THE ROLE OF ATTACHMENT IN PERCEPTIONS OF INTERPARENTAL CONFLICT
AND BEHAVIOR PROBLEMS IN MIDDLE CHILDHOOD

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The current study investigated the association of interparental conflict, parent-child attachment, and children’s behavior problems in middle childhood. Although the effects of interparental conflict have been studied extensively, there has been little research done in the developmental period of middle childhood. This study examined the potential mediating role of the attachment relationship between parents and children in a community sample consisting of 86 two-parent families with at least one child between the ages of 8-11. Path modeling procedures indicated that attachment security serves as a mediator between interparental conflict and child behavior problems based on child reports. In particular, child-reported attachment security to the mother significantly mediated the association between children’s perceptions of threat from interparental conflict and child-reported internalizing and inattentive/hyperactive symptoms. Child-reported attachment security to the father was not a significant mediator and mediation was not supported in parent-report models. The current findings have implications for families experiencing conflict and speak to the importance of attachment in the parent-child relationship when explaining the association between instances of interparental conflict and child behavioral outcomes. In particular, parents who engage in conflict can prevent the damaging effects of that conflict by making the conflict less overt, explaining to children the reasons for the conflict, and providing children with some assurance that a secure parent-child and interparental relationship is still present, despite the conflict.
ACKNOWLEDGEMENTS

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THE ROLE OF ATTACHMENT IN PERCEPTIONS OF INTERPARENTAL CONFLICT AND BEHAVIOR PROBLEMS IN MIDDLE CHILDHOOD

Introduction

Attachment theory suggests that the attachment system, which originally develops within the caregiver-infant relationship, provides the foundation for children’s mental representations of relationships and expectations with regard to those responsible for caretaking (Bowlby, 1969). Children who perceive their parents or caregivers as responsive and willing to meet their needs will develop a secure representation of relationships and learn to trust that others will be available. Alternatively, if caregivers are inconsistent or rejecting, children develop insecure representations of themselves as unworthy and/or of others as unreliable (Bowlby, 1973). Children with secure attachments typically are at a decreased risk for adjustment problems and symptoms of psychopathology, whereas insecure attachment creates vulnerability for adjustment and behavior problems (Finnegan, Hodges, & Perry, 1996). Thus, an insecure attachment system serves as a risk factor for psychological difficulties whereas a secure attachment has been associated with lower levels of internalizing and externalizing symptoms (Moss, Smolla, Cyr, Dubois-Comtois, Mazzarello, & Berthiaume, 2006).

Research has indicated that children with secure attachment histories are more resistant to stress and more resilient in difficult circumstances (Sroufe, Egeland, Carlson, & Collins, 2005). Resilience, by definition, represents positive adaptation despite adversity that might ordinarily be expected to lead to maladjustment (Luthar, 2006). In the context of early family relationships, attachment security is considered a resilience factor in instances of family adversity, such as interparental conflict (Hammen, 2003). The purpose of this study is to investigate the role of
parent-child attachment in the association between interparental conflict and child behavior problems.

The general consensus in the field of developmental psychopathology is that positive early family relationships are the foundation for resilient developmental trajectories and maintenance of positive adjustment despite adversity (Sroufe, 2002). Recent research on the effects of interparental conflict and children’s well-being has focused on understanding the processes that make children especially vulnerable to distress when they are exposed to parental discord (Davies & Cummings, 2006). In particular, researchers have investigated the role of children’s representations of conflict and how those representations serve as a radar system for identifying interparental events that may pose a threat to the self or the family (Davies, Harold, Goeke-Morey, & Cummings, 2002). Therefore, it is representations of self, other, and interparental events that seem most influential in determining which factors may serve to propagate risk in the context of interparental conflict and negative behavior outcomes.

Mediating factors link interparental conflict and maladjustment; they are generative mechanisms through which interparental conflict affects child adjustment outcomes (Baron & Kenny; 1986; Davies & Cummings, 2006). Recent literature supports mediator models indicating that a large part of the association between interparental conflict and child maladjustment is explained by parent-child attachment, with attachment insecurity serving as a risk factor for negative child outcomes (El-Sheikh, Cummings, Kouros, Elmore-Staton, & Buckhalt, 2008).

*Attachment in Middle Childhood*

Middle childhood represents a vital developmental time frame during the shift from childhood to adolescence, yet it is a relatively understudied age group in the field of attachment research (Moss et al., 2006). During this important developmental period, children are making a
transition from being solely dependent on parents for emotional security and support to
developing a greater reliance on peers and social relationships. Despite broadening of the social
network during middle childhood, children of this age continue to use parents as primary
attachment figures and show a strong preference for parents over peers when the child is scared
or sad (Kerns, Tomich, & Kim, 2006). Indeed, the scarce literature on attachment in middle
childhood indicates that parent-child attachment is related to adaptation within both home and
peer settings (Kerns, Tomich, Aspelmeier, & Contreras, 2000; Moss & St-Laurent, 2001). A
“secure base” with parents appears to contribute to children’s ability to seek relationships outside
of the home with expectations that others would be available to meet their needs.

The relatively small body of research on attachment in middle childhood is likely related
to an absence of assessment tools. However, with the development and ongoing validation of
new instruments for this age group, research is increasing. Early studies on attachment in middle
childhood viewed attachment as a phenomenon that occurs on a secure-insecure continuum (e.g.,
Kerns, Klepac, & Cole, 1996), whereas recently developed measures (e.g., Children’s Coping
Strategies Questionnaire (CCSQ); Yunger, Corby, & Perry, 2005) can assess the specific type of
attachment insecurity a child experiences in the parent-child relationship based on their
perceptions of parental emotional availability. The current study uses a modified version of the
CCSQ to assess all four attachment strategies that parallel the adult attachment categories
(secure, avoidant, preoccupied, disorganized) identified in the Adult Attachment Interview (AAI;
George, Kaplan, & Main, 1984).

Child Security and Psychological Functioning

Theoretically, secure children are able to maintain and carry forward feelings of being
worthy of love and support from others. Research indicates that securely attached children have a
more balanced self-view, a higher self-esteem, and lower levels of internalizing and externalizing problems in middle childhood (Cassidy, Ziv, Mehta, & Feeney, 2003). Research also indicates that children with secure attachment histories seem to develop a foundation of empathy from the caregiver-child relationship that helps them be attuned and empathic to others’ emotions in social relationships (Weinfield, Sroufe, Egeland, & Carlson, 2008).

In contrast, insecure attachment representations are associated with a unique set of adjustment difficulties and behavior problems in children. Children with a preoccupied attachment experience difficulty regulating their emotions, rely on others for soothing and comfort, and consequently more often exhibit depression, anxiety, and aggression (Weinfield et al., 2008). In addition, children using preoccupied attachment strategies demonstrate deficits in social skills when compared to secure or avoidant children in middle childhood (Verschueren & Marcoen, 1999). Avoidant attachment strategies in middle childhood have been associated with poor social, emotional, and scholastic adjustment as well as peer rejection and internalizing and externalizing symptoms (Granot & Mayseless, 2001). Disorganized attachment strategies have been associated with internalizing and externalizing behavior problems in middle childhood (Moss & St-Laurent, 2001).

In addition to child attachment insecurity in the parent-child relationship, the child’s sense of emotional insecurity regarding the interparental relationship has been identified as a significant risk factor for child psychopathology (Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006). More specifically, children’s concurrent emotional insecurity in the interparental relationship and parent-child attachment insecurity were associated with internalizing (e.g., depression and anxiety) and externalizing (e.g., aggression, delinquency) symptoms in adolescents (Davies et al., 2002).
The exacerbation of risk in coercive family environments is facilitated by unresolved conflict and discord, insufficient child monitoring, and a lack of close relationships with one or both parents (Rutter, 2000). A resounding theme in the risk and resilience literature emphasizes the importance of positive early family relationships as a protective factor against vulnerability to negative outcomes. In fact, quality parenting is the single most robust protective factor for children exposed to adversities and positive family relationships can promote resilience in children facing difficult circumstances (Luthar & Zelazo, 2003). Therefore, if early attachments are insecure, children tend to expect negative reactions from others and eventually may behave in ways that elicit these reactions, which perpetuates a cycle of rejection by others and/or feelings of anxiety regarding abandonment; however, children with at least one secure attachment come to expect and can accept nurturing from others (Sroufe, 2002).

**Interparental Conflict**

Some conflict between parents is a normative occurrence in most of today’s families. However, depending on the severity and frequency, interparental conflict may present a significant risk to children’s mental health and well-being (Davies & Woitach, 2008). Studies suggest that middle childhood is a time when interparental conflict and discord reach their peak, which underscores the importance of investigating family processes during this time (Cummings & Davies, 1994). Some children internalize blame for conflict between parents, especially if they hear their parents argue about issues pertaining to childcare or discipline. Older children, more than younger children, tend to have a better understanding of the meaning behind parental conflict and can often interpret conflict to mean that something is interfering with the family dynamic (Cicchetti, Cummings, Greenberg, & Marvin, 1990). Interparental conflict has been related to maladjustment and behavior problems in children aged five to eighteen, indicating that
it is a major concern when considering important developmental processes that occur throughout childhood and adolescence (Cummings & Davies, 2002; Fincham & Grych, 2001; Grych, 2001).

Exposure to interparental conflict has been associated with both internalizing and externalizing symptoms in children. Studies indicate that children may experience symptoms such as depression, anxiety, and aggressiveness as a result of witnessing interparental conflict (Sturge-Apple, Davies, & Cummings, 2006). Since interparental conflict is related to a child’s sense of emotional security in the home, children may respond emotionally and behaviorally to the stress of conflict between their parents. When a child’s emotional needs are not being met in the parent-child relationship, this can contribute to a sense of insecurity regarding one or both parents’ ability to provide a safe haven (Frosch, Mangelsdorf, & McHale, 2000). Children’s perception of threat directly shapes their reaction to the conflict, which often takes the form of internalizing symptoms and behaviors (Grych, Fincham, Jouriles, & McDonald, 2000). However, if children blame themselves for the conflict between their parents, they are more likely to experience both internalizing and externalizing problems (Fosco & Grych, 2007).

**Links Between Interparental Conflict, Attachment, and Child Outcomes**

The emotional security hypothesis (ESH; Davies & Cummings, 1994) states that within the highly emotional context of interparental conflict, a priority for children is to find ways to maintain protection, safety, and security. Since the parent-child relationship often provides children with safety and security in times of uncertainty, children are increasingly vulnerable to psychological distress when they feel unable to preserve a sense of security during parental conflict. When parents fight, they not only undermine a child’s sense of stability in the home environment but frequently they are also not emotionally available to protect the child because they are preoccupied with defending themselves (Sturge-Apple et al., 2006).
Similar to attachment theory, ESH supports the idea that a child’s sense of security in the parent-child relationship may be jeopardized by interparental conflict (Davies & Woitach, 2008). A vital component of the current research on interparental conflict is to identify key processes that account for a child’s vulnerability to the damaging effects of conflict and behavioral problems. Davies and Cummings (2006) proposed a mediation model stating that part of the association between interparental conflict and child maladjustment can be explained by parent-child relationship features, including attachment. Attachment may be related to children’s perceptions of threat from conflict because one of the main fears arising from interparental conflict is that the family will break up and the child may lose their attachment relationship to one or both parents (Cummings & Davies, 1996). In fact, some children who report high levels of interparental conflict also report attachment insecurity in the parent-child relationship (Harold, Shelton, Goeke-Morey, & Cummings, 2004). Conflict between parents can undermine a child’s sense of emotional security in the family environment, but attachment security in the parent-child relationship seems to protect children from experiencing the deleterious effects of conflict.

Few studies have investigated the role that attachment plays in the association between interparental conflict and child adjustment problems in middle childhood. El-Sheikh and Elmore-Staton (2004) found that a secure attachment to mothers functioned as a protective factor against internalizing symptoms associated with interparental conflict, whereas a secure attachment to fathers served as a protective factor against child-reported externalizing symptoms associated with interparental conflict. In another recent study on middle childhood, El-Sheikh, Cummings, Kourous, Elmore-Staton, and Buckhalt (2008) reported that children’s emotional security in the parent-child relationship mediated the association between marital aggression and children’s internalizing and externalizing symptoms in a community sample of families. This study
provides further evidence for the associations between marital conflict, emotional security, and child behavioral outcomes

The Current Study

Interparental conflict, although a fairly normative phenomenon, has been identified as a risk factor for children’s emotional and psychological well-being. A better understanding of the role of parent-child attachment in linking exposure to interparental conflict and child outcomes could inform prevention and intervention efforts. The current study will extend the relatively scarce amount of literature on attachment in middle childhood and its role in the connection between perceptions of interparental conflict and child maladjustment during this important developmental time.

Based on the available literature, we predicted that perceptions of interparental conflict would be positively related to parent-child attachment (since high scores indicate low conflict on our measure of interparental conflict), and negatively related to children’s internalizing and externalizing symptoms. We also anticipated that parent-child attachment would be significantly related to aspects of emotional and behavioral functioning in children, with secure attachment relating to positive and adaptive behaviors and insecure attachment relating to negative and maladaptive behaviors. Following previous research (Davies et al., 2002), we expected that parent-child attachment would function as a partial mediator of the association between interparental conflict and child behavior problems.

Method

Participants

This study was part of a larger research project examining attachment and family processes in a community sample. Participants were intact \((n = 78)\) or blended \((n = 8)\) families
that had at least one target child between 8 and 11 years of age. The mean age was 38.48 years ($SD = 5.45$) for fathers, 36.51 ($SD = 5.23$) for mothers, and 9.86 ($SD = 1.23$) for target children. Of the 86 target children, 48 were male and 38 were female. Seven of these families were single-child families (8%), the remaining families had at least two children ($M = 2.53$). Sixty-seven fathers identified themselves as Caucasian (79.8%), 7 as African American (8.3%), 8 as Hispanic/Mexican American (9.5%), 1 as Asian (1.2%), and 1 as “Other” (1.2%). Sixty-five mothers identified themselves as Caucasian (77.4%), 6 as African American (7.1%), 8 as Hispanic/Mexican American (9.5%), 2 as Asian (2.4%), and 3 as “Other” (3.6%). The sample was highly educated with over half of all parents earning bachelors or graduate degrees and another 32% reporting some college or a two-year degree. The sample was predominantly middle- to upper-middle-class, with 82.6% of families reporting an annual income between $30,000-$75,000 per year, 11% of families reporting an income of less than $30,000 per year, and 6.3% of families who did not report their annual family income. Sample demographics are presented in Table 1.

**Measures**

A background information questionnaire was developed to collect demographic data, e.g., age, ethnicity, gender, family income, relationship status. Additionally, this instrument asked participants about family background variables (e.g., parent divorce/remarriage, family psychopathology) and past psychotherapy experiences.

The Children’s Perceptions of Interparental Conflict scale (CPIC; Grych, Seid, & Fincham, 1992) is a 48-item self-report measure that assesses child perceptions of conflict between parents. Responses are based on a 3-point scale where (1) = true, (2) = sometimes true, and (3) = false; for interpretation, it is important to remember that higher scores indicate low
levels of perceived interparental conflict and thus a better interparental relationship. The 19-item Conflict Properties scale assesses perceived frequency, intensity, and resolution of the conflict. The 12-item Threat scale asks about perceived threat of the conflict and coping efficacy in dealing with the conflict. The 8-item Triangulation scale assesses the degree to which children perceive themselves being involved or caught in the middle of conflict between their parents. The CPIC has demonstrated internal consistency with coefficient Alpha’s above .80 and adequate stability over a two-week period with test-retest correlations of .70, .68, and .76 for the Conflict Properties, Threat, and Triangulation scales, respectively (Grych et al., 1992). The CPIC has also demonstrated adequate validity in that it is highly correlated with parent reports of marital conflict (i.e., O’Leary-Porter Scale and Conflict Tactics Scale) and also significantly related to child and teacher-reported psychological symptoms (i.e., CBCL) (Grych et al., 1992). In the current sample, all three scales demonstrated Cronbach Alpha’s greater than .66 (see Table 2).

The Children’s Coping Strategies Questionnaire (CCSQ; Yunger, Corby, & Perry, 2005) was used to assess children’s attachment strategies with both parents. The most recent version of the CCSQ is a hybrid measure developed from two questionnaires measuring secure and insecure attachment strategies in middle childhood as well as 30 additional items assessing the three types of disorganized attachment strategies in the parent-child relationship. The CCSQ includes 20 items from the Preoccupied and Avoidant Coping Scales (PACS; Finnegan, Hodges, & Perry, 1996), 10 items from the Security Scale (SS; Kerns, Aspelmeier, Gentzler, & Grabill, 2001), and 30 items measuring three types of disorganized coping strategies (indecision, coercion, caregiving). For the current study, the Disorganized-Indecision scale was included because it represents a general measure of attachment disorganization and has been associated with fear
induction and low levels of parental support in previous studies on attachment in children ages 8-11 (Corby, 2006). For interpretive purposes, higher scores on the CCSQ Security subscale correspond to greater parent-child attachment security, while higher scores on the preoccupied, avoidant, and disorganized scales correspond with greater parent-child attachment insecurity. Validity of the CCSQ has been confirmed with other studies involving peer assessments of internalizing and externalizing behaviors (Hodges et al., 1999), child-observed parenting (Cusimano, 2005), other measures of attachment security in middle childhood, and child-reported loneliness, self-esteem, social and academic competence (Kerns, Tomich, Aspelmeier, & Contreras, 2000). The original Security Scale has shown adequate 2-week test-retest reliability and internal consistency ($\alpha = .80$ or higher). For the current study, the four scales of the SS demonstrated Cronbach Alpha’s greater than .80 (see Table 2).

The Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2002) includes a child self-report (SRP) and parent-report (PRS) scale for internalizing, externalizing, and inattentive/hyperactive behaviors for children ages 8-12 with higher scores representing greater dysfunction. The BASC-2 SRP has demonstrated good internal consistency, with Alpha reliability coefficients in the mid-to-high .80’s, as well as high test-retest reliabilities over a three week period ranging from the upper .70’s to mid .80’s. Concurrent validity has been demonstrated by moderate to strong correlations with other measures of child behavior (i.e., Achenbach). The BASC-2 PRS Internalizing and Externalizing Problems scales have yielded Alpha reliability coefficients in the .90’s, as well as high test-retest reliabilities over a one month period of time. These two PRS scales have also shown adequate to high concurrent validity with other measures of child behavior with correlations of .73-.84 for externalizing problems and .65-.75 for internalizing problems when compared with the ASEBA.
parent report. All BASC subscales used in the current study demonstrated good to strong internal consistency (see Tables 2 and 3).

The Dyadic Adjustment Scale (DAS; Spanier, 1976, 1988) is a 32-item assessment of romantic relationship functioning. Only the 13-item scale of Dyadic Consensus (DAS Consensus) was employed in the current study. On this scale, lower scores represent more conflict between romantic partners on relationship matters such as finances, religion, recreation, friends, household tasks, and time spent together. In a meta-analysis of 91 studies using the DAS, average reliabilities of .90 for the Consensus scale were found (Graham, Liu, & Jezierski, 2006). In the current study, the Consensus scale showed good reliability (see Table 3).

The Parenting Relationship Questionnaire (PRQ; Reynolds & Kamphaus, 2006) is a self-report scale completed by parents or other primary caregivers regarding the nature of their parent/caregiver-child relationship. Items are rated on a four-point scale (never, sometimes, often, almost always). The current study used the PRQ Attachment scale ($\alpha = .83$ and above; see Table 3) in order to assess the parent-child attachment relationship from the parent’s perspective.

**Procedure**

All procedures were approved by the university’s IRB. Families with at least one child between the ages of 8 and 11 were recruited from the community. After risks and benefits of participation, as well as limits of confidentiality were explained, consent and assent from all family members were obtained. In addition to family interaction tasks and parent interviews, parents and target children completes a battery of self-report questionnaires in separate rooms. Families were compensated $30 and a family fun pack (e.g. coupons, tickets).

A total of 86 families participated in this research project. Valid data was collected from at least 81 children, 80 mothers, and 81 fathers on all measures. To account for missing data, the
Missing Values Analysis (MVA) package of SPSS was used to assess “missingness” for each instrument. Procedures such as Little’s MCAR and estimation maximization (EM) were used to assess whether data was missing completely at random or whether further analysis was needed. For all of the instruments in this study, all data was missing completely at random (MCAR) and estimation maximization and casewise deletion procedures were used to address missing values.

Data was also assessed for outliers and normality using SPSS and LISREL (Jöreskog & Sörbom, 2006). Regarding outliers, all values for Mahalanobis distance ($D^2$) were in the acceptable range for three predictors (CPIC conflict properties, CPIC threat, CPIC triangulation) at 1% significance ($k = 3, p < .001, D^2 < 19.26$). All three predictors had values for Mahalanobis distance ($D^2$) that were less than 16.95 (conflict properties = 7.78, threat = 8.82, triangulation 4.35) indicating the absence of univariate outliers in our predictor variables (Stevens, 2002).

LISREL values for univariate skewness and kurtosis were within the acceptable range (skewness < 2, kurtosis < 7) for all child and parent variables. Values for Mardia’s coefficient (relative multivariate kurtosis) were also in the acceptable range of less than or equal to 3 (child variables = 1.12, father variables = 1.04, mother variables = 1.18). Although data appeared relatively normal, maximum likelihood (ML) procedures were used because small sample size ($N < 100$) can inflate model fit indices, such as the chi-square ($\chi^2$) statistic. All models were run using the Satorra-Bentler Scaling Method, which can be helpful in realistically adjusting model $\chi^2$, fit indices, and standard errors based on the degree of non-normality in small samples (Hancock & Mueller, 2010).

After preliminary analyses were conducted to assess intercorrelations between scales and test associations with demographic variables, path analyses were employed to examine hypothesized mediation pathways between correlated variables. Path analysis is a method for
studying the direct and indirect effects of variables, which tests theoretical relationships and has historically been called *causal modeling* (Wright, 1960). The current study seeks to provide support for the existing theories proposing that parent-child attachment is an influential factor in the relationship between interparental conflict and child behavior.

**Results**

*Preliminary Data Analysis*

As shown in Table 2, many significant correlations were found between child-reported indicator variables. As expected, CPIC scales were positively associated with attachment security, but negatively associated with insecure attachment scales and child-reported BASC internalizing and inattention/hyperactivity scales. As expected, CCSQ security towards both mother and father was negatively associated with child-reported BASC internalizing and inattention/hyperactivity scales, whereas CCSQ-M and CCSQ-F avoidant scales were positively associated with internalizing problems. CCSQ-F avoidant scores were also positively correlated with inattention/hyperactivity. Contrary to our hypotheses, CPIC Triangulation was not significantly negatively correlated with measures of insecure attachment on the CCSQ (Preoccupied, Avoidant, and Indecision) and was only positively correlated to CCSQ Security to mother and father as well as BASC Internalizing and Inattentive/Hyperactive symptoms. Likewise, the CCSQ Preoccupied and Indecision scales were not significantly correlated with CPIC or BASC variables, as hypothesized. Due to non-significant correlations between CPIC Triangulation and CCSQ insecure scales, as well as between CCSQ Preoccupied and Indecision scales to all CPIC and BASC scales, these variables were dropped from further consideration in mediation testing.
As shown in Table 3, many significant correlations were found between parent-reported indicator variables. DAS Consensus reported by mother was positively associated with PRQ Attachment and negatively associated with both internalizing and externalizing symptoms, as predicted. DAS Consensus reported by the father was positively associated with PRQ Attachment and negatively associated with externalizing symptoms, but not internalizing symptoms. Given that high scores on DAS Consensus indicate low levels of marital conflict, we would expect that consensus would be positively associated with PRQ Attachment, where high scores indicate a positive parent-child attachment and low scores indicate a negative attachment relationship. Likewise, we would expect that DAS Consensus would be negatively associated with internalizing and externalizing scales given that high scores on BASC scales indicate higher instances of these symptoms; we would expect low levels of consensus (high conflict) to be associated with more internalizing and externalizing symptoms. PRQ Attachment reported by mother and father was positively associated with DAS Consensus and negatively associated with BASC internalizing and externalizing scales, as expected. Due to non-significant correlations between father-reported DAS Consensus and BASC internalizing symptoms, this association was removed from further consideration in mediation testing.

Most demographic variables were unrelated to scales used in this study and there were no significant differences between blended (n = 8) and non-blended families (n = 78) for the variables in question. However, a significant negative correlation between a child’s age and preoccupied coping strategy in the mother-child relationship was found (r = -.28, p = .013), meaning that younger children in our sample reported higher levels of preoccupied strategies than older children.
Path Analysis Results

Six theoretical models were tested and are shown in Tables 4 and 5. The first four models represent children’s self-reports of interparental conflict (CPIC), coping strategies within the mother-child or father-child relationships (CCSQ), and self-reported behavioral symptoms (BASC-SRP), separately by parent. The last two models represent maternal and paternal reports of consensus in the marital relationship (DAS Consensus), parents’ report of the parent-child relationship (PRQ Attachment) and parent-reported child behavior symptoms (BASC-PRS). Using LISREL 8.8 (Jöreskog & Sörbom, 2006), models were run separately for child and parent data. The LISREL program offers a variety of fit indices that represent the “fit” of the hypothesized model to the sample data. According to recent recommendations for reporting measures of fit that are more accurate at rejecting mis-specified models in counseling psychology (Martens, 2005), we report the chi-square statistic ($\chi^2$) with p-value ($p$) and degrees of freedom ($df$), and the root mean square error of approximation (RMSEA). In addition to fit indices, we also looked at the statistical significance of each parameter estimate using the direct and indirect effects and their respective t-statistic ($t$), which represents the estimate divided by its standard error and tests that the estimate is significant different from zero (Byrne, 1998).

The criteria for “goodness-of-fit” for each index are: $\chi^2 = \text{non-significant with a small number of degrees of freedom indicating adequate fit and } RMSEA < 0.08$. Likewise, a chi-square ($\chi^2$) and/or RMSEA of 0 indicates a perfect fit, indicating no difference between values in the sample covariance matrix and the reproduced implied covariance matrix created based on the model. The t-values are significant when they are greater than $\pm 1.96$ and they are used to indicate the significance of parameter estimates or the direct and indirect effects of each path in a model. Consistent with the goal of path modeling to achieve a parsimonious model, having a few
meaningful paths and a nonsignificant chi-square value close to the saturated model value of zero is ideal (Schumacker & Lomax, 2010). Fit indices are provided in Tables 4 and 5.

Child Models

The first model tested the association between child perceptions of interparental conflict, child-reported attachment security and insecurity, and child-reported internalizing and inattentive/hyperactive symptoms. The first model included two observed variables for CPIC (conflict properties and threat), two mediator variables for CCSQ (avoidant and secure), predicting the dependent observed variables of BASC Internalizing and Inattentive/Hyperactive symptoms. Results of this model produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, RMSEA = .00, indicating a perfect fitting model. LISREL provides total direct and indirect effects for each model which are presented in Table 4. Direct paths from both CPIC predictors to both BASC outcomes were significant, as were direct paths from CCSQ security to both BASC outcomes. Results also indicated that CCSQ Security to mother is a significant mediator in the association between CPIC Threat and both BASC Internalizing and Inattentive/Hyperactive Symptoms. CCSQ Security was not a significant mediator in the association between CCSQ Conflict Properties and either symptom measured by the BASC. Likewise, CCSQ Avoidance did not serve as a significant mediator in the association between CPIC scales and BASC symptom scales.

The second model tested the mediating effect of CCSQ Security and Avoidance to the father in the association between CPIC Conflict Properties and Threat and the dependent BASC variables of Internalizing problems and Inattentive/Hyperactive Symptoms. Results of this model produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, RMSEA = .00, indicating a perfect fitting model (see Table 4). Direct paths from both CPIC predictors to both BASC outcomes were
significant, but no significant paths emerged from CCSQ scales to the BASC scales. Results of this model indicate that neither CCSQ Security nor Avoidance to father are significant mediators in the association between CPIC Threat and Conflict Properties and BASC Internalizing and Inattentive/Hyperactive Symptoms.

The third model tested the mediating effect of CCSQ Security to mother in the association between CPIC Triangulation and BASC Internalizing and Inattentive/Hyperactive Symptoms. Results of this model produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, $RMSEA = .00$, indicating a perfect fitting model (see Table 4). The only significant path to emerge in this model showed an inverse association between CCSQ Security to BASC Inattentive and Hyperactivity symptoms. Results of this model indicate that CCSQ Security to mother is not a significant mediator in the association between CPIC Triangulation and BASC Internalizing and Inattentive/Hyperactive Symptoms.

We then tested the same model investigating the mediating effect of CCSQ Security to father in the association between CPIC Triangulation and BASC Internalizing and Inattentive/Hyperactive symptoms. Results of this model produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, $RMSEA = .00$, indicating an “adequate” fitting model because none of the direct paths were significant. Results of this model indicate that CCSQ Security to father is not a significant mediator in the association between CPIC Triangulation and BASC Internalizing and Inattentive/Hyperactive Symptoms.

**Parent Models**

We tested the association between similar constructs using parent-reports of consensus in their marital relationship (DAS Consensus) and child internalizing and externalizing problems (BASC-PRS). Preliminary correlations indicated that PRQ Attachment could serve as a mediator
between DAS Consensus and BASC Internalizing symptoms and Externalizing symptoms reported by the mother and only BASC Externalizing symptoms reported by the father. Results of the first model with PRQ Attachment mediating the association between DAS Consensus and BASC Internalizing and Externalizing symptoms reported by the mother produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, $RMSEA = .00$, indicating a perfect fitting model (See Table 5). All direct pathways were significant except mother-reported attachment to BASC Internalizing problems. Examination of direct and indirect effects indicated that PRQ Attachment is not a significant mediator in the association between DAS Consensus and BASC Internalizing and Externalizing Symptoms, as reported by the mother.

The last model tested the mediating effect of PRQ Attachment in the association between DAS Consensus and BASC Externalizing symptoms reported by the father. Results of the model produced the following fit indices: $\chi^2 = 0.00$, $p = 1.00$, $RMSEA = .00$, indicating a perfect fitting model. The pathway between DAS Consensus to BASC Externalizing symptoms was significant, whereas the pathway from PRQ attachment to BASC Externalizing was not. Examination of direct and indirect effects indicated that PRQ Attachment is not a significant mediator in the association between DAS Consensus and BASC Internalizing and Externalizing Symptoms, as reported by the father. Fit indices, direct, and indirect effects for parent models are reported in Table 5.

Discussion

Results of the current study confirm an association between children’s perceptions of interparental conflict and behavioral symptoms, such as internalizing problems, externalizing problems, and inattentive/hyperactive problems. Our results for the path models testing the association between children’s perceptions of interparental conflict (threat, conflict, properties,
and triangulation) and child-reported behavioral problems (internalizing and externalizing symptoms) indicated a perfect fit. In other words, our theoretical model matched the sample data when testing these associations, providing support for our hypothesis that there is a significant association between these constructs. These findings are in line with previous research indicating that children’s perceptions of interparental conflict are related to child internalizing and externalizing symptoms (Fosco & Grych, 2007; Grych et al., 2000).

**Child Mediation Models**

The model proposed by Davies and Cummings (2006) states that part of the association between interparental conflict and child maladjustment can be explained by parent-child relationship features, like the attachment bond. We tested a mediational model that investigated attachment security and avoidance as mediators of the association between perceptions of interparental conflict and child behavior problems. Although results of our mediation path models for child reports on attachment to mother and father indicated a good fit, tests for mediation indicated that only child-reported attachment security to the mother served as a mediator between threat from interparental conflict and internalizing problems, as well as inattentive/hyperactive symptoms. Neither attachment security nor avoidance towards the father were significant mediators in the association between interparental conflict and child behavior outcomes.

These results indicate that a secure attachment to the mother at least partially explains the association between perceptions of interparental conflict and negative child outcomes. Specifically, findings suggest that attachment security to the mother mediates the links from perceived threat and properties of interparental conflict to both internalizing and inattentive/hyperactive symptoms. These results support the emotional security hypothesis.
(Davies & Cummings, 1994) and the idea that emotional security in the parent-child relationship is one of the processes at work in the context of interparental conflict and child adjustment outcomes (Davies & Cummings, 2006). It appears that interparental conflict is related to a sense of low security in the parent-child relationship, which in turn serves as a risk factor for children and contributes to the development of behavioral problems.

Our findings for the father-child attachment relationship were somewhat surprising, with neither secure nor avoidant attachment mediating the association between interparental conflict and child behavior outcomes. We had hoped to provide support for recent findings indicating that father-child attachment could mediate the association between these constructs (El-Sheikh & Elmore-Staton, 2004). However, El-Sheikh and Elmore-Staton (2004) reported that the strongest associations between marital conflict and child adjustment problems were found for children with insecure attachment. It is possible that we were unable to capture the same robust associations found in previous studies due to our relatively high functioning sample of children, who on the average reported high levels of attachment security (i.e., \( M \geq 3.33 \) on a 4-point scale).

Another line of research suggests that mothers are generally conceptualized as “caregivers” whereas fathers are often thought of as “playmates” (Verschueren & Marcoen, 1999). Based on these different parenting roles, the father-child attachment may be less salient to a child than the mother-child attachment, and consequently a less powerful factor in the association between interparental conflict and child adjustment. Similarly, earlier researchers suggested the “mother primacy” hypothesis based on findings that a mother-child attachment has a greater impact on a child than a father-child attachment (Suess, Grossman, & Sroufe, 1992). Our findings support the possibility that these two relationships – mother-child and father-child – involve unique interactions and roles that contribute to child outcomes in different ways and
possible different areas of development. For example, whereas mother-child attachment may contribute more to emotional regulation capacity and associated behavioral symptoms, father-child attachment may be more important in social functioning or achievement orientation (Lewis 2005; Lewis & Weinraub, 1976).

These results help us gain insight into aspects of the parent-child relationship that can be targeted for future intervention and prevention work with families. In particular, our findings support the notion that attachment to parents continues to be an influential factor in middle childhood (Kerns et al., 2006), highlighting the importance of parents continuing to act as “secure bases” for their children in addition to accommodating their children’s needs for independence and peer support. Parents can be educated on how to achieve a balance between providing emotional support and guidance, while also allowing their child to solve problems and resolve conflicts on their own. Likewise, different findings for mother-child and father-child attachment relationships provide evidence that children continue to have unique relationships with each parent beyond early childhood (e.g. Verschueren & Marcoen, 1999). It would be important for both researchers and clinicians to consider these relationships as separate and significant parts of the entire family system while capitalizing on the unique strengths that each relationship has to offer.

From a risk-prevention perspective, our findings also have important implications for families experiencing conflict. For instance, we have identified important characteristics of the family environment that pose a risk to a child’s emotional and psychological well-being, as well as specific issues that can be directly targeted and ameliorated in family therapy and divorce prevention or family conflict resolution programs. In particular, current results suggest that (a) children in the middle-childhood years ages 8- to 11 can reliably report on their perceptions of
family relationships and their own behavior, and (b) that assessment should include questions regarding children’s experience of threat from interparental conflict, their level of security in the parent-child relationship, and internalizing and/or inattentive/hyperactive behaviors. Lack of a secure attachment to one or both parents in times of distress or interparental conflict may result in emotional dysregulation and behavioral problems. Family therapy or parenting education classes might encourage and teach parents how to provide “secure bases” for their children despite the existence of conflict in the home. Also, parents can be educated about the connection between interparental conflict and their child’s behavior problems as a means to prevent future overt conflict between parents in the home while children are present.

*Parent Mediation Models*

We tested theoretically similar constructs reported by parents, i.e., using parent-reports of consensus in their marital relationship, parental perceptions of attachment in the parent-child relationship, and parent-reported child internalizing and externalizing symptoms. Results indicating that parent-reports of consensus in their marital relationship are significantly associated with parent-reported child internalizing and externalizing symptoms are consistent with previous research suggesting consistency between parent and child reports of marital conflict and child internalizing and externalizing problems (Grych, Harold, & Miles, 2003). However, the parent models did not support our hypotheses that parent-reported parent-child attachment would mediate the association between consensus and child behavior problems. One possible reason for this is that our participants were a relatively homogenous sample of mostly Caucasian middle-class parents who do not perceive or report any major issues or problems in their relationships with their children. Another possible reason is that parents who volunteer their
families for research participation may be more secure in their parent-child relationships and more likely to share information related to the well-adjusted status of their family.

Limitations and Future Research

One limitation of our study is the use of self-report data, which increases the risk of common method variance that can contribute to more robust associations than those that could be found with interviews, behavioral observations, and collateral reports. Despite well-known limitations in self-report data, self-report measures continue to be the best way to detect behavior problems in middle childhood, with child reports of behavior being more reliable than parent reports (Edelbrock, Costello, Dulcan, Kalas, & Conover, 1985). Although there were consistencies in our data when comparing child and parent reports of child behavior, as suggested by previous research (Grych et al., 2003), it seems as though child reports of parent-child attachment were more reliable and robust predictors than parent reports in this study. Another limitation of the study is that it includes only families from a rural Southwestern area, and thus results may not generalize to families in other geographic areas of the country. In addition, it is possible that a larger sample of families would have provided different results than those we found in our study. As mentioned earlier, the relatively homogenous sample of mostly Caucasian, upper middle-class families, may have prevented us from obtaining more robust associations between the variables in question, as may have been found in an at-risk sample.

Overall, our study is not without limitations but provides important insight into the associations between perceptions of interparental conflict, parent-child attachment, and child behavior problems in middle childhood. We hope that our results inform future research and practice for those who work with children and families and those who have the common goal of working to stop preventable adversities (i.e., conflict, child behavior problems) that most
families encounter today. It would be important for future research to assess these constructs in a larger, more demographically diverse sample of families where the current results could be compared to families of different ethnicities and income levels, particularly those who are “at risk”. It would also be important for future research to assess whether or not the same associations are found in divorced or single-parent families, as to support the idea that having a secure base to one or both parents contributes to child adjustment in the context of interparental conflict and/or divorce.

Our results lend support to earlier findings of associations between perceptions of interparental conflict and negative child behavioral and emotional outcomes, from the perspectives of children and parents in a sample of middle-class families (El-Sheikh & Elmore-Staton, 2004). In addition, our results provide additional evidence that attachment security serves as a significant mediator in the association between children’s perceptions of interparental conflict and child-reported symptoms. Current findings suggest that attachment security versus insecurity plays a larger role when accounting for the associations between perceptions of threat or properties of interparental conflict and both internalizing and inattentive/hyperactive symptoms. Similarly, attachment security in the mother-child relationship seems to be a significant explanatory factor in the association between interparental conflict and child behavior outcomes, compared to attachment security in the father-child relationship, which was not significant in our study.
References


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Shaver, J. Cassidy, P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications (2nd ed.)* (pp. 78-101). New York, NY US: Guilford Press.

Retrieved from EBSCOhost on March 19, 2011.


### Table 1

**Sample Demographics**

<table>
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<tr>
<th></th>
<th>Total Parents (N = 172)</th>
<th>Father (N = 86)</th>
<th>Mother (N = 86)</th>
<th>Target Children (N = 86)</th>
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<td>Caucasian</td>
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<td>67 (77.9%)</td>
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<td>1 (1.2%)</td>
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<td>African-American</td>
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<td>8 (9.3%)</td>
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<td>$30,000-$45,000</td>
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<td>$45,000-$60,000</td>
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<td>$60,000-$75,000</td>
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<td>Over $75,000</td>
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<td>5.45</td>
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35
### Table 2

**Correlations, Means, Standard Deviations, Possible and Actual Ranges, and Cronbach’s α for Child Self-Report Variables**

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<th>(13)</th>
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<tr>
<td>1. Conflict Properties</td>
<td>--</td>
<td>.66**</td>
<td>.45**</td>
<td>.10</td>
<td>-.40**</td>
<td>-.41**</td>
<td>.54**</td>
<td>.15</td>
<td>-.42**</td>
<td>-.47**</td>
<td>.57**</td>
<td>-.55**</td>
<td>-.39**</td>
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<td>2. Threat</td>
<td>--</td>
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<td>-.10</td>
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<td>-.28*</td>
<td>.43**</td>
<td>-.05</td>
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<td>.43**</td>
<td>-.53**</td>
<td>-.41**</td>
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<td>3. Triangulation</td>
<td>--</td>
<td>-.05</td>
<td>-.13</td>
<td>-.14</td>
<td>.23*</td>
<td>-.07</td>
<td>-.02</td>
<td>-.19</td>
<td>.26*</td>
<td>-.33**</td>
<td>-.32**</td>
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<td>CCSQ-M</td>
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<td>4. Preoccupied</td>
<td>--</td>
<td>-.31**</td>
<td>-.15</td>
<td>.15</td>
<td>.81**</td>
<td>-.28*</td>
<td>-.13*</td>
<td>.06</td>
<td>.10</td>
<td>.08</td>
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<tr>
<td>5. Avoidant</td>
<td>--</td>
<td>.69**</td>
<td>-.63**</td>
<td>-.37**</td>
<td>.81**</td>
<td>.59**</td>
<td>-.56**</td>
<td>.29**</td>
<td>.21</td>
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<td>6. Indecision</td>
<td>--</td>
<td>-.58**</td>
<td>-.17</td>
<td>.56**</td>
<td>.74**</td>
<td>-.49**</td>
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<td>.05</td>
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<tr>
<td>7. Felt Security</td>
<td>--</td>
<td>.20</td>
<td>-.59**</td>
<td>-.45**</td>
<td>.73**</td>
<td>-.54**</td>
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<td>8. Preoccupied</td>
<td>--</td>
<td>-.42**</td>
<td>-.19</td>
<td>.19</td>
<td>.04</td>
<td>.12</td>
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<tr>
<td>9. Avoidant</td>
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<td>.68**</td>
<td>-.61**</td>
<td>.31**</td>
<td>.24*</td>
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<td>10. Indecision</td>
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<td>-.61**</td>
<td>-.19</td>
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<td>11. Felt Security</td>
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<td>-.39**</td>
<td>-.29**</td>
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<tr>
<td>12. Internalizing</td>
<td>--</td>
<td>.73**</td>
<td></td>
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<td>13. Inattention/Hyperactivity</td>
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</tbody>
</table>

| Mean     | 45.41 | 26.49 | 20.17 | 2.22 | 1.63 | 1.66 | 3.33 | 2.19 | 1.63 | 1.57 | 3.40 | 50.54 | 51.16 |
| (SD)     | (8.02) | (4.53) | (2.96) | (0.56) | (0.57) | (0.51) | (0.58) | (0.61) | (0.62) | (0.50) | (0.59) | (9.60) | (10.65) |
| Poss. Range | 19-57 | 13-39 | 8-24 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 |
| Actual Range | 23-57 | 13-36 | 14-24 | 1-3.8 | 1-3.6 | 1-2.8 | 1-2.4 | 1-4 | 1-4 | 1-3.7 | 1-5.4 | 36-89 | 35-91 |
| Cronbach’s α | 0.91 | 0.74 | 0.67 | 0.80 | 0.89 | 0.80 | 0.85 | 0.74 | 0.85 | 0.78 | 0.85 | 0.91 | 0.80 |

*Note.* CPIC = Children’s Perception of Interparental Conflict scale, CCSQ-M = Children’s Coping Strategies Questionnaire, report on Mother; CCSQ-F = Children’s Coping Strategies Questionnaire, report on Father; BASC-SRP = Behavior Assessment Scale for Children – Self-Report. *p < .05; **p < .01; ***p < .001.
Table 3

**Correlations, Means, Standard Deviations, Possible and Actual Ranges for Parent-Report Variables**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
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<tbody>
<tr>
<td><strong>DAS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Mother Consensus</td>
<td>--</td>
<td>.42**</td>
<td>.32**</td>
<td>.14</td>
<td>-.27**</td>
<td>-.21**</td>
<td>.00</td>
<td>-.22</td>
</tr>
<tr>
<td>2. Father Consensus</td>
<td>--</td>
<td>.23*</td>
<td>.51***</td>
<td>-.18</td>
<td>-.26*</td>
<td>-.03</td>
<td>-.24*</td>
<td></td>
</tr>
<tr>
<td><strong>PRQ</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mother Attachment</td>
<td>--</td>
<td>.12</td>
<td>-.22**</td>
<td>-.49***</td>
<td>-.01</td>
<td>-.27*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Father Attachment</td>
<td>--</td>
<td>-.28*</td>
<td>-.12</td>
<td>-.23*</td>
<td>-.23*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BASC-PRS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Mother Internalizing</td>
<td>--</td>
<td>.33**</td>
<td>.41***</td>
<td>.32*</td>
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<tr>
<td>6. Mother Externalizing</td>
<td>--</td>
<td>.04</td>
<td>.62***</td>
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<td></td>
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<td>8. Father Externalizing</td>
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<td></td>
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<tr>
<td><strong>Mean</strong></td>
<td>48.92</td>
<td>47.97</td>
<td>49.61</td>
<td>48.99</td>
<td>50.11</td>
<td>52.16</td>
<td>50.76</td>
<td>52.51</td>
</tr>
<tr>
<td><strong>(SD)</strong></td>
<td>(7.80)</td>
<td>(7.56)</td>
<td>(9.51)</td>
<td>(10.16)</td>
<td>(9.37)</td>
<td>(10.84)</td>
<td>(9.16)</td>
<td>(11.08)</td>
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<tr>
<td><strong>Poss. Range</strong></td>
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<td>13-65</td>
<td>15-80</td>
<td>15-80</td>
<td>30-95</td>
<td>30-95</td>
<td>30-95</td>
<td>30-95</td>
</tr>
<tr>
<td><strong>Actual Range</strong></td>
<td>21-65</td>
<td>25-65</td>
<td>28-67</td>
<td>21-72</td>
<td>32-87</td>
<td>36-89</td>
<td>36-81</td>
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<td><strong>Cronbach’s Alpha</strong></td>
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<td>0.84</td>
<td>0.83</td>
<td>0.90</td>
<td>0.95</td>
<td>0.89</td>
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</tr>
</tbody>
</table>

Note. DAS-M = Dyadic Adjustment Scale, Mother Report; DAS-F = Dyadic Adjustment Scale, Father Report; PRQ-M = Parenting Relationship Questionnaire, Mother Report; PRQ-F = Parenting Relationship Questionnaire, Father Report; BASC-PRS = Behavior Assessment Scale for Children – Parent Rating Scales. *p < .05; **p < .01; *** p < .001.
Table 4

Model Fit Indices, Direct, and Indirect Pathway Effects for Child Path Models

<table>
<thead>
<tr>
<th>Model</th>
<th>(\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>RMSEA</th>
<th>Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
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<td>1. CPIC(T,CP)/CCSQM-A,S/BASC-Int,InH</td>
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<td>0</td>
<td>1.00</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1a. CPIC-CP*BASC-Int</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.47*</td>
<td>-0.18*</td>
</tr>
<tr>
<td>1b. CPIC-CP*BASC-InH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.50*</td>
<td>-0.26*</td>
</tr>
<tr>
<td>1c. CPIC-T*BASC-Int</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.62*</td>
<td>-0.14</td>
</tr>
<tr>
<td>1d. CPIC-T*BASC-InH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.48*</td>
<td>-0.13</td>
</tr>
<tr>
<td>1e. CCSQM-A*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>1f. CCSQM-A*BASC-InH</td>
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<td>-0.06</td>
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<tr>
<td>1g. CCSQM-S*BASC-Int</td>
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<tr>
<td>1h. CCSQM-S*BASC-InH</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.39*</td>
<td>--</td>
</tr>
<tr>
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<td>0</td>
<td>1.00</td>
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</tr>
<tr>
<td>2a. CPIC-CP*BASC-Int</td>
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<td>--</td>
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<td>--</td>
<td>-0.47*</td>
<td>-0.05</td>
</tr>
<tr>
<td>2b. CPIC-CP*BASC-InH</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.50*</td>
<td>-0.17</td>
</tr>
<tr>
<td>2c. CPIC-T*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.62*</td>
<td>0.01</td>
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<tr>
<td>2d. CPIC-T*BASC-InH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.48*</td>
<td>0.06</td>
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<td>2e. CCSQF-A*BASC-Int</td>
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<td>--</td>
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<td>0.06</td>
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</tr>
<tr>
<td>2f. CCSQF-A*BASC-InH</td>
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<td>0.22</td>
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</tr>
<tr>
<td>2g. CCSQF-S*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.01</td>
<td>--</td>
</tr>
<tr>
<td>2h. CCSQF-S*BASC-InH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.01</td>
<td>--</td>
</tr>
<tr>
<td>3. CPIC-TR/CCSQM-S/BASC-Int,Inh</td>
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<td>0</td>
<td>1.00</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3a. CPIC-TR*BASC-Int</td>
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<td>--</td>
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<td>-0.43</td>
</tr>
<tr>
<td>3b. CPIC-TR*BASC-InH</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.18</td>
<td>-0.48</td>
</tr>
<tr>
<td>3c. CCSQM-S*BASC-Int</td>
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</tr>
<tr>
<td>3d. CCSQM-S*BASC-InH</td>
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<td>--</td>
<td>--</td>
<td>-0.50*</td>
<td>--</td>
</tr>
<tr>
<td>4. CPIC-TR/CCSQF-S/BASC-Int,Inh</td>
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<td>1.00</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
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<td>4a. CPIC-TR*BASC-Int</td>
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<td>--</td>
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<td>-0.26</td>
</tr>
<tr>
<td>4b. CPIC-TR*BASC-InH</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.18</td>
<td>-0.32</td>
</tr>
<tr>
<td>4c. CCSQF-S*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.34</td>
<td>--</td>
</tr>
<tr>
<td>4d. CCSQF-S*BASC-InH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.34</td>
<td>--</td>
</tr>
</tbody>
</table>

Note. BASC = Behavior Assessment Scale for Children; BASC-Int = BASC Internalizing Symptoms; BASC-InH = BASC Inattentive/Hyperactive Symptoms; CPIC = Children’s Perception of Interparental Conflict scale; CPIC-T = Threat; CPIC-TR = Triangulation; CPIC-CP = CPIC Conflict Properties; CCSQ = Children’s Coping Strategies Questionnaire; CCSQI = CCSQ Insecure; CCSQS = CCSQ Secure; CCSQM-A = CCSQ Mother Avoidant; CCSQM-S = CCSQ Mother Security; CCSQF-A = CCSQ Father Avoidant; CCSQF-S = CCSQ Father Security; *\(p < .05\); **\(p < .01\); ***\(p < .001\).
Table 5

Model Fit Indices, Direct, and Indirect Pathway Effects for Parent Path Models

<table>
<thead>
<tr>
<th>Model</th>
<th>(\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>RMSEA</th>
<th>Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DASM-C/PRQM-A/BASC-Int,Ext</td>
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<td>0</td>
<td>1.00</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1a. DASM-C*BASC-Ext</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.27*</td>
<td>-0.21*</td>
</tr>
<tr>
<td>1b. DASM-C*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.33*</td>
<td>-0.05</td>
</tr>
<tr>
<td>1c. PRQM-A*BASC-Ext</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.54*</td>
<td>--</td>
</tr>
<tr>
<td>1d. PRQM-A*BASC-Int</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.14</td>
<td>--</td>
</tr>
<tr>
<td>2. DASF-C/PRQF-A/BASC-Ext</td>
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<td>1.00</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2a. DASF-C*BASC-Ext</td>
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<td>--</td>
<td>--</td>
<td>-0.34*</td>
<td>-0.11</td>
</tr>
<tr>
<td>2b. PRQF-A*BASC-Ext</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>-0.17</td>
<td>--</td>
</tr>
</tbody>
</table>

Note. BASC = Behavior Assessment Scale for Children, Parent Rating Scale; BASC-Int = Internalizing Symptoms; BASC-InH = Inattentive/Hyperactive Symptoms; DAS = Dyadic Adjustment Scale; DASM-C = DAS Mother Consensus; DASF-C = DAS Father Consensus; PRQ = Parenting Relationship Questionnaire; PRQM-A = PRQ Mother Attachment Scale; PRQF-A = PRQ Father Attachment Scale. *\(p < .05\); **\(p < .01\); ***\(p < .001\).
APPENDIX A

EXTENDED LITERATURE REVIEW
Attachment theory suggests that the attachment system, which originally develops within the caregiver-child relationship, provides the foundation for children’s mental representations of relationships and associated expectations with regards to those responsible for caretaking (Bowlby, 1969). These mental representations involve perceptions of the self and others and serve as a template for finding safety and security in relationships throughout life inside and outside of the home. Children who perceive their parents or caregivers as responsive and willing to meet their needs will develop a secure representation of relationships and learn to trust that others will be available to meet their needs. Alternatively, if caregivers are inconsistent or rejecting, children develop insecure representations of themselves as failures and unworthy and/or of others as untrustworthy and unreliable (Bowlby, 1980). Children with secure attachments typically are at a decreased risk for adjustment problems and symptoms of psychopathology, whereas insecure attachment creates a vulnerability for adjustment and behavior problems, as well as more serious forms of psychopathology (Bowlby, 1973, 1980; Carlson & Sroufe, 1995; Cicchetti, Toth, & Lynch, 1995; Finnegan, Hodges, & Perry, 1996; McCartney, Owen, Booth, Clark-Stewart, & Vandell, 2004; Moss, Rousseau, Parent, St.-Laurent, & Saintonge, 1998). Thus, a secure attachment system acts as a protective buffer while an insecure attachment system is a risk factor for psychological and relational difficulties (Moss et al., 2006; Weinfield, Sroufe, & Egeland, 2000).

Optimally, the attachment system provides children with a “safe haven” where they obtain emotional support, protection from threat, and a sense of security in relationships with others (Ainsworth, 1989). Research has indicated that children with secure attachment histories are more resistant to stress and more resilient in difficult circumstances (Pianta, Egeland, & Sroufe, 1990; Sroufe, Egeland, Carlson, & Collins, 2005). Resilience, by definition, represents
positive adaptation despite adversity that might ordinarily be expected to lead to maladjustment (Luthar, 2006). In the context of early family relationships, attachment security is considered a resilience factor that could protect children from the deleterious effects of family adversity, such as interparental conflict, negative parenting behaviors, and child maltreatment (Hammen, 2003).

The resilience literature suggests that developmental researchers are wise to identify risk and vulnerability factors as they are occurring instead of implementing treatments for maladjustment and disorder deeply ingrained within at-risk children and families (Luthar, Cicchetti, & Becker, 2000a). Resilience researchers emphasize the importance of maximizing positive outcomes and minimizing pathology (Luthar, Cicchetti, & Becker, 2000b). Likewise, most researchers in the area of developmental psychopathology insist that positive early family relationships are the foundation for resilient developmental trajectories and maintenance of positive adjustment despite adversity (Sroufe, 2002). Instances of conflict or disruptions in the caregiver-child relationships can be detrimental to the development of future relationships across the life span, but positive changes in the caregiving environment during childhood and adolescence can alter the negative trajectory (Waters, Weinfield, & Hamilton, 2000). That is, although early caregiver relationships affect emerging psychological attributes and influence major developmental tasks, resolution of these tasks through a corrective caregiver relationship during childhood influences the likelihood of success in future tasks. An important direction for current resilience research is the investigation of how protective processes (e.g., secure attachment) influence positive outcomes despite adversity (Luthar, 1999). By examining attachment processes in a sample of middle-class families, we may be able to identify how the attachment system serves as a protective or risk factor.
Coincidentally, a second generation of research on the effects of interparental conflict and children’s well-being has emerged with a greater focus on understanding the processes that make children especially vulnerable to distress when they are exposed to parental discord (Davies & Cummings, 2006). Similar to the attachment literature, research on interparental conflict emphasizes the role of children’s representations of conflict and how those representations serve as a radar system for identifying interparental events that may pose risk or threat to the self or the family (Davies, Forman, Rasi, & Stevens, 2002; Davies, Harold, Goeke-Morey, & Cummings, 2002). Therefore, it is representations of self, other, and interparental events that seem most influential in determining which factors and processes may serve to protect or propagate risk in the context of interparental conflict and negative behavior outcomes.

Protective factors are those that mediate or offset the negative outcomes of interparental conflict, while potentiating factors are those that moderate or strengthen the association between interparental conflict and maladjustment (Davies & Cummings, 2006). Recent literature supports both mediator and moderator models indicating that a large part of the association between interparental conflict and child maladjustment is mediated and moderated by parent-child attachment, with attachment insecurity serving as a risk factor and attachment security as a protective/resilience factor (Davies & Cummings, 2006; El-Shiekh & Elmore-Staton, 2004; El-Sheikh, Cummings, Kouros, Elmore-Staton, & Buckhalt, 2008). The proposed study seeks to extend these findings by demonstrating that attachment is an important mechanism in the association between perceptions of interparental conflict and associated adjustment problems for children in a normative, community-based sample of families with 8-11 year old children. The proposed study will also add to the current literature on attachment in middle childhood by using a measure specifically designed to assess different dimensions of attachment insecurity. This
chapter will review the existing literature on attachment theory and research, present relevant research findings on interparental conflict and associated adjustment problems for children, and then integrate the two literatures to support the hypotheses for the proposed study.

Attachment Theory

Attachment theory states that children seek protection and security from caregivers in times of distress and uncertainty (Bowlby, 1969). Children use the attachment system in order to achieve a sense of felt security in the parent-child relationship, or confirmation that their needs for support and protection will be met by parents and caregivers (Davies & Woitach, 2008). In times of distress and discomfort due to threat or illness, the attachment system is activated automatically by the child’s anxiety which prompts him or her to seek comfort, proximity, or increased monitoring by the attachment figure (Davies & Woitach, 2008). The parent or caregiver’s response to the child’s attachment behaviors either confirms or disconfirms security in the parent-child relationship. The child’s experiences in the parent-child relationship lead to the formation of attachment representations or “internal working models” of the self, the attachment figure, and the environment within the context of the attachment behavioral system (Bowlby, 1969/1982). These internal working models influence expectations of and behaviors within the caregiver relationship and later relationships outside of the home.

The biological function of the attachment system is protection. Essentially, the child is “hard-wired” to initiate attachment behaviors in order to gain proximity and security from the caregiver. These innate, natural attachment behaviors are designed to activate the parents’ caregiving system, or desire to fulfill the child’s needs for proximity (Bowlby, 1969/1982; George & Solomon, 1996). If the parent responds and provides the comfort and security that the child is seeking, a “secure” attachment develops. Secure children see themselves as deserving of
love and affection from others, they see others as capable and interested in meeting their needs, and they generally feel safe and secure in their close relationships (Ainsworth, 1990). However, if the parent does not respond appropriately to the child’s attachment behaviors and the child does not achieve the comfort and security he or she seeks, this often leads to the development of an “insecure” attachment representation of the parent-child relationship (Ainsworth, 1989).

An insecure attachment representation can take on different forms. In addition to secure attachment, Ainsworth and colleagues (1978) originally identified “avoidant” and “ambivalent/resistant” forms of attachment insecurity from observations of infants within the Strange Situation paradigm, a laboratory assessment of behavioral strategies infants use when stressed to gain proximity to and support from their caregiver. The goal of the Strange Situation procedure is to separate the infant from the caregiver in order to progressively increase anxiety for the infant and activate the innate response of his or her attachment system, which leads to enactment of certain attachment behaviors. The procedure includes a sequence of eight episodes which represent increasingly stressful infant-caregiver separations, reunions, the presence of a stranger, and exposure to a novel environment (Ainsworth et al., 1978).

In the Strange Situation, infants with a secure attachment readily separate from the caregiver, appear eager to explore, show a clear preference for the caregiver when distressed, and do not show anger or rejection in their interactions with the caregiver upon reunion (Ainsworth et al., 1978). Anxious/avoidant infants are engaged in exploration but have little affective interaction with caregivers; they do not show a preference for the caregiver over the stranger, fail to actively initiate interaction with the caregiver upon reunion, and may look away or turn away from the caregiver, especially when their level of distress is increased at the second reunion. Ambivalent/resistant infants are hesitant to explore and appear wary of the stranger and the novel
situation (Ainsworth et al., 1978). These infants are not reassured by their mother’s presence or comforting because their anxiety and anger interfere with attempts to derive comfort through proximity (Sroufe, 1990).

During at home observations, these attachment behaviors appeared to represent infants’ actual experiences in the mother-child relationship within the first year of life (Stayton & Ainsworth, 1973). That is, based on experiences at home, if infants expected their mother to be available and responsive, they would use open bids for contact (e.g. reaching for the mother) after being separated and reunited with her, indicating a secure attachment (Sroufe, 1990). However, if infants had experienced and thus anticipated rejection from the mother, they were more likely to ignore or avoid the mother when she returned, indicating avoidant attachment (Sroufe, 1990). Mothers of avoidant infants have been described as rejecting and were observed to reject infants’ attempts at contact and withdraw from infants when they expressed depressed affect (Ainsworth, Bell, & Stayton, 1971; Ainsworth et al., 1978; Grossman & Grossman, 1991; Main, 1981). If infants experienced inconsistency or intrusiveness by the mother at home, they were more likely to demonstrate extreme distress during separation and anger or ambivalence toward the mother at reunion, indicating an ambivalent/resistant attachment (Ainsworth et al., 1978; Bowlby, 1980; Cassidy & Berlin, 1994; Grossman & Grossman, 1991; Sroufe 1990).

Avoidant and ambivalent/resistant infant behaviors towards the caregiver represent organized approaches to maintain proximity to an unresponsive parent in times of distress (Main, 1990). However, an increase in awareness of child abuse and neglect in the 1970’s and 1980’s led to the recognition of a broader array of difficulties in child adaptation within the parent-child relationship. In cases of child abuse and neglect, proximity to a caregiver may contribute to a child’s view of the caregiver as a source of danger versus comfort and support. Main and Hesse
(1990) observed that infants caught in a conflict between proximity-seeking and frightening caregiver behavior sometimes showed typical secure and insecure attachment behaviors but also responded in a fearful, frightened, and disoriented manner. These infants appeared to lack a clear strategy for interacting with the caregiver and sometimes demonstrated “freezing” behavior in the presence of the caregiver. Main and Solomon (1986, 1990) classified infants who demonstrated this behavior in the Strange Situations as “disorganized/disoriented” in their attachment representation. This classification is associated with adjustment difficulties and behavior problems in childhood and adolescence including dissociative symptoms and aggressive behavior (Carlson, 1998; Sroufe, 2005; Lyons-Ruth, 1996; Moss et al., 2006).

Continuity of Attachment

When considering attachment processes beyond infancy, it is important to consider the cognitive processes inherent within a child’s expectations of the caregiver. The Strange Situation paradigm demonstrated that the child was seeking more than physical proximity to the mother and provided empirical evidence for theoretical speculations about internal working models and the affective component of attachment. According to Bowlby (1973), caregiver availability and responsiveness was important to a child’s sense of security in the parent-child relationship. Sroufe and Waters (1977) extended the theory to include the role of distal communication observed in this paradigm (e.g., infants becoming more distressed after the second separation than the first) and proposed the concept of “felt security”. As attachment researchers began to expand attachment theory to older children, the concept of felt security in the attachment relationship became an increasingly comprehensive way to explain attachment beyond the years of infancy (Cicchetti, Cummings, Greenberg, & Marvin, 1990; Mikulincer & Shaver, 2007).
Ainsworth (1990) extended the idea of felt security to older children and adults indicating that it was the availability of, versus the proximity to, the caregiver that provided the grounds for a secure attachment representation. These appraisals of caregiver availability and the actual behavior of the caregiver support a transactional view of attachment relationships and allow for the extension of attachment concepts to development throughout the life span (Sroufe, Egeland, Carlson, & Collins, 2005). Throughout the course of an individual’s life, there are a number of threats or disruptions that can occur within the context of the caregiver-child and other attachment relationships. For example, disrupted communication, lack of responsiveness, or physical inaccessibility can lead to emotional responses to separation from a caregiver. These disruptions may interfere with the attachment bond and may significantly reduce an individual’s ability to adapt to events or relationships outside of the family (Adam & Chase-Lansdale, 2002). Therefore, it is important to continue studying attachment in the realm of multiple relationships and contexts over time, especially as they pertain to developmental periods that involve relationships outside of the home.

A major premise of attachment theory states that the mental representations of relationships that developed in the home environment are directly related to the representations individuals bring to all social interactions (Bowlby, 1973). Studies on attachment processes beyond infancy provide strong support for Bowlby’s idea that attachment representations follow an individual from “the cradle to the grave” (e.g., Carlson & Sroufe, 1995; Hamilton, 2000; Sroufe, 2005; Waters, Weinfield, & Hamilton, 2000). A child’s perception of threat to the availability of the caregiver is influenced by their internal expectations of the caregiver as well as the quality of communication with the caregiver as they get older (Bowlby, 1973). A secure relationship is one that develops from expectations that the caregiver will be available and
openly communicate with the child whereas an insecure relationship will develop from lack of child confidence in caregiver availability and distorted or confusing communication between the caregiver and child (Kobak & Madsen, 2008).

Ultimately, insecure attachments that develop in infancy likely follow the child into their other relationships. The avoidant individual expects to be rejected and subsequently rejects others and the role of emotions in their life, while the resistant individual is unclear about what to expect from others, which leads to rather inconsistent or ambivalent behaviors and responses in social relationships (Bowlby, 1969/1982). In contrast to a primary focus on caregiver proximity during infancy, children’s representations and behavior within the attachment framework become increasingly complex and sophisticated as they grow older and can be maintained over increasing distance and time.

Attachment in Middle Childhood

Middle childhood represents a vital developmental time frame during the shift from childhood to adolescence. Even though they are beginning to place greater importance on the peer group, children of this age group continue to report that they prefer parents as the first line of support when compared to peers (Levitt, Guacci-Franco, & Levitt, 1993). Several studies on middle childhood indicate that parent-child attachment is related to adaptation within both home and peer settings (Kerns, Klepac, & Cole, 1996; Kerns, Tomich, Aspelmeier, & Contreras, 2000; Moss & St-Laurent, 2001). Despite these findings, middle childhood is a relatively understudied age group in the field of attachment research (Moss, Smolla, Cyr, Dubois-Comtois, Mazzarello, & Berthiaume, 2006). Often times, attachment researchers choose to study early childhood or adolescence, often overlooking middle childhood in both cross-sectional and longitudinal
studies. Expanding the study of attachment processes to middle childhood is important for a better understanding of the role of the attachment system in this developmental transition.

During middle childhood, the goal of the attachment system shifts from proximity to availability of the caregiver (Bowlby, 1987; Ainsworth, 1990). During this important developmental period, children are also making a transition from being solely dependent on parents for emotional security and support to developing a greater reliance on peers and social relationships. Children of this age are becoming more self-reliant and autonomous, and are better able to communicate with parents and caregivers about their expectations for the parent-child relationship (Bowlby, 1973; Maccoby, 1984). Children’s cognitive processes are also becoming more complex and they are able to further generalize their attachment representations to other relationships outside of the home. In fact, there is some empirical support for the idea that children in middle childhood develop “states of mind” regarding attachment relationships and an increased proclivity for abstract thinking allows these generalizations to occur (Main, Kaplan, & Cassidy, 1985). In turn, important cognitive, social, and emotional processes occur as a result of broader modes of thinking and possibilities for relationships during middle childhood, which makes this time of development a particularly important and interesting area for research.

Despite broadening of the social network during middle childhood, children of this age continue to use parents as primary attachment figures and show a strong preference for parents over peers in situations when an attachment figure would be needed (e.g. times when the child is scared or sad) (Kerns, Tomich, & Kim, 2006). However, when parents are not available, children may rely more heavily on peers for emotional support, or attempt to get their emotional needs met in both contexts. Having a “secure base” with parents would give children the ability to seek relationships outside of the home and have expectations that others would be available for
meeting their needs (Kerns, 1996). Although attachment research in middle childhood is not as broad compared to the work done in infancy and early childhood, there continues to be major support for the idea that children’s representations of their parent(s) as a secure base are directly related to their perceptions of security in the parent-child relationship in times of distress and need.

Classification of attachment in middle childhood is similar to the classification system used in infancy and early childhood. Attachment in middle childhood is classified using the secure, avoidant, and ambivalent/preoccupied categories but further distinguishes between two behavioral profiles associated with attachment disorganization during the school-age years, controlling-punitive and controlling-caregiving attachment behaviors (Moss et al., 2006). Only recently have attachment researchers started to assess and provide empirical evidence for disorganized behavioral strategies at this age. Children who display disorganized attachment behavior appear to lack a coherent strategy for accessing the mother in times of distress because there seems to be no clear, goal-oriented approach to obtaining support (Main & Solomon, 1990). They may attempt to access their mother, withdraw those attempts, and then remain indecisive about whether they would like to continue trying to access her.

The two disorganized attachment profiles were initially identified in observational studies of reunion episodes with three- to six-year-old children and longitudinal studies on infant attachment (Cassidy & Marvin, 1992; Main & Cassidy, 1988). One of the studies demonstrated that the majority of six-year-old children who were originally classified as disorganized in infancy generally showed a more organized, role-reversing approach to the caregiver (Main & Cassidy, 1988). These researchers explain this shift as the child’s attempt to resolve the paradox of wanting to approach a frightened or frightening caregiver. Theorists suggest that this role-
reversal serves to regulate the child’s internal fear state (Solomon, George, & DeJong, 1995), which the mother may elicit by acting hostile or helpless (Lyons-Ruth & Block, 1996; Main & Hesse, 1990). Children who display disorganized-controlling attachment strategies display role-reversing behavior where they take on the role of parent or caregiver with the mother (Moss et al., 2006).

Two basic forms of controlling behavior have been identified, namely the controlling-punitive and the controlling-caregiving strategies (Cassidy & Marvin, 1992; Main & Cassidy, 1988). Children who are classified as the controlling-punitive type use hostile behavior with the caregiver including verbal threats, harsh commands, and sometimes physical aggression towards the parent. Children who are classified as the controlling-caregiving type direct the parent’s activities and conversations in a helpful or emotionally positive manner. While the controlling-punitive child attempts to manipulate the caregiver using humiliation, the controlling-caregiving child attempts to protect the parent using excessively cheerful or positive behavior. It is important to continue assessing these strategies during middle childhood in order to expand our understanding of these strategies while exploring associations with child behavioral problems and potential family risk factors (i.e. interparental conflict which could elicit feelings of fear in response to the caregiver).

Many studies on attachment in middle childhood have viewed attachment as a phenomenon that occurs on a secure-insecure continuum (e.g., Kerns, Klepac, & Cole, 1996), whereas recently developed measures (e.g., CCSQ: Yunger, Corby, & Perry, 2005) can assess the specific type of attachment insecurity a child experiences in the parent-child relationship based on their perceptions of parental emotional availability and behavior. Although a few measures of attachment in middle childhood have been found to reliably assess this construct,
validity data is lacking (Kerns & Seibert, 2008). The proposed study seeks to replicate findings on the association between attachment insecurity and behavioral risk factors while providing additional empirical support for the three insecure attachment strategies (avoidant, preoccupied, disorganized) in middle childhood using a relatively new measure of this construct.

Child Attachment and Psychological Functioning

Theoretically, secure children are able to carry forward feelings of being worthy of love and support from others. Supporting research indicates that securely attached children have a more balanced self-view, a higher self-esteem, and lower levels of internalizing and externalizing problems in middle childhood (Cassidy, 1998; Cassidy, Ziv, Mehta, & Feeney, 2003). Research also indicates that children with secure attachment histories seem to have developed a foundation of empathy from the caregiver-child relationship that helps them to be attuned and empathic to others’ emotions in social relationships (Weinfield, Sroufe, Egeland, & Carlson, 2008).

In contrast, insecure attachment representations are associated with a unique set of adjustment difficulties and behavior problems in children. Research suggests that as a result of having an inconsistent, intrusive, or unresponsive caregiver, ambivalent/resistant children experience anxiety, which can lead to chronic anxiety and hypervigilance as a coping mechanism (Bowlby, 1973; Cassidy & Berlin, 1994). Children with an ambivalent/resistant attachment exaggerate their emotions, experience difficulty regulating their emotions, rely on others for soothing and comfort, and consequently more often exhibit depression, anxiety, and aggression (Warren, Huston, Egeland, & Sroufe, 1997; Weinfield et al., 2008). In addition, children with ambivalent/preoccupied attachment strategies demonstrate deficits in social skills when compared to secure or avoidant children in middle childhood (Verschueren & Marcoen, 1999).
Some theorists argue that there are stronger associations between externalizing symptoms and ambivalent attachment than avoidant attachment (Moss et al., 1998, 2004). Others state that ambivalent children are prone to anxiety problems, while avoidant children are prone to anger and aggression because of chronic rejection and insensitivity of the caregiver (Weinfield et al., 2008). It makes sense that children who come to expect rejection, lack of caregiver availability, and disappointment would develop avoidant attachment strategies that minimize emotions and the importance of an attachment bond to their caregiver. As a result of rejecting and unavailable parenting, they may often disengage emotionally from others, show little to no distress, or externalize emotion to create interpersonal distance which often resembles behavioral disturbances (Lyons-Ruth, Easterbrooks, & Cibelli, 1997; Weinfield et al., 2008). Additionally, attachment insecurity in the parent-child relationship and emotional insecurity in the interparental relationship have been identified as significant risk factors for child psychopathology (Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006; Harold, Shelton, Goeke-Morey, & Cummings, 2004; Hilburn-Cobb, 2004). More specifically, concurrent emotional insecurity in the interparental relationship and parent-child attachment insecurity were associated with internalizing (e.g. depression and anxiety) and externalizing (e.g. aggression, delinquency) symptoms in adolescents (Davies et al., 2002).

Recent findings (e.g., Main & Cassidy, 1988; Yunger, Corby, & Perry, 2005) suggest that there are unique behavioral strategies associated with attachment insecurity in middle childhood that warrant further investigation. In particular, disorganized attachment strategies have been associated with negative self-perceptions and a decreased level of overall cognitive functioning in middle childhood when compared to same-age secure and avoidant children (Jacobsen, Edelstein, & Hoffman, 1994). Additionally, disorganized attachment strategies have been
associated with poor school performance, as well as internalizing and externalizing behavior problems in middle childhood (Moss et al., 1998; Moss & St-Laurent, 2001; Moss, St-Laurent, & Parent, 1999).

The exacerbation of risk in coercive family environments is facilitated by unresolved conflict and discord, insufficient child monitoring, and a lack of close relationships with one or both parents (Rutter, 2000). A resounding theme in the risk and resilience literature emphasizes the importance of early family relationships and the positive quality of those relationships as protective factors against vulnerability to negative outcomes. In fact, quality parenting is the single most robust protective factor for children exposed to adversities and positive family relationships can do much to promote resilience in children facing difficult circumstances (Conger & Conger, 2002; Luthar & Zelazo, 2003). Additionally, strong family relationships and the presence of a close relationship with at least one parent have been regularly identified as factors that maintain positive childhood adjustment and protection against adversity (Rutter, 1979). Consistent with Bowlby’s (1988) theory, other researchers have emphasized that an individual’s adaptation is always the product of both their developmental histories and current life circumstances, never one of these exclusively (Weinfield, Sroufe, & Egeland, 2000). Therefore, if early attachments are insecure, at-risk children tend to expect negative reactions from others and can eventually elicit these reactions, which perpetuate a cycle of experiencing rejection and feelings of insecurity; however, children with at least one good relationship or secure attachment come to expect and can accept nurturing from others (Sroufe, 2002). Additionally, at least one parent-child secure attachment relationship has been identified as a protective factor against depressive symptoms and behavior problems in children of poverty (Klein & Forehand, 2000).
A review of the literature on associations between attachment and behavior problems reveals a certain level of ambiguity, particularly for the different insecure attachment classifications (Moss et al., 2006). Some major limitations in the investigation of the links between attachment and behavior problems in middle childhood is the use of a single reporter (i.e. parent or teacher) and the use of non-comprehensive behavioral measures for reporting on children’s behavior. Additionally, self-report measures continue to be the best way to detect behavior problems in middle childhood, with child reports of behavior being more reliable than parent reports, despite their reported increase in internalizing symptoms at this age (Edelbrock, Costello, Dulcan, Kalas, & Conover, 1985). The current study seeks to overcome these limitations by providing multiple informant reports (i.e. child and parent) on measures of parent-child attachment, child behavioral problems, and aspects of marital conflict.

Interparental Conflict

Some conflict between parents is a normative occurrence in most of today’s families. However, depending on the severity and frequency, interparental conflict may present a significant risk to children’s mental health and well-being (Davies & Woitach, 2008). Children respond differently to the presence of conflict in the home, some by getting involved and others by retreating, but the way conflict is dealt with in the family environment seems to be one of the most important factors in determining the degree of risk to children. For example, when conflict involves unresolved endings, emotional or physical disengagement of any family member, or even violence, children are likely to become overly concerned about their own safety and security (Cummings & Davies, 1996). Studies suggest that middle childhood is a time when interparental conflict and discord reach their peak, which underscores the importance of investigating family processes during this time (Cummings & Davies, 1994). Moreover,
evidence suggests increases in children’s sensitivity to stressful family events and an increased understanding of how these events impact their family may contribute to the ways that children in this developmental period adapt to family discord (Cicchetti et al., 1990).

Theoretical Aspects of Interparental Conflict

Children who experience or witness interparental conflict often feel unstable or insecure in the home environment. Many children internalize blame for conflict between parents, especially if they hear their parents argue about issues pertaining to childcare. Older children, more than younger children, tend to have a better understanding of the meaning behind parental conflict and can often interpret conflict to mean that something is interfering with the family dynamic (Cicchetti, Cummings, Greenberg, & Marvin, 1990). Interparental conflict has been shown to be related to maladjustment and behavior problems in children ranging in age from five to eighteen years, indicating that it is a major concern when considering important developmental processes that occur throughout childhood and adolescence (Cummings & Davies, 1994, 2002; Fincham & Grych, 2001; Grych, 2001; Grych & Fincham, 1990).

Interparental conflict has the ability to interfere with normal child development if children perceive that they are to blame for the conflict or if they become involved in the conflict as a means to protect one or both parents or distract their parents from fighting. From the perspective of family systems and structural family theories, the child becomes triangulated between the two parents, causing an increased vulnerability to distress and maladjustment (Cox, Paley, & Harter, 2001; Minuchin, 1974). From these structural and emotional changes, children then begin to take on responsibility for the conflict instead of being involved in otherwise normal childhood activities with peers and siblings.
Exposure to interparental conflict has been associated with both internalizing and externalizing symptoms in children. Studies indicate that children may experience symptoms such as depression, anxiety, aggressiveness, and delinquency as a result of witnessing interparental conflict (Sturge-Apple et al., 2006). Since interparental conflict is related to a child’s sense of emotional security in the home environment, they may respond emotionally and behaviorally to the stress of conflict between their parents. Children may experience anxiety if they feel unsafe or threatened, or they may feel sad or depressed if they believe the conflict is uncontrollable, or may act out aggressively if they cannot use parents as an emotional resource for dealing with the conflict, especially if the parents are emotionally unavailable to the child as a result of being involved in conflict (Grych & Fincham, 2001). When a child’s emotional needs are not being met in the parent-child relationship, this can contribute to a sense of insecurity regarding parents’ ability to provide a safe haven (Frosch, Mangelsdorf, & McHale, 2000).

One of the original theories regarding the effects of interparental conflict on child adjustment was a cognitive-contextual model proposed by Grych and Fincham (1990). To account for the differences in children’s reactions to interparental conflict, this model proposes that the child’s appraisal of the conflict, rather than the conflict itself, is detrimental to a child’s well-being. According to Grych and Fincham, children’s cognitive processing of interparental conflict involves two stages: primary and secondary processing. Children first evaluate the level of threat or danger posed directly to them by the conflict. If the conflict is perceived as threatening, children then proceed to secondary processing which involves attributions about why the conflict is occurring, who is to blame for the conflict, and whether or not they have the emotional resources to cope with it. Secondary processing requires a certain level of cognitive sophistication usually found in older children, and can be interrupted by conflict that is perceived
as threatening. Children’s perception of threat directly shapes their reaction to the conflict, which often takes the form of internalizing symptoms and behaviors (Grych et al., 2000). However, if children blame themselves for the conflict between their parents, they are more likely to experience both internalizing and externalizing problems (Fosco & Grych, 2007).

Another prominent explanation in the literature for the effects of interparental conflict is the emotional security hypothesis (ESH; Davies & Cummings, 1994), which states that within the highly emotional context of interparental conflict, a priority for children is to find ways to maintain protection, safety, and security. Since the parent-child relationship often provides children with safety and security in times of uncertainty, children are increasingly vulnerable to psychological distress when they feel unable to preserve a sense of security during parental conflict. When parents fight, they not only undermine a child’s sense of stability in the home environment but they are also not emotionally available to protect the child because they are preoccupied with defending themselves (Sturge-Apple et al., 2006).

Similar to attachment theory, ESH supports the idea that a child’s sense of security in the parent-child relationship plays a role in the child’s vulnerability to the detrimental effects of interparental conflict (Davies & Woitach, 2008). That is, if children perceive a sense of security in the parent-child relationship, even if they do not feel secure about the interparental relationship, some emotional security can serve as a protective factor from detrimental effects.

Recent research emphasizes the protective role that a secure parent-child attachment can play in preventing some of the negative effects of interparental conflict. For example, Frosch, Mangelsdorf, and McHale (2000) recently found that witnessing hostile or aggressive conflict between parents in combination with caregiver behaviors characterized by distress and fear directly undermine preschoolers’ sense of security in the parent-child relationship. Similarly,
Katz and Gottman (1997) reported that specific factors in the parent-child relationship, such as parental warmth, praise, and inhibition of parental rejection served as one level of protection for children in maritally distressed homes at two different points in time (ages 5 and 8).

In a comprehensive review of the past decade of research on the effects of parental conflict and divorce from childhood through young adulthood, Kelly (2000) concluded that the years of continuous conflict leading up to divorce are the most detrimental to children’s adjustment, as opposed to the popular belief that the divorce itself is the hallmark of children’s maladjustment. Therefore, it is important to assess specific protective mechanisms that can prevent child psychological distress and behavioral problems that result from witnessing and experiencing interparental conflict. One major goal of the proposed study is to provide further validation for the premise that parent-child attachment security is an important and protective mechanism by which the effects of interparental conflict influence the psychological and behavioral functioning of children witnessing the conflict.

The Effects and Importance of Investigating Interparental Conflict

Multiple studies have provided solid empirical evidence for the association between interparental conflict and children’s adjustment difficulties (Gerard, Buehler, Franck, & Anderson, 2005). Children’s cognitive appraisals of conflict mediate the influence that interparental conflict has on their emotional well-being. Three main appraisals are relevant to a child’s interpretation of the conflict and the emotional meaning associated with the conflict: perceived threat, self-blame, and coping efficacy (Grych, Seid, & Fincham, 1992). Perceived threat is the extent to which the child senses threat from the conflict and evaluates any risk the conflict presents to their safety and well-being. Self-blame is the extent to which children blame themselves and hold themselves responsible for the conflict between their parents. Coping
efficacy reflects the child’s beliefs about their ability to cope and deal with the conflict and its effects. If children blame themselves for the conflict, they are likely to experience more emotional distress, like guilt and anger, than children who blame conflict on external factors (Gerard et al., 2005).

In particular, perceptions of threat and self-blame appear to fully mediate the association between interparental conflict and internalizing symptoms for boys while perceptions of self-blame fully mediate the association between conflict and internalizing symptoms for girls (Grych et al., 2000). Consistent evidence also suggests associations between interparental conflict and externalizing symptoms (e.g. Sturge-Apple et al., 2006), especially for boys (Cummings, Davies, & Simpson, 1994). However, evidence regarding gender differences has been inconsistent in the literature. Recent studies have indicated that young adolescent girls (age 10-14) display a greater vulnerability to internalizing symptoms than boys likely due to socialization processes that emphasize harmony and interconnectedness in relationships for girls and independence and self-preservation for boys (Davies & Lindsay, 2004). There appears to be mixed evidence when it comes to differences in perceptions of threat between boys and girls, with some studies stating that boys tend to interpret greater threat (e.g. Cummings et al., 1994; Kerig, 1998) and others stating that the association is greater for girls (e.g. Richmond & Stocker, 2007). Alternatively, other studies suggest that girls seem better able to distinguish differences in the presence of threat between low and high conflict severity whereas boys perceive all conflict as threatening (Grych, 1998).

The conceptualization of interparental conflict as a risk factor for children’s adjustment makes this a continued area of interest for researchers and clinicians alike. In keeping with the agenda of resilience research of maximizing positive outcomes and minimizing pathology, the
normative yet detrimental effects of interparental conflict must be well understood in order to inform public policy and prevention work. The vulnerability of children from high-conflict homes has been documented across a wide variety of domains including social difficulties, behavioral problems, emotional symptoms, academic problems, and psychophysiological reactivity (Davies & Cummings, 2006).

In direct path models, risk factors are specific factors of interparental difficulties that probabilistically increase maladaptive patterns of child reactivity as well as child risk for psychopathology (Davies & Cummings, 2006). Protective factors are interparental conflict tactics that decrease or offset risk in the face of adversity. However, little is known about the protective factors that may offset the negative effects of interparental conflict. Emotional distress and negative expectancies in the face of interparental conflict have been shown to be robust mediators in the association between conflict and child adjustment and a better understanding of children’s coping processes during conflict is warranted (Davies et al., 2002; Davies & Cummings, 2006; Grych et al., 2003). By further investigating children’s coping strategies in the realm of parent-child attachment, we may be able to clarify the role of risk and protective factors in the relationship between interparental conflict, attachment, and child behavior outcomes.

A vital component of the current research on interparental conflict is to identify the key processes that explain or account for this vulnerability. From the developmental psychopathology perspective, protective factors are those that reduce or offset the negative impact of interparental conflict while potentiating factors are moderators that strengthen the association between interparental conflict and maladjustment (Holmbeck, 2002). Davies and Cummings (2006) proposed a mediational model that states that part of the association between interparental conflict and child maladjustment can be explained by parent-child relationship
features (i.e. attachment). Their model also illustrates that associations between interparental conflict and child maladjustment may be moderated by family contextual characteristics (i.e. interparental relations, child attributes, or child developmental stage). However, the link between interparental discord and abnormal development is probabilistic rather than certain (Sroufe, 1997). Therefore, it is important to further investigate and clarify these processes of mediation and moderation during a time of transition in the developmental stage of middle childhood.

Integration: Links between Attachment, Interparental Conflict, and Child Outcomes

Attachment may be intricately related to children’s perceptions of threat from conflict because one of the main fears that arise from interparental conflict is that the family will be broken up and the child may lose their attachment relationship to one or both parents (Cummings & Davies, 1996). It is clear that the presence of interparental conflict is related to a child’s appraisal of threat, blame, and their ability to cope with conflict in the home. Children who report high levels of interparental conflict also report attachment insecurity in the parent-child relationship (Harold et al., 2004). Conflict between parents appears to undermine a child’s sense of emotional security in the family environment and attachment security in the parent-child relationship seems to play a protective role in keeping children from experiencing the deleterious effects that conflict can create. Attachment security in the parent-child relationship is also related to lower levels of emotional insecurity in the face of interparental conflict (Davies, Cummings, & Winter, 2004; Harold et al., 2004). A major goal of the proposed study is to further confirm the associations between interparental conflict and adjustment difficulties in middle childhood while also clarifying the role that attachment can play in these associations.

Research suggests that children’s mental representations of the interparental relationship, or internal working models of the relationship between their parents, manifest a sense of security
and stability in the home environment and are directly related to children’s interpretations of novel or challenging events with peers and outside of the home (Davies, Winter, & Cicchetti, 2006). Similarly, a number of studies have shown that exposure to interparental conflict undermines a child’s sense of security in the parent-child relationship and is a more consistent predictor of child insecurity (i.e., distress, avoidance, involvement, negative representations of parent-child relationships) than parenting difficulties alone (Davies, Harold, Goeke-Morey, & Cummings, 2002; Davies, Sturge-Apple, Winter, Cummings, & Farrell, 2006).

Recent evidence suggests that particular family characteristics, including parental availability and warmth, can protect children from worrying and stress that results from witnessing interparental conflict. In fact, two recent studies have shown that support in the broader family network and parental warmth predicted lower levels of child distress in response to interparental conflict (Davies & Cummings, 2006; Davies et al., 2006). These studies offer further evidence that providing a sense of felt security to children in the middle of interparental conflict can serve as a protective buffer and prevent them from experiencing prolonged psychological distress that the instability of conflict can provide.

There has also been consistent empirical evidence that diminished parental emotional availability can explain at least part of the relationship between the effects of interparental conflict and child maladjustment or problem behaviors (Fauber, Forehand, Thomas, & Wierson, 1990; Harold, Fincham, Osborne, & Conger, 1997; Krishnakumar, Buehler, & Barber, 2003). Only recently has attachment been investigated as a potential mediator in the relationship between the marital or interparental relationship and behavioral outcomes in children who have experienced conflict from toddlerhood to late adolescence and early adulthood. In these studies, it is hypothesized that interparental conflict contributes to (i.e., causes) insecure attachment,
which in turn leads to emotional or behavioral disturbance. For instance, Madigan, Moran, Schuengel, Peterson, and Otten (2007) found that parent-child attachment mediated the link between interparental conflict and externalizing symptoms in toddlerhood. Other researchers found that attachment security mediated the association between interparental conflict and depression in childhood, as well as friendship quality in adolescence (Constantine, 2006; Lucas-Thompson & Clarke-Stewart, 2007).

Few studies have investigated the role that attachment plays in the association between interparental conflict and child adjustment problems in middle childhood. To date, only one study has investigated these constructs concurrently in middle childhood (i.e., mean age of 11 years). El-Sheikh and Elmore-Staton (2004) determined that secure parent-child attachment in middle childhood and adolescence is a moderating or protective factor in the relationship between interparental conflict and child behavior problems, while insecure attachment partially mediated the relationship between interparental conflict and child behavior problems. Using hierarchical regression analyses to test mediation, El-Sheikh and Elmore-Staton (2004) determined that insecure attachment to mothers served as a partial mediator between interparental conflict and child-reported internalizing symptoms, whereas insecure attachment to fathers served as a partial mediator between interparental conflict and child-reported internalizing and externalizing symptoms. Insecure attachment to fathers was a full mediator between interparental conflict and externalizing problems for boys only. Using moderation analyses, it was found that a secure attachment to fathers served as a protective factor against externalizing symptoms and a secure attachment to mothers served as a protective factor against internalizing symptoms for children in the context of interparental conflict. An insecure child-mother attachment was a vulnerability factor for internalizing symptoms, while an insecure
father-child attachment was a vulnerability factor for externalizing symptoms, also in the context of interparental conflict.

These results support theoretical expectations that attachment representations in middle childhood are important mechanisms by which children perceive conflict and aggression between their parents and how those perceptions color their emotional and behavioral responses to such turmoil. One major limitation of the El-Sheikh and Elmore-Staton (2004) study is that attachment was assessed on a secure or insecure continuum rather than multiple dimensions of attachment security and insecurity (i.e. preoccupied, avoidant, disorganized/controlling). However, the strengths of the study involve investigating both mediating and moderating roles of attachment in the association between interparental conflict and child behavioral problems. It would be important for future research to provide additional information about dimensions of attachment insecurity that may be most harmful in the face of interparental conflict.

In another recent study of children on the lower end of middle childhood (i.e. mean age of 8 years), El-Sheikh, Cummings, Kourous, Elmore-Staton, and Buckhalt (2008) examined child attachment, psychological symptoms, and spousal reports of marital aggression (34% of families reporting one or more instances of physical aggression towards mothers and 41% of families reporting one or more instances of physical aggression towards fathers). Findings indicated that children’s emotional security mediated the relationship between marital aggression and children’s internalizing, externalizing, and post-traumatic stress disorder symptoms in a community sample of families. This study provides a clearer picture about the associations between marital conflict, emotional security, and child behavioral outcomes, which might be expected in families from the general community. Although this study failed to assess specific dimensions of attachment in middle childhood, the findings from El-Sheikh and colleagues
(2008) provide promising information about the role of parent-child emotional security as a potential mediator between marital conflict and related psychological distress or behavioral problems for children.

At present, there is strong support for direct path models which state that interparental conflict is directly associated with children’s reactions to conflict and adjustment problems (Davies et al., 2002; Frosch & Mangelsdorf, 2001). There is also strong support for indirect path models which postulate that parent-child relationship disturbances account for why interparental conflict is related to child adjustment (Erel, Margolin, & John, 1998; Fauber et al., 1990). That is, interparental discord can increase risk for maladaptive coping and eventually poor adjustment through indirect associations with parent-child relationship dynamics (Davies & Cummings, 2006). Since attachment theory emphasizes the role of the caregiver in times of distress and threat, the role of protection by a caregiver is a central function of the attachment relationship (Cicchetti et al., 1990). Therefore, the lack of caregiver protection in the context of interparental conflict creates compounded consequences of emotional insecurity and maladaptive coping for children experiencing conflict.

It appears as though emotional security and attachment security are considered protective factors against the negative effects of interparental conflict since the child is assured that threat is not imminent and the caregiver will reliably respond to their needs for comfort and support. In fact, parental behavior during conflict is considered to compromise a child’s sense of security in the interparental relationship as well as a child’s confidence that parents can provide protection and support (Owen & Cox, 1997). Relatedly, interparental conflict has been shown to predict insecure and disorganized parent-child attachment even after controlling for parental sensitivity and warmth (Frosch et al., 2000; Owen & Cox, 1997). That is, parental conflict can serve as a
risk factor for children’s attachment insecurity as well as maladjustment and negative behavior outcomes. These associations are likely strengthened in the context of frightened or frightening caregiver behavior; if the child’s expectations for protection and support are met with evidence that the parent is either another source of threat or that they are not capable of providing protection (Davies & Cummings, 2006).

Since contextual factors such as children’s coping in response to conflict are not clearly understood, an important direction for current research is to see which types of coping (i.e., attachment coping strategies) may serve as either risk or protective factors in the context of interparental conflict and trajectories of child adjustment. Davies and Cummings (2006) state that this is a largely untested hypothesis in the literature and one that might better explain the relationship between these constructs. Davies and colleagues also emphasize that testing both mediation and moderation models will allow identification of which aspects of family adversity are risk factors and which aspects of family harmony are protective factors, consistent with the emotional security hypothesis (Davies et al. 2002). Identifying the pathways of risk and resilience will also allow us to study children who thrive in the face of interparental adversity while also informing us about which types of coping strategies resilient children use when exposed to conflict.

Rationale and Predictions for Proposed Study

The proposed study has important implications for understanding the effects of interparental conflict on children’s well-being. Interparental conflict, although a fairly normative phenomenon, continues to be a risk factor for children’s emotional and psychological well-being. In order to prevent negative child outcomes, it is important for researchers and clinicians to gain a better understanding of how parent-child attachment can protect children from the detrimental
effects of interparental conflict. The proposed study will extend the relatively scarce amount of literature on attachment in middle childhood and how it may mediate or moderate the connection between perceptions of interparental conflict and child maladjustment during this important developmental time.

Most researchers investigating the relationship between interparental conflict and child adjustment have emphasized a strong need to understand precisely how and why interparental conflict is associated with adjustment difficulties in children (Cummings & Davies, 2002). Some limitations of previous research include assessing attachment and interparental conflict retrospectively, and relying heavily on memories of childhood or some other type of reporter bias. Another limitation is that often attachment to the mother is assessed as opposed to attachment to both parents (Lindahl, Clements, & Markman, 1997). One major advantage of the proposed study is that dimensions of attachment and perceptions of interparental conflict will be assessed based on current events in the family environment and attachment will be assessed both in the mother-child and the father-child relationship. The existing evidence for attachment as an important mediator and moderator at the beginning and end of middle childhood provides compelling information and supports the idea that closing the gap by assessing attachment throughout middle childhood is an important direction for current research.

Based on the available literature, we predict that perceptions of interparental conflict will be significantly related to child internalizing and externalizing symptoms, including depression, anxiety, and aggressive behaviors. We also anticipate that parent-child attachment will be significantly related to aspects of emotional and behavioral functioning in children, with secure attachment relating to positive and adaptive behaviors and insecure attachment relating to negative and maladaptive behaviors. We also anticipate symptoms or behaviors for disorganized
children that are different from behaviors associated with preoccupied and avoidant attachment representations, such as social apprehension and withdrawal found in disorganized infants (e.g., Moss et al., 2004), as well as atypical behaviors in community samples of children (e.g., El-Sheikh et al., 2008). Following previous research (Eberly & Montemayor, 1998; El-Sheikh & Elmore-Staton, 2004), we also predict that attachment to parents could serve a protective role and be related to positive aspects of child functioning, such as prosocial behavior or the absence of negative child functioning. Essentially, the proposed study intends to confirm existing premises in the literature related to interparental conflict and child maladjustment while also providing evidence for any protective mechanisms that attachment to parents can provide.

The emotional security hypothesis (Davies & Cummings, 1994) proposes that the parent-child relationship can serve as both a mediator and moderator in the link between interparental conflict and child behavior outcomes. Furthermore, a child’s sense of emotional security can be compromised by interparental conflict as well as the emotional nature of the parent-child relationship, which can be additionally threatening if the parent behaves in a hostile or aggressive manner towards the child. Conversely, positive aspects of the parent-child relationship (i.e. warmth) can protect children and adolescents from the negative effects of interparental conflict (Frosch & Mangelsdorf, 2001; Katz & Gottman, 1997; Kelly, 2000). Recent studies indicate that parent-child attachment can function as a partial mediator and moderator of the negative effects of interparental conflict and child behavior problems (Davies et al., 2002) with secure parent-child attachment likely ameliorating and insecure attachment likely propagating risk for child problems. The current study aims to confirm these mediation and moderation effects.
APPENDIX B

ADDITIONAL RESULTS
Structural equation modeling (SEM) procedures include first testing a measurement model (whether or not indicators accurately reflect latent constructs) using confirmatory factor analysis (CFA). SEM involves preliminary testing of CFA models to determine whether or not latent constructs can be included in the overall SEM model. The measurement model is derived from theory and CFA procedures are used to confirm whether or not a latent variable or construct adequately reflects the observed variables or indicators they are hypothesized to (Schumacker & Lomax, 2010). If the measurement model does not show adequate fit, it cannot be included in the overall SEM model (structural model).

The first measurement model we tested was a confirmatory factor analysis (CFA) with CPIC as a latent variable and conflict properties, threat, and triangulation as indicators. Results of this model indicated adequate fit indices, but negative error variance for the indicator variable for conflict properties. Results of this model indicate a mis-specified model and indicate that CPIC does not accurately reflect the observed variables that directly measure children’s perceptions of interparental conflict. The next CFA model was tested to determine if CCSQ could serve as a latent variable. Results of the CFA model for CCSQ mother indicated “perfect” fit indices but a negative error variance for CCSQ Avoidance, suggesting a mis-specified model. These results indicate that preoccupied, avoidant, and indecisive attachment coping indicator variables are not adequately represented by a latent variable for mother (CCSQM). Results of the CFA model for father also indicated a “perfect” based on fit indices, but also demonstrated a negative error variance for CCSQ Avoidance, suggesting a mis-specified model. Results of the CFA model for CCSQ Father suggest that preoccupied, avoidant, and indecisive attachment coping observed variables are not adequately represented by a latent variable for father (CCSQF).
The first basic path model (Model 1) included three observed variables (indicators) from the CPIC scale (threat, conflict properties, and self-blame) and two observed variables from the BASC-SRP (internalizing, inattentive/hyperactive). This model was designed to investigate whether or not child reports on their perceptions of interparental conflict are significantly related to child-reported behavioral symptoms. Results of the first model (Model 1) investigating the association between independent observed variables (CPIC; threat, conflict properties, and self-blame) and dependent observed variables (BASC-SRP; internalizing and inattentive/hyperactive symptoms) indicated a perfect fitting model and support our hypotheses that perceptions of interparental conflict are significantly related to child-reported symptoms and behaviors.

The next three models we tested (Models 2-4) assessed whether or not CCSQ Mother observed variables (preoccupied, avoidant, indecision, and secure) predicted BASC-SRP Internalizing and Inattentive/Hyperactive symptoms. Results of Models 2-4 indicated perfect fitting models when CCSQ Preoccupied, Avoidant, Indecision, and Security predicted both BASC Internalizing and Inattentive-Hyperactive symptoms. However, results of Model 4 indicate that CCSQ Security is the strongest predictor of BASC symptoms with $R^2$ values above 0.20 and remaining predictors with $R^2$ values below 0.20. Results are listed in Table B.2.

We then tested the same models assessing whether or not CCSQ Father observed variables (preoccupied, avoidant, indecision, and secure) predicted BASC-SRP Internalizing and Inattentive/Hyperactive symptoms. Results of Models 5-7 indicated perfect fitting models when CCSQ Preoccupied, Avoidant, Indecision, and Security predicted both BASC Internalizing and Inattentive-Hyperactive symptoms. The strongest model for fathers included Model 5 with CCSQ Preoccupied, Avoidant, and Indecision predicting BASC Inattentive/Hyperactive symptoms with an $R^2$ value above 0.20.
We proceeded to test more comprehensive mediation models and determine both the
direct and indirect effects of CPIC observed variables (threat and conflict properties only, since
self-blame is not significantly related to CCSQ security to either mother or father), BASC-SRP
observed variables (internalizing and inattentive/hyperactive symptoms) with CCSQ security as a
mediator. Based on preliminary analyses and results from path analysis, tests for mediation were
conducted utilizing the MedGraph-I program (Jose, 2003). Preliminary results (i.e. Pearson
correlations) indicated that the CCSQ Security and Avoidant scales could serve as mediators.

The first model we tested (Model 11) was CPIC threat predicting BASC Internalizing
symptoms with CCSQ security as a mediator. Results of this model indicate that the theoretical
and sample correlation matrices are identical (a perfect fit) for the mediation models with child
reports on CCSQ security regarding their mother and their father. Due to the perfect fit, we
decided to further test for mediation. MedGraph-I results indicate that CCSQ Security to the
mother partially mediated the relationship between CPIC threat and BASC Internalizing
symptoms. MedGraph-I results indicate that CCSQ Security to father did not mediate CPIC
threat and BASC Internalizing symptoms (Model 12). See Table B.1 for mediation results.

The next models we tested were CPIC conflict properties predicting BASC Internalizing
symptoms with CCSQ security as a mediator. Results revealed a perfect fitting model for CCSQ
security to mother and father as a mediator. However, MedGraph-I results indicate that CCSQ
security mediates the relationship between CPIC conflict properties and BASC Internalizing
symptoms for mother security (Model 13) but not for father security (Model 14).

The next models tested the association between CPIC threat and BASC
Inattentive/Hyperactive symptoms, with CCSQ security to mother and father as a mediator in
separate models by parent. Results of both models indicate a perfect fitting model for both CCSQ
security to mother and father mediating the association between CPIC threat and BASC Inattentive/Hyperactive symptoms. However, MedGraph-I results indicate that CCSQ security to mother is a significant mediator (Model 15) but not CCSQ security to father (Model 16).

The next model tested involved CPIC conflict properties predicting BASC Inattentive/Hyperactive symptoms with CCSQ security as a mediator. Results indicate a perfect fit with child-reports of CCSQ security to their mother and their father. However, MedGraph-I results indicate that CCSQ security to mother is a significant mediator in the association between CPIC conflict properties and BASC Inattentive/Hyperactive symptoms (Model 17) but CCSQ security to father is not a significant mediator in this association (Model 18).

Based on previous research (e.g., El-Sheikh and colleagues) as well as encouraging results of perfect-fitting CCSQ security mediator path models, we decided to test further models with CCSQ insecurity variables (secure, preoccupied, avoidant, and indecision) as mediators. Mediation results indicate that CCSQ Avoidance regarding their father partially mediated the association between children’s perceptions of threat from interparental conflict (CPIC threat) and child-reported inattentive/hyperactive symptoms on the BASC (Model 19). Results support the hypothesis that child-perceived avoidance in the attachment relationship to their father acts as a mediating variable between CPIC perceptions of threat and BASC inattentive/hyperactive symptoms. No other mediation findings were significant (see Table B.1 for mediation results).

When the indicator variable CCSQ Security was removed from the model (since it does not make conceptual sense to be a part of a latent variable measuring insecure attachment, like avoidance and indecision), the model was a perfect fit and confirmed the association between perceptions of interparental conflict and child symptoms, with an insecure attachment to the mother as a significant mediator in this association (Model 21).
CCSQ avoidance regarding fathers was also not a significant mediator in the relationship between CPIC conflict properties and internalizing symptoms ($z = -0.83, p = .41$), inattentive/hyperactive symptoms ($z = -1.81, p = .07$), or between CPIC threat and internalizing symptoms ($z = -1.82, p = .07$). Remaining results indicated that CCSQ avoidance regarding mothers was not a significant mediator between CPIC conflict properties and internalizing symptoms ($z = -0.73, p = .05$), inattentive/hyperactive symptoms ($z = -1.27, p = .20$), or between CPIC threat and internalizing symptoms ($z = -1.62, p = .10$) or inattentive/hyperactive symptoms ($z = -1.86, p = .06$). Regression results indicated that CCSQ Avoidance did not serve as a significant moderator in the relationship between CPIC conflict properties and threat and either of the BASC symptoms (see Table B.2).

We further tested alternative path models to determine both the direct and indirect effects of CPIC observed variables (threat and conflict properties only, since self-blame is not related to CCSQ security) on BASC-SRP observed variables (internalizing and inattentive/hyperactive symptoms) with CCSQ felt security as a moderator. Results of the model including child reports of CPIC threat, CCSQ attachment security to mother, the interaction between CPIC threat x CCSQ security to predict BASC Internalizing symptoms indicated a poor fitting model for both mother and father. These results indicate that CCSQ security to mother or father is not a significant moderator in the relationship between CPIC threat and BASC Internalizing Symptoms. Moderation results are reported in Table B.2.

We then tested the model with CPIC self-blame, CCSQ security to mother, and BASC Internalizing Symptoms and found an inadequate fitting model. We next tested the model with CPIC self-blame, CCSQ security to father, and BASC Internalizing Symptoms, also finding an
inadequate fitting model. These results indicate that CCSQ security to mother or father is not a significant moderator of the relationship between CPIC self-blame and Internalizing symptoms.

The next model we tested involved CCSQ security with mother and father as a moderator between CPIC conflict properties and BASC internalizing symptoms. Results of the model for child reports on CCSQ security to the mother indicated an inadequate fitting model, with similar results for child reports on CCSQ security to their father. These results indicate that CCSQ Security to mother or father is not a significant moderator of the relationship between CPIC conflict properties and BASC Internalizing symptoms for both mother and father.

We tested similar models with BASC-SRP Inattentive/Hyperactive symptoms as the dependent variable. Using AMOS Graphics, the model with CCSQ security moderating the relationship between CPIC threat and BASC Inattentive/Hyperactive symptoms indicated a less than adequate fit for child reports of CCSQ security on their mother and for child reports of CCSQ Security on their father. These results indicate that CCSQ security is not a significant moderator in the relationship between CPIC threat and Inattentive/Hyperactive symptoms.

The final child-reported model was analyzed to see if CCSQ security was a significant moderator between CPIC conflict properties and BASC Inattentive/Hyperactive symptoms. Results of the AMOS Graphics model indicated a poor fit for child reports of CCSQ security to their mother with similar results for child reports of CCSQ Security to their father. These results indicate that CCSQ security to mother or father is not a significant moderator in the relationship between CPIC conflict properties and BASC Inattentive/Hyperactive symptoms.

The next two models examined moderation between parental reports of similar constructs with parent-reported consensus in the marital relationship (DAS), parent-reported quality of the parent-child attachment relationship (PRQ-CA), and parental reports of their child’s behaviors
and symptoms, with separate models for mothers and fathers. Using AMOS Graphics, we tested a model which assessed whether or not PRQ Attachment moderated the relationship between DAS Consensus and BASC-PRS parent reported child internalizing symptoms. Results indicate an adequate fitting model for mother reports with an inadequate fit for father reports. ModGraph-I results indicate that PRQ Attachment was not a significant moderator between DAS Consensus and BASC-PRS Internalizing Symptoms for mother reports. PRQ Attachment was also not a significant moderator in the relationship between DAS Consensus and BASC-PRS Externalizing Symptoms based on father reports. Moderation results are presented in Table B.2.
Table B.1

Model Fit Indices for Child Path, CFA, and Mediation Models

<table>
<thead>
<tr>
<th>Model Type</th>
<th>$\chi^2$/df/p</th>
<th>CFI</th>
<th>GFI</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>Sobel z/p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Path Models</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. CPIC (all)/BASC (all)</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2. CCSQM-I/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3. CCSQM-AI/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4. CCSQM-S/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>5. CCSQF-I/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>6. CCSQF-AI/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>7. CCSQF-S/BASC-Int/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
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<tr>
<td><strong>CFA Models</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8. CPIC(latent)/CPIC-T/SB/CP</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>9. CCSQM (latent)/CCSQ-A/I/S</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>10. CCSQF (latent)/CCSQ-P/I/S</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
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<tr>
<td><strong>Mediation Models</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. CPIC-T/CCSQM-S/BASC-Int</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-2.91***</td>
</tr>
<tr>
<td>12. CPIC-T/CCSQF-S/BASC-Int</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-1.76</td>
</tr>
<tr>
<td>13. CPIC-CP/CCSQM-S/BASC-Int</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-2.85**</td>
</tr>
<tr>
<td>14. CPIC-CP/CCSQF-S/BASC-Int</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-0.99</td>
</tr>
<tr>
<td>15. CPIC-T/CCSQM-S/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-2.78*</td>
</tr>
<tr>
<td>16. CPIC-T/CCSQM-S/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-1.92</td>
</tr>
<tr>
<td>17. CPIC-CP/CCSQM-S/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-2.68*</td>
</tr>
<tr>
<td>18. CPIC-CP/CCSQF-S/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-1.28</td>
</tr>
<tr>
<td>19. CPIC-T/CCSQF-A/BASC-InH</td>
<td>$\chi^2 = .00$, df = 0, p = 1.00</td>
<td>--</td>
<td>--</td>
<td>0.00</td>
<td>--</td>
<td>-2.31*</td>
</tr>
</tbody>
</table>

Note. BASC = Behavior Assessment Scale for Children; BASC-Int = BASC Internalizing Symptoms; BASC-InH = BASC Inattentive/Hyperactive Symptoms; CPIC = Children’s Perception of Interparental Conflict scale; CPIC-T = Conflict Threat; CPIC-SB = CPIC Self-Blame; CPIC-CP = CPIC Conflict Properties; CCSQ = Children’s Coping Strategies Questionnaire; CCSQM = CCSQ Mother (latent variable); CCSQM-AI = CCSQ Mother Avoidant and Indecision Only; CCSQM-I = CCSQ Mother Insecure Variables (Preoccupied, Avoidant, and Indecision); CCSQM-S = CCSQ Mother Security; CCSQF-Q = CCSQ Father Avoidant and Indecision Only; CCSQF-I = CCSQ Father Insecure Variables (Preoccupied, Avoidant, and Indecision); CCSQF-S = CCSQ Father Security; CCSQF = CCSQ Father (latent variable); CCSQF-A = CCSQ Father Avoidant scale; *p < .05; **p < .01; *** p < .001.
<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2/df/p$</th>
<th>CFI</th>
<th>GFI</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>Sobel z/p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CPIC-T/CCSQ-S(Mother)/BASC-Int</td>
<td>$\chi^2 = 38.17$, $df = 3$, $p = .00$</td>
<td>0.57</td>
<td>0.81</td>
<td>0.37</td>
<td>6.79</td>
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<tr>
<td>2. CPIC-T/CCSQ-S(Father)/BASC-Int</td>
<td>$\chi^2 = 37.75$, $df = 3$, $p = .00$</td>
<td>0.48</td>
<td>0.81</td>
<td>0.37</td>
<td>3.86</td>
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<tr>
<td>3. CPIC-SB/CCSQ-S(Mother)/BASC-Int</td>
<td>$\chi^2 = 8.84$, $df = 3$, $p = .03$</td>
<td>0.88</td>
<td>0.96</td>
<td>0.37</td>
<td>3.86</td>
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<tr>
<td>4. CPIC-SB/CCSQ-S(Father)/BASC-Int</td>
<td>$\chi^2 = 15.89$, $df = 3$, $p = .00$</td>
<td>0.63</td>
<td>0.93</td>
<td>0.23</td>
<td>1.58</td>
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</tr>
<tr>
<td>5. CPIC-CP/CCSQ-S(Mother)/BASC-Int</td>
<td>$\chi^2 = 31.74$, $df = 3$, $p = .00$</td>
<td>0.63</td>
<td>0.87</td>
<td>0.34</td>
<td>5.44</td>
<td>--</td>
</tr>
<tr>
<td>6. CPIC-CP/CCSQ-S(Father)/BASC-Int</td>
<td>$\chi^2 = 34.87$, $df = 3$, $p = .00$</td>
<td>0.45</td>
<td>0.85</td>
<td>0.36</td>
<td>4.08</td>
<td>--</td>
</tr>
<tr>
<td>7. CPIC-T/CCSQ-S(Mother)/BASC-InH</td>
<td>$\chi^2 = 38.17$, $df = 3$, $p = .00$</td>
<td>0.42</td>
<td>0.81</td>
<td>0.37</td>
<td>5.75</td>
<td>--</td>
</tr>
<tr>
<td>8. CPIC-T/CCSQ-S(Father)/BASC-InH</td>
<td>$\chi^2 = 37.75$, $df = 3$, $p = .00$</td>
<td>0.32</td>
<td>0.81</td>
<td>0.37</td>
<td>4.05</td>
<td>--</td>
</tr>
<tr>
<td>9. CPIC-SB/CCSQ-S(Mother)/BASC-InH</td>
<td>$\chi^2 = 8.84$, $df = 3$, $p = .03$</td>
<td>0.81</td>
<td>0.96</td>
<td>0.15</td>
<td>1.32</td>
<td>--</td>
</tr>
<tr>
<td>10. CPIC-SB/CCSQ-S(Father)/BASC-InH</td>
<td>$\chi^2 = 15.89$, $df = 3$, $p = .00$</td>
<td>0.50</td>
<td>0.93</td>
<td>0.23</td>
<td>1.75</td>
<td>--</td>
</tr>
<tr>
<td>11. CPIC-CP/CCSQ-S(Mother)/BASC-InH</td>
<td>$\chi^2 = 60.92$, $df = 3$, $p = .00$</td>
<td>0.31</td>
<td>0.72</td>
<td>0.48</td>
<td>13.43</td>
<td>--</td>
</tr>
<tr>
<td>12. CPIC-CP/CCSQ-S(Father)/BASC-InH</td>
<td>$\chi^2 = 67.79$, $df = 3$, $p = .00$</td>
<td>0.22</td>
<td>0.70</td>
<td>0.51</td>
<td>11.95</td>
<td>--</td>
</tr>
<tr>
<td>13. DAS/PRQ (Mother)/BASC-Int</td>
<td>$\chi^2 = 8.53$, $df = 3$, $p = .04$</td>
<td>0.17</td>
<td>--</td>
<td>0.10</td>
<td>--</td>
<td>-1.19</td>
</tr>
<tr>
<td>14. DAS/PRQ (Father)/BASC-Ext</td>
<td>$\chi^2 = 31.54$, $df = 3$, $p = .00$</td>
<td>0.22</td>
<td>--</td>
<td>0.24</td>
<td>--</td>
<td>-1.16</td>
</tr>
</tbody>
</table>

*Note.* BASC = Behavior Assessment Scale for Children; BASC-Int = BASC Internalizing Symptoms; BASC-InH = BASC Inattentive/Hyperactive Symptoms; BASC-Ext = Externalizing Symptoms; CPIC = Children’s Perception of Interparental Conflict scale; CPIC-T = Conflict Threat; CPIC-SB = CPIC Self-Blame; CPIC-CP = CPIC Conflict Properties; CCSQ = Children’s Coping Strategies Questionnaire; CCSQ-S = CCSQ Felt Security; CCSQ-I = CCSQ Insecure; CCSQ-P = CCSQ Preoccupied; CCSQ-A = Avoidant; CCSQ-Ind = Indecision; DAS = Dyadic Adjustment Scale; PRQ = Parenting Relationship Questionnaire.

*p < .05; **p < .01; ***p < .001.*
APPENDIX C

ADDITIONAL DISCUSSION
Child Moderation Models

We further tested the role of attachment security as a moderator, or protective factor, in the association between parental conflict and child internalizing problems. We aimed to provide support for the protective aspect of the emotional security hypothesis (Davies & Cummings, 1994) which states that if children perceive a sense of security in the parent-child relationship, even if they do not feel secure about the interparental relationship, this security can protect children from the detrimental effect of conflict (Davies & Woitach, 2008). Attachment security was not a significant moderator in the association between CPIC conflict properties and child-reported internalizing problems. Previous research indicates that properties of conflict, such as conflict resolution, can improve or prevent the negative effects of interparental conflict (Cummings & Davies, 2002). However, our results did not support this association. Other research has suggested that conflict properties (frequency, intensity, and resolution) are directly associated with perceptions of threat and self-blame regarding conflict, with threat and blame being associated with internalizing and externalizing symptoms (Grych, Harold, & Miles, 2003). This suggests that conflict properties may have an indirect effect on internalizing and externalizing symptoms, with perceptions of self and blame acting as mediators of this effect, which was not tested in the current study. Future research may discover that conflict properties play an indirect versus a direct effect on child behavior problems and would add to the literature by testing a model with threat and blame as a mediator, versus as a separate predictor.

We then tested the role of attachment security as a moderator, or protective factor, in the association between parental conflict and child-reported inattentive and hyperactive symptoms. Results of our moderation path models demonstrated an inadequate fit between our hypothesized
theoretical model and sample data indicating that attachment security is not a significant moderator between interparental conflict and child-reported inattentive/hyperactive symptoms.

Current findings highlight the importance of attachment security in the parent-child relationship as a resilience factor in the association between interparental conflict and child behavior problems, a phenomenon that has only been recently investigated (e.g. El-Sheikh and colleagues). Our hope is that by identifying attachment security as a resilience factor, this study can inform clinicians and educators who work with children and families and result in teaching parents how to deal with conflict constructively and continue to provide a secure base for their children, despite interparental conflict.
APPENDIX D

CONSENT FORM
UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS

RESEARCH CONSENT FORM

Code:                      Date:

Title of Study:    Family System Predictors of Psychological Well-being in Middle Childhood

Principal Investigator:     Shelley A. Riggs, Ph.D.                                                     940-565-2672
University of North Texas
Department of Psychology
P.O. Box 311280
Denton, TX 76203-1280
riggs@unt.edu

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the proposed activity. It describes the procedures, benefits, risks, and discomforts of the study. It also describes your right to withdraw from the study at any time. It is important for you to understand that no guarantees or assurances can be made as to the results of the study.

Purpose of the study and how long it will last:

The purpose of this research is to examine the functioning of 8- to 11-year-old children in the context of other family relationships and patterns. If you agree to participate by signing this form, your family will be videotaped during interaction tasks, you will complete a battery of paper-and-pencil instruments and an interview, and your children will also complete some questionnaires. The total data collection process will take approximately 2.5 to 3 hours. If you or your spouse do not complete the questionnaires during this time, you may take home the remaining instruments to complete at home. You will be provided with a postage paid envelope to return the questionnaires to the investigator.

Description of the study including the procedures to be used:

You have chosen to participate in a study investigating child and family functioning. You will review the purpose and procedures of the study with the researcher and have the opportunity to ask questions about the study and your participation. After the consent forms are signed, family members will be given a series of topics to discuss for approximately 20 minutes. Afterwards, you and your partner will be interviewed in separate room while your children will complete their questionnaires. After the data are collected, you will keep a copy of the consent form.

Description of procedures/elements that may result in discomfort or inconvenience:

Although not expected, it is possible that you may experience some discomfort as a result of the questions asked in the paper-and-pencil instruments or interview. If excessive discomfort is experienced when completing the various measures, you may choose to stop answering questions at any time without penalty. The researchers will try to prevent any problem that could happen

Research Consent Form - Page 1 of 3 ___________ Participant's initials
UNIVERSITY OF NORTH TEXAS
RESEARCH CONSENT FORM (Continued)
because of this research, but the study may involve risks to the participant which are currently unforeseeable. Let the researchers know if there is a problem and they will help you. However, UNT does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research. If you feel the need to discuss your discomfort with a counselor, the researcher will provide you with a list of counseling resources in the community.

Compensation or benefits to participants:

A direct benefit to you is that you will receive $40 and a family fun pack (e.g., coupons for restaurants and/or recreational activities) once you have returned all questionnaires to the investigator. Depending on the date of receipt for completed questionnaires, compensation may take up to 4-6 weeks after the data collection session. The indirect benefit of participating in the study will be your contribution to ongoing efforts to learn more about child and family functioning. The knowledge gained in this study will enhance our understanding of factors that contribute to individual and system dysfunction and will offer practical information to family counselors that can usefully be applied to clinical intervention and prevention efforts.

Confidentiality of research records:

All information will be kept confidential by the investigators to the extent that is allowed by law. A number of steps will be taken to minimize the risk of loss of confidentiality. Codes, rather than names, will be used on all instruments and in the final report. You should not write your name anywhere on any of the questionnaires. Only the principal investigators, research assistants, transcribers and coders will have access to the questionnaires. The consent forms will be kept separate from the self-report instruments, which will be stored in a locked filing cabinet in the principal investigator’s laboratory until October 2017. At that time, all paper-and-pencil instruments will be shredded and audiorecordings will be erased. The data will be used for training and research purposes only. It is anticipated that the results of the study will be presented at conferences and published in a psychological journal and/or book. Names and other identifying information will not be included in any presentation or publication.

Review for protection of participants:

This research project has been reviewed and approved by the UNT Institutional Review Board (940-565-3940.) Contact the UNT IRB with any questions regarding your rights as a research subject.

RESEARCH SUBJECTS’ RIGHTS: I have read or have had read to me all of the above.

The research assistant has explained the study to me and answered all of my questions. I have been told the risks or discomforts and possible benefits of the study.

Research Consent Form -Page 2 of 3 _________ Participant's initials
I understand that I do not have to take part in this study, and my refusal to participate or to withdraw will involve no penalty or loss of rights or benefits or legal recourse to which I am entitled. The study personnel may choose to stop my participation at any time.

In case there are problems or questions, I have been told I can call Dr. Shelley Riggs, whose phone number appears at the top of this form.

I understand my rights as a research subject, and I voluntarily consent to participate in this study. I also consent for my minor child(ren) listed below to participate in the study. I understand what the study is about and how and why it is being done. I have been told I will receive a copy of this consent form.

Minor Children and Ages: ______________________________________________________________

Participant's Signature ___________________________ Date ______________

For the Investigator or RA Designee:

I certify that I have reviewed the contents of this form with the person signing above, who, in my opinion, understood the explanation. I have explained the known benefits and risks of the research.

Researcher's Signature ___________________________ Date ______________

List below a current address where you would like your compensation sent.

Print Name: ____________________________________________

Address: ____________________________________________

☐ Check here if you give your permission to be contacted by the Principal Investigator for a follow-up study on the transition to adolescence. List below a permanent address and phone number where you or a family member might be reached in the next 3-5 years.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Research Consent Form -Page 3 of 3

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Child Assent

You are being asked to be part of a research project being done by the University of North Texas Department of Psychology.

This study is interested in finding out more about how different family members interact and feel about their family relationships. You will be asked to join your parents in 3-5 family interaction tasks (e.g., plan a family activity for the weekend) that will take about 20 minutes. Afterwards, while your parents are being interviewed in other rooms, you will complete a few questionnaires with the researcher, then also complete some other questionnaires on your own. The time needed for all of the questionnaires will be about 45-60 minutes.

We hope that you will agree to help us with our study, but you may choose not to participate. If you do decide to be part of this study, please remember that you can ask the researcher for assistance at any time. Also, if you become uncomfortable at any point you can stop.

If you agree to be part of this study, please print and sign your name below.

Printed Name of Child:

__________________________________________________________________

Participant's Signature

Date

Researcher's Signature

Date


Unpublished protocol (3rd ed.). Department of Psychology, University of California, Berkeley.


Luthar, S. S. Luthar (Eds.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 50-75). New York, NY US: Cambridge University Press.


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