existed. This body of research, described by Fincham (1994) as first generation research, established parental conflict as the aspect of parental discord most associated with child outcomes. First generation research was heavily focused on correlational research establishing a

relationship between the frequency of interparental conflict and child outcomes. Second generation research in this area has focused on a host of factors that may explain or influence the nature of the relationship between interparental conflict and child outcomes, as well as on the relative significance of these factors (Fincham, 1994). This review will focus primarily on second generation research and the role of an as yet unexamined factor will be considered.

Several review articles have identified conflict factors relevant to the relationship between interparental conflict and child adjustment. Grych and Fincham (1990) identified four main dimensions of conflict as potentially important to child outcomes, including frequency, intensity, content, and resolution of conflict. Later review articles noted additional conflict factors that may be of significance, including mode or style of conflict and the chronicity of conflict (Davies & Cummings, 1994; Buehler et al., 1997; Kelly 2000). As researchers' definitions regarding intensity of conflict and style of conflict often overlap, these two factors will be discussed together in this review. In addition, conflict chronicity, though possibly of significance, has not received attention to date in the empirical research and will therefore not be reviewed. Research regarding these four remaining conflict factors, frequency, content, resolution style, and style and tactics of conflict, will be reviewed below.

Frequency

A large number of studies in first generation research in this area examined the relationship between the frequency of interparental conflict and child outcomes. A number of literature reviews have concluded that there is a relationship between the frequency of interparental conflict and child outcomes (e.g. Grych & Fincham, 1990; Long & Forehand, 1987). The more recent studies discussed in this section were selected because they examine the significance of the frequency of interparental conflict in comparison to other key factors. These comparisons were typically made by either

accounting for the variance of other potentially significant factors or comparing the effect sizes between the frequency of interparental conflict and other potentially significant factors. Thus the articles in this section help to clarify the relative significance of the frequency of interparental conflict rather than simply identifying a relationship between interparental conflict and child adjustment problems.

Kerig (1996) conducted a study of 116 families with a school-aged child examining the relationship between interparental conflict and child adjustment. Parents completed a number of measures of marital satisfaction, conflict, and adjustment, as well as child adjustment, while children completed measures of interparental conflict and child anxiety. The researchers found that frequency of interparental conflict was significantly related to both internalizing and externalizing symptoms in boys. However, frequency of interparental conflict was not significantly related to adjustment in girls.

David, Steele, Forehand, and Armistead (1996) examined the relationship between family conflict, marital conflict, and child adjustment. One-hundred-forty-six mothers with an adolescent child completed self report measures of family conflict, marital adjustment and child exposure to marital conflict. Both mothers and the target adolescents' social studies teachers completed a self-report measure of child adjustment at time one and again at one year follow-up. Using hierarchical multiple regression analyses, the researchers found that frequent exposure to marital conflict contributed uniquely to adolescent adjustment beyond the effects of general family conflict. Adolescents exposed to more frequent interparental conflict were identified by mothers as having significantly more internalizing and externalizing symptoms at both time one and one year follow-up.

Using meta-analysis, Buehler et al. (1997) analyzed 348 statistical effects from 68 studies measuring the association between the frequency of interparental conflict and the internalizing and externalizing problems of youth between the ages of 5 and 18. This meta-analysis found an effect size of .19 for the frequency of parental disagreement on

child internalizing and externalizing behaviors. Though this effect size is small it is significant. However, it is significantly smaller than the effect size found for parents' use of overt conflict (effect size = .35). This finding led the authors to encourage the examination of a broader range of conflict factors and to examine such factors individually, rather than relying on measures of frequency or composite scores alone.

Buehler et al. (1998) examined the role of the frequency and style (i.e., overt vs. covert) of interparental conflict in the internalizing and externalizing behaviors of 900 9 to 15-year-old children collected from two samples. Youth in the study completed self-report measures of their internalizing and externalizing symptoms, as well as measures of the overall frequency of interparental conflict, the frequency of overt interparental conflict and the frequency of covert interparental conflict. Using regression analyses these researchers found that the frequency of interparental conflict did not account for a significant portion of unique variance when controlling for conflict style. Thus, the results of this study suggest that the type of conflict occurring between parents is more important than merely the frequency of conflict in general.

Although the relationship between the frequency of interparental conflict and child adjustment was one of the first conflict factors examined in the literature, it does not appear to be one of the most important factors. Based on the research reviewed, a small but significant relationship between the frequency of interparental conflict and child adjustment appears to exist. However, it appears to be less significant than other variables, such as the style of interparental conflict (Buehler et al., 1997 & Buehler et al., 1998).

Content

A second conflict factor frequently discussed in the literature involves the content of disagreements or topics about which parents argue. This factor has been operationalized in a variety of ways by researchers. However, the majority of the

research in this area has included child related arguments as one type of content. Some have grouped child and family related conflicts together in comparison to social or work related conflicts, under the belief that child and family related arguments are most likely to undermine a child's sense of security in the family.

Cummings, Goeke-Morey, and Papp (2004) examined the role of interparental conflict on overall child adjustment as well as child aggressive behavior focusing especially on the significance of the content of parental conflict. One hundred and eight families with children between the ages of 8 and 16 kept diaries of child reactions to interparental conflict over a period of 15 days. In addition, mothers completed a measure of child adjustment and children completed responses to analog presentations of interparental conflict. Conflict content was divided into two main categories: threatening, which included topics related to the child or family, and non-threatening, which included topics related to work or social activities. This study found that based on family diaries, threatening topics were associated with an increase in aggressive child responses during the conflict when compared to responses during conflicts related to non-threatening topics. To better isolate the effect of conflict content, these researchers controlled for the expression of emotion (positive vs. negative) and the style of conflict (constructive vs. destructive). They found that exposure to parental conflicts about the target children lead to increased aggressive responses from the children during the conflict regardless of the type of emotion or style of conflict used by parents. This research suggests that exposure to child related interparental conflict may be particularly difficult for children, even when managed with positive emotions and constructive conflict styles by their parents.

Shelton, Harold, Goeke-Morey, and Cummings, (2006) examined the role of interparental conflict topic and style of interparental conflict on child coping in an analog study of 398 12 to 13-year-old children who were shown a series of video taped conflicts of actors using different conflict tactics. The researchers found that children were more

likely to report that they would become more involved in interparental conflict (e.g., shout at dad vs. passively observing conflict) when physical aggression or verbal anger occurred if the conflict was about child related issues. However, no effect of content was found when non-verbal anger, verbal pursuit-withdraw (i.e. one parent presses the other parent to discuss a problem, while the other parent attempts to avoid the discussion), or threats to leave were used in the conflict.

Although little information on the long-term effects of exposure to child or family related interparental conflict is known, the research does suggest that children may react with more aggression and may experience a greater desire to intervene in parental conflict related to child or family issues. These findings are particularly significant given that research suggests that child-related interparental conflict is more likely to occur in the presence of the child than when the child is absent (Papp, Cummings, & Goeke-Morey, 2002).

Resolution Style

A third conflict factor examined in the research is the manner in which interparental conflict concludes and how these conclusions relate to child outcomes. Most studies in this area have compared the effects of resolved versus unresolved interparental conflicts on children. Resolved conflicts are generally defined as disagreements that conclude with either an apology or a compromise, while unresolved conflict usually refers to on-going conflict or conflict that ends with parents refusing to speak to each other (El-Sheikh & Cummings, 1995; El-Sheikh, Cummings, & Reiter, 1996). Other studies have focused less on the tactics used to end conflict and more on the emotional tone of conflict endings.

One study conducted by El-Sheikh and Cummings (1995) examined the relationship between the reactions and expectations of different aged children exposed to videotaped episodes of resolved and unresolved marital conflict. Children viewed a

series of conflict episodes with two different couples with whom the children were not familiar. One couple consistently ended the conflicts in an unresolved manner, defined as either continuing to fight or refusing to speak to one another, while the other couple consistently resolved their conflicts by compromising or apologizing. A final conflict episode for each couple was viewed by children, but interrupted before either couple resolved the conflict. This study found that children experienced greater negative emotion in response to unresolved conflict, expected to continue feeling sad in the future, and believed the couple with unresolved conflict experienced greater sadness. In addition, children anticipated that the couple with a history of resolved conflict was more likely to work out the interrupted conflict episode and was more likely to have a positive outcome than the couple with a history of unresolved conflict (El-Sheikh & Cummings, 1995). This suggests that prior exposure to resolved conflict may serve as a protective factor for children, leaving them with more positive expectations about outcomes of conflict.

In a follow up study, the relationship between child reactions to adult conflict and their prior exposure to resolved versus unresolved conflict was examined (El-Sheikh, Cummings, & Reiter, 1996). Forty-seven preschoolers observed live conflict episodes between two adult actors that ended in either a resolved or unresolved manner. The children were then exposed to a conflict between adult actors, which was stopped before resolution. This study found that preschoolers previously exposed to vignettes of unresolved conflict were more likely to display behavioral distress, to report more negative perceptions of the adults arguing, and to anticipate more conflictual outcomes between arguing adults. In addition, preschoolers exposed to resolved conflict were more likely to exhibit a decrease in behavioral distress during future arguments between the actors, while children exposed to unresolved conflict were likely to exhibit an increase in behavioral distress during future arguments between the actors. Thus, the findings of this study suggest that prior exposure to unresolved conflict may sensitize children to adult

anger and lead to increasing distress during adult conflict, while prior exposure to resolved conflict may lead to more positive expectations and to buffer children from experiencing behavioral distress during adult conflict.

Cummings, Wilson, and Shamir (2003) found that the type of resolution in analog presentations of interparental conflict was related to the feelings and future expectations of the seventy-two 7 to 13 year old children recruited from the US and Chile. Both U.S. and Chilean children expressed greater fear, anger, and sadness, as well as greater anticipation of future negative emotions between parents, when exposed to vignettes of unresolved interparental conflict, than when exposed to vignettes of resolved interparental conflict or when exposed to vignettes of positive parental interaction. In addition, this study found that children from both cultures also expressed greater fear, anger, and sadness when exposed to vignettes of resolved interparental conflict than when exposed to vignettes of positive parental interactions. The results of this study indicate that across these two cultures, children's prior exposure to resolved and unresolved conflict is related to the emotions they experience during and shortly after conflict, as well as their expectations of future conflicts.

In addition to the tactic used to resolve conflict, the emotional tone of resolutions has also been considered in the research. Davies, Myers, and Cumming's (1996) analog study of child and adolescent responses to marital conflict with varying conflict topics and emotional endings found that children and adolescents experience significantly more anger, sadness, and fear when marital conflicts end in a hostile rather than a harmonious manner. In addition, children and adolescents participating in the study reported a greater desire to choose sides, to get involved in the conflict, or to assist in the task that generated conflict when conflict ended in a hostile rather than harmonious emotional tone.

It is important to note that the studies in this area have consisted primarily of analog studies and have not focused on children's exposure to or experience with

resolved and unresolved conflicts between their own parents. However, the studies in this area still suggest that unresolved conflict generates negative expectations of future conflict and results in emotional distress in children. The negative emotional tone at the end of conflicts may also contribute to emotional distress in children.

Style and Tactics of Conflict

A fourth conflict factor addressed in the literature is the style of conflict. Conflict style is the broadest conflict factor discussed in this review, with widely varying definitions by different researchers. The category includes the specific tactics used in conflict, the mode of expression, the intensity of the conflict, as well as broader interaction patterns couples have during conflict. General conflict patterns, which refer to the flow of interactions between two individuals in conflict, are often divided into mutually hostile patterns or demand-withdraw patterns. Mutually hostile patterns of conflict occur when both members of a couple express contempt for the other, often by using insults and mockery. Demand-withdraw patterns of conflict, also referred to as pursuit-withdraw, occur when one member of a couple presses the other to address a problem (e.g., demands, criticizes, complains), while the other member attempts to avoid or withdraw from the conflict (e.g., denying the problem exists, changing the subject, refusing to talk, leaving the room) (Katz & Gottman, 1993).

Conflict tactics, which are the techniques and skills individuals use during disagreements, are often divided into overt versus covert conflict or destructive versus constructive conflict. Buehler et al. (1998) defines overt conflict as “hostile behaviors and affect that indicate direct manifestations of negative connections between parents” (p. 120) and further indicates that overt conflict includes behaviors such as “belligerence, contempt, derision, screaming, insulting, slapping, threatening, and hitting” (p.120). Covert conflict includes behaviors such as “resentment, being upset, or unspoken tension manifested between parents by subtle, indirect behaviors and affect.” (Buehler et al.,

1998, p. 102). Destructive conflict tactics include behaviors such as “nonverbal hostility, defensiveness, physical distress, verbal hostility, threat, . . . physical aggression toward an object, physical aggression toward a person” (Cummings et al., 2004, p. 194). In contrast, constructive conflict tactics include such behaviors as “calm discussion, humor, support, physical affection, verbal affection, problem solving” (Cummings et al., 2004, p. 194). Mode of expression is often divided into classifications such as verbal anger, physical aggression, and withdrawal.

Katz and Gottman (1993) collected data from 56 families with 5-year-old children for a longitudinal study of the effects of two marital conflict styles, mutually hostile and demand-withdrawn, on child internalizing and externalizing behaviors three years later. The researchers videotaped marital interactions in a laboratory problem solving task and coded the interactions to obtain scores for the two identified styles, with both parents’ belligerence and contempt contributing to the mutually hostile style and wives’ anger, defensiveness, and domineering behaviors and husbands’ stonewalling and anger contributing to the demand-withdrawn style. The researchers found that couples’ use of mutual hostility was positively related to teacher reported child externalizing symptoms three years later and that husbands’ use of anger and withdrawal were positively related to teacher reported child internalizing behaviors three years later. Interestingly, this study also found no relationship between marital satisfaction (start of study, three-year follow up, or change between times) and child internalizing or externalizing behavior, suggesting that specific marital conflict behaviors are more important than marital satisfaction. This study’s longitudinal design and measurement of parental conflict patterns provides strong evidence suggesting that the general pattern of interaction used by couples during conflict may be predictive of later child adjustment.

In addition to the general pattern of conflict between parents, the types of tactics parents use in conflict have also been examined for their effect on children. Buehler et al. (1997) identified three styles of interparental conflict tactics in their meta-analysis of 62

studies and 348 statistical effects, which include overt, covert, and withdrawn conflict. These researchers found the average effect size for overt interparental conflict was significantly greater that the effect sizes for covert conflict, withdrawn conflict, and frequency of conflict, suggesting that overt conflict may be significantly more detrimental to children. However, the authors noted that covert and withdrawn conflict styles were substantially underrepresented in the literature and require further investigation. In addition, the authors encouraged a closer examination of child outcomes, including identification of which internalizing and externalizing behaviors were most affected by different types of interparental conflict.

The next study reviewed addressed the need for examination of which child outcomes are most affected by different types of conflict tactics. Radovanovic (1993) examined the relationship between verbal and physical aggression in interparental conflict and the adjustment of 52 children between the ages of 7 and 12 whose parents were in dispute regarding custody and visitation issues. Based on parent completed self-report measures of conflict tactics, child completed measures of coping styles and competence, and parent and teacher completed measures of child adjustment, this researcher found parents who used more verbal or physical aggression in interparental conflicts had children with significantly more behavior problems at home and reported lower self-worth and lower feelings of academic competence.

In a study of 900 9 to 15 year old youths from two samples, Buehler et al. (1998) examined the relationship between parents' overt and covert conflict on youth internalizing and externalizing behaviors. They found that covert conflict styles were associated with more internalizing behavior problems in children across both samples. Mixed findings were obtained regarding overt conflict styles, with overt conflict styles uniquely related to more externalizing behavior problems in children in one sample and overt conflict styles related to more internalizing and externalizing behavior problems in the other sample.

The degree to which conflict is expressed overtly as opposed to covertly has shown some significance in the relationship between interparental conflict and child adjustment. However, other factors regarding the expression of conflict are also important such as the use of constructive versus destructive conflict tactics. Researchers interested in the relationship between conflict factors and child aggression used parental conflict diaries, kept for 15 days, from 108 families with children between the ages of 8 and 16 to examine the relationship between child aggression and constructive (e.g., calm discussion, humor, affection, problem solving) versus destructive conflict tactics (e.g., verbal hostility, threat, physical aggression, defensiveness, withdraw) and expression of positive versus negative emotions (Cummings et al., 2004). This research indicates that exposure to destructive tactics and negative emotion in parental conflict has been found to be related to increased likelihood of child aggression, while the use of constructive tactics and expression of positive emotion during disagreements was associated with a reduced risk of child aggression (Cummings et al., 2004). Thus, conflict alone does not appear to be responsible for aggression in children; however, specific styles of conflict are associated with higher levels of aggression in children.

In addition to the research examining broad classification of conflict tactics, some research has attempted to examine more specific subsets of tactics thought to be particularly important to child outcomes. A study by Marchand and Hock (2003) examined the relationship between the use of attacking and avoidant conflict tactics in the interparental conflict of 51 couples and internalizing and externalizing behaviors in their 6-year-old children. This study found that the use of avoidance in interparental conflict was significantly related to mother and teacher reported internalizing behaviors in children. Couples in which both the mother and father reported high levels of avoidance had children with the highest levels of internalizing behaviors. This study found no relationship between attacking conflict tactics and internalizing or externalizing child

behavior (Marchand & Hock, 2003). Thus, this research suggests that the use of avoidant tactics could place children at risk for developing internalizing behavior problems.

Another aspect examined in this area of research is the use of physical aggression in interparental conflict. A study of the reactions of forty-eight 2 to 5 year old children during angry adult interactions revealed that children whose parents reported engaging in physical aggression during interparental conflicts were more likely to engage in behaviors such as comforting, defending, or assisting their mother and exhibited greater preoccupation with the conflict (Cummings, Pellegrinin, Notarius, & Cummings, 1989). In addition, children of parents who had unsatisfying marriages or engaged in physical hostility were more reactive to the expression of anger between their mother and an adult actor (Cummings et al., 1989). Thus, this study suggests that children of parents who engage in more intense, physically aggressive conflict may be more likely to be preoccupied by anger and to take an active role in defending or soothing their mothers. Although not examined in this study, differences in children's reactions to the expression of anger and their level of involvement in interparental conflict may play a role in their overall adjustment.

The studies reviewed above highlight the effects of different types of interparental conflict on children. In comparison to studies examined in the prior subsection on resolution style, research in this area has focused on actual parental behavior and both short-term and long-term outcomes for children, providing significant support for the external validity of these studies. This area of research has also included both younger children and older adolescents to provide a better understanding of the effects of interparental conflict at different ages. Although the research above highlights the effects of specific conflict factors on children, a number of other factors have been examined for their significance in the relationship between interparental conflict and child outcomes. The next section will review the literature regarding the role of cultural factors in the relationship between interparental conflict and child adjustment.

Cultural Factors

Although cultural factors, such as race, ethnicity, and socioeconomic status, may play a role in the relationship between interparental conflict and child adjustment, they have not received significant attention in the literature. Considerably more research is needed in this area to understand the cultural factors that may be involved in the relationship between interparental conflict and child adjustment. The research to date examining race, ethnicity, and socioeconomic differences in the relationship between interparental conflict and child adjustment will be reviewed below.

Race and Ethnicity

Race and ethnicity have received limited attention in the research examining the relationship between interparental conflict and child adjustment. The research in this area that has examined race and ethnicity has resulted in inconclusive results. While some studies have found no significant relationship between race and ethnicity and the relationship between child adjustment and interparental conflict (Buehler et al., 1997), other studies have noted that these cultural factors are significant.

Lindahl and Malik (1999) examined the relationship between interparental conflict, family processes, and child adjustment in both Hispanic American and European American families. One hundred and thirteen families with sons in either the second or fourth grades participated. Parents completed self-report measures of child adjustment and interparental conflict. Families were also observed in a laboratory setting discussing a conflict of their choice. These sessions were coded for cohesiveness, coalition formation (i.e., balanced, marital/detouring-attacking, disengaged/weak), and parenting style (i.e., democratic, hierarchical, lax/inconsistent). The researchers found hierarchical parenting styles to be associated with externalizing symptoms in European American families, but not in Hispanic American families. However, marital conflict and

disengaged family alliances were associated with child externalizing symptoms in both European American and Hispanic American families.

In a study discussed in the previous section, Cummings, Wilson, and Shamir (2003) used analog presentations of interparental conflict to examine the relationship between interparental conflict and child adjustment across two culturally different samples with additional focus on different conflict resolution styles. Participants included thirty-six 7 to 13 year old U.S. children and thirty-six 7 to 13 year old Chilean children of comparable socioeconomic status. The researchers found that U.S. and Chilean children were both sensitive to conflict resolution styles and that for both samples exposure to interparental discord was associated with child adjustment. However, cultural differences were noted. Based on regression analyses, culture was identified by these authors as a moderator in the relationship between interparental discord and child adjustment. Child adjustment was predicted by lower intensity interparental discord for Chilean children than U.S. children, with Chilean children's adjustment predicted by exposure to interparental hostility and verbal aggression, while U.S. children's adjustment was predicted by physical aggression between parents. In addition, Chilean children on average reported more sadness following both resolved and unresolved conflicts than did U.S. children and reported more worry following unresolved conflicts than U.S. children. The authors suggest that these findings may be related to the emphasis on harmony in relationships and the lower tolerance for conflict in Chile's collectivistic culture.

Parke et al. (2004) examined the role of ethnicity, acculturation, and socioeconomic status on parenting and child adjustment in a sample of 111 European Americans and 167 Mexican American families with a child in the fifth grade. These authors found a direct relationship between marital problems and child outcomes as well as between hostile parenting and child outcomes for both Mexican American and European American samples. However, the authors also noted some significant cultural

differences. They found the relationship between marital problems and child adjustment to be stronger in Mexican American families than in European American families, while the relationship between hostile parenting and child adjustment was more significant in European American families than in Mexican American families. The authors speculated that greater emphasis on family cohesion and solidarity may lead Mexican American children to experience greater adjustment difficulties in the face of marital conflict. Alternatively, they note that due to economic disadvantage in Mexican American families in comparison to European American families, Mexican American parents may have smaller homes and less privacy, making it more likely that children would be exposed to marital conflict.

Buehler and Gerard (2002) examined the role of parenting in the relationship between interparental conflict and child adjustment, as well as the differences between these variables based on cultural and socioeconomic factors. This study of 2,541 married parents with children between the ages of 2 and 18 found that parenting mediated the relationship between interparental conflict and child adjustment for European American children between 2 and 4 years of age. However, in non-European American children between ages 2 and 4, a direct relationship between marital conflict and child adjustment was present and unmediated by parenting. Based on this finding, the authors suggested that the non-European American parents were better able to contain marital conflict and were less likely to have conflict influence their parenting. This same study found that in non-European American adolescents, the relationship between interparental conflict and child adjustment was mediated by the amount of time children were left alone. The same was not found for European American adolescents. The authors suggested that the involvement of parents may be of significant importance in buffering non-European American adolescents from the negative affects of interparental conflict.

The current paucity of research in the area of ethnic and racial factors in the relationship between interparental conflict and child adjustment has focused primarily on

comparisons of European-American and varying Hispanic groups. Evidence of some difference has been found between these groups. Research to date appears to indicate that the effects of interparental conflict may be more significant for Hispanic youth than for European-American youth, especially when conflict is lower in intensity. Evidence also suggests that interparental conflict may play a more direct role in child adjustment for Hispanic youth, while European-American youth adjustment may be more affected by changes in parenting linked with interparental conflict. These differences may be due to the more collectivistic values often found in Hispanic populations, which place emphasis on maintaining peace and harmony in relationships. More research is needed targeting a wider range of populations to gain a better understanding of how the impact of interparental conflict is affected based on the different cultural lenses through which it is experienced. Research to date in this area has utilized a variety of research methods including self-report, laboratory observation, and analog studies. However, no significant attention has been given to longitudinal research and studies have generally been restricted in the age range of youth participating, making it difficult to generalize findings across age groups and to understand how trajectories may vary based on cultural differences.

Socioeconomic Status

A second cultural factor examined in the research is socioeconomic status (SES). As previously mentioned, Buehler et al. (1997) conducted a meta-analysis of 68 studies examining the relationship between interparental conflict and child adjustment. These authors found that effect sizes were higher in studies with predominantly middle class or predominantly lower class samples than in studies with more evenly distributed samples including lower, middle, and upper-middle class families. In addition, this meta-analysis found that effect sizes were strongest in samples where parents did not complete high school and of moderate strength in samples where parents had completed some college.

However, samples in which parents completed high school but did not attend college had very low effect sizes. The authors recommended that the role of SES be examined in future literature as a possible moderating variable.

In Buehler and Gerard's (2002) study examining the role of parenting in the relationship between interparental conflict and child adjustment, previously reviewed in the race and ethnicity subsection, the researchers found that some of the relationships between these variables differed based on the socioeconomic status of the participating families. Although the connection between interparental conflict and child maladjustment mediated by harsh discipline was equally significant for both children who lived above and below the poverty line, in adolescents the connection between marital conflict and child maladjustment via harsh discipline was only significant for families living above the poverty line. In families living below the poverty line, interparental conflict was not significantly related to harsh discipline and harsh discipline did not mediate the relationship between interparental conflict and child adjustment. This study also found that the relationship between interparental conflict and child maladjustment as mediated by reduced parental involvement did not differ based on poverty level for children between ages 2 and 4 or ages 12 and 18. However, this relationship, for children between the ages of 5 and 11, only held for those living above the poverty line.

Minimal research has examined the differences in the relationship between interparental conflict and child adjustment based on socioeconomic variables. However, some evidence indicates that further examination of socioeconomic factors as a possible mediator in the relationship between interparental conflict and child adjustment is warranted.

Family Factors

In addition to conflict factors and cultural factors, the role of family relationships has also been examined to identify possible mediating and moderating variables in the relationship between interparental conflict and child adjustment. Three family factors have received attention, including the quality of parent-child relationships, family interaction patterns, and family structure. The literature regarding the relationship between interparental relationship quality and parent-child relationship quality will be reviewed below, followed by a review of research regarding the role of these three family factors as mediating and moderating variables in the relationship between interparental conflict and child adjustment.

Parent-Child Relationship

The relationship between interparental conflict and a variety of parent-child relationship factors has been examined in the research. In addition, parent-child relationship factors have also been examined as both mediating and moderating variables in the relationship between interparental conflict and child adjustment. Research establishing the relationship between interparental relationship quality and parent-child relationship quality will be reviewed below, followed by research examining the role of parent-child relationship factors as mediators and moderators of the relationship between interparental conflict and child adjustment. These initial studies are reviewed because they provided the foundation for the more current research.

Interparental and Parent-Child Relationship Quality

A study by Kerig, Cowan, and Cowan (1993) examined the relationships between marital quality and parent-child interactions with a special examination of gender differences. Participants in this study included 38 families with a first born child between 3.5 and 4 years of age. Parents completed self-report measures and participated separately in a parent-child structured play activity that was later coded for parent-child

interaction behaviors. The results of this study indicate that marital satisfaction is related to the interaction behaviors of both parents and children. The researchers found a triple interaction in which fathers reporting low marital satisfaction engaged in significantly more negative interaction behaviors with their daughters. The authors indicated that this finding supports the spill over hypothesis, with fathers' dissatisfaction in their marriages "spilling over" into their relationships with their daughters. Mothers who reported low levels of marital satisfaction were more likely to reciprocate the negative interactions of sons. In addition, parents with low marital satisfaction were more likely to respond negatively to child assertions. Assertions made by daughters were found to be more likely to result in negative responses from parents than sons' assertions; however this was especially true for daughters of mothers with low marital satisfactions. Parents' responses to positive child interactions were noted to be unaffected by marital satisfaction.

Marital satisfaction was found to be a significant factor not only in parent responses to children, but also in child responses to parents. Children whose parents reported lower levels of marital satisfaction engaged in more positive interaction behaviors and more negative interaction behaviors with their mothers than with their fathers. In addition, sons of less satisfied parents tended to be more negative than daughters, while daughters of less satisfied parents tended to be more assertive and non-compliant with their fathers than with their mothers. The findings of this study highlight the complex nature of family relationships and suggest a significant relationship between the quality of interparental relationships and parent-child interactions.

To determine the relationship between the interparental relationships and parent-child relationships and to identify potential moderating variables, Erel and Burman (1995) conducted a meta-analysis of 68 studies. These researchers specifically examined the appropriateness of two competing hypotheses, which include the spill over hypothesis which predicts conflicted interparental relationships will lead to less sensitive and

attentive parenting, and the compensatory hypothesis which predicts increased parental sensitivity and attention in response to interparental conflict as a means of compensating for the lack of these elements in the marriage. Results indicated a positive relationship between marital relationship quality and parent-child relationship quality with a mean weighted effect size of .46, which is consistent with the spill over hypothesis. The findings suggest that children whose parents have a positive marital relationship may be more likely to have positive parent-child relationships.

However, the authors note that these findings were not homogeneous, suggesting that other factors may influence the relationship between these variables. Thirteen potential moderators were examined in this study, including the definition of marital quality used (i.e., general marital satisfaction, overt conflict, or parent-child coalitions), the definition of parent-child relationship quality used (i.e., global quality, consistency between the child's relationship with each parent, satisfaction, covert control, harsh discipline, and consistency in the parent child relationship over time), sex of parent participating in the study, sex of the child participating in the study, sex of parent and child pairs participating in the study, method of assessment (i.e., independent vs. non independent raters), timing of measurement (i.e., longitudinal vs. cross sectional), target child's birth order, age of participating child, target of study (i.e., child, parent, or child and parent), the type of sample (i.e., stressed, clinical, community, or other), type of design (i.e., within vs. between subjects), and source of publication (i.e., journal, book chapter, or dissertation). These researchers found that none of these 13 variables adequately accounted for variations in the relationship between interparental relationship quality and parent-child relationship quality. So, although heterogeneity of findings was noted, no moderating variable was identified. However, this study clarified the basic nature of the relationship between interparental relationships and parent-child relationships, with the findings supporting the hypothesis that conflicted interparental relationships may lead to less sensitive and attentive parenting.

A meta-analysis of 138 effect sizes from 39 studies of interparental conflict and parenting behaviors resulted in a moderate overall effect size (mean effect size of -0.62) indicating that high levels of interparental conflict were significantly related to poorer parenting (Krishnakumar & Buehler, 2000). The authors suggest that this finding supports the spillover hypothesis. Due to variability in the effect sizes reported in the studies sampled, these researchers also elected to examine possible moderating variables. They found that a number of subject characteristics including marital status, child gender, child age, SES, and parent educational attainment, and a number of method characteristics including the method for assessing interparental conflict, the reporter of interparental conflict used (i.e., child vs. mother vs. father), the reporter of parenting behavior (i.e., child vs. mother), the dimension of parenting measured, and the gender of the parent whose parenting is examined were moderators of the relationship between interparental conflict and parenting behavior. Effect sizes were found to be stronger for intact families than divorced families, parents of girls than parents of boys, parents of children in middle childhood or adolescence than parents of younger children, middle class families than lower class families or combination samples, and parents with some college or trade school experience than parents with only high school education.

With respect to moderating method characteristics, effect sizes were larger in studies that used observational methods of measuring interparental conflict, studies that relied in child reports of interparental conflict, studies that assessed harsh punishment and acceptance as their measures of parenting behavior, studies that used observational methods of measuring parenting behavior, effect sizes associated with fathers' parenting behaviors, and studies that relied on child reports of parenting behavior. Consistent with the findings of Erel and Burman's (1995) meta-analysis, this meta-analysis also found a significant relationship between interparental relationships and parent-child relationships. However, a variety of subject characteristics as well as methodological factors were identified as moderating variables in this relationship.

A study examining the relationship between hostility and withdrawal in marital conflict and parenting factors, including emotional availability and consistent discipline, found that these variables are significantly related (Struge-Apple, Davies, & Cummings, 2006). Data were collected in two waves a year apart and subjects included 225 families who had a kindergarten aged child at the start of the study. The researchers coded marital conflict patterns from video taped laboratory conflict tasks and parent-child interactions from video taped laboratory free play and clean-up tasks. In addition, parents completed a self report measure of parenting disagreements. Using structural equation modeling, the researchers found that marital withdrawal was significantly related to emotional unavailability in the parent-child relationship. In addition, marital hostility was related to mothers' emotional unavailability in the parent-child relationship. Both marital hostility and marital withdrawal were significantly related to arguments about child rearing and these arguments were negatively related to mothers' emotional availability.

Further examination revealed that the relationship between marital withdrawal and emotional unavailability of mothers was partially mediated by arguments regarding child rearing. With regards to parental consistency, neither marital hostility nor marital withdrawal at time one were predictive of inconsistent parenting at time two. In addition, an indirect pathway was identified whereby marital hostility and marital withdrawal were significantly related to child rearing disagreements, which in turn were significantly related to fathers' inconsistent parenting. This indirect pathway did not hold for maternal inconsistent parenting. Thus, marital withdrawal led to decreased emotional availability in the parent-child relationship over a one year period and marital hostility led to a similar decrease in maternal emotional availability toward the target child over the one year period, with frequency of child related marital conflict functioning as a mediator in the relationship between marital conflict and parenting practices.

Research in this area indicates that the quality of the marital relationship is significantly related to parenting behaviors and parent-child relationship quality. Parents

experiencing lower marital satisfaction and more frequent interparental conflict are more likely to engage in negative parent-child interactions and have poorer parent-child relationship quality. These findings are supportive of the spill-over hypothesis. Research in this area has utilized a variety of research methods including self-report measures, laboratory observation, longitudinal research, and meta-analyses and has produced consistent findings in support of the spill-over hypothesis.

Parent-Child Relationships as a Mediator or Moderator

With the research supporting a significant relationship between interparental relationship quality and parent-child relationship quality in place, researchers began to examine parent-child relationship factors as possible mediating and moderating variables in the relationship between interparental conflict and child adjustment. A variety of characteristics of parent-child relationships have been examined in the literature, including the presence of hostile interactions, parental withdrawal, negative versus positive parent-child interactions, parental emotional availability, consistency and style of discipline, parental involvement, and child attachment. Findings from this body of research are reviewed below.

Mann and MacKenzie (1996) conducted a study of the relationship between marital functioning, parent rejection, inept discipline, and oppositional behavior in 50 school-age boys. Both parents of each target child completed self-report measures of interparental conflict, parenting behavior, child behavior, and child adjustment. Multiple-regression analyses indicated that neither overt marital conflict nor marital satisfaction had a direct relationship on child oppositional behavior. Rather, the relationship between marital dissatisfaction and child oppositional behavior was mediated by rejecting behaviors of fathers, and the relationship between overt marital conflict and child oppositional behavior was mediated by inconsistent and lax parenting behaviors of mothers.

A study of 146 sixth and seventh grade students examining the role of parent-child relationships in the association between interparental conflict and child adjustment found that there were both direct and indirect relationships between interparental conflict and child adjustment (Harold, Fincham, Osborne, & Conger, 1997). Self-reported adolescent internalizing symptoms were found to be directly related to adolescents' reports of interparental conflict and indirectly related via their reports of mother-to-child and father-to-child hostility. However, adolescent externalizing symptoms, as reported by their teachers, showed no direct relationship to adolescent reports of interparental conflict when mother-to-child and father-to-child hostility were included in the model. The authors noted the potential methodological issue of having different reporters for internalizing symptoms versus externalizing symptoms and therefore opted to complete a second study to address a methodological issue before further interpreting these results.

The second study, published in the same article, included 451 families with a seventh grade adolescent and addressed three methodological issues from the first study. To address limitations related to single reporters and possible negativity bias in adolescent reporting, the researchers included multiple reporters of interparental conflict and parent-to-child hostility, including both the parents and two independent observers of structured interaction tasks. To address the limitations of the first study's cross sectional design, the second study utilized longitudinal analysis across a one year period. The third limitation of Study 1 was the sample size, which was insufficient to examine separate models for boys and girls. This limitation was addressed by obtaining a larger sample to allow for gender specific models. The findings of Study 2 indicate that interparental conflict is related to increased parental hostility toward the adolescent. In addition, Study 2 indicated that parent and observer reports of interparental conflict and parent reports of parent hostility toward the adolescents were associated with the adolescents' reported perceptions of these variables. Interparental conflict was also associated with adolescent perceptions of their relationships with their parents. The most significant finding,

however, was that adolescent perceptions of interparental conflict and parent hostility toward the adolescent completely accounted for the negative effects of interparental conflict, including both adolescent internalizing and externalizing symptoms, at the initial time of data collection as well as at one year follow-up. This finding highlights the importance of adolescents' appraisal of events and experiences on their later adjustment and suggests that parent-to-child hostility may be a key mediating factor in the relationship between interparental conflict and child adjustment.

To examine the relationship between child adjustment and interparental hostility and parent-to-child hostility during marital and family discussions, Gordis, Margolin and John (2001) coded the interactions of 89 two-parent families with a child between the ages of 9 and 13 for hostility during video-taped marital and family interaction tasks. In addition, both parents and children completed self-report measures of child adjustment. The researchers found that a three way interaction between interparental hostility, parent-to-child hostility, and child gender accounted for variance in child internalizing and externalizing behaviors. Based on follow-up analyses, the authors concluded that parent-to-child hostility exacerbated the effects of interparental conflict for boys, but not for girls. The authors were cautious in interpreting these results and identified a number of factors to consider, including research indicating that sons are more likely to be directly exposed to interparental conflict and indications that gender differences in the effects of interparental hostility may also vary by age. This research suggests that parent-to-child hostility may act as a moderating variable in the relationship between interparental conflict and child adjustment, but only for sons.

Osborne and Fincham (1996) examined the relationship between interparental conflict, parent-child relationship, parent gender, child gender, and child adjustment. Researchers recruited 169 6th and 7th grade students to complete measures of interparental conflict, parent-child relationships, and internalizing symptoms, while participants' teachers completed measures of internalizing and externalizing behavior problems and

school peers identified students who were bossy and students who started fights. Structural equation modeling was used to identify the pathway by which perceptions of interparental conflict, perceptions of parent-child relationship, and child adjustment were related for both boys and girls. The researchers found that marital conflict had both direct and indirect effects on child adjustment for both boys and girls, though the role of parent-child relationships depended on parent and child gender. For boys, interparental conflict had a direct effect on boys' internalizing symptoms, as well as an indirect effect on boys' internalizing symptoms via their perceptions of negativity in their relationship with their mothers. For girls, interparental conflict had a direct impact on girls' internalizing symptoms, as well as an indirect impact via their perceptions of negativity in the father-daughter relationship. Girls' externalizing symptoms were indirectly affected by interparental conflict via their perception of negativity in the mother-daughter relationship. Interparental conflict was significantly related to more negative child perceptions of parent child relationships, and negative interactions with opposite sex parents appeared to be particularly harmful to children exposed to interparental conflict.

Buehler and Gerard's (2002) study, which was previously discussed in the cultural factors section of this literature review, examined the role of parenting in the relationship between interparental conflict and child adjustment. The researchers found that parenting partially explained the relationship between marital conflict and child maladjustment for children ages 2 through 11, though a direct relationship between marital conflict and child maladjustment remained. A pathway from marital conflict to child maladjustment via harsh discipline was found for girls and boys between the ages of 2 and 18. Higher levels of marital conflict were associated with higher levels of harsh discipline, which was associated with greater child maladjustment. A similar pathway from marital conflict to child maladjustment mediated by lower parental involvement was found in girls and boys between ages 2 and 11, with higher levels of marital conflict

associated with lower parental involvement, which also covaried with child maladjustment.

In a study aimed at determining if parenting skills function as either a mediator or moderator in the relationship between interparental conflict and child adjustment, Jones, Shaffer, Forehand, Brody, and Armistead (2003) found support for parenting skills as a mediator in this relationship. The researchers collected data from 238 African American single mothers and their 7 to 11 year old children at two time points approximately 15 months apart. At both time points, mothers completed self-report measures of interparental conflict and parenting, while children completed self-report measures of internalizing and externalizing symptoms. Using hierarchical regression analyses, these researchers found that parenting skills partially mediated the relationship between interparental conflict and child adjustment both with cross-sectional analyses and longitudinal analyses.

To examine the role of parent-child conflict and child attachment in the relationship between interparental conflict and child adjustment, El-Sheikh and Elmore-Staton (2004) sampled 103 children and their parents. Parents completed self-report measures of interparental conflict, parent-child conflict, and child adjustment. Data regarding interparental conflict, parent-child conflict, and child attachment were collected from children via structured interviews and child internalizing symptoms were collected from children via self-report measures. The researchers found support for the role of parent-child relationship factors as both moderators and partial mediators in the relationship between interparental conflict and child adjustment. Higher levels of parent-child conflict were identified as a vulnerability factor in the relationship between marital conflict and child externalizing symptoms. In addition, secure attachment was identified as a protective factor in the relationship between marital conflict and child adjustment. However, analyses also supported these factors as partial mediators in the relationship between interparental conflict and child adjustment. The researchers noted that

supportive parent-child relationships were negatively associated with adolescent appraisals of threat and self-blame related to interparental conflict. Triangulation of adolescents into interparental conflict was found to be a mediator of the relationship between interparental conflict and adolescent internalizing and externalizing symptoms. Buehler et al. (1997) provided a useful list of ways in which children are triangulated by their parents in the context of interparental conflict including,

> Trying to get the child to side with one parent; scapegoating the child; using the child to get information about the other parent when self does not want to ask the other parent directly; having the child carry messages to the other parent because self does not want to relay the information; denigrating the other parent in the presence of the child. (p. 235)

Though not the primary hypothesis of this study, triangulation was identified as a significant variable. Additional studies focused on this relationship are covered in the next subsection.

The research findings in this area strongly support the important role of parent-child relationships. A number of parent-child relationship factors have been noted as mediators in the relationship between interparental conflict and child adjustment including parent rejection, parent hostility, negativity, inconsistent parenting, lax parenting, harsh discipline, and parental involvement. In addition, parent-child relationship factors such as parent-child conflict, parent hostility, and secure attachment have been found to moderate the relationship between interparental conflict and child adjustment. To date research has shown some gender differences in these relationships, with girls and boys affected somewhat differently and with different father-child and mother-child relationship factors being identified as significant.

Research in this area has included the use of self-report measures, laboratory observation, and cross-sectional and longitudinal data collection. Multiple reporters on self-report measures and combined use of self-report and laboratory observation strengthen the research in this area. Additional research is needed to further examine the

nature of gender difference and mother-child and father-child relationship factors, especially across developmental levels. In addition, further attention to how parent-child factors affect child appraisals of threat and self-blame in interparental conflict is warranted, as is examination of factors that may protect parent-child relationships from the negative effects of interparental conflict.

Family Interaction Patterns

A second family factor examined in the research regarding interparental conflict and child adjustment is family interaction patterns. Patterns of family interaction have been identified as significant in child adjustment and have specifically been examined as possible mediating and moderating factors in the relationship between interparental conflict and child adjustment. The research in this area is reviewed below.

Katz and Low (2004) conducted a study examining the relationships between marital violence, co-parenting, family interaction patterns, and child adjustment in 130 families with preschool aged children. Participants completed a number of self-report measures and participated in laboratory tasks later coded for co-parenting behaviors and family interaction behaviors. The laboratory task took place in a room that included both desirable age appropriate toys and undesirable age inappropriate toys. The task required parents to keep their child from playing with the desirable age appropriate toys in the room over a period of 10 minutes. Co-parenting style and family interaction patterns were coded from this task. Family interactions were categorized as fragmented family interaction style, which consisted of negative power and alliance patterns, negativity and conflict between family members, or positive family interaction style, which consisted of adaptability, cohesiveness, and playfulness between family members. Co-parenting styles were categorized as hostile-withdrawn, which included significant negative interaction between parents and emotional detachment or physical withdrawal between parents, or positive, which included primarily positive, cooperative, and neutral

interparental interactions. Using multiple regression analyses, the researchers found that hostile-withdrawn co-parenting mediated the relationship between interparental violence and child anxiety and depression. The researchers also reported that co-parenting patterns, family interaction patterns, and marital violence each independently contributed to child adjustment. Children whose family interactions were identified as fragmented were more likely to be identified as delinquent. Children whose parents reported violence in their relationship were more aggressive, as reported by parents, as well as more anxious and depressed.

Grych, Raynor, and Fosco (2004) examined the effects of triangulated family systems on the relationship between interparental conflict and child adjustment. The researchers collected data from a diverse sample of 388 14 to 18-year-old adolescents who completed self-report measures of interparental conflict, family relationships, and internalizing and externalizing symptoms. Regression analyses supported the role of triangulation as a mediator in the relationship between interparental conflict and adolescent internalizing and externalizing symptoms. Conflict factors including frequency, intensity, and resolution, were associated with adolescents' report of triangulation. Thus adolescents exposed to more frequent, intense, and unresolved interparental conflict were more likely to report being triangulated in interparental conflicts. However, this relationship varied based on the nature of parent-child alliances. Adolescents who reported a stronger alliance with one parent were more likely to experience triangulation in lower level interparental conflict than adolescents with more balanced alliances with their parents, though both groups of adolescents were equally at risk for triangulation in interparental conflict that was frequent, intense, and unresolved. This study also found that adolescents who reported supportive parent-child relationships reported lower levels of threat and self-blame related to interparental conflict, while those who reported more empathy toward their siblings reported higher levels of threat and self-blame related to interparental conflict. The researchers also identified close father-

child relationships as a protective factor in the relationship between interparental conflict and child maladjustment.

Davies, Cummings, and Winter (2004) conducted a longitudinal study of 221 kindergarten children and their parents to identify the nature of the relationships between family functioning, children's emotional insecurity, and child psychological adjustment utilizing a number of self-report measures as well as the coded reactions of children to simulated interparental conflict. In the simulated conflict, mothers acted out a scripted conflict scenario while pretending to speak to the child's father on the phone. The researchers used cluster analyses and found four family profiles based on measures of interparental hostility, interparental affection, coparenting disagreements, parent psychological control, parental acceptance, and inconsistent parent discipline. These family profiles included cohesive (i.e., low hostility, low conflict, low constraints on autonomy, high warmth, and high supportiveness), enmeshed (i.e., high interparental hostility, high coparenting disagreements, high psychological control, and high inconsistent parenting), disengaged (i.e., high interparental hostility, low interparental affection, high coparenting disagreements, and low parent acceptance), and adequate families (i.e., low interparental hostility, high interparental affection, low coparenting disagreements, high constraints on autonomy, and high parent acceptance). These family profiles were associated with child adjustment measures. Children from enmeshed and disengaged families, which exhibited the highest levels of interparental hostility and coparenting conflict, displayed greater insecurity in the interparental relationship than children from cohesive families and exhibited more internalizing and externalizing symptoms initially and at one year follow up. Both adequate and cohesive families exhibited similar levels of child security in the interparental relationship. This research found children's insecurity in the interparental relationship to be a partial mediator in the relationship between enmeshed and disengaged family systems and child outcomes at one year follow up.

Research in the area of family interaction styles and their relationship to interparental conflict and child adjustment has begun to uncover the important, though complex nature of the influence of family interaction patterns. This research suggests that the extent to which adolescents are drawn into interparental conflict may mediate the relationship between interparental conflict and adolescent adjustment and adolescents' interpretation of the conflict itself. Close father-child relationships may serve as a protective factor in the relationship between interparental conflict and child adjustment, while close sibling relationships may increase negative interpretations of interparental conflict. Enmeshed and disengaged families tended to have children who were more anxious and depressed, and this relationship may be mediated by children's feelings of insecurity regarding their parents' relationships. Families with fragmented family interaction styles were more likely to have children identified as delinquent.

The examination of family interaction patterns and their significance in the relationship between interparental conflict and child adjustment has yielded evidence of the importance of the entire family system. However, continued research is needed in this area to gain a more thorough understanding of this complex area. To date, diverse methods have been utilized. Research has included cross-sectional and longitudinal studies and self-report and laboratory observation. Self-report measures have been collected from both youth and parents. However, it is difficult to draw broader conclusions from the research in this area due to the wide variability in definition of family interaction styles. In addition, the use of laboratory observation tasks, which is generally a strength in this area of research, often have not included all family members, which may hinder researchers from gaining a full picture of the very family interaction patterns they are attempting to assess.

Family Status

There has been significant discussion of the importance of marriage and divorce in child adjustment in the literature. Many changes often occur at the time of divorce, including economic loss, changes in residence, etc. It was once thought that the division of the family was the cause of many child adjustment problems. However, research has indicated that exposure to chronic marital conflict is the stronger predictor of adjustment problems (Dancy & Handal, 1984). One meta-analysis found no significant difference between the effects of parental conflict on the adjustment of children from divorced and intact families, indicating that interparental conflict was equally detrimental to both groups (Buehler et al., 1997). As adults, children whose high-conflict parents divorced were better off than the children whose high-conflict parents did not divorce (Amato et al., 1995 in Kelly, 2000). However, the structure of a family is complex and relationships between interparental conflict and child adjustment may vary based on these factors. Research examining these relationships is reviewed below.

The meta-analysis by Krishnakumar and Buehler (2000) described in detail in the Parent-child relationship section of this review, found that the relationship between interparental conflict and parenting behaviors was significantly stronger in intact families than in divorced families. Thus, interparental conflict was found to be more strongly associated with decreases in the quality of parenting in intact families than in divorced families.

A study conducted by Fauber, Forehand, Thomas, and Wierson (1990) examined the role of parent-child relationship factors as mediators in the relationship between interparental conflict and adolescent adjustment in 46 intact and 51 recently divorced families using a number of self report measures as well as coded laboratory observations of mother-child conflict resolution tasks. The researchers found that results for divorced and intact families were similar; however, adolescents of divorced parents reported significantly more parental conflict than adolescents from intact families. In addition,

teachers reported significantly higher levels of anxiety and withdrawal in adolescents from divorced families as compared to adolescents from intact families. This finding is not surprising given the higher level of conflict found in the divorced sample in comparison to the intact sample.

Regression analyses supported three strong pathways between interparental conflict in intact families and adolescent adjustment. Psychological control was identified as a mediator between interparental conflict and adolescent internalizing problems and rejection/withdrawal by the parent was identified as a mediator between interparental conflict and externalizing problems. In addition, a direct relationship between interparental conflict and externalizing problems was also noted in intact families. In comparison, the relationship between interparental conflict between divorced parents and adolescent internalizing and externalizing behaviors appeared to be mediated primarily by parental rejection/withdraw and no direct relationship between interparental conflict and adolescent internalizing or externalizing behaviors was identified for this sample. Thus, the pathways by which interparental conflict affects adolescent adjustment were found to vary based on marital status. The adjustment of adolescents from intact families was directly affected by interparental conflict and indirectly affected via parents' use of control and withdrawal in the parent-child relationship. However, the adjustment of adolescents from divorced families was not directly affected by interparental conflict, but rather affected by the parental rejection and withdraw that was more common among parents involved in frequent interparental conflict.

Parent Factors

Another set of factors examined in the literature targeting interparental conflict and child adjustment is parent variables. Though this area has received limited attention, parents' ability to function in their daily life and their own level of mental health may be an important mediating or moderating variable in the interaction between interparental

conflict and child adjustment. In the literature, parent factors have focused primarily on parental adjustment, including symptoms of anxiety and depression. Studies examining the significance of parental mental health in the relationship between interparental conflict and child adjustment are reviewed below.

In a review of the relationship between interparental conflict and child maladjustment, Buehler, Krishnakumar, Anthony, Titsworth, and Stone (1994) posited that the relationship is more indirect than direct and identified parental depression as one of three important potential mediators in the relationship between parental conflict and child adjustment. Two aspects of the role of parental depression were discussed, including the role of parental depression as a mediator between interparental conflict and child adjustment, as well as the more complex pathway from interparental conflict to parental depression to parenting behavior to child adjustment. The authors indicated that there is a clear need for additional research and added attention to paternal depression.

Results of a study of 295 families, in which parents completed self-report measures of marital quality, marital adjustment, parent adjustment, and child adjustment and children completed a self-report measure of interparental conflict, found that maternal and paternal psychological symptoms (including hostility, anxiety, and depression) mediated the relationship between marital distress and child adjustment problems (Papp, Cummings, & Schermerhorn, 2004). Thus parents experiencing greater marital distress, including poorer adjustment and more conflict, experienced more anxiety, depression, and anger than less distressed couples. These psychological symptoms in turn were determined to be partially responsible for elevated internalizing and externalizing symptoms found in the children whose parents were identified as martially distressed.

Child Factors

An additional area of research receiving significant attention by researchers interested in the relationship between interparental conflict and child adjustment is child variables, such as age, gender, coping style and skills, and cognitive appraisals. The complex relationship between interparental conflict and child adjustment across child age and gender has been widely examined and will be reviewed below. How children cope with interparental conflict and how they interpret and explain interparental conflict has also received growing attention and will be reviewed below.

Child Age

Due to the continual development and change that occurs through childhood, events and experience are likely to affect children differently depending on their age. Research has examined the significance of child age in the relationship between interparental conflict and child maladjustment. Some research has supported significant variability based on child age, while other research has identified no significant differences in the relationship between interparental conflict and child adjustment based on child age.

Mahoney, Jouriles, and Scavone (1997) examined the role of child age as a moderating variable in the relationships between interparental conflict over child rearing, marital adjustment, and child behavior problems. Participants included 146 two parent families seeking services for their 4 to 9 year old children with reported behavior problems. Parents completed self-report measures of marital adjustment, interparental conflict over childrearing, and child adjustment. The researchers found that interparental conflict over childrearing was significantly related to child externalizing behaviors even after controlling for overall marital adjustment. However, child age was identified as a moderator in the relationship between father-reported marital adjustment and child

externalizing and internalizing problems, such that the relationship between marital adjustment and child adjustment was stronger in families with younger children.

Buehler et al. (1998) examined the role of the frequency and style of interparental conflict on the internalizing and externalizing behaviors of 900 9 to 15-year-old children collected from two samples. Using regression analyses these researchers found that the association between overt parental conflict and child externalizing behavior problems was more significant in younger children (5th grade) than in older children (8th grade) in one sample, while child age was not as significant a factor in the other sample. However, it should be noted that the second sample had a smaller age range than the first.

Cummings, Wilson, and Shamir (2003), previously reviewed in the Cultural factors section, found that older children (11-13 years old), as opposed to younger children (7-9 years old), were more likely to report that they would intervene in marital conflict episodes presented in this analog study of seventy-two 7 to 13 year old children recruited from the United States (US) and Chile. This finding is significant in light of the fact that being drawn into interparental conflict has been identified as one mediating variable between interparental conflict and youth internalizing and externalizing symptoms (Grych et al., 2004). However, this study found no significant differences in emotional reaction between the two age groups for either American or Chilean children.

Although some research supports the importance of child age in the relationship between interparental conflict and child adjustment, not all research has supported child age as a significant moderator. Buehler et al. (1997) found little or no significant differences in this relationship based on child age. These researchers found that neither the average age of children in the sample, nor the age range sampled were related to the variability in effect size in their meta-analysis of 62 studies and 348 statistical effects, which examined the relationship between interparental conflict and child adjustment.

Further research is needed in this area to understand how interparental conflict affects children differently at different ages. Longitudinal research would be especially

helpful in understanding the effects of interparental conflict over the course of development. The research reviewed above appears to suggest that younger children experience more internalizing and externalizing symptoms as a result of interparental conflict than older children. However, the role of child age as a moderator in this relationship is likely to be complex and interrelated to a variety of other variables, such as child gender, parent-child relationships, and child cognitions.

Gender

Gender differences in the relationship between interparental conflict and child adjustment problems have received significant attention in the literature. Findings have been inconsistent, with some research noting significant gender differences while other research finding no notable differences based on gender. Research that has found differences in the impact of interparental conflict on the adjustment of boys and girls often reports highly complex relationships that vary with age, type of adjustment problems (i.e., internalizing vs. externalizing symptoms), and interparental conflict characteristics, such as style and topic of interparental conflict. Research in this area is reviewed below. First, research that reports no significant gender differences in the relationship between interparental conflict and child adjustment is presented, followed by research supporting gender differences.

In Buehler et al.'s 1997 meta-analysis of 68 studies measuring the association between the frequency of interparental conflict and the internalizing and externalizing problems of youth between the ages of 5 and 18, there were no significant differences in adjustment between boys' and girls' global assessment of adjustment, nor in reports of internalizing versus externalizing symptoms. The authors investigated if such gender differences would be found when only studies of clinical populations were examined and found no significant gender differences.

Buehler et al.'s 1998 empirical study examining the role of the frequency and style (i.e., overt vs. covert) of interparental conflict in the internalizing and externalizing behaviors, previously reviewed in the Conflict factors section, also tested for possible gender differences. Using regression analyses these researchers found no significant differences in the effects of interparental conflict on boys and girls (Buehler et al., 1998).

Though these studies did not find evidence of gender differences in the relationship between interparental conflict and child adjustment, other research has indicated that such conflict affects boys and girls differently. In a review article, Purcell and Kaslow (1994) concluded that gender differences were not consistently found in the relationship between interparental conflict and child adjustment, but were more likely to occur in studies of clinical samples and studies that included interparental aggression in their measure of interparental discord. In addition to having different adjustment outcomes, some research also indicates that interparental conflict impacts boys and girls via different pathways. Research noting such gender differences will now be reviewed.

Buhler and Gerard (2002), previously reviewed in the Cultural factors subsection, examined the role of parenting in the relationship between interparental conflict and child adjustment and examined differences in this relationship based on child gender. This study found that the pathway from marital conflict to adolescent maladjustment as mediated by parent-child conflict was stronger for girls than boys, supporting the case that marital conflict may have more detrimental effects for parent-daughter relationships than for parent-son relationships. This finding could indicate that daughters are at a greater risk of negative outcomes from interparental conflict, or that the pathways by which interparental conflict affects adolescents is different for boys and girls. However, gender differences did not hold for younger children (Buehler & Gerard, 2002).

Cummings, Goeke-Morey, and Papp (2004) examined the role of interparental conflict on overall child adjustment as well as child aggressive behavior, specifically examining the significance of the content of parental conflict and differences based on

child gender. One hundred and eight families with children between the ages of 8 and 16 kept diaries of child reactions to interparental conflict over a period of 15 days. In addition, mothers completed a measure of child adjustment and children completed responses to analog presentations of interparental conflict. Conflict content was divided into two main categories: threatening, which included topics related to the child or family, and non-threatening, which included topics related to work or social activities. The researchers found that boys were more highly affected by parental emotionality and conflict related to the child than were girls (Cummings et al., 2004). The authors interpreted the results with caution due to small cell sizes.

Gender differences have also been noted in the relationship between interparental conflict and child adjustment based on prior exposure to resolved versus unresolved conflict. El-sheikh, Cummings, and Reiter (1996) examined the relationship between the reactions of 47 preschoolers to the live ongoing conflict of two adult actors based on prior exposure to resolved versus unresolved conflict between the actors. The researchers found that girls previously exposed to resolved conflict between the actors reported less negative perceptions of arguing adults and were less likely to report that they would intervene in the conflict. These differences were not found for boys, whose perceptions of arguing adults and desire to intervene in adult conflict did not differ significantly based on prior exposure to resolved versus unresolved conflict (El-sheikh, Cummings, & Reiter, 1996).

In Cummings, Davies, and Simpson's 1994 study of the role of children's appraisals of interparental conflict and coping efficacy in the relationship between marital conflict and child adjustment, the researchers found significant gender differences in perceptions of interparental conflict and coping. Although child appraisals of interparental conflict were found to mediate the relationship between interparental conflict and child adjustment, the type of appraisals responsible for this relationship varied by gender. For girls, appraisals of self-blame were responsible for this

relationship, while appraisals of threat were the mediating variable for boys. In addition, these gender differences were not due to girls reporting significantly more self-blame or boys significantly more appraisals of threat. Instead, adjustment for boys and girls were simply related to different types of appraisals. A second significant gender difference noted was that the coping efficacy of boys was negatively associated with internalizing and externalizing symptoms, while no significant relationship was found for girls. Another significant gender difference noted in this study was that boys' reports of interparental conflict were more closely related to mothers' reports than were girls' reports. Furthermore, boys' appraisals of interparental conflict were actually better predictors of their adjustment than mothers' appraisals, while mothers' appraisals were the better predictor for girls' adjustment. This finding appears to indicate that boys may be more sensitive to interparental conflict or less shielded from it. This study is reviewed in further detail in the following subsection addressing the role of cognitive appraisals.

Literature in this area indicates that boys and girls may be affected differently by interparental conflict. Although some research finds no gender differences in the relationship between interparental conflict and child adjustment, the pathways by which boys and girls are affected may still differ. Research on this topic has included meta-analysis, analog studies, self-report measures, and daily parent report of children's reactions to naturally occurring interparental conflict. Future research is needed to examine gender differences in the pathways by which boys and girls are affected by interparental conflict, how these changes vary across developmental level, and the differences in risk and protective factors that exist for boys and girls.

In addition to the gender differences reviewed above, research has found many significant gender differences in children's cognitive appraisals of interparental conflict. Such differences have been linked to differences in child adjustment. More information on the role of gender differences in child cognitive appraisals is included in the following

section devoted to the role of child cognitive appraisals in the relationship between interparental conflict and child adjustment.

Cognitive Appraisals

Another child factor that has received significant attention in the literature examining the relationship between interparental conflict and child adjustment is children's cognitive appraisals. A review article by Buehler et al. (1994) identified child cognitive appraisals as one of the most significant mediating factors in the relationship between parental conflict and child adjustment. Many aspects of children's thoughts and beliefs about interparental conflict have been examined, including their assessment of threat, self-blame, and destructiveness. Research on the role of child cognitive appraisals as a mediating or moderating variable in the relationship between interparental conflict and child adjustment is reviewed below.

Grych and Fincham (1993) conducted two of the early studies examining the role of children's appraisals of interparental conflict. The first of the two studies was an analog study that involved exposing forty-five 11 to 12 year old children, who completed a self-report measure of interparental conflict for an earlier study, to audio taped conflicts between adults that varied by content and intensity. Children's affect, anticipated coping response, and cognitions, including the level of threat (i.e., likelihood the conflict would escalate and the likelihood the child would be drawn into the conflict), the level of self-blame, and coping efficacy (i.e., ability to help parents resolve conflict and ability to make themselves feel better). The researchers found that children exposed to high intensity conflict reported a greater likelihood that the conflict would escalate; and children exposed to conflict related to the child reported a greater likelihood that they would be drawn into the conflict. Higher levels of self-blame were reported for children exposed to higher intensity conflict and child related conflict. Children exposed to child related conflicts reported greater confidence in their ability to help their parents resolve

the conflict and greater likelihood of coping by directly intervening in the conflict. Children's belief s about their ability to make themselves feel better did not differ based on the intensity or content of the conflict to which they listened (Grych & Fincham, 1993).

In the second study, the researchers exposed 112 fifth grade children to audio taped conflict vignettes. The conflicts were child-related and varied in intensity and the explanation for the reason for the conflict (i.e., parent-blaming, child-blaming, and no explanation). Children again provided information regarding their affect, coping efficacy, and cognitions. The researchers found that children who listened to vignettes in which the child was blamed for the conflict reported significantly more negative feelings, self-blame, threat of being drawn into the conflict, as well as confidence in their ability to help the parents resolve the conflict and greater likelihood of coping by directly intervening in the conflict. The researchers noted that children's cognitions are influenced by the intensity, content, and the person identified as responsible for the conflict and that children's cognitions about interparental conflict are related to how they believe they would cope with the conflict (Grych & Fincham, 1993).

A study of fifty-one 9 to 15 year old children and their mothers examined the role of child cognitive appraisals of threat, self-blame, and destructiveness, as well as children's reports of coping efficacy in the relationship between interparental conflict and child adjustment (Cummings, Davies, & Simpson, 1994). In this study, mothers completed self-report measures of marital satisfaction, marital conflict, and child adjustment and children completed a self-report measure of cognitive appraisals of interparental conflict, watched a number of vignettes of interparental conflict, and answered questions regarding how they would respond to the conflict and how effective their response would be in ending the conflict and in helping them feel better. The researchers found that mothers' reports of interparental conflict were positively correlated with child internalizing and externalizing problems in both boys and girls. However,

significant gender differences were noted in the relationship with child cognitive appraisals. Child appraisals of threat were predictive of boys' internalizing and externalizing behavior problems and appraisals of self-blame were predictive of girls' internalizing behavior problems. With regard to problem and emotion focused coping, boys' coping efficacy was significantly related to their adjustment, however this relationship was not found for girls. The authors indicated that this finding supports the view that coping efficacy is more important to boys' adjustment than girls', however it may also be that boys' coping efficacy is more affected by their overall adjustment than is girls' coping efficacy (Cummings et al., 1994).

In addition to the relationship between interparental conflict and certain child cognitions, cognitive appraisals of threat and self blame have been shown to have a mediating role in the relationship between marital conflict and adolescent internalizing and externalizing behaviors (Turner& Barrett, 1998). In fact, child appraisals of threat and self blame related to interparental conflict have been found by some studies to be better predictors of child adjustment than child perceptions of the frequency, intensity, and resolution of conflict. (Grych, Jouriles, Swank, McDonald, & Norwood, 2000).

A study of 317 children between the ages of 10 and 14 from a community sample and 145 children between the ages of 10 and 12 from a battered women's shelter examined the role of child appraisals of interparental conflict as a mediating factor in the relationship between interparental conflict and child adjustment problems (Grych, Fincham, Jouriles, & McDonald, 2000). Children in the study completed self-report measures of anxiety, depression and interparental conflict, which included subscales that measure their appraisals of threat and self-blame, while measures of child internalizing and externalizing symptoms were completed by teachers in the community sample and mothers in the shelter sample. Using multivariate multiple regression analysis, researchers found children's appraisals of threat and self-blame mediated the relationship between interparental conflict and child internalizing symptoms in both the community

sample and the shelter sample. However, gender differences were noted only in the community sample. Appraisals of both threat and self-blame were found to be mediators between interparental conflict and internalizing symptoms in boys from the community sample, while only appraisals of threat were found to mediate the relationship between interparental conflict and internalizing symptoms for girls from the community sample. With regards to externalizing symptoms, the shelter sample did not meet requirements to test for mediation, but the community sample did. Appraisals of threat and self-blame were identified as additive to adjustment problems for children in the community sample, but did not mediate the relationship between interparental conflict and child externalizing symptoms. When gender was examined, this relationship held for boys, but was only marginally significant for girls. Further multivariate multiple regression analyses showed that neither appraisals of self-blame nor threat functioned as a moderator in the relationship between interparental conflict and child adjustment in either sample (Grych, Fincham et al., 2000).

Longitudinal research by Grych, Harold and Miles (2003) found that children's appraisals of interparental conflict mediated the relationship between parent conflict and child adjustment. In this study, 298 children between the ages of 11 and 12 completed a measure of interparental conflict and child appraisals of threat and self-blame and measures of child internalizing and externalizing symptoms. Parents completed self-report measures of interparental conflict, marital hostility, and marital adjustment. Teachers completed a measure of child externalizing symptoms. Cross-sectional findings based on structural equation modeling indicated that interparental conflict was significantly related to child internalizing and externalizing symptoms as reported by children and that parent and child reports of interparental conflict were significantly related to child appraisals of threat and self-blame. Perceived threat was found to be a unique predictor of child internalizing problems and partially mediated the relationship

between child-reported interparental conflict and child internalizing symptoms. Self-blame was identified as a unique predictor of externalizing symptoms.

To assist in determining causality in these relationships, the authors collected data at two time periods approximately one year apart to allow for longitudinal analysis. Longitudinal analyses found that higher reported levels of interparental conflict at time one predicted greater appraisals of threat and self-blame one year later when statistical control was provided for child internalizing and externalizing symptoms at time one and child appraisals at time one. In addition, perceived threat at time two was associated with greater externalizing symptoms and self-blame at time two was associated with greater internalizing symptoms (Grych, Harold, & Miles, 2003).

In another longitudinal study, Harold, Shelton, Goeke-Morey and Cummings (2004) found that children's emotional security about interparental conflict (i.e., emotional regulation, cognitive representations, and behavioral regulation) mediated the relationship between interparental conflict and child adjustment. In this study, 181 children between the ages of 11 and 12 completed self-report measures of their perceptions of interparental conflict, emotional security about parenting, and their internalizing and externalizing symptoms. In addition, they viewed a series of videotaped conflict episodes with actors arguing over what television station to watch, each of which was unresolved. After each analog presentation, children reported about how they felt, how strong their feelings were, how much they thought the problem was resolved, how much of a problem the topic would be later, and what they would do if they were in the room. The children's parents completed self-report measures of marital dissatisfaction, marital hostility, and marital discord and measures of child externalizing symptoms. All study procedures were completed at time one and at one year follow-up. Researcher hypothesized a model by which marital conflict at time one impacts child adjustment at time two via children's emotional security about marital conflict at time one and children's feelings of emotional security about parenting at time two. Using structural

equation modeling, researchers found that marital conflict significantly predicted emotional security about parenting one year later, which in turn significantly predicted child internalizing and externalizing symptoms at one year follow-up. In addition, their analyses indicated that interparental conflict significantly predicted all three of the subcategories of children's emotional security about marital conflict at time one, including children's emotional regulation, children's cognitive representations, and children's behavioral regulation. Children's emotional security about marital conflict at time one in turn was a significant predictor of children's emotional security about parenting at one year follow-up. However, the direct relationship between marital conflict and child emotional security about parenting at one year follow-up was not significant when child emotional security about marital conflict at time one was included. The researchers concluded that child emotional security about marital conflict acts as a mediator in the relationship between interparental conflict and child security in their relationship with their parents one year later, which was significantly related to internalizing and externalizing symptoms in children at one year follow-up (Harold et al., 2004).

Other studies have found that cognitive appraisals moderate the relationship between interparental conflict and child adjustment, buffering and intensifying the effects of conflict on child adjustment (Kerig, 1998). In a study examining the role of child appraisals of interparental conflict in the relationship between interparental conflict and child adjustment, health, and physiological reactivity, the researchers found that certain child appraisals functioned as vulnerability factors (El-Sheikh & Harger, 2001). In this study, eighty-nine 8 to 11 year old children completed questionnaires regarding interparental conflict and child internalizing symptoms and participated in a psychophysiological assessment session in which their heart rate, blood pressure, and skin conductance were monitored while they listened to audio taped conflicts between a man and a woman. Mothers completed measures of marital functioning, child

adjustment, and child health. Through the use of hierarchical multiple regressions, the researchers found children's appraisals of threat and self-blame moderated the relationship between interparental conflict and children's adjustment, health, and physiological reactivity. Child externalizing symptoms were moderated by child appraisals of threat, while child internalizing symptoms were moderated primarily by child appraisals of self-blame and to a lesser extent by child appraisals of threat. The relationship between interparental conflict and child health problems and cardiovascular reactivity were also moderated by child appraisals of threat and self-blame. Thus children's cognitions may play a significant role in their emotional and physical well-being and may function as a vulnerability factor, amplifying the negative effects of interparental conflict on child adjustment and health.

Significant attention has been provided to the role of cognitive appraisals in the relationship between interparental conflict and child adjustment. The research strongly supports the role of child appraisals of threat and self-blame as mediators in this relationship, though some research supported these appraisals as moderating variables. The relationship between child cognitive appraisals and child internalizing and externalizing symptoms is complex, and research has not been conclusive with regard to which types of cognitive appraisals mediate the relationship between interparental conflict and internalizing and externalizing symptoms separately. The research to date has included both longitudinal and cross-sectional studies and has utilized a number of methods including the use of self-report measures, analog studies, and physiological reactivity testing. One significant limitation of the research in this area is the limited age range of the samples, which have primarily been 11 and 12 year old children. To gain a better understanding of the role of cognitive appraisals over the course of development, child cognitive appraisals need to be studied among both older and younger children. In addition, the examination factors that may increase or decrease a child's likelihood of forming appraisals of threat and self-blame in the context of interparental conflict may

provide information useful for intervention and prevention for children exposed to significant interparental conflict.

One area of research that has been identified as a likely protective factor against childhood and adult depression is optimism. Optimism is generally conceived of in the literature as a style of expectations of the future or as a pattern of attributions of events in one's life. The cognitive appraisals currently identified as significant in the relationship between interparental conflict and child adjustment, self-blame and threat, may be affected by the level of optimism a child generally experiences. Though this construct has not been examined in the relationship between interparental conflict and child adjustment, it appears to be a potentially promising protective factor. Research on child optimism is reviewed in the next section.

Child Optimism

Research focusing on optimism has grown rapidly in recent years. Research has shown that optimism is linked to lower levels of depression, higher academic achievement and job productivity and better physical health (Carver & Gaines, 1987; Schulman, 1995; Patterson, 1988; Patterson & Seligman, 1987). Optimism research focusing on children has been far more limited. However, similar to adult findings, children who report higher levels of optimism tend to have better self-esteem and fewer symptoms of depression (Fischer & Leitenberg, 1986; Puskar, Sereika, Lamb, Tusaie-Mumford, & McGuinness, 1999).

The construct of optimism has been defined differently by researchers. Despite differences in the view of what optimism is, it is consistently viewed as broader than specific thoughts. It is rather viewed as a general outlook or lens through which one sees and interprets the world and oneself. Optimism is defined by the Oxford Dictionary as "an inclination to hopefulness and confidence … the theory that good must ultimately prevail over evil in the universe." (Oxford Dictionary and Thesaurus, 1996, p. 1046).

How it has been conceived and operationally defined by researchers is far more complex. One aspect that has received attention is whether optimism is a unipolar construct, in which the opposite of optimism is a lack of optimism, or a bipolar construct, in which the opposite of optimism is pessimism (Garber, 2000). Another significant aspect involved in the operational definition of optimism is whether it is viewed as a set of expectancies about the future, generally referred to as dispositional optimism, or as a style of explaining life events, generally referred to as attributional optimism (Garber, 2000; Gillham, Shatte, Reivich, & Seligman, 2002). A third factor that has been considered is whether optimism is a general cognitive style or is domain specific (Garber, 2000). Research focused on optimism in children is reviewed below, with studies focused on dispositional optimism included first followed by studies focused on attributional optimism.

Dispositional Optimism

Fischer and Leitenberg (1986) conducted one of the earliest studies of child optimism. These researchers administered the Generalized Expectancy for Success Scale (GESS; Fibel & Hale, 1978) as a measure of optimism and pessimism, as well as self-report measures of self-esteem, and popularity to 583 fourth, fifth, and sixth grade students. Factor analysis indicated that optimism and pessimism were two unique factors rather than polar opposites of one factor. No significant age or sex differences were found for optimism or pessimism. While both optimism and pessimism were significantly related to self-esteem, the relationship to pessimism was more significant.

To examine the role of dispositional optimism, hope, and self-esteem in relationship to adolescent substance abuse, researchers recruited 1,985 middle school students who completed an adaptation of the Life Orientation Test (LOT; Scheier & Carver, 1985), which is a measure of dispositional optimism, the Children's Hope Scale (Snyder et al., 1997), as well as self-report measures of self-esteem, prior substance use,

and attitudes about substance abuse (Carvajal, Clair, Nash, & Evens, 1998). Utilizing multiple regression analyses to control for demographic variables, the researchers found that optimistic adolescents reported significantly less alcohol, cigarette, and marijuana use. Adolescents who reported more hope and higher levels of self-esteem also reported significantly less substance use. However, when all three factors were considered simultaneously, only optimism and hope continued to significantly predict substance use. Additional hierarchical regression analyses were conducted to examine the role of optimism, hope, and self-esteem as possible protective factors. The researchers found that all three factors functioned as protective factors across all demographic groups.

In a study of 624 adolescents between the ages of 14 and 19, researchers examined the relationship between adolescent optimism and depression, coping, anger, and life events (Puskar et al., 1999). Participants completed the Life Orientation Test – revised (Scheier, Carver, & Bridges, 1994) as a measure of dispositional optimism, as well as self-report measures of depression, coping, anger, and life events. The researchers found that more optimistic adolescents reported significantly fewer symptoms of depression, less avoidant coping, less anger, and fewer negative life events.

In a study of 81 mothers and their 8 and 12-year-old children, Hasan and Power (2002) found that mothers' pessimism, depressive symptoms, and parenting style were significantly related to the level of optimism reported by their children. Mothers in this study completed self-report measures of maternal dispositional optimism/pessimism (LOT; Scheier &Carver, 1985), maternal depression, and parenting practices, while children completed self-report measures of child dispositional optimism/pessimism (an adapted version of the Generalized Expectancy for Success Scale; Fischer & Leitenberg, 1986) and child depression. Results indicate that child pessimism was significantly related to maternal pessimism, though child and mother optimism were not significantly related. In addition, maternal depression was negatively related to child optimism. Mothers who reported granting more autonomy to their children, had children who were

more optimistic, less pessimistic, and reported fewer symptoms of depression. Multiple regression analyses were conducted to identify variables that predicted child optimism, pessimism, and child depression. These analyses indicated that mothers who reported being moderately controlling of their children had children who reported the highest level of optimism.

In a study examining the relationship between various personality traits and adolescent academic performance, researchers recruited 220 seventh grade students and 290 tenth grade students to complete a personality inventory and obtained grade point average (GPA) information for each student (Lounsbury, Sundstrom, Loveland, & Gibson, 2003). The personality inventory used, the Adolescent Personal Style Inventory (APSI; Lounsbury, Tatum, et al., 2003), measured openness, conscientiousness, extraversion, agreeableness, and emotional stability. In addition, this assessment instrument also included subscales for aggression, dispositional optimism, tough-mindedness, and work drive. The seven item subscale for optimism was adapted from an adult version. The researchers found that adolescent academic performance was significantly related to each of these personality factors and this held for both seventh and tenth grade students. Thus students who were more open, conscientious, extraverted, agreeable, emotionally stable, optimistic, and driven, as well as less aggressive and less tough-minded had significantly higher GPAs. The highest correlations with GPA were work drive for seventh graders and aggression for tenth graders. Although optimism was significantly correlated with adolescent GPA for both seventh and tenth grade students, no additional analyses were conducted to examine whether optimism contributed uniquely to the prediction of adolescent GPA above and beyond other personality traits.

Ben-Zur (2003) conducted a two part study examining the relationship between adolescent mastery, adolescent optimism, and the quality of the parent-child relationship on adolescents' subjective well-being. In the first phase of the study, self-report measures of positive and negative feelings, perceived mastery, dispositional optimism,

and social desirability were completed by 97 university students and 185 adolescents between the ages of 15 and 17. The Life Orientation Test (Scheier &Carver, 1985) was used as the measure of dispositional optimism. This researcher found a significant positive relationship between positive affect and optimism and mastery, as well as a significant negative relationship between negative affect and optimism and mastery for both age groups. In addition, hierarchical regression analyses indicated that optimism and mastery each made a unique positive contribution to the prediction of positive affect and a unique negative contribution to the prediction of negative affect.

In the second phase of the study, self-report measures of positive and negative feelings, life satisfaction, perceived mastery, dispositional optimism, social desirability, and parent-child relationship quality were completed by 121 adolescents between the ages of 15 and 19 and both of their parents. This researcher found a significant positive relationship between all measures of subjective well-being (positive affect, low negative affect, and life satisfaction) and adolescent optimism and mastery. The same pattern was also seen for parents. Results indicate that these relationships may vary. Significant correlations were found between adolescents' and fathers' affect and life satisfaction and adolescents' and mothers' life satisfaction, but not affect. However, neither parental optimism nor mastery was significantly related to adolescent optimism or mastery. Parent-child relationship quality was significantly related to adolescent reports of subjective well-being, as well as their reports of optimism and mastery. Hierarchical regression analyses indicated that adolescent optimism and mastery function as mediators in the relationship between parent-child relationship quality and adolescents' reported subjective well-being.

In a study of the role of dispositional optimism in adolescent academic stress, Huan, Yeo, Ang, and Chong (2006) obtained self-report measures of the two variables from 430 youth between the ages of 13 and 16 years of age. The researchers utilized the Life Orientation Test (Scheier &Carver, 1985) as their measure of dispositional

optimism. Findings indicate that dispositional optimism had a significant negative relationship to academic stress. Thus, adolescents who generally expected positive future outcomes reported significantly less academic stress than their less optimistic peers.

Attributional Optimism

Unlike dispositional optimism's focus on expectations of future outcomes, attributional optimism is related to the explanations we use to account for positive and negative life experiences. Seligman (1998) identifies and describes three primary aspects of attributions that are significant, including permanence, pervasiveness, and personalization. With regards to permanence, Seligman describes optimistic individuals as explaining negative life events as less permanent and more transitory and positive life events as more permanent. By contrast, pessimistic individuals believe negative life events persist over a long period and positive life events are transitory or short lived. For example, an optimistic child that did poorly on a math test might say, "I didn't do well on this math test", while a pessimistic child might say, "I never do well on math tests". An optimistic child that did well on the math test might say, "I always do well on math tests", while a pessimistic child might say, "I studied hard for this math test".

The second attributional characteristic described by Seligman, pervasiveness, refers to how universal or specific an event is perceived to be. Optimistic individuals tend to view negative life events as specific or circumspect in nature and positive life events as universal. Pessimistic individuals, on the other hand, tend to view negative life events as universal and positive life events as circumspect. For example an optimistic child who failed a math test might say, "I didn't do well on this math test", while a pessimistic child might say, "I'm stupid". By the same token, an optimistic child who did well on the math test might say, "I'm smart", while a pessimistic child might say, "I did well on this math test".

The third characteristic identified and described by Seligman, is personalization, which refers to whether one views the cause of events as arising from inside or outside the individual. To return to the failed math test, an optimistic child might say, “That was a very hard test”, while the pessimistic child might say, “I’m not good at math”. The optimistic child that did well on the math test might say, “I am talented in math”, while the pessimistic child might say, “The test was easy” or “I made some lucky guesses”.

While the vast majority of research examining the relationship between depression and attributional optimism/explanatory style was conducted with adults, researchers began to examine this relationship in children in the mid 1980’s. Seligman, Peterson, Kaslow, Tanenbaum, Alloy, and Abramson (1984) examined the appropriateness of the helplessness theory of depression for children and adolescents. In this theory, a style of explaining negative events as global, stable, and arising from internal causes places one at significantly increased risk for developing depressive symptoms. These researchers also examined the relationship between parental attributional style and symptoms of depression and those of their children. Ninety-six children between the ages of 8 and 13 completed self-report measures of depression and attributional style at initial data collection and again at 6 month follow-up. Parents completed self-report measures of their own depressive symptoms and attributional style shortly following the children’s follow-up assessment. The researchers found that a pessimistic attributional style for negative events was significantly related to symptoms of depression in children at time one and continued to predict child depression at 6 month follow-up even when initial levels of depression were statistically controlled. A significant relationship was also found between depression and children who attributed positive events to short-lived, specific, external causes, though attributions for positive events did not appear to be predictive of depression at 6 month follow-up when initial level of depression was controlled. With regards to the relationship between parent and child attributional style and depressive symptoms, mothers’ attributional style for

negative events was significantly related to and their child's attributional style for negative events and their child's level of depression. Mother and child depressive symptoms were also significantly related. No significant relationship was found between father and child attributions or depressive symptoms.

Extensions of the helplessness theory of depression described in Abramson, Metalsky, and Alloy (1989) posit that individuals with a more pessimistic attributional style are at increased risk of depression when faced with negative life events. This theoretical extension of the helplessness theory of depression is referred to as the hopelessness theory of depression.

In an attempt to determine the role of optimist and pessimistic attributional style in the relationship between child sexual abuse, shame, and child adjustment, Feiring et al. (2002) collected self-report measures of general attributional style, abuse specific attributions, shame, self-esteem, depression, and post traumatic stress disorder (PTSD) from 147 youth between the ages of 8 and 15 who were recently discovered to be the victims of sexual abuse. These measures were completed again at one year follow-up. In addition to the self report measures, the researchers completed a checklist of severity of abuse based on a review of records. The researchers found that general attributional style moderated the relationship between abuse severity and child adjustment. When general attributional style was highly pessimistic, youth who experienced more severe abuse had more depressive symptoms and lower self-esteem at one year follow-up. This relationship between abuse severity and child adjustment was not found for youth who were more optimistic.

Researchers interested in protective factors for adolescent suicide risk collected self-report data on likelihood of committing suicide, depression, hopelessness, religiosity, social support, and attributional style from 1,098 high school students (Greening & Stoppelbein, 2002). The measure of attributional style used in this study was the Children's Attributional Style Questionnaire (CASQ; Seligman et al., 1984). The

researchers found that attributional style was significantly related to adolescents' perceived risk of suicide, depression, hopelessness, and religiosity. Adolescents who were more optimistic in their attributional style reported significantly less chance of committing suicide, fewer symptoms of depression, and less hopelessness, and were significantly more intrinsically religious and attended significantly more religious services than more pessimistic adolescents.

In a study of the relationships between attributional style, family stability, negative life events, and depression, researchers collected self-report measures of these four variables from 158 undergraduate students (Ivanova & Israel, 2005). The measure of optimistic attributional style utilized was the Attributional Style Questionnaire (ASQ; Peterson, Semmel, Von Bayer, Abramson, Metalsky, & Seligman, 1982). The researchers found that pessimistic attributional styles did not moderate the relationship between negative life events and symptoms of depression, but rather exerted a direct and significant affect on depression symptoms. Family stability was identified as a moderating factor in the relationship between pessimistic attributional styles and depression, such that high family stability protected against depressive symptoms in individuals with highly pessimistic attributional styles.

In a longitudinal study of the relationship between peer rejection and adolescent depressive symptoms, researchers found that attributional style played an important role in this relationship. Prinstein and Aikins (2004) collected data on attributional style, peer importance, and symptoms of depression through self-report measures completed by 158 10th grade students. Peer acceptance and rejection were assessed by a peer nomination system. Depressive symptoms were assessed again at a 17 month follow-up. The researchers found that optimistic attributional styles at time one were associated with significantly fewer depressive symptoms 17 months later. For girls with pessimistic attributional styles, peer rejection predicted depressive symptoms at follow-up, while no

significant relationship was found between peer rejection and later depressive symptoms for girls with optimistic attributional styles.

Rodriguez (2006) examined child attributional optimism's role in the relationship between parental child abuse risk and child internalizing symptoms. Seventy-five parent-child dyads participated in this study and child participants were between 8 and 12 years of age. Parents completed self-report measures of potential for child abuse, parent-child conflict tactics, and parenting style, while children completed self-report measures of internalizing symptoms and attributional style. Using structural equation modeling, this researcher found both a direct and indirect relationship between parental abuse potential and child symptoms of anxiety and depression, with child attributional style for positive events as a partial mediator. This finding indicates that parents reporting higher levels of abuse potential have children who are more anxious and depressed and that this relationship is due in part to the more pessimistic explanations children of such parents tend to make about positive events.

In a study of the cross-sectional and longitudinal correlates of adolescent attributional style, Schwartz, Kaslow, Seeley, and Lewinsohn (2000) collected self-report data on attributional style, depression, suicidal ideation, self-esteem, pessimism, coping skills, social competence, parent-child conflict, family social support, and friends' social support from 841 high school students. The same measures were completed again at one year follow-up. The researchers found that optimistic attributional styles were associated, both cross-sectionally and longitudinally, with lower depression, less suicidal ideation, higher self-esteem, lower dispositional pessimism, more coping skills, better social competence, less parent-child conflict, and more social support from friends and family. In addition, adolescents with either significantly optimistic or significantly pessimistic attributional styles maintained relatively consistent in their attributional styles at one year follow-up.

However, these researchers also examined more closely the characteristics of adolescents whose attributional style fluctuated between the initial data collection and one year follow-up. This examination found that adolescents whose attributional style switched from optimistic to pessimistic were significantly more depressed and reported more dispositional pessimism at time one than their consistently optimistic peers. In contrast, adolescents whose attributional style switched from pessimistic to optimistic only showed improvements at one year follow-up in coping skills. The authors noted the need for further research examining the causal pathways by which attributional styles change from optimistic to pessimistic and from pessimistic to optimistic.

Spence, Sheffield, and Donovan (2002) examined the roles of problem-solving and attributional style in the relationship between negative life events and depression in a sample of 733 adolescents between the ages of 12 and 14. Adolescents completed self-report measures of depression, social problem-solving, attributional style, and negative life events, both at time one and at 12 month follow-up. The researchers found that an interaction between negative life events and attributional style predicted depression levels cross-sectionally, such that adolescents who experienced more negative life events and tended to have a pessimistic attributional style reported significantly more depressive symptoms than their peers. However, this interaction did not predict changes in depressive symptoms over time. Rather, attributional style at time one appeared to have a direct effect on depressive symptoms at follow-up, with pessimistic adolescents reporting more symptoms of depression 12 months later. In addition, an interaction between negative life events and negative problem solving orientation, a measure of thoughts and feelings believed to inhibit adaptive problem solving, was found to predict adolescent depressive symptoms both cross-sectionally and at 12 month follow-up. Unlike attributional style, which had a direct relationship with adolescent depression, neither negative life events nor negative problem-solving orientation had a direct relationship to adolescent depressive symptoms cross-sectionally or at 12 month follow-up.

To examine the stability of attributional style in children and adolescents, one study collected data from 100 youth between the ages of 7 and 17 who were hospitalized for psychiatric reasons (Voelz, Walker, Pettit, Joiner, & Wagner, 2003). These youth completed self-report measures of depression and attributional style at the time of admission and again at discharge. The length of stays ranged between 2 and 24 days. The researchers found that pessimistic attributional style and self-reported depression were significantly related at both admission and discharge, further supporting the relationship between attributional style and depression symptoms in youth. In addition, the researchers compared changes in attributional style between admission and discharge, controlling for depressive symptoms at both time points and found no significant changes in attributional style between admission and discharge. This finding is particularly significant considering that the sample showed a significant decrease in depressive symptoms from admission to discharge and all participants' depression ratings were within the normal non-clinical range at the time of discharge. This finding lends support to the stability of attributional styles and the role of pessimistic attributional styles as a vulnerability factor for depression.

In a study of the relationships between attributional style, depression, anxiety, and demographic variables researchers had 425 youth between the ages of 11 and 18 provide demographic information and complete self-report measures of anxiety, depression, and attributional style (Waschbusch, Sellers, LeBlanc, & Kelley, 2003). The researchers found that depression was significantly related to a helpless attributional style and that this relationship was likely moderated by demographic variables including gender, SES, and race. With regards to gender, boys tended to have more helpless attributions than girls, especially for negative events. Although both boys and girls experiencing greater depressive symptoms reported more helpless attributions, boys who experienced anxiety were also more likely to make helpless attributions. However, girls experiencing only anxiety did not make significantly more helpless attributions. Thus, the relationship

between anxiety and helpless attributions appears to vary based on gender. With regards to SES, high SES participants reporting significant depression symptoms, but not anxiety, tended to report significantly more helpless attributions. However, helpless attributions were not significantly related to depression symptoms in low SES participants. In addition, high SES participants reporting significant anxiety symptoms, but not depression, were significantly more likely to report helpless attributions to negative events and significantly less likely to report helpless attributions to positive events than low SES participants. This finding is somewhat surprising, because it appears to indicate that youth from high SES families may be at greater risk of forming helpless attributions to negative than their lower SES counterparts. The authors speculated that youth from a lower SES background may encounter negative outcomes more often than youth from a higher SES backgrounds and that the difference may reflect a healthy adaptation to those experiences. With regards to race, Caucasian youth reported significantly more helpless attributions than did African-American youth and this finding was even more significant in the case of attributions to negative events. Similar to their hypotheses about differences between SES groups, the authors suggested that African-American youth may be exposed to more negative life events and their lower endorsement of helpless attributions may represent and positive adaptation to such adversity.

A further extension of the hopelessness theory of depression, Cole and Turner (1993) suggested that during early and middle childhood, attributional optimism may mediate rather than moderation the relationship between negative life events and child depression. To evaluate this theory, Gibb and Alloy (2006) conducted a longitudinal study of 415 children in 4th and 5th grades. Child participants completed self-report measures of verbal victimization, attributional optimism, and depression symptoms. Results suggested that attributional optimism partially mediated the relationship between verbal victimization and changes in depression symptoms at six month follow up. In addition, initial depression symptoms predicted negative changes in attributional

optimism. Although results supported the role of attributional optimism as a mediator in the relationship between verbal victimization and child depression, researchers also found support for attributional optimism as a moderator of this relationship in 5th grade, but not 4th grade children.

Research in the area of child optimism has found that optimistic children are significantly less likely to experience depression and that child optimism acts as a protective factor against child adjustment problems associated with certain negative life events. Studies indicate that demographic variables may moderate the relationship between child optimism and depression. They also support the view of optimism as a relatively stable variable across time. This area of research has included both cross-sectional and longitudinal studies and has examined child optimism in a wide range of age groups. Child optimism research has been conducted predominantly with self-report measures. Examination of the role optimism may play in buffering children from future mental health difficulties continues to be warranted. In addition, examination of the relationship between child optimism and children's cognitions about their actual life events, rather than generic examples of possible events, may provide more information about how optimism functions in the real world. Continued efforts to develop, refine, and study prevention programs that foster and develop child optimism are important. Such programs may provide a means by which to avert the negative affects of certain life events and future episodes of depression.

Summary

In summary, when the research in the area of interparental conflict and child outcomes is examined, the complexity of this relationship becomes readily apparent. Although it is clear that children exposed to large amounts of interparental conflict are more likely to experience adjustment problems than children who are exposed to very little interparental conflict, many factors other than the frequency of conflict influence the

relationship between interparental conflict and child adjustment. Factors related to the nature of the conflicts, cultural differences, child specific variables, family level variables, and parent specific variables all appear to affect the relationship between interparental conflict and child adjustment. Factors directly related to the conflict, such as the content of interparental conflicts, the tactics used during the conflict, and the manner in which conflicts are resolved all play a significant role. Interparental conflicts about child and family related issues are associated with higher levels of child aggression and greater risk that the child will become actively involved in the conflict (Cummings et al., 2004; Shelton et al., 2006). Interparental conflict that is characterized as mutually hostile or overtly negative is associated with significant externalizing symptoms in children, while conflict that includes avoidant or covert conflict styles is significantly related to internalizing symptoms in children (Katz & Gottman, 1993; Buehler et al., 1998). The research also indicates that verbal or physical aggression in interparental conflict may be related to both internalizing and externalizing symptoms in children (Radovanovic, 1993).

The manner in which parents conclude conflict has also been found to be potentially significant for child outcomes. Exposure to conflict that ends without resolution has been found to leave children experiencing significantly higher levels of anger, sadness, and fear and leaves children anticipating more negative interactions (El-Sheikh & Cummings, 1995; El-Sheikh et al., 1996; Cummings, Wilson et al., 2003). In contrast, exposure to resolved conflicts is related to lower levels of distress during future conflicts and higher expectations that conflicts will be resolved (El-Sheikh et al., 1996).

Cultural factors such as race, ethnicity, and socioeconomic status have received little attention in the empirical research regarding interparental conflict and child outcomes; however, the research to date indicates that cultural differences may play a significant role in the relationship between interparental conflict and child adjustment. Although interparental conflict has been associated with adjustment problems in children

with different racial, ethnic, and socioeconomic backgrounds, the research suggests that the strength of this relationship and the pathways by which interparental conflict affects child adjustment may vary based on cultural factors (Cummings, Wilson et al., 2003; Parke et al., 2004; Buehler & Gerard, 2002).

Family factors such as parent-child relationship quality and family interactions patterns have also been identified as important. The research examining the relationship between parental relationship quality and parent child relationship quality predominantly supports the spillover hypothesis. Lower levels of marital satisfaction and higher levels of interparental conflict are associated with more negative parent-child interactions and lower reported parent-child relationship quality (Kerig et al., 1993; Erel & Burman, 1995; Krishnakumar & Buehler, 2000). Parent-child relationship factors including parent rejection, parent hostility, negativity, inconsistent parenting, lax parenting, harsh discipline, and parental involvement, have been identified as mediators in the relationship between interparental conflict and child adjustment (Mann & MacKenzie, 1996; Harold et al., 1997; Buehler & Gerard, 2002; Jones et al., 2003; El-Sheikh & Elmore-Staton, 2004). In addition, parent-child relationship factors such as parent-child conflict, parent hostility, and secure attachment have been found to moderate the relationship between interparental conflict and child adjustment (Gordis et al., 2001; El-Sheikh and Elmore-Staton, 2004). The research in this area suggests that close father-child relationships may serve as a protective factor in the relationship between interparental conflict and child adjustment, while close sibling relationships may increase negative interpretations of interparental conflict (Grych et al., 2004). In addition, the extent to which adolescents are drawn into interparental conflict may mediate the relationship between interparental conflict and adolescent adjustment (Grych et al., 2004).

The psychological well being of parents has also been identified in the research as an important factor in the relationship between interparental conflict and child adjustment. Parental psychological symptoms, including hostility, anxiety, and

depression, have been identified as mediators the relationship between marital distress and child adjustment problems (Papp et al., 2004).

Child related factors, including child age, gender, and children's cognitive appraisals, have received considerable attention by researchers. Regarding child age, research suggests that younger children may experience more internalizing and externalizing symptoms as a result of interparental conflict than older children (Mahoney et al., 1997; Buehler et al., 1998). However, the role of child age as a moderator in this relationship is likely to be complex and related to a variety of other variables, such as child gender, parent-child relationships, and child cognitions. Findings regarding the role of child gender in the relationship between interparental conflict and child outcomes have generally indicated that both boys and girls exposed to similar levels of interparental conflict experience similar outcomes (Buehler et al., 1997, Buehler et al., 1998). However, research in this area also suggests that the factors that mediate and moderate the relationship between interparental conflict and child adjustment may be different for girls and boys. For example, one study found no significant difference in the relationship between mother-reported interparental conflict and child adjustment between boys and girls, but did find that this relationship was mediated by appraisals of self-blame in girls and by appraisals of threat in boys (Cummings et al., 1994). As a second example, one study found that the pathway from marital conflict to adolescent maladjustment as mediated by parent-child conflict was significantly stronger for girls than boys. This finding supported the case that marital conflict may have more detrimental effects for parent-daughter relationships than for parent-son relationships and indicating that the mediators by which interparental conflict affects sons and daughters may vary (Buehler & Gerard, 2002). These examples demonstrate that although boys and girls may experience similar outcomes, the pathways by which they reach those outcomes may vary. This fact is significant because it suggests that effective points of intervention may differ for boys and girls. With regards to children's cognitive appraisals, the research

strongly indicates that child appraisals of threat and self-blame play a significant role in the relationship between interparental conflict and child outcomes. Most of this research has identified these types of cognitive appraisals as mediators in this relationship (Cummings et al., 1994; Grych, Fincham et al., 2000; Grych et al., 2003). However, some research has found these appraisals function as moderating variables (El-Sheikh & Harger, 2001). Although child cognitive appraisals play a significant role in global child adjustment, the relationship between appraisals and child internalizing and externalizing symptoms is complex. The research has not been conclusive with regard to which types of cognitive appraisals mediate the relationship between interparental conflict and internalizing and externalizing symptoms separately.

Research on interparental conflict and child adjustment has begun to examine a broad range of factors that may influence this relationship. However, research in this area has generally relied heavily on cross-sectional studies using self-report measures. The significant reliance on this type of methodology continues to be a limitation in this body of research. In addition, research in this area has generally utilized a relatively narrow range of ages and has a limited number of longitudinal studies. Gaining a broader understanding of the effects of interparental conflict with children of different ages, as well as the factors that may mediate or moderate these effects over the course of development is important because it may have direct implications for intervention.

The second area of research reviewed was child optimism. Examination of the research in the area of child optimism indicates that there are promising findings related to prevention and possible intervention in child depression. The research generally indicates that children who are more optimistic are less likely to experience depression and that child optimism acts as a protective factor against child adjustment problems associated with certain negative life events (Puskar et al., 1999; Seligman et al., 1984; Schwartz et al., 2000; Greening & Stoppelbein, 2002; Ivanova & Israel, 2005; Feiring et al., 2002; Prinstein & Aikins, 2004; Spence, et al., 2002). These findings are congruent

with the hopeless theory of depression in which pessimistic attributional style places individuals at greater risk for depression, especially when faced with negative life events (Seligman et al., 1984; Abramson, Metalsky, & Alloy, 1989). Studies indicate that demographic variables may moderate the relationship between child optimism and depression (Waschbusch et al., 2003).

Research in this area has used a wide range of ages and both cross-sectional and longitudinal designs. However, this area of research has widely relied on self-report measures using imagined circumstances. Examination of the relationship between child optimism and child's cognitions about their actual life events, rather than generic examples of possible events, may provide more information about how optimism functions in the real world.

Given the well researched relationship between interparental conflict and child adjustment problems, as well as the research identifying child optimism and a protective factor in the relationship between negative life events and child adjustment, the present study seeks to understand how child optimism may be related to interparental conflict and child outcomes. To examine how these areas of interparental conflict and child optimism may be related, recall the child cognitions found to be significant in predicting outcomes for children exposed to interparental conflict. These cognitions included threat and self-blame. When examined from the perspective of optimism, assessment of threat of interparental conflict is a specific example of an expectation of negative future outcomes. Given that dispositional optimism is a general belief in positive future outcomes, it appears possible that children with higher levels of dispositional optimism may be less likely to expect negative future outcomes from exposure to interparental conflict. With regards to appraisals of self-blame, these cognitions are a specific example of appraisals of a negative-life event as being internally caused. Given that attributional optimism is the view of negative events as being unstable, specific, and externally caused, more optimistic children may be less likely to interpret interparental conflict as being their

fault. Although this explanation provides one possible relationship between these variables, it is important for research to first examine whether child optimism is in fact related to interparental conflict and child adjustment.

Research Questions

This study has two primary research questions. First, what role, if any, does child optimism have in the relationship between interparental conflict and child adjustment? More specifically, does child optimism mediate or moderate the relationship between interparental conflict and child adjustment?

Second, is child optimism negatively associated with child appraisals of threat and self-blame regarding interparental conflict?

These research questions are important to answer because understanding the role of child optimism in the relationship between interparental conflict and child adjustment may provide a means of prevention and intervention for children whose parents are engaged in high levels of interparental conflict. Child optimism has been found to function as a protective factor in the relationship between certain negative life events and child adjustment problems. Research has shown that although an interaction between negative life events and low levels of child optimism predicts current levels of child depression, over time low levels of child optimism predict child depressive symptoms regardless of the level of negative life events (Spence et al., 2002). In addition, research has shown that it is possible to teach some child to be more optimistic (Gillham, Hamilton, Freres, Patton, & Gallop, 2006). Determining if child optimism functions as a mediator or moderator in the relationship between interparental conflict and child adjustment is important because it provides a possible point of intervention to improve outcomes for children whose parents engage in significant interparental conflict.

CHAPTER II

METHODS

Subjects

Table 1 contains information on the demographic characteristics of participants in this study. Participants consisted of 36 children (18 boys, 18 girls) and one parent for each participating child. Child participants ranged in age from 9 to 12 years (*M* = 10.37, *SD* = 0.82) while parent participants ranged in age from 29 to 44 years (*M* = 36.28, *SD* = 4.10). Participants were recruited by letters sent home with children enrolled in after school care at their elementary school, as well as through flyers distributed at community events in a large Southwester city. Of the 78 packets distributed to through the after school care, 19 were returned completed and an additional 5 were returned with indication that eligibility requirements were not met. Participating parents consisted entirely of biological mothers. Sixty-seven percent of children resided in homes with both their biological parents and 33% resided in homes with their biological mother and their mothers' partner or spouse that was not the child's biological parent. Eighty-three percent of mothers were married, while 17% were living with male partners but were unmarried. Seventy-eight percent of participants were Caucasian, 14% Hispanic, 5% African-American, and 3% Asian-American. The percentage of participants in each income range were as follows, 22% between $20,000 and $34,999, 25% between $35,000 and $49,999, 28% between $50,000 and $74,999, 22% between $75,000 and $99,999, and 3% over $99,999.

Measures

Interparental Conflict

To assess exposure to interparental conflict and appraisals regarding interparental conflict, children completed the Children's Perception of Interparental Conflict Scale (CPIC; Grych et al., 1992). This measure is widely used by researchers examining interparental conflict and child adjustment. It consists of 51 statements that children are

Table 1:

Demographic Information

		M	*SD*
Age	Child Age	10.37	0.82
	Parent Age	36.28	4.10
		N	%
Child Gender	Male	18	50
	Female	18	50
Race Ethnicity	Caucasian	28	78
	Hispanic	5	14
	African-American	2	5
	Asian-American	1	3
Household Income	Less than $20,000	0	0
	$20,000-$34,999	8	22
	$35,000-$49,999	9	25
	$50,000-$74,999	10	28
	$75,000-$99,999	8	22
	$100,000 or more	1	3
Family composition	Biological Mother and Biological Father	24	67
	Biological Mother and Mother’s Partner/Spouse	12	33

asked to respond to by circling “True”, “Sort of True”, or “False.” Each response is assigned a score between 0 and 2, with higher scores indicating more negative conflict or appraisal. Item scores are summed for each subscale. The measure consists of three subscales, including the Conflict Properties scale, the Perceived Threat scale, and the Perceived Self-Blame scale and 11 non-scored items. The Conflict Properties scale consists of 19 items assessing the frequency, intensity, and resolution of interparental conflict and includes items such as “I often see or hear my parents arguing.” The Perceived Threat scale consists of 12 items assessing the extent to which children feel threatened or unable to cope with interparental conflict and includes items such as “When my parents argue I'm afraid that something bad will happen.” The Perceived Self-Blame scale consists of 9 items assessing the extent to which children feel responsible for interparental conflict and includes items such as “Even if they don't say it, I know I'm to blame when my parents argue.” Grych, Seid, and Fincham (1992) identified all three subscales as reliable based on internal consistency and test-retest reliable in two samples. Grych et al. (1992) found that the Conflict Properties scale had an internal consistency of .90 and .89 in their two samples and a two week test-retest reliability of .70. The Perceived Threat scale had an internal consistency of .83 in both samples tested in Grych et al. (1992) and a two week test-retest reliability of .68. The same study found that the Perceived Self-Blame scale had an internal consistency of .78 and .84 in the two samples tested and a test-retest reliability of .76. With regards to convergent validity, responses to this measure have been correlated with responses to two well established measures of parent-reported interparental conflict, the Conflict Tactics Scale (CTS; Straus, 1979) and the O’Leary Porter Scale (OPS; Porter & O’Leary, 1980). Significant relationships were found between the scores obtained from the CPIC Conflict Properties Scale and both the OPS [r (81) = .30] and CTS [r (78) = .39].

Dispositional Optimism

The Youth Life Orientation Test (YLOT: Ey et al., 2005) was used to measure dispositional optimism. The YLOT is a 14 item self-report measure of child optimism and pessimism modified from the adult measure of optimism, the Life Orientation Test – Revised (Scheier et al., 1994). Children are asked to rate "how true or not true each item is for you" on a four point scale including the options "not true for me (0)", "sort of not true for me (1)", "sort of true for me (2)", and "true for me (3)". The measure is composed of 6 items assessing optimism (e.g., "I usually expect to have a good day"), 6 items assessing pessimism (e.g., "When things are good, I expect something to go wrong"), and 2 filler items. This measure was developed for use with children as young as third grade and yields three scores, an optimism score, a pessimism score, and a total optimism score, which includs both optimism items and reverse scored pessimism items. Higher scores on the optimism and total optimism scales indicate higher levels of optimism, while higher scores on the pessimism scale indicate higher levels of pessimism. For the purpose of the present research, only the total optimism score was used. Ey et al. (2005) report all scales had an acceptable level of internal consistency, with the total optimism score yielding and alpha of .83. Test-retest reliability of the total optimism score over one month and seven months yielded correlations of .70 ($p < .0001$) and .50 ($p < .0001$) respectively (Ey et al., 2005). With regards to the convergent validity, a positive and moderate relationship was found between the total optimism score of the YLOT and the Children's Hope Scale (*rho* = .47, $p < .0001$; Snyder et al., 1997) and the Harter Self-Perception Profile for Children (*rho* = .47 - .48, $p < .0001$; Harter, 1985). The YLOT was also found to predict depression as measured by the CDI and anxiety as measured by the RCMAS over the course of a school year, with higher scores on the YLOT associated with significantly lower levels of depression and anxiety (Ey et al., 2005).

Attributional Optimism

To assess attributional optimism, the Children's Attributional Style Questionnaire-Revised (CASQ-R; Thompson, Kaslow, Weiss, & Nolen-Hoeksema, 1998) was used. This measure was revised and shortened from the original CASQ (Seligman et al., 1984), which consisted of 48 items designed to assess causal attribution styles of both positive and negative events. The CASQ-R includes 24 items and has been used primarily with children between the ages of 9 and 12. Each item provides a hypothetical situation and two possible explanations for the cause of the event. Participants are asked to select the explanation that best describes why they believe the event would have happened to them. The explanations provided vary on three dimensions, internality, stability, and globality. For each item, two dimensions are held constant, while the third is varied. One sample item that varies internality while holding stability and globality constant is as follows: "A good friend tells you that he hates you. (a) My friend was in a bad mood that day; (b) I wasn't nice to my friend that day". Eight items assess each of the dimensions while holding the others constant, four regarding positive events and four regarding negative events. A score of 1 is given to each response that is internal, stable, or global and a score of 0 is given to each response that is external, unstable, or specific. Scores are tallied separately for positive and negative events and the sum of the scores for negative events is subtracted from the score for positive events to obtain the overall score. Higher scores on the CASQ indicate a more optimistic attributional style. Seligman et al. (1984) found that there is a significant inverse relationship between CASQ scores and CDI scores. The CASQ-R total composite score has an internal consistency of .61, and obtained a test-retest reliability of .53 for the composite score over a six month period (Thompson et al., 1998).

Child Adjustment

To assess child internalizing and externalizing symptoms, parents were asked to complete the Child Behavior Checklist (CBCL; Achenbach, 2001). This measure is a widely used and well validated measure of child behavior problems. It contains 113 items describing youth internalizing (e.g., “cries a lot”) and externalizing (e.g., “agues a lot”) symptoms. Parents are asked to select whether each description is “Not True”, “Somewhat or Sometimes True”, or “Very True or Often True” of their child over the last 6 months. Every item marked as “Not True” receives a score of 0, while items marked as “Somewhat or Sometimes True” receive a score of 1 and items marked as “Very True or Often True” receive a score of 2. Item scores are summed to obtain two raw scores, one for internalizing symptoms and one for externalizing symptoms. Standardized *t* scores are calculated from the sum of raw scores for both internalizing and externalizing symptoms. Although the CBCL includes a number of subscales, only the internalizing and externalizing scales will be used in this study. Achenbach and Rescorla (2001) reported test-retest reliabilities for internalizing problems of .91 over 8 days, .80 over 12 months and .70 over 24 months, as well as test-retest reliabilities for externalizing problems of .92 over 8 days and .82 over 12 and 24 months. Achenbach and Rescorla (2001) also reported an internal consistency of .94 for internalizing behaviors and .90 for externalizing behaviors. With regards to convergent validity, Achenbach and Rescorla (2001) reported that a significant relationship between the internalizing and externalizing scales of the CBCL and the respective scales of the Behavior Assessment System for Children (Reynolds & Kamphaus, 1992).

Procedure

After obtaining approval by the Internal Review Board, parents were provided with packets including a letter introducing the study (See Appendix A), a parent-child informed consent document (See Appendix B), a sheet explaining the requirements to

participate (See Appendix C), an instruction sheet outlining the materials to be completed (See Appendix D), a demographic questionnaire (See Appendix E), and the Child Behavior Checklist. In addition a child assent document (see Appendix F) was included in the parent packet to allow parents the opportunity to explain and discuss participation in the study with their child. For participants recruited through after school programs, these packets were sent home with the identified child. For participants recruited through flyers (see Appendix G), these packets were provided to the parent directly. Parents were given the option of returning completed materials in a sealed envelope to the after school program or mailing the envelopes directly to the researcher with the stamped envelopes provided. Once parental consent was received, children were provided with study materials in their classroom at their after school program during regular program hours. Child participants were provided a demographic questionnaire (see Appendix H), the Youth Life Orientation Test, the Children's Attributional Style Questionnaire – Revised, and the Child Perceptions of Interparental Conflict Scale. The researcher reviewed the assent document and instructions for each of the measures with participants prior to beginning the study. Once materials were completed, all children were provided with a small prize valued under $3.00. All participating families were entered into a raffle to win a $20.00 gift certificate to a local book store.

CHAPTER III

RESULTS

Descriptive Statistics

Means, standard deviations, score ranges, and Cronbach's alphas for each of the measures are reported in Table 2. Mean scores on the Conflict Properties scale and the Perceived Threat scale of the CPIC were comparable to previous findings (Cummings et al., 1994). However, the Perceived Self-Blame scale of the CPIC had a somewhat higher mean in this sample (M = 3.33) than similar community samples (boys M = 2.85 and girls M = 2.16; Grych et al., 2000). Children in this sample also scored somewhat higher on measures of dispositional optimism (M = 28.53) than the sample reported by the developers of the measure (M = 24.85; Ey et al., 2005). However, Ey et al. (2005) utilized a sample of school children recruited through the use of passive parental consent and did not restrict participation based on family composition. Therefore, differences in mean dispositional optimism scores may be related to both differences in the populations being sampled and selection bias caused by parents being required to consent to and participate in the present study. Levels of attributional optimism in this study were comparable to those found in prior research (Thompson et al., 1998).

Research Question One

The first research question posed in this study is what role does child optimism have in the relationship between interparental conflict and child adjustment. To address this question, child optimism was examined as a possible moderating variable, as well as a possible mediating variable. To test for a moderating effect, hierarchical regression analyses were performed utilizing the method described in Fraiser, Tix, and Barron (2004). These authors describe a three step process for analyzing data for tests of moderation. The first step in this method requires categorical variables to be coded and

Table 2:

Descriptive Statistics for the Measures Employed Within the Study

	N	*M*	*SD*	Min	Max	Cronbach's α
Conflict Properties	36	9.69	9.11	0	31	.956
Perceived Threat	36	6.78	4.49	1	19	.832
Self-Blame	36	3.33	4.47	0	17	.929
Dispositional Optimism	36	28.53	7.18	11	36	.916
Attributional Optimism	36	4.39	3.86	-4	10	.692
Positive Attributions	36	7.61	2.13	2	11	.480
Negative Attributions	36	3.22	2.28	0	10	.610
Internalizing Symptoms	36	48.69	11.06	33	71	.885
Externalizing Symptoms	36	50.44	9.03	34	73	.890

Note: Conflict Properties, Perceived Threat, and Self-Blame are from the Children's Perception of Interparental Conflict scale; Dispositional Optimism is from the Youth Life Orientation Test; Attributional Optimism, Positive Attributions, and Negative Attributions are from the Children's Attributional Style Questionnaire – Revised; and Internalizing Symptoms and Externalizing Symptoms are from the Child Behavior Checklist.

Table 3:

Correlation Matrix

	CPIC			YLOT	CASQ-R	CBCL	
	CP	PT	PSB			INT	EXT
CPIC							
CP	--						
PT	.660***	--					
PSB	.668***	.645***	--				
YLOT	-.530***	-.680***	-.406*	--			
CASQ-R	-.490**	-.712***	-.452**	.838***	--		
CBCL							
INT	.349*	.402*	.013	-.622***	-.579***	--	
EXT	.461**	.611***	.670***	-.541***	-.514***	-.041	--

* p<.05. **p<.01. *** p<.005.

Note: CPIC = Children's Perception of Interparental Conflict Scale; CP = Conflict Properties Scale; PT = Perceived Threat Scale; PSB = Perceived Self-Blame; YLOT = Youth Life Orientation Test; CASQ-R = Children's Attributional Style Questionnaire – Revised; CBCL = Child Behavior Checklist; INT = Internalizing Symptoms; EXT = Externalizing Symptoms

Table 4:

Summary of Regression Analyses Testing for Moderation

	B	*SE B*	β	R^2
Internalizing Symptoms				
Block 1				
Attributional Optimism	-5.933	1.792	.086	
Conflict Properties	.956	1.792	-.537	.341
Block 2				
Attributional Optimism X Conflict Properties	-1.087	1.458	-.121	.352
Block 1				
Dispositional Optimism	-6.707	1.777	-.607	
Conflict Properties	.310	1.777	.028	.387
Block 2				
Dispositional Optimism X Conflict Properties	.041	1.449	.005	.387
Externalizing Symptoms				
Block 1				
Attributional Optimism	-3.429	1.485	-.380	
Conflict Properties	2.482	1.485	.275	.322
Block 2				
Attributional Optimism X Conflict Properties	-1.109	1.203	-.151	.339
Block 1				
Dispositional Optimism	-3.733	1.511	-.413	
Conflict Properties	2.185	1.511	.242	.335
Block 2				
Dispositional Optimism X Conflict Properties	-.776	1.225	-.113	.343

continuous predictor and moderator variables to be centered or standardized. All variables in the current study were continuous and both the predictor variable (i.e., interparental conflict) and moderator variables (i.e., dispositional optimism and attributional optimism) were standardized (i.e., the mean subtracted from the raw scores and then divided by the standard deviation). The second step in this method requires product terms be created. The standardized scores for the predictor variable, in this case, interparental conflict, were multiplied by the standardized scores for both of the moderator variables, in this case dispositional and attributional optimism, to create two product terms. The third step in this method is structuring the equation. Four equations were utilized to examine dispositional optimism and attributional optimism as moderators of child internalizing and externalizing symptoms. The first block included the standardized interparental conflict scores and the standardized optimism scores. The second block included the associated product term. Table 4 presents a summary of the hierarchical regressions used to test for moderation. In the current sample, no moderating effect of either attributional (B = -1.087, p = .461) or dispositional optimism (B = .041, p = .978) was found between interparental conflict and child internalizing symptoms. Similarly, no moderating effect of either attributional (B = -1.109, p = .364) or dispositional optimism (B = -.776, p = .531) was found between interparental conflict and child externalizing symptoms.

Regression analyses were also used to examine if child optimism mediated the relationship between interparental conflict and child internalizing and externalizing symptoms. Frazier et al. (2004), describe in detail the process outlined by Baron and Kenny (1986) for establishing a variable as a mediator using multiple regression analyses. This process is reviewed and then applied to the data in this study. There are four steps required to establish that a variable mediates the relationship between a predictor variable (e.g., interparental conflict) and outcome variable (e.g., child externalizing symptoms). First, there must be a significant relationship between the

predictor variable and the outcome variable to ensure that there is in fact a relationship that could be mediated. This requirement is tested by regressing the outcome variable on the predictor variable. Second, there must be a significant relationship between the predictor variable and the mediator variable. This requirement is met by regressing the mediator on the predictor variable. Third, there must be a significant relationship between mediator and the outcome variable. Fourth, there must be a significant reduction in the strength of the relationship between the predictor and outcome variables when the mediator is added to the model. Both the third and fourth requirements are met by regressing the outcome variable on both the predictor and the mediator variables (Frazier et al., 2004).

In the present study, regression analyses revealed a significant relationship between interparental conflict and child internalizing symptoms ($B = .424$, $p < .05$). Thus the first requirement for mediation was met. Table 5 presents a summary of the hierarchical regressions used to assess optimism as a mediator of child internalizing symptoms. Next, dispositional optimism was regressed on interparental conflict. A significant relationship was found between dispositional optimism and interparental conflict ($B = -.417$, $p \leq .001$). To meet the third and fourth requirements for mediation, internalizing symptoms were regressed on both interparental conflict and optimism scores. Scores from the Conflict Properties scale of the CPIC were entered in block one and scores of dispositional optimism as measured by the YLOT were entered in block two. The coefficient associated with the relationship between dispositional optimism and internalizing symptoms was significant ($B = -.935$, $p \leq .001$). The coefficient associated with the relationship between interparental conflict and internalizing symptoms, after controlling for dispositional optimism, was no longer significant ($B = .034$, $p = .863$). To examine the significance of this mediation effect, the method laid out in Baron and Kenny (1986) as well as Frazier et al. (2004) for obtaining a z-score of the mediated effect was used. Results indicated that dispositional optimism (z-score = 2.567, $p < .05$)

was a significant mediator in the relationship between interparental conflict and child internalizing symptoms.

The same process as described above was used to test for mediation effects of attributional optimism in the relationship between interparental conflict and child internalizing symptoms. As mentioned in the previous analysis, regression analyses revealed a significant relationship between interparental conflict and child internalizing symptoms ($B = .424$, $p < .05$). Thus the first requirement for mediation was met. Next, dispositional optimism was regressed on interparental conflict. A significant relationship was found between attributional optimism and interparental conflict ($B = -.208$, $p < .005$). To meet the third and fourth requirements for mediation, internalizing symptoms were regressed on both interparental conflict and optimism scores. Scores of interparental conflict were entered in block one and scores of attributional optimism as measured by the CASQ-R were entered in block two. The coefficient associated with the relationship between attributional optimism and internalizing symptoms was significant ($B = -1.536$, $p < .005$). The coefficient associated with the relationship between interparental conflict and internalizing symptoms, after controlling for attributional optimism, was not significant ($B = .105$, $p = .598$). To examine the significance of this mediation effect, the method laid out in Baron and Kenny (1986) as well as Frazier et al. (2004) for obtaining a z-score of the mediated effect was used. Results indicated that attributional optimism (*z*-score = 2.286, $p < .05$) was a significant mediator in the relationship between interparental conflict and child internalizing symptoms.

Regression analyses also revealed a significant relationship between interparental conflict and child externalizing symptoms ($B = .457$, $p \leq .005$). Thus the first requirement for mediation was met. Table 6 presents a summary of the hierarchical regressions used to assess optimism as a mediator of child externalizing symptoms. As previously mentioned, significant relationships between interparental conflict and

dispositional optimism (B = -.417, $p \leq .001$) and attributional optimism (B = -.208, $p <$ .005) were found.

To fulfill the third and fourth requirements for mediation, externalizing symptoms were regressed on both interparental conflict and optimism scores. With regards to dispositional optimism, scores from the Conflict Properties scale of the CPIC were entered in block one, while scores of dispositional optimism as measured by the YLOT were entered into block two. The coefficient associated with the relationship between dispositional optimism and externalizing symptoms was significant (B = -.520, $p < .05$). The coefficient associated with the relationship between interparental conflict and externalizing symptoms, after controlling for dispositional optimism, was not significant (B = .240, p = .158). With regards to attributional optimism, scores from the Conflict Properties scale of the CPIC were entered in block one, while scores of attributional optimism as measured by the total score on the CASQ-R were entered into block two. The coefficient associated with the relationship between dispositional optimism and externalizing symptoms was significant (B = -.887, $p< .05$). The coefficient associated with the relationship between interparental conflict and externalizing symptoms, while controlling for attributional optimism, was not significant (B = .272, p = .104). The significance of the mediation effect was tested. This analysis found that the mediation was significant at the $p < .05$ level for dispositional optimism (z-score = 1.987), but not for attributional optimism (z-score = 1.837, p = .066).

Research Question Two

The second aim of this study was to examine the relationship between optimism and child appraisals of threat and self-blame related to interparental conflict. It was hypothesized that both attributional and dispositional optimism would be negatively correlated with child appraisals of threat and self-blame. Pearson correlations for all study measures can be found in Table 2. Significant negative relationships were found

Table 5:

Summary of Regression Analyses with Optimism and Child Internalizing Symptoms

		R^2	Adjusted R^2	β	*t*	*F*	*df*
	Testing Step 1	.122	.096			4.730	1,34
	Outcome: Internalizing Symptoms						
	Predictor: Conflict Properties			.349*	2.175		
Dispositional Optimism	Testing Step 2	.281	.260			13.267	1,34
	Outcome: Dispositional Optimism						
	Predictor: Conflict Properties			-.530***	-3.642		
	Testing Step 3	.387	.350			10.413	2,33
	Outcome: Internalizing Symptoms						
	Mediator: Dispositional Optimism			-.607***	-3.775		
	Predictor: Conflict Properties			.028	.174		
Attributional Optimism	Testing Step 2	.240	.218			10.749	1,34
	Outcome: Attributional Optimism						
	Predictor: Conflict Properties			-.490***	-3.279		
	Testing Step 3	.341	.301			8.537	2,34
	Outcome: Internalizing Symptoms						
	Mediator: Attributional Optimism			-.537***	-3.310		
	Predictor: Conflict Properties			.086	.533		

*$p < .05$. **$p < .01$. *** $p < .005$

Table 6:

Summary of Regression Analyses with Optimism and Child Externalizing Symptoms

		R^2	Adjusted R^2	β	*t*	*F*	*df*
	Testing Step 1	.212	.189			9.169	1,34
	Outcome: Externalizing Symptoms						
	Predictor: Conflict Properties			.461***	3.028		
Dispositional Optimism	Testing Step 2	.281	.260			13.267	1,34
	Outcome: Dispositional Optimism						
	Predictor: Conflict Properties			-.530***	-3.642		
	Testing Step 3	.335	.295			8.322	2,33
	Outcome: Externalizing Symptoms						
	Mediator: Dispositional Optimism			-.413*	-2.470		
	Predictor: Conflict Properties			.242	1.445		
Attributional Optimism	Testing Step 2	.240	.218			10.749	1,34
	Outcome: Attributional Optimism						
	Predictor: Conflict Properties			-.490***	-3.279		
	Testing Step 3	.322	.281			7.833	2,33
	Outcome: Externalizing Symptoms						
	Mediator: Attributional Optimism			-.380*	-2.309		
	Predictor: Conflict Properties			.275	1.671		

* $p < .05$. ** $p < .01$. *** $p < .005$

between dispositional optimism and both appraisals of threat (r = -.680, p < .001) and appraisals of self-blame (r = -.406, p < .05). In addition, significant negative relationships were also found between attributional optimism and appraisals of threat (r = -.712, p < .001) and appraisals of self-blame (r = -.452, p < .05).

Summary of Findings

Results from this study indicated several notable findings regarding the relationships between interparental conflict, child optimism, cognitive appraisals of threat and self-blame, and child outcomes. First, no moderator role for optimism was found in the present sample. Counter to the hopelessness theory of depression, attributional optimism was not found to function as a moderator in the relationship between interparental conflict and child outcomes. Dispositional optimism also was not found function as a moderator in this sample. Second, results of this study support the role of optimism as a mediator in the relationship between interparental conflict and child outcomes. Specifically, dispositional optimism was found to function as a mediator in the relationship between interparental conflict and both internalizing and externalizing symptoms and attributional optimism was found to function as a mediator in the relationship between interparental conflict and child internalizing symptoms. The mediation effect for attributional optimism in the relationship between interparental conflict and child externalizing symptoms approached but did not meet significance. Third, a significant inverse relationship was found between appraisals of threat and self-balm and child attributional and dispositional optimism.

CHAPTER IV

DISCUSSION

A substantial body of research has found a significant relationship between interparental conflict and child outcomes. Recent research has focused primarily on factors that mediate or moderate this relationship. A number of factors including conflict specific factors such as frequency, content, and resolution of conflict; cultural factors such as SES and ethnicity; and family factors such as parent-child relationships and family interaction patterns, have been examined. Child specific factors, especially the role of child cognitive appraisals, have received significant attention. Researchers have found that child cognitive appraisals specific to interparental conflict mediate the relationship between interparental conflict and child adjustment (Cummings et al., 1994; Grych, Fincham et al., 2000; Grych et al., 2003).

Prior research has found evidence that children's level of optimism may be significantly related to child attributions specific to negative life events (Feiring et al., 2002). Optimism is a general outlook or lens through which one sees, anticipates, and interprets the world and oneself. Individuals with high levels of optimism tend to expect positive future outcomes and view positive events as internally caused and negative events as externally caused. Optimism in children has been linked to lower level of depression, higher levels of self-esteem, and a broader range of coping skills (Schwartz et al., 2000). The hopelessness theory of depression predicts individuals with low levels of optimism are at greater risk for developing depression when faced with negative life events (Abramson et al. 1989). However research in children has found conflicting results, with some studies supporting optimism as a moderating variable in the relationship between negative life events and child outcomes (Feiring et al., 2002; Joiner, 2000; Prinstein & Aikins, 2004), while others have supported optimism as a mediating variable (Gibb & Alloy, 2006; Cole & Turner, 1993). The present research explored the

relationship between optimism, interparental conflict, child cognitive appraisals of threat and self-blame, and child outcomes.

This study examined two research questions regarding the role of child optimism in the relationship between interparental conflict and child adjustment. First, what role does child optimism have in the relationship between interparental conflict and child adjustment? Of specific interest was whether child optimism functioned as a moderating or mediating variable. Regression analyses did not support optimism, either dispositional or attribution, as a moderator in the relationship between interparental conflict and child outcomes. Neither dispositional nor attributional optimism changed the strength or direction of the relationship between interparental conflict and child outcomes.

It should be noted that the present study could have failed to detect moderating effects due to low power. The relatively small sample size may not have provided sufficient power to detect a moderating effect between these variables. With regards to attributional optimism, measurement error related to the relatively low internal reliability of the CASQ-R (.692) may have further decreased power. Tests of moderation have the greatest power when the relationship between the predictor and outcome variables is substantial. Therefore, a third consideration regarding power is the moderate rather than robust correlation between interparental conflict and internalizing and externalizing symptoms found in this sample. Despite these limitations on power, it is also possible that optimism does not function as a moderating variable in the relationship between interparental conflict and child internalizing and externalizing symptoms.

Prior research on the role of optimism as a moderating variable between negative life events and adjustment have been mixed, with some studies identifying optimism as a moderator (Feiring et al., 2002; Joiner, 2000; Prinstein & Aikins, 2004) and others finding no moderating effect (Spence et al., 2002; Ivanova & Israel, 2005). The hopelessness theory of depression would suggest that individuals with a more pessimistic attributional style are at increased risk for experiencing depression in the face of negative

life events (Seligman et al. 1984; Abramson et al. 1989). However, some research suggests that optimism in children may mediate rather than moderate the relationship between negative life events and depression (Gibb & Alloy, 2006; Cole & Turner, 1993). Cole and Turner (1993) suggested that attributional styles in children may still be developing and thus may be influenced directly by negative life events, unlike adults, for whom research has generally supported the moderating role of attributional optimism.

Further research is needed to examining the role of optimism in the relationship between negative life events and internalizing and externalizing symptoms across the developmental spectrum. Longitudinal research examining changes in the role of optimism over time would be particularly helpful in clarifying conflicting findings.

Child optimism was also examined as a possible mediating variable in the relationship between interparental conflict and child adjustment. Both dispositional and attributional optimism were found to mediate the relationship between interparental conflict and child internalizing symptoms. Thus our data are consistent with a model in which frequent, intense, and unresolved interparental conflict results in lower levels of optimism in children, which in turn results in more symptoms of anxiety and depression in children. In addition, dispositional, but not attributional optimism, was identified as a mediator in the relationship between interparental conflict and child externalizing symptoms. This finding is consistent with a model in which frequent, intense, and unresolved interparental conflict leads children to develop more negative expectations of the future, which in turn results in more anger, rule-breaking, and aggression in children. The failure to find attributional optimism as a mediating variable between interparental conflict and child externalizing symptoms may be due in part to decreased power related to the small sample size and the attributional optimism measure's lower level of reliability as attributional optimism did approach significance as a mediator in this relationship. However, the results of this study do not support attributional optimism as a

mediator in the relationship between interparental conflict and child externalizing symptoms.

These findings are consistent with past research. Optimism has previously been found to mediate the relationship between negative life events and depression in children; however, externalizing symptoms were not examined (Brodhage & Wise, 2008; Clarke & Singh, 2005; Gibb & Alloy, 2006). As much of the optimism research springs from theories of depression, research on optimism has focused primarily on internalizing symptoms, while neglecting the possible relationships between optimism and externalizing symptoms.

Although significant mediating relationships were found, it is important to keep in mind that there may be other models that are consistent with the data. Additional research examining alternative models of these relationships would me needed to determine which model best explains the relationship between these variables. For example, a possible alternative model might be that interparental conflict causes anxiety and depression in children, which in turn results in lower child optimism. Results of some longitudinal research does suggest that attributional optimism is significantly related to later depression symptoms even when initial depression levels are controlled (Seligman et al., 1984; Spence et al., 2002). This finding is consistent with models that predict that attributional optimism has a causal role in depression in children. Interparental conflict has also been found to be significantly related to later child internalizing and externalizing symptoms, even when controlling for initial symptoms levels (David et al., 1996). This finding is consistent with models that predict that interparental conflict has a causal role in child adjustment. Further research examining alternative models is needed. In addition, longitudinal research that assists in determining causal pathways would also be beneficial.

Another factor to consider is that mediational relationships may not have been found if other variables responsible for both child optimism and child adjustment were

included in the model. For example, parent-child conflict or parental depression could be responsible for child optimism, as well as child adjustment. Further research is needed to examine additional variables that may account for the relationship between interparental conflict and both child optimism and child adjustment.

Although further research examining alternative models is needed to determine the model that best accounts for the relationships between interparental conflict, optimism, and child outcomes, these findings suggest that child optimism may be a viable point of intervention and prevention for children exposure to frequent, intense, and unresolved interparental conflict. Programs designed to increase optimism in children such as the program described in Gillham et al. (2006) may prove beneficial for children of highly conflicted parents.

The second research question asked whether child optimism was negatively associated with child appraisals of threat and self-blame regarding interparental conflict. As predicted, children who had higher levels of dispositional optimism were less likely to report that they were to blame for their parent's conflict. In addition, children with higher levels of dispositional optimism were also less likely to report feeling threatened or unable to cope with their parent's conflict. Recalling that dispositional optimism is a general expectation of positive future outcomes and that appraisals of threat related to parental conflict is a specific negative expectation about the future; it is not surprising that dispositional optimism would be negatively related to children's attributions of threat. Research has not previously examined the relationship between dispositional optimism and threat appraisals related to interparental conflict. However, this finding is consistent with past research with adults that found dispositional optimism to have a significant negative relationship to appraisals of threat and fear related to other negative life events (Steginga & Occhipinti, 2006; DuHamel et al., 2007). Thus, this study extended similar findings which identified significant relationships between dispositional optimism and appraisals of negative life events in adults to a child population.

Given that this finding is correlational, it is important not to assume a causal relationship. It is possible that positive future expectations may prevent children from forming threatening and self-blaming appraisals related to parental conflict. As these types of appraisals have been found to mediate the relationship between interparental conflict and child outcomes, identifying factors that may decrease such appraisals could provide a meaningful opportunity for prevention and intervention. However, it is also possible that how children perceive parental conflict may alter their future expectations or that both are caused by a third variable, such as the quality of parent-child relationships or parental depression. Longitudinal research examining the changes in dispositional optimism and appraisals of threat and self-blame over time would be helpful in clarifying the nature of this relationship.

Similarly, children who had higher levels of attributional optimism were less likely to report that they were to blame for parental conflict and less likely to report feeling threatened or unable to cope with parental conflict. Given that attributional optimism is the view of negative events as being temporary, specific, and externally caused, it is not surprising that more optimistic children were less likely to report feeling responsible for interparental conflict. This finding is also consistent with the research conducted by Feiring et al. (2002), which found that children with higher levels of attributional optimism who had a history of abuse were less likely to blame themselves for the abuse. It is possible that children who view negative life events as being temporary, specific to the situation, and caused by external factors may be less likely to form threatening or self-blaming appraisals when exposed to parental conflict. If this is the case, interventions proven effective in increasing optimism, such as those described in Gillham et al. (2006), could prove to be a particularly valuable means of prevention and intervention. However, as this finding is correlational, it is also possible that children's appraisals related to parental conflict may ultimately influence the attributions they make about negative life events in general or that a third variable, such as parental depression

or parent-child relationship quality may affect both variables in similar ways. Again, longitudinal research assessing attributional optimism and appraisals of threat and self-blame over time would be particularly helpful in further understanding the relationship between these variables.

Limitations

This study has several limitations. First, this study may have lacked sufficient power to detect all meaningful relationships between variables. The small sample size limited the ability to detect more subtle relationships between variables. In addition, the relatively low reliability of the CASQ-R further decreased the power of the tests of moderation for attributional optimism.

A second limitation of this study is the generalizability of these findings. A convenience sample was used in this study, thus sampling from the population was not random. In addition, the response rate was relatively poor. It is difficult to understand why the response rate was low. It is possible that those who were not eligible to participate, such as parents who were not residing with a partner or spouse, may have simply discarded the materials. Another possible reason for the low response rate may have been the fact that Spanish versions of study materials were not offered. In addition, parents utilizing after school care for their children may be more likely to have both parents employed full time, and thus have less free time and interest in participating in voluntary completion of study materials. However, regardless of the reason, a low response rate also limits the generalizability of the findings. Consequently, these findings should be considered with caution. It should also be noted that children residing in single parent households were not eligible to participate in this study. Therefore, these findings should not be generalized to children residing in single parent homes.

Future Research

Further research is needed to better understand the nature of the relationship between interparental conflict, child optimism, attributions of threat and self-blame, and child outcomes. First, research examining changes in the role of optimism between negative life events and adjustment across the developmental spectrum is needed to clarify conflicting results in the literature. If, as some authors have suggested, children's attributional style is directly influenced by negative life events because their attributional styles are still developing and therefore are more flexible, this could have implications for interventions targeting attributional style.

Second, as child attributions of threat and self-blame have previously been found to mediate the relationship between interparental conflict and child outcomes (Cummings et al., 1994; Grych, Fincham et al., 2000; Grych et al., 2003) and the present study has found that optimism may also function as a mediator in the relationship between interparental conflict and child outcomes, further research is needed that focuses on models that incorporate all of these variables. Both longitudinal research and cross-sectional research examining the role of both dispositional and attributional optimism as a mediator or moderator in the relationship between interparental conflict and child appraisals of threat and self-blame may help to clarify the nature of this relationship.

Finally, research evaluating the outcomes of interventions targeted at increasing optimism in children from highly conflicted homes may be appropriate if comparison of alternative models of the relationships between these variables indicates that optimism may be a likely intervention point.

Implications for Therapists

A substantial body of research has found that interparental conflict can be detrimental to children's emotional well-being and this research has several implications for therapist working with children and families. First, given that children exposed to

frequent, intense, and unresolved interparental conflict have been found to suffer from more emotional and behavior problems, it is important to work with parents on reducing the frequency and intensity of parental conflict and increasing the positive resolution of conflicts that do occur. Helping parents develop more effective communication and conflict resolution skills is important. Skills such as non defensive listening, validating, and compromise may be beneficial. Couples can also be encouraged to shift the emotional tone of disagreements using humor and affection. In addition to developing or enhancing skills, rules for disagreements are also important. Rules such as no name calling, mocking, or use of threats would be appropriate. Given that conflict about child related issues has been found to be particularly detrimental to children, such disagreements should not take place in the presence of the child or in situations in which the child could overhear the disagreement.

A second implication of this body of research is the importance of strengthening parent-child relationships in families with significant conflict. Because hostile interparental conflict often results in more hostile parent-child interactions, it may be helpful to educate parents about this problem and work with parents to develop coping skills they can use to help prevent parental conflict from spilling over into their relationships with their children. Training in parenting skills and effective parent-child communication skills with both parents may help prevent lax, inconsistent, and hostile parenting that may occur as a result of significant parental conflict, as well as reduce conflict regarding parenting issues.

With regard to parents, it is important to assess and treat individual mental health concerns, such as depression; as such difficulties affect both the well-being of the parents as well as the child. In addition, parents may benefit from learning skills to help regulate their emotions and self-soothe. Individuals who are unable to effectively manage strong feelings will likely have difficulty utilizing newly learned conflict resolution and parenting skills when they are most needed.

A third implication for therapist involves interventions for children whose parents engage in significant conflict. Developing coping skills with children that help them feel more capable of making themselves feel better when interparental conflict occurs may be helpful. In addition, specific interventions targeting children's cognitions related to treat and self-blame regarding interparental conflict may be beneficial as such cognitions have been found to mediate the relationship between interparental conflict and child outcomes. Helping children think through the likelihood of negative outcomes and helping them understand that they are not responsible for their parents' disagreements is important. Based on the findings of this study, interventions that focus on increasing attributional optimism may also be beneficial. Interventions such as those used in the Penn Resiliency Program (Gillham et al., 2006) could be advantageous. Such interventions would focus on increasing internal, stable, and global attributions of positive events and external, unstable, and specific attributions of negative events.

Conclusions

Despite the limitation of this study, the findings from this research are beneficial for several reasons. First, the findings of this study suggest that children who are more optimistic are less likely to feel threaten or unable to cope with interparental conflict, as well as less likely to blame themselves for incidents of interparental conflict. This finding is significant in part because it suggests that current models of interparental conflict, child appraisals, and child outcomes may be enhanced by including child optimism. Second, these findings extend prior research regarding the role of optimism as a mediator in the relationship between a variety of negative life events and child outcomes to children exposed to frequent, intense, and unresolved interparental conflict. Third, these findings suggest that optimism could provide a meaningful point of intervention and prevention for children exposed to higher levels of interparental conflict. Although cognitive appraisals specific to interparental conflict have been found to

mediate the relationship between interparental conflict and child outcomes, intervention at the level of optimism may be preferable. As optimism has been identified as a mediator and moderator of a variety of negative life events on child outcomes, changes in optimism may have a broader and more significant affect on child outcomes than changes in specific cognitive appraisals.

APPENDIX A

RECRUITMENT LETTER

August 11, 2009

Dear Parents,

I am writing to invite you and your child to participate in a research study sponsored by the Counseling Psychology program at the University of Iowa. The purpose of the study is to find out if children's behavior and emotions are affected by the relationships between their family members and if children with a more positive expectation of life are affected differently than children with a more negative expectation of life.

We are seeking children between the ages of 9 and 12 who are either (1) living in the same home as both of their parents or (2) living in the same home as one parent and that parent's partner or spouse who has lived in the home for 1 or more years. If your child meets the criteria above, you and your child are invited to participate. If you do not meet the requirements to participate, please indicate this on the following page and return the unused study materials to the Extend-A-Care location or directly to me using the addressed envelope enclosed. We are asking you to provide this information so that we can determine the percentage of people who did not participate because they did not meet the requirements of the study.

If you agree to participate, you will be asked to fill out two questionnaires and to return them with the consent forms to your child's Extend-A-Care location. These questionnaires will take approximately 20 minutes to complete. Your child will be asked to complete four questionnaires during regular Extend-A-Care hours. Child participation will take approximately 30 minutes and will be completed in a group on the stage at your Extend-A-Care location. During this time, children participating will not be under direct supervision of Extend-A-Care staff.

Enclosed with this letter are two copies of an Informed Consent Document, two copies of an assent document, and the two questionnaires for the parent. Please review the consent forms in this packet for additional information about the study. Please discuss participating in this study with your child and review the assent document with him/her. If you and your child agree to participate, you should sign one copy of the enclosed consent form and your child should sign one copy of the enclosed assent form. After you and your child have signed the forms, please complete the enclosed questionnaires. Return the signed consent form and assent form and the completed questionnaires in the enclosed addressed envelope directly to me or to your child's Extend-A-Care location.

If you or your child are not interested in participating, please sign the following page indicating you have received this invitation, but are not interested in participating and return this packet with unused study materials to your child's Extend-A-Care location or directly to me using the addressed envelope enclosed. We are asking you to provide this

information so that we can determine the percentage of individuals who were eligible to participate but did not wish to participate.

Each child that participates in the study will receive a small prize. Each participating family will be entered into a raffle to win a gift certificate to a local bookstore.

If you have any questions, please contact me using the information in the enclosed consent document. Thank you very much for your consideration.

Sincerely,

Julia H. Robinson, B.S.
Graduate Student
University of Iowa
Julia-robinson@uiowa.edu
(512) 934-3652

APPENDIX B

INFORMED CONSENT DOCUMENT

Project Title: **Family Relationships and Child Adjustment: The Role of Child Optimism**

Principal Investigator: Julia Robinson

Research Team Contact: Julia Robinson, (512) 934-3652

- You are the parent/guardian of a child under 18 years old who is being invited to be in this study. You will be asked to read and sign this document to give permission for your child to participate.
- You will be asked to read and sign this document to indicate your consent to participate.

This consent form describes the research study to help you decide if you want to participate and you want your child to participate. This form provides important information about what you and your child will be asked to do during the study, about the risks and benefits of the study, and about your rights and your child's rights as a research subject.

- If you have any questions about or do not understand something in this form, you should contact the research team for more information.
- You should discuss your participation with anyone you choose such as family or friends.
- Do not agree to participate in this study or permit your child to participate in this study unless the research team has answered your questions and you and your child decide that you want to be part of this study.

WHAT IS THE PURPOSE OF THIS STUDY?

This is a research study. We are inviting you and your child to participate in this research study because you are the parent of a child who is between the ages of 9 and 12 and who is either (1) living in the same home as both of his/her parents or (2) living in the same home as one parent and that parent's partner or spouse who has lived in the home for 1 or more years.

The purpose of this research study is to determine if children's behavior and emotions are affected by the relationships between their family members and if children with a more positive view of life are affected differently than children with a more negative view of life.

HOW MANY PEOPLE WILL PARTICIPATE?

Approximately 140 persons (70 children and 70 parents) will take part in this study conducted by a researcher from the University of Iowa at child care locations in central Texas.

HOW LONG WILL I BE IN THIS STUDY?

If you and your child agree to take part in this study, your involvement will last for approximately 20 minutes. Your child's involvement will last for approximately 30 minutes at your child's care location or at the researcher's office.

WHAT WILL HAPPEN DURING THIS STUDY?

Parents will be asked to complete the two questionnaires enclosed with the study materials. These questionnaires ask for information about you and your family and about your child's behaviors including activities during and outside of school, their behavior in comparison to others their age, and any concerns you have about the child. You may skip any questions you do not wish to answer. After completing the questionnaires, seal them with this signed consent document and a signed assent document in the envelope provided. Either (1) return the sealed envelope to your child care location or (2) mail it to the address on the envelope using the stamps provided. If you received this packet directly from the researcher, you will bring these materials to the appointment you scheduled for your child's participation.

Your child will meet with the researcher and complete four questionnaires that ask the child to give their sex, birthday, age, grade, and describe the other people who live in their home. Your child will also complete questionnaires that ask your child about the reason things happen, about their behaviors and expectations, and about their feelings when their parents disagree. Your child is free to skip any questions they do not want to answer. Your child will meet with the researcher during his/her child care hours at a time selected by the program director or, if this packet was given to you by the researcher, then your child's participation will be completed during a scheduled appointment at the researcher's office.

WHAT ARE THE RISKS OF THIS STUDY?

You and your child may experience one or more of the risks indicated below from being in this study. In addition to these, there may be other unknown risks, or risks that we did not anticipate, associated with being in this study.

You may be uncomfortable answering questions about your child's behaviors and your family. Your child may be uncomfortable discussing their behaviors and family conflicts. You may skip any questions you do not wish to answer or end your participation in the study at any time.

WHAT ARE THE BENEFITS OF THIS STUDY?

You and your child will not benefit from being in this study. However, we hope that, in the future, other people might benefit from this study because understanding how family relationships affect children's feelings and behavior may assist in developing prevention programs and early interventions programs for children and families.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

You and your child will not have any costs for being in this research study.

WILL I BE PAID FOR PARTICIPATING?

Your child will receive a small prize such as pencils or a small toy. You will be entered into a drawing to win a $20 gift certificate to Barnes & Noble. All participating parents will be entered into the drawing which will be held at the end of the study.

WHO IS FUNDING THIS STUDY?

The University and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

WHAT ABOUT CONFIDENTIALITY?

We will keep your participation and your child's participation in this research study confidential to the extent permitted by law. However, it is possible that other people such as those indicated below may become aware of your or your child's participation in this study and may inspect and copy records pertaining to this research. Some of these records could contain information that personally identifies you and your child.

- federal government regulatory agencies,
- auditing departments of the University of Iowa, and
- the University of Iowa Institutional Review Board (a committee that reviews and approves research studies)

To help protect your confidentiality, we will assign an identification number to each set of child and parent participants. This number will be used to identify your study information. All identifying information will be removed from the questionnaires. No master list linking your study identification number and name will be made. All paper or hard copy research materials will be stored in locked filing cabinets and storage areas. This consent document will be stored separately from your study questionnaires. All computer files with study information will be password-protected. If we write a report or article about this study or share the study data set with others, we will do so in such a way that you cannot be directly identified.

IS BEING IN THIS STUDY VOLUNTARY?

Taking part in this research study is completely voluntary. You may choose not to take part at all and your child may choose not to take part at all. If you and your child decide to be in this study, you or your child may stop participating at any time. If you decide not to be in this study or permit your child to be in this study, or if you or your child stop

participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify.

WHAT IF I HAVE QUESTIONS?

We encourage you to ask questions. If you have any questions about the research study itself, please contact: Julia Robinson, B.S. at (512) 934-3652. If you experience a research-related injury, please contact: Julia Robinson, B.S. at (512) 934-3652 or John Westefeld, Ph.D. at (319) 335-5562.

If you have questions, concerns, or complaints about your rights as a research subject or about research related injury, please contact the Human Subjects Office, 340 College of Medicine Administration Building, The University of Iowa, Iowa City, Iowa, 52242, (319) 335-6564, or e-mail irb@uiowa.edu. General information about being a research subject can be found by clicking "Info for Public" on the Human Subjects Office web site, http://research.uiowa.edu/hso. To offer input about your experiences as a research subject or to speak to someone other than the research staff, call the Human Subjects Office at the number above.

This Informed Consent Document is not a contract. It is a written explanation of what will happen during the study if you decide to participate. You are not waiving any legal rights by signing this Informed Consent Document. Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Parent Subject's Name (printed): _____

Do not sign this form if today's date is on or after $STAMP_EXP_DT .

_____ _____

(Signature of Parent Subject) (Date)

Child Subject's Name (printed): _____

Parent/Guardian's Name and Relationship to Subject:

_____

(Name - printed) (Relationship to Subject - printed)

Do not sign this form if today's date is on or after $STAMP_EXP_DT .

_____ _____

(Signature of Parent/Guardian) (Date)

APPENDIX C

ELIGIBILITY TO PARTICIPATE

To be eligible to participate in this study, your child must be between 9 and 12 years of age and your child must live with either both of his/her parents or with a parent and that parent's partner or spouse who has resided in the home for 1 or more years.

If you meet the requirements to be in the study and wish to learn more about the study, please go to the next page to read more about the study.

If you are not eligible to participate in this study or if you do not wish to participate in this study please complete the correct section below to indicate your reason for not participating. We are asking you to provide this information so that we can determine the percentage of people who did not participate because they did not meet the requirements of the study and the percentage of people who were eligible to participate but chose not to participate

Completion of this form is optional.

I received the study materials, but am not eligible to participate for reason(s) indicated below.

_____ Child is not between the ages of 9 and 12

_____ Child does not reside with either:

1) both parents

   or

2) a parent and the parent's partner or spouse who has resided in the home for 2 or more years

_____ _____

(Signature of parent or guardian) (Date)

-OR-

I received the study materials, but am not interested in participating in this study.

_____ _____

(Signature of parent or guardian) (Date)

If you do not meet the requirements of the study or do not wish to participate, please place all papers into the envelope and return the envelope to the researcher or your child's teacher.

APPENDIX D

INSTRUCTIONS

If you and your child agree to participate in this study, please complete all materials provided in the packet. A checklist is provided below to ensure that you have received and completed all necessary materials.

_____ Informed consent document for parent and child participation

_____ Assent document for child to agree to participate.

_____ Demographic Information

_____ Child Behavior Check List

After completing the materials provided above, please return all study materials to the envelope provided, seal the envelope, and either (1) return the packet to your child's teacher or (2) mail it to the address on the envelope using the stamps provided.

If you have any questions or concerns please contact Julia Robinson, B.S. by phone at (512) 934-3652 or by email at Julia-robinson@uiowa.edu

Thank you for your participation.

APPENDIX E

DEMOGRAPHIC INFORMATION

What is your relationship to the child participating in the study?

- o Mother
- o Father
- o Legal guardian
- o Other

Ages:

Your age: _____

The participating child's age: _____

Race/Ethnicity:

Your race/ethnicity: _____

The participating child's race/ethnicity: _____

Number of years residing with your spouse/partner: _____

Are you currently married: Yes No

If yes, for how many years: _____

Are you currently in a domestic-partnership or civil union: Yes No

If yes, for how many years: _____

Were you previously married or in a domestic partnership or civil union: Yes No

Household income:

- o Less than $10,000
- o $10,000-$19,999
- o $20,000-$34,999
- o $35,000-$49,999
- o $50,000-$74,999
- o $75,000-$99,999
- o $100,000 or more

What adults reside in your home? Check all that apply.

- o Child's mother
- o Child's father
- o A spouse or partner other than the child's mother or father
- o Other – please explain below

_____

Please list the ages of all children residing in the home and their relationship to the child participating (e.g. 12, brother; 9, sister; 4, step brother; 18months, half sister; 16, cousin)

_____	_____	_____	_____
Age	Relationship to child	Age	Relationship to child
_____	_____	_____	_____
Age	Relationship to child	Age	Relationship to child
_____	_____	_____	_____
Age	Relationship to child	Age	Relationship to child
_____	_____	_____	_____
Age	Relationship to child	Age	Relationship to child

If there is anyone else residing in the home that was not listed above, use the space below to indicate their age and relationship to the child that is participating in the study.

_____

_____

APPENDIX F

ASSENT DOCUMENT

Project Title: **Family Relationships and Child Adjustment**
Investigator(s): **Julia H. Robinson, B.S.**

We are doing a research study. A research study is a special way to find out about something. We are trying to find out if children's behavior and emotions are affected by the relationships between their family members.

If you decide that you want to be in this study, this is what will happen. You will meet with the researcher and we will give you some questions to read and answer about yourself and your family. If you have trouble answering the questions, you may ask us to help you. You may skip any questions you do not want to answer. Your parent will also fill out some questionnaires about you and your family.

We want to tell you about some things that might upset you if you are in this study. We will ask you questions about what you think about things and about how your family acts when they don't agree about something. Answering questions about your family may be upsetting to you or make you feel uncomfortable.

We don't know if being in this research study will help you. But we hope to learn something that will help other people some day.

When we are done with the study, we will write a report about what we found out. We won't use your name in the report.

You don't have to be in this study. It's up to you. If you say okay now, but you change your mind later, that's okay too. All you have to do is tell us.

If you want to be in this study, please sign or print your name.

I, _____, want to be in this research study.
(Child's name)

_____ _____
(Sign or print your name here) (Date)

APPENDIX G

RECRUITMENT FLYER

The Counseling Psychology program at the University of Iowa

is inviting you to participate in a

Research Study on Family Relationships and

Child Adjustment

What is being studied?
The purpose of this research study is to determine if children's behavior and emotions are affected by the relationships between their family members and if children with a more positive view of life are affected differently than children with a more negative view of life.

Who can participate?
We are seeking parents with children between the ages of 9 and 12 to participate with their child. You must be the biological parent of a child between the ages of 9 and 12 and either (1) reside with your child's other biological parent or (2) with a partner or spouse who has resided in the home for at least one year.

What will I be asked to do if I volunteer?
Parents will be asked to complete questionnaires. Parent questionnaires will take approximately 20 to complete and can be done at home. Appointments will be scheduled for child participants to complete questionnaires at the researcher's office. Child questionnaires will require approximately 30 minutes to complete.

Who do I contact with questions or to volunteer?

Julia Robinson
(512) 934-3654
Julia-Robinson@uiowa.edu

APPENDIX H

CHILD DEMOGRAPHIC QUESTIONNAIRE

ID#

About Me

I am a (circle): Boy Girl

Birthday: _____

Age: _____

Grade: _____

Circle the people who live in your home. To the left of each one you circle, write the number that live in your home. For example if you have two brothers living at home, then circle the word brother and write the number 2 to the left.

___ Brother	___ Step Brother	___ Half Brother
___ Sister	___ Step Sister	___ Half Sister
___ Mother	___ Step Mother	___ Other
___ Father	___ Step Father	

If you circled “Other”, please describe how this person is related to you. If you need help, raise your hand and ask the investigator or your teacher.

_____.

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