

ATTACHMENT SECURITY AS A MEDIATOR OF THE  
RELATIONSHIP BETWEEN MARITAL CONFLICT  
AND YOUTH COMPETENCE

by

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## ABSTRACT

The marital relationship has been a key element in determining the quality of family life. Child outcomes, both positive and negative, are associated with the quality of the marital relationship, and it has become increasingly evident that children living with marital conflict are at risk for maladjustment. The relationship between interparental conflict and adolescents' competence and behavior has been documented by many studies. Less is known about the influence that mother-child and father-child attachment relationships have in mediating the relationship between children's reactions to marital conflict and youth competence. The study examined whether attachment security mediates the influence of children's reactions to interparental conflict on adolescents' competence over time. Results indicate that attachment security may act as a mediator of the relationship between children's reactions to interparental conflict and youth competence. There was more clear evidence supporting the mediational path for the mother-child attachment relationship than for the father-child attachment relationship. Future research is warranted to better understand the mediational path of father-child attachment security.

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## INTRODUCTION

### *Marital Conflict*

A major field of research throughout the 20<sup>th</sup> and into the 21<sup>st</sup> century has been the study of relationships within the family and how they relate to the development of the child (Fincham, 1998; Zimet & Jacob, 2002). When studying family relationships, it is evident that all possible relationships within the family are important, including the marital relationship and the relationships between the parents and their children (Fincham, 1998). The marital relationship has been considered a key element in determining the quality of family life and is considered a core of family solidarity (Erel & Burman, 1995; Fincham, 1998; Zimet & Jacob, 2002). The marriage is also a critical piece of the environment that may directly and indirectly influence the child (Fincham, 1998), and child outcomes, both positive and negative, are associated with the marital relationship.

One aspect of the marital relationship is marital conflict. There is evidence to suggest that marital conflict is one of the most salient of family stressors (Long, Forehand, Fauber, & Brody, 1987; Wierson & Forehand, 1992), and it has become increasingly evident that children living with marital conflict are at risk for maladjustment and other negative outcomes (Cummings & Davies, 2002, 1994; David & Murphy, 2004; Davies & Lindsay, 2004; Doyle & Markiewicz, 2005; Epstein, Renk, Duhig, Bosco, & Phares, 2004; Fincham, 1998; Isabella & Diener, 2010; Shelton & Harold, 2008; Zimet & Jacob, 2001). For instance, research suggests that children from

intact, high-conflict families appear to have lower levels of well-being than children from divorced families (Amoto & Keith, 1991; Zimet & Jacob, 2002). This finding suggests that conflict and marital discord are more significant to child maladjustment than intactness of family (Harold & Conger 1997; Zimet & Jacob, 2002). Davies and Cummings (1994) contend that exposure to destructive marital conflict, which involves high emotional expression and hostility, results in increases in children's negative emotional arousal and negative expectations about subsequent conflicts by undermining their sense of emotional security. There is a large body of literature indicating that children exposed to frequent and intense marital conflict are at risk for child psychopathology and the development of a variety of maladaptive adjustment problems (Cummings & Davies, 1994, 2002; David & Murphy, 2004; Hetherington, 1984; Isabella & Diener, 2010; Mann & Gilliom, 2002; Zimet & Jacob, 2002) including externalizing disorders, such as aggression, delinquency, and conduct disorders; internalizing disorders, such as anxiety, depression, and withdrawal in children (Cummings, Davies, & Simpson, 1994; Emery, 1982; Grych & Fincham, 1990; Isabella & Diener, 2010; Katz & Gottman, 1997); heightened emotional reactivity (Cummings, Goeke-Morey, Papp, & Dukewich, 2002; Davies, Harold, Goeke-Morey, & Cummings, 2002b; El-Sheikh, 1997); and negative representations of interpersonal conflict and family relationships (Davies et al., 2002b, Grych, 1998; Grych, Wachsmuth-Schlaefler, & Klockow, 2002).

### *Marital Conflict and Youth Outcomes in Adolescence*

When examining outcomes specific to adolescents, it is important to consider what developmental milestones are experienced in adolescence. Adolescence is a period of time that may be described as an intermediary period of unique sequential cognitive,

psychological and physical change (Picklesimer, Roberson-Hooper, & Ginter, 1998; Slicker, Picklesimer, Guzak, & Fuller, 2005) characterized by the task of establishing a sense of individuality in the context of close and supportive parental relationships (Quintana & Lapsley 1990; Slicker et al., 2005). Furthermore, specific skills such as identity and individuation become central to adolescent development. Also of importance, adolescence marks the emergence of new cognitive capacities, such as the ability to reason logically and to articulate thoughts in a more abstract way (Wierson & Forehand, 1992). The present study examined attachment security as a mediator of the relationship between marital conflict and adolescent competence in a sample of adolescents ranging in age from 15 to 21.

Erickson has described adolescence as a process of determining identity. As such, adolescents are trying to figure out who they are and what is important to them. Remarkably, despite the intense need adolescents have for individuation and gaining their own identity, recent studies have shown that as the child progresses through adolescence, parental influence does not decline (Slicker et al., 2005). The parent-adolescent relationship has been described as serving the purpose of security and stability for the adolescent (Csikszentmihalyi & Larson, 1984; Wierson & Forehand, 1992) as they develop through this emotionally, mentally and physically demanding life stage.

Because of the difficulty of isolating the effects of exposure to conflict and age and other historical variables, the relationship between adolescent adjustment and interparental conflict is particularly complex (Mann & Gilliom, 2002). Adolescents from homes with high levels of interparental conflict are not likely to have experienced a sudden influx of discord and may have already experienced many disrupted facets of

family functioning in their lives (Mann & Gilliom, 2002). In a few longitudinal studies, researchers have proposed that the association between childhood problems and marital conflict may increase with age, partly because repeated exposure seems to sensitize children to conflict (E.M. Cummings, Zahn-Waxler, & Radke-Yarrow, 1981, 1982; J. S. Cummings, Pelligrini, Notarious, & Cummings, 1989). Thus, experiencing marital conflict throughout childhood may have a continuing influence on the developing child, and the association between marital conflict and adjustment problems through adolescence and into young adulthood may be principally related to the influence of past exposure (Mann & Gilliom, 2002). While much previous research has focused on younger children, the current study examined to the associations between marital conflict during childhood and adolescent competence.

Findings specific to adolescents report that conflict in intact families is an important independent predictor of problems during adolescence (Amato, Loomis, & Booth, 1995; Amato & Sobolewski, 2001; Azam & Hanif, 2011; Davies & Cummings, 1998; Davies & Cummings, 1994; Harold, Shelton, Goeke-Morey, & Cummings, 2002; Harold, Shelton, Goeke-Morey, & Cummings, 2004; Kenny & Donaldson, 1991; LaFreniere & Sroufe, 1985; Ross & Fuertes, 2010; Shulman, Elicker & Sroufe, 1994; Tannenbaum, Neighbors, & Forehand, 1992; Turner & Kopiec, 2006; Youngblade & Belsky, 1992; Zimet & Jacob, 2002) and evidence indicates that adolescents display lower levels of cognitive (Doyle & Markiewicz, 2005), emotional (Amato, 2000; Harter & Whitesell, 1996; Parke & Buriel, 1998; Turner & Kopiec, 2006) and social competence (Dadds, Atkinson, Turner, Blums, & Lendich, 1999; David & Murphy, 2004; Martin, 1990; Westervelt & Vandenberg, 1997) when parents display higher levels of conflict. As

well, research suggests that the effects of emotional and social-cognitive reactions on children who witness conflict may be particularly evident during late adolescence (David & Murphy, 2004). For instance, research has shown that interparental conflict prospectively predicts adolescent delinquent and depressive symptoms (Davies & Windle, 2001). Additionally, research has suggested that whereas younger children tend to exhibit behavioral problems (e.g., noncompliance or tantrums), adolescents more often tend to experience affective issues (e.g., dysphoria or depression) (Grych & Fincham, 1990; Zimet & Jacob, 2002). Ross and Fuertes (2010) have suggested that evidence supports a link between perceptions of interparental conflict in childhood and their emotional adjustment in late adolescence (Turner & Kopiec, 2006). Other research has suggested that adolescents who have been exposed to interparental conflict while growing up tend to exhibit social or adjustment problems based on their level of emotional functioning, or level of regulation and emotionality (Lemerise & Arsenio, 2000). For example, David and Murphy (2004) found adolescents with low to moderate emotional functioning (e.g., high negative emotionality, low regulation) particularly vulnerable to developing long-term social problems as a result of their exposure to marital conflict, while adolescents displaying higher emotional functioning (e.g., ability to control and regulate their own emotions) appear less likely to develop long-term adjustment problems as a result of exposure to interparental conflict.

Exposure to marital conflict in adolescence has also been associated with anxiety to engage in relationships (Amato, 2000) and with diminished capability to participate in social exchanges outside of the family (Ross & Fuertes, 2010; Westervelt & Vandenberg, 1997). Marital conflict also appears to be associated with reported school grades. With

respect to reported school grades, Doyle and Markiewicz (2005) suggest that marital discord has direct effects over time and that the anxiety and stress caused by interparental conflict may have particular connections for adolescent's capability and motivation to focus on schoolwork.

### *Mechanisms by Which Conflict Affects Youth Outcomes*

In order to better understand the direct impact of interparental conflict on child and adolescent development and relationships, frameworks have been used to investigate the mechanisms by which marital conflict affects adolescent outcomes. These frameworks include the cognitive-contextual framework (Grych & Fincham, 1990), the emotional security hypothesis (Davies & Cummings, 1994) and attachment theory (Bowlby, 1972). First, the cognitive-contextual framework proposes that children's perceptions and interpretations of interparental conflict play a central role in determining the impact of conflict on their adjustment (Grych & Fincham, 1990). Children's appraisals are hypothesized to have lasting effects on the child's functioning when marital conflict occurs consistently and is frequent. Empirical investigations of the cognitive-contextual framework have shown that children's perceptions of the frequency, intensity, and resolution of interparental conflict reliably predict externalizing and internalizing problems and support the hypothesis that appraisals of threat and self-blame are processes by which exposure to conflict leads to maladjustment (e.g., Grych, Fincham, Jouriles, & McDonald, 2000; Grych, Harold, & Miles, 2003; Harold, Fincham, Osborne, & Conger, 1997; McDonald & Grych, 2006). Similar to the cognitive-contextual model, this study will be looking at children's perceptions and interpretations (e.g., reactions) to interparental conflict and will examine whether attachment security

with mothers and fathers mediates the relationship between childhood reactions to marital conflict and youth overall competency.

The next framework is the emotional security hypothesis which states that safeguarding emotional security in the interparental substructure is an underlying goal that regulates and is regulated by 1) exposure to parent affect, 2) emotional reactivity, and 3) internal representations of interparental relations (Davies et al., 2002b). Although originally modified from attachment theory, which has a direct focus on the relationship experienced between the caregiver and the child, the emotional security hypothesis has been expanded to include the influences of marital interactions, the parent-child bond, and other aspects of family functioning such as parental supervision and discipline (Cummings & Davies, 1995; Mann & Gilliom, 2002). Further, the emotional security model hypothesizes that children's emotions, cognitions, and behaviors mediate the impact of conflict. These processes are all viewed as indicators of children's emotional security, and most research on this model combines the indicators into the single construct called emotional security.

The third framework to investigate the effects of interparental conflict on child and adolescent development and relationships is attachment theory. This theory was developed by John Bowlby and Mary Ainsworth and is of particular importance to the proposed study because of its focus on parent-child relationships and the long-term effects seen in children as they age based on the parent-child attachment relationship and because of its focus on how early relationships influence adaptive performance across the life course.

According to attachment theory, a child will develop an attachment to his or her primary caregiver (Bowlby, 1969). This attachment can be defined as “secure,” “anxious,” “avoidant,” or “disorganized.” Generally speaking, these four attachment styles can be placed into two classifications of infant-caregiver attachment relationships; “secure” or “insecure” (e.g., anxious, avoidant and disorganized). Bowlby (1973) suggests that securely attached infants have a history of their needs being consistently met by their caregivers and are capable of effectively seeking out and accepting comfort. These infants also begin to develop the necessary skills to utilize resources within the surrounding environment to adapt and function effectively. Studies have shown that over time, children from secure parent-child relationships develop a sense of self-worth and self-efficacy (Elicker, Englund, & Sroufe 1992), positive social expectations (Elicker et al., 1992; Shomaker & Furman, 2009), persistent and flexible coping strategies (Sroufe, Egeland, Carlson, & Collins, 2005), increased tolerance to frustration (Kerns, Abraham, Schlegelmilch, & Morgan, 2007) and superior functioning in a variety of areas such as emotional regulation and adjustment (Cooper, Shaver, & Collins, 1998).

Conversely, insecurely attached infants have needs that are consistently rejected or met in an inconsistent, inadequate or inappropriate fashion. These infants fail to seek out comfort from their caregivers or become inconsolable when confronted with a stressor (Ainsworth, Blehar, Waters, & Wall, 1978). Studies have found that children from insecure parent-child relationships are more likely to suffer interpersonal problems including more negative friendships and less successful romantic relationships (Sperling & Berman, 1994; Zimet & Jacob, 2002), greater negative affect, associations with maladjustment and internalizing problems (Doyle & Markiewicz, 2005), decreased self-

esteem and poorer social competence as they develop (Shomaker & Furman, 2009; Shulman, Elicjer, & Sroufe, 1994; Youngblade & Belsky, 1992). Over time, these individuals are not likely to adeptly utilize environmental resources and are less likely to be successful in their interactions with others (Englund, Chun-Kuo, Puig, & Collins, 2011).

As attachment relationships are forming, the child also begins to construct an internal working model of the self. This model is a cognitive framework that comprises mental representations for understanding self, others and the world. The internal working model guides individuals' view of themselves, their interpretation of the meaning of others' behavior, helps individuals make predictions about the world around them (Crittenden, 1990), and will serve as a prototype for the child in subsequent relationships (Bowlby, 1973; Bowlby, 1982). Accordingly, the internal working model reflects relationships with parents and subsequently creates relationship representations which are expected to translate to other close relationships (Elicker et al., 1992).

Attachment theorists hypothesize that representations of relationships with parents are one of the primary means of association between peer interactions and parent-child attachment relationships (Main, Kaplan, & Cassidy, 1985). Representations of relationships with parents are mental models thought to derive from collective, affective transactions with primary caregivers. These representations shape a core strategy for self-regulating emotions, behaviors, and thoughts for children's close relationships (Bowlby, 1973), may shape the attentional and perceptual methods involved in processing others' emotions (Colle & Del Giudice, 2010), and may influence appraisals and expectations of interactions (Kearns, 1994). Consequently, it has been suggested that representations of

relationships with parents shape behavioral and affect control and information processing with parental figures and other close relationships (Elicker et al., 1992; Shomaker & Furman, 2009).

Recognizing the process through which relationships are formed and influenced provides understanding of the importance of attachment interactions and their impact on the developing child. As such, attachment theory is an ideal theoretical framework for understanding the lasting effects of early relationships, how early relationships interact with prominent relationships in each consequent life stage, and how early relationships influence adaptive performance across the life course (Boyce, 1985; Englund et al., 2011). Although much research is available regarding attachment relationships during infancy, toddlerhood and school-age, until the last decade, research regarding the parent and adolescent relationship was largely ignored. This omission seems surprising given the broad recognition that parents persist in serving as primary attachment figures throughout adolescence (Allen & Land, 1999) and adolescent's socioemotional functioning is likely to be influenced by qualities of the parent-adolescent relationship. Studies have shown that a secure attachment relationship with the primary caregiver predicts more optimal socioemotional functioning in early adolescence (Schneider, Atkinson, & Tardif, 2001).

Close relationships with caregivers play a unique role in shaping children's affective and emotional life (Cassidy & Shaver, 2008), and many studies have focused on the connection between attachment patterns and the development of emotional competence (Colle & Del Giudice, 2010). Studies linking attachment security and emotion regulation competencies could suggest longer-term relationships between

attachment security and the pathways of psychopathology through adolescence, however possible correlations are only just beginning to be empirically explored (Allen, Porter, McFarland, McElhaney, & Marsh, 2007). Cummings and Davies (1996) suggest that an adolescent's attachment relationship reflects their basic orientation toward general emotional regulation competencies and their fundamental orientation toward the affective and cognitive processing of emotionally charged situations. Adolescents with more secure working models may be more easygoing and ultimately more successful at creating closeness and intimacy in relationships (Kobak & Duemmler, 1994; Shomaker & Furman, 2009). As well, secure working models in adolescence have been associated with behaviors such as requesting emotional support from a best-friend (Allen et al., 2007). Adolescents with more dismissive working models may have more difficulty using open and constructive communication regarding emotion filled topics (Cassidy & Kobak, 1988; Dozier & Kobak, 1992), may avoid discussing concerns of other adolescents and friends through the use of humor, distraction and making light of situations, and may show less focus when discussing goals and issues during tasks (Shomaker & Furman, 2009). Dismissive working models can also lead to increased disturbances in adolescents' social competence (Allen et al., 2007; Elicker et al., 1992; Rice, Cunningham, & Young, 1997; Ross & Fuertes, 2010; Shulman et al., 1994; Sroufe, England & Carlson, 1999; Suess, Grossmann, & Sroufe, 1992).

Dismissive working models result from insecure parent-child attachment relationships, and research indicates that insecure parent-child attachment relationships are associated with less positive friendships, decreased social competence and decreased popularity. Thus, early attachment relationships between parent and child have important

implications on children's capability of forming interpersonal bonds in relationships outside of the family, such as friendships (LaFreniere & Sroufe, 1985; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Youngblade & Belsky, 1992). Additionally, attachment style in infancy predicts the nature and quality of social interactions later in childhood and into adulthood. For instance, infants who were classified as securely attached, in contrast to insecurely attached infants, were more likely to be socially competent with their peers in toddlerhood, preschool, middle childhood, and adolescence (Englund et al., 2011; Sroufe et al., 2005). As individuals advance through life they develop the aptitude to form new relationships that are qualitatively diverse, each building on previously gained skills (Englund et al., 2011) and when these skills are not gained, the development of new relationships can become strained (Engels et al., 2001). Thus, the failure or attainment of social competence in childhood allows for the development or loss of secure peer relationships in adolescence.

Parent-child attachment relationships most often occur within the context of a larger family setting. One area receiving particular attention in recent research is the role of interparental conflict's relation to parent-child attachment security (Ross & Fuertes, 2010). Evidence suggests that marital conflict negatively affects the bond between parent and child (Amato & Sobolewski, 2001; Davies & Cummings, 1994) and is associated with insecure attachment security in children (El-Sheikh & Elmore-Straton, 2004). Shelton and Harold (2008) found children's avoidant and over-involved coping responses and attributions of threat and self-blame emanate from parents' marital arguments. Likewise, previous research indicates that witnessing hostile interparental interactions may lead to decreased feelings of attachment security to parents for both children (Davies

& Cummings, 1994) and late adolescents (Amato & Sobolewski, 2001; Ross & Fuertes, 2010). Similarly, exposure to destructive, chronic interparental conflict has been suggested to increase feelings of negative emotion and insecurity arousal in children (Fincham, Grych, & Osborn, 1994; Zimet & Jacob, 2002).

Empirical evidence suggests that the interaction between parental attachment and reaction to interparental conflict are not only associated with one another (Amato & Sobolewski, 2001; Davies & Cummings, 1994), but also affect subsequent social competence (Axam & Hanif, 2011) and emotional adjustment (Amato & Sobolewski, 2001; Davies & Cummings, 1994; Isabella & Diener, 2010; Turner & Kopiec, 2006). One means through which interparental conflict and adolescent-parental attachment may influence adolescent's emotional adjustment is through affecting social functioning (Ross & Fuertes, 2010). Shomaker and Furman (2009) report that young children with insecure parent attachment relationships struggle to gain the emotional and social resources required for developing positive peer relations. Early insecure parent-child relationships have been associated with poorer social competence and more negative friendships (LaFreniere & Sroufe, 1985; Shulman et al., 1994; Youngblade & Belsky, 1992). Furthermore, Axam and Hanif (2011) found that adolescents who perceived high marital conflict between parents showed less social competence and lower adolescent-parent attachment security. This study will attempt to extend previous research by examining whether the association between interparental conflict and adolescent socioemotional competence is mediated by adolescent-mother and adolescent-father attachment security.

### *Hypothesis*

The purpose of the research was to study the long-term associations of children's reactions to interparental conflict on parent and adolescent reported competence of adolescents as mediated by adolescent-mother attachment security and adolescent-father attachment security. In other words, we are using mother-child and father-child attachment security as a potential mechanism or process which underlies the relationship between children's reactions to interparental conflict and adolescent competence. We are hypothesizing that rather than children's reactions to interparental conflict having a direct causal relationship on adolescent competence, that instead, children's reactions to interparental conflict influence mother-adolescent and father-adolescent attachment security which then has a direct effect on adolescent competence. This is a question of interest because limited research has been conducted examining mother and father attachment security as a process through which children's reactions to interparental conflict influence adolescent competence over time. This information is valuable in establishing the importance of the parent-child attachment relationship as a concept that transcends childhood and impacts developmental and psychological processes over time. As well, this research could begin to highlight processes underlying how conflict impacts attachment security and how attachment security then impacts competencies over time. As well, this study will be helpful in identifying possible avenues for intervention to support children exposed to interparental conflict. The hypothesis was that the long-term association between Wave 1 children's reactions to interparental conflict and Wave 3 adolescents' overall competence would be mediated by Wave 3 adolescent attachment security with mothers and with fathers.

## METHOD

### *Procedure*

Each of the original participants in the study for whom contact information was available was contacted by mail with a newsletter sharing previous research results and a postcard requesting continued participation in a third wave of data collection. After participants were contacted with the newsletter and returned postcards were received, a survey packet was mailed to the original participants in the study for whom contact information was available. To encourage participation, two separate reminders were mailed and emailed (where available) over the following month.

### *Participants*

The original participants were contacted in 2004 and consisted of 126 (59 female) first ( $n = 44$ ), third ( $n = 43$ ), and fifth ( $n = 39$ ) graders and their parents (mothers and fathers). The children ranged in age from 6-11 years ( $M = 8.4$  years). The participants were recruited through elementary schools, newspaper advertisements, and fliers in a metropolitan city of the Mountain West. The study was originally described as concerning family interaction. The majority of participants ( $n = 119$ ) were non-Hispanic Caucasians with a median family income of \$60,250 ( $SD = \$36,027$ ). Mothers' mean age was 37.44 ( $SD = 6.09$ ) years and the fathers' mean age was 39.62 ( $SD = 7.16$ ) years. All parents were married at Wave 1 and of those parents, 17% ( $n=9$ ) of fathers and 13% ( $n=16$ ) of mothers had previously been divorced and were in their second marriage.

Eighty-three percent of men and 87% of women were in their first marriage. Average education was represented by a 2-year Associate's degree for mothers and a Bachelor's degree for fathers. Ninety-three percent of fathers and 56% of mothers were working an average of 44.36 ( $SD = 8.92$ ) hours and 24.4 ( $SD = 12.92$ ) hours per week, respectively. These demographic characteristics of the sample differed from the more general population in that the sample was more likely to be White, was more educated, and had higher household incomes than the U. S. Census Bureau's 2000 census data for the area (Isabella & Diener, 2007).

For the current study (Wave 3), 83% ( $n = 114$ ) of the original participants were contacted in 2012 by mail and email (where available) and a total of 60 families participated in the continuation of this study. The participants were 30 male and 30 female adolescents and their parents (mothers and fathers). The teens ranged in age from 15 - 21 years of age ( $M = 17.3$ ). The median family income was \$106,558 ( $SD =$  \$51,296). Mothers' mean age was 47.9 ( $SD = 5.6$ ) years and the fathers' mean age was 49 ( $SD = 7.1$ ) years. Education was represented by an average of a postbachelor's degree for mothers and for fathers. Ninety-four percent of fathers were working an average of 43.5 hours ( $SD = 7.43$ ) a week and 68% of mothers were working 26.7 hours ( $SD = 12.67$ ) a week. Eighty-two percent of men ( $n = 44$ ) and 91% of women ( $n = 49$ ) were in their first marriage at Wave 3. A total of 5 mothers and 10 fathers reported a change in marital status at Wave 3, which was defined as either previously divorced and remarried (6% ( $n=3$ ) of mothers and 15% ( $n=8$ ) of fathers) or previously divorced and not remarried (4% ( $n=2$ ) of fathers and 4% ( $n=2$ ) of mothers).

Analyses were conducted examining age, education, income, and marital status of mothers and fathers to examine whether the sample at Wave 3 differed from the original group of participants. This was accomplished relying on Wave 1 data to determine whether those who participated at Wave 3 differed from those who did not. Most analyses reported that there were no significant differences on these measures. However, there were significant differences on father's age and income ( $F(1,124) = 7.11, p = .01$ ;  $F(1,124) = 3.98, p = .05$ ; respectively), indicating that fathers who were older and more educated during Wave 1 were more likely to participate in the Wave 3 study. Importantly, there were no significant differences between those who did and did not participate at Wave 3 on marital conflict ( $F(1,118) = .001, p = .98, M = .16$ ) attachment security with mothers ( $F(1,118) = .01, p = .941, M = 3.38$ ), attachment security with fathers ( $F(1,118) = 1.33, p = .25, M = 3.37$ ) or competence ( $F(1,118) = .66, p = .42, M = 3.14$ ) at Wave 1.

### *Measures*

#### Demographic Characteristics

Parents each completed a short questionnaire on basic demographic characteristics including age, education, income, and marital status. Education was defined as having received a high school degree or equivalent, a 2-year Associate's degree, a bachelor's degree or a post bachelor's degree. Marital status was defined as married and never divorced, divorced and remarried, or divorced and not remarried.

#### Attachment Security Was Measured by the Following

- 1) *The Kerns Security Scale* (Kerns et al., 1996) is a 15-item self-report measure for children and was used in Wave 3 data collection. For this study, children

completed the Security Scale separately for each parent. The Security Scale assesses the degree to which the teen believes his or her attachment figure is available and responsive, the teen's tendency to rely on that figure, and the teen's reported ease and interest in communicating with their attachment figure – all of which are considered critical to a secure attachment (Bowlby, 1969, 1982). Adolescents rated the items using Harter's (1982) "Some kids... Other kids..." format, designed to reduce social desirability. First, teens read a two-part statement such as "Some teens find it easy to trust their mom BUT other teens are not sure if they can trust their mom." After identifying which part of the statement was more characteristic of them, adolescents were asked to indicate whether that part of the statement was "really true" or "sort of true" for them. Thus, for either part of the statement chosen ("Some kids..." or "Other kids..."), two options were available, leading to scoring on a four point scale, with higher scores indicating greater attachment security. Items were averaged to produce a single security measure for each parent for Wave 3 (Cronbach's alpha = .90 and .88 for security with mothers and fathers, respectively).

#### Interparental Conflict Was Measured by the Following

- 1) *Security in the Interparental Subsystem Scale* (SIS: Davies, Forman, Rasi, & Stevens, 2002), was used at Wave 1. This scale is a 37-item children's self-report questionnaire that yields seven subscales: emotional reactivity (9 items, e.g., "After my parents argue, it ruins my whole day"), behavioral dysregulation (3 items, e.g., "When my parents have an argument, I try to joke around or cause trouble"), avoidance (7 items, e.g., "When my parents have an argument, I try to

be really quiet”), involvement (6 items, e.g., “When my parents have an argument, I feel sorry for one or both of them”), constructive family representations (4 items, e.g., “When my parents have an argument, I know they still love each other”), destructive family representations (4 items, e.g., “When my parents have an argument, I wonder if they will separate or divorce”), and conflict-spillover representations (4 items, e.g., “When my parents have an argument, I think they blame me”). Davies et al. (2002) reported alpha coefficients for these scales ranging from .77 to .87 in a sample of 327 6<sup>th</sup>-grade children in Wales, and successfully employed these measures to demonstrate predicted links between interparental conflict and children’s subsequent emotional insecurity. We combined the scales (constructive family representations was subtracted from the sum of the other 6 subscales) to form a children’s reaction to marital conflict index; internal consistency for this index was high ( $\alpha = .85$ ). High scores reflect high levels of anxiety and concern related to parent’s marital conflict.

#### Socioemotional Competence Was Measured by the Following

- 1) *Harter’s Perceived Competence Scale* (Harter, 1979) is a measure assessing various domains of the child’s competence. Teens completed 12 items administered at Wave 3 to assess children’s self-perceived scholastic, social and global competence. Each item provided the respondent with the opportunity to choose between two statements, finding the statement that best described him or her (e.g., “Some teens find it hard to make friends” or “Other teens find it pretty easy to make friends.”). After choosing the statement that was most like him or

her, children then indicated whether this statement was “Sort of” or “Very much” like them. Items were averaged to produce a Wave 3 “total adolescent competence” index ( $\alpha = .77$ ). These figures are consistent with reliability data reported by Harter (1982).

The same 12 items were used to assess parents’ perceptions of children’s scholastic competence, social acceptance and global self-worth. Overall “mother perceived adolescent competence” and overall “father perceived adolescent competence” composites were created by averaging items, with alpha’s .77 and .87, respectively. Mothers’ and fathers’ reports showed a significant level of intercorrelation ( $r(51) = .34, p < .01$ ) and were therefore converted into  $z$ -scores and combined into a single measure of “Harter’s parent perceived adolescent competence” (see Table 1 part A).

Because the Harter Perceived Competence Scale was originally created for children, Steele, Forehand, and Devine (1996) have addressed the questions of cross-informant consistency with the Harter Scale and found that correlations among various informants (e.g., teachers, mothers and adolescents) were significant, providing support for the utilization of this scale with parents during Wave 3 of this study.

- 2) The *Behavior and Emotional Rating Scale* (BERS: Epstein, M.H., Ryser, G., and Pearson, N., 2002) was implemented during Wave 3. The BERS is a 52-item parent report assessing five factors of behavioral and emotional strengths of 5-18-year-olds (i.e., interpersonal strengths (15 items), family involvement (10 items), intrapersonal strengths (11 items), school functioning (9 items), and affective

strengths (7 items)). This survey was chosen because of its ability to measure children's socioemotional competencies from a parent perspective. Coefficient alphas for the five subscales ranged from .79 to .99 in a previous study (Epstein, Ryser, & Pearson, 2002). For this study, the five subscales were averaged to create a mother's combined scale ( $\alpha = .96$ ) and a father's combined scale ( $\alpha = .97$ ). There was also a high level of inter-correlation between mother's and father's scores ( $r(50) = .51, p < .01$ ) which led to the creation of a BERS parent perceived teen competence measure, after converting individual scores into z-scores (see Table 1, part B).

Wave 3 competence data as reported by parents on these two different measures (Harter and BERS) were highly correlated ( $r(62) = .68, p < .001$ ). Therefore, parent Harter's and BERS scores were converted into z-scores and a "total parent report of teen competence" composite was created (see Table 1 part C). Significant intercorrelations were also present between the adolescent Harter and "total parent reports of teen competence" ( $r(50) = .53, p < .01$ ) and thus, z-scores were created for these measures and combined to create an "overall competence" composite which included parent perceived teen competence on the Harter, parent report teen competence on the BERS, and teen reported competence on the Harter (see Table 1 part C).

In summary, parent scales were combined on each measure and then both parent measures were combined into one total parent report of competence (Parent Harter + Parent BERS). Finally, the total parent report of adolescent competence and the teen report of competence were combined to create the overall adolescent competence measure (total parent reported competence + teen reported competence).

Table 1. Intercorrelations Used to Create Overall Competence Composite

A. Harter's Competence Scale Intercorrelations			
Variables	1	2	3
1. Teen Harter	-	.65***	.38**
2. Mom Harter	-	-	.34**
3. Dad Harter	-	-	-

B. BERS Competence Scale Intercorrelations		
Variables	1	2
1. Mom BERS	-	.51***
2. Dad BERS	-	-

C. Harter and BERS Competence scales Intercorrelations			
Variables	1	2	3
1. Parent Harter	-	.68***	.62***
2. Parent BERS	-	-	.35**
3. Teen Harter	-	-	-

Note: Ns vary from 43 to 63

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

## RESULTS

The results of preliminary analysis are reported first. These examined whether child age, child gender and parent demographic characteristics were related to children's reactions to marital conflict, attachment security and youth competence. Next, intercorrelations between Wave 1 children's reactions to interparental conflict, Wave 3 adolescent attachment security with mother and father, and Wave 3 adolescent competence were examined. Then, primary analyses are presented. In these cases, multiple regression analyses are reported to examine the influence of attachment security as a mediator of the effects between children's reactions to interparental conflict and adolescent's competence.

### *Preliminary Analyses*

#### Demographic Variables

Preliminary analysis examined the associations of demographic characteristics with Wave 3 attachment security, Wave 3 adolescent competence, and Wave 1 children's reactions to marital conflict. The majority of these analyses were not significant. However, mothers' marital status at Wave 3 was significantly related to adolescents' overall competence ( $F(1,56) = 6.47, p = .01$ ). Means indicated that children of married mothers ( $n = 53$ ) were more competent ( $M = .08, SD = .87$ ) than children of divorced mothers ( $n = 5; M = -.96, SD = .95$ ). There was also a significant negative correlation between father's education level at Wave 1 and adolescents' overall competence ( $r(65) =$

-.24,  $p < .05$ ), indicating that more educated fathers had children who were less competent. Because these variables showed significant relationships with my variables of interest, I controlled for Wave 3 mother's marital status and Wave 1 father's education in the regression analyses examining attachment security as a mediator.

*Child Gender and Age Effects on Children's Reactions to Marital*

*Conflict, Adolescent's Competence, and Attachment Security*

In addition to examining associations with parent demographic characteristics, analyses also examined child age and gender effects. Table 2 delineates the means and standard deviations of all study variables by child gender (boys and girls) and Wave 1 grade (which corresponded to Wave 3 adolescent ages 13-15, 16-18, and 19-21). To examine grade and gender effects on child's reactions to marital conflict and overall adolescent competence, two separate repeated measures analysis of variance were conducted with child gender and grade as the between-subjects variables. These analyses revealed no significant child gender or grade effects on reactions to marital conflict ( $F(2,120) = .20, p = .82$ ) or adolescent competence ( $F(2,59) = 1.16, p = .32$ ), indicating that marital conflict and competence did not differ for boys or girls or by child grade. To examine grade and gender effects on attachment to mothers and attachment to fathers, a multivariate analysis of variance was conducted with child gender and grade as the between-subjects variables and with adolescent's attachment to each parent as the dependent variables. There was a significant main effect of child gender on attachment security ( $F(1,51) = 4.84, p = .03$ ), indicating that girls showed greater attachment security to both parents than did boys. There was also a significant main effect of parent gender on attachment security, indicating that children showed greater attachment security to

Table 2. Means (and Standard Deviations) for Marital Conflict (Wave 1), Attachment Security (Wave 3), and Adolescent Competence (Wave 3) by Child Gender and Grade.

Measure		1 <sup>st</sup> grade	3 <sup>rd</sup> grade	5 <sup>th</sup> grade	Total
Wave 1					
Children's view of marital conflict					
	Girls	2.17(.39)	2.23(.44)	2.25(.45)	2.22(.42)
	Boys	2.10 (.46)	2.11(.42)	2.06(.30)	2.09(.41)
		Age 13-15	Age 16-18	Age 19-21	F(1,52)
Wave 3					
Attachment security with mothers					
	Girls	3.77(.21)	3.69(.31)	3.42(.57)	3.61(.43)
	Boys	3.24(.55)	3.16(.54)	3.16(.55)	3.19(.53)
Attachment security with fathers					
	Girls	3.41(.41)	3.25(.82)	3.14(.57)	3.25(.61)
	Boys	3.11(.59)	3.10(.39)	3.26(.4)	3.15(.46)
Overall competence					
	Girls	.40(.79)	.30(.92)	-.28(1.17)	.08(1.02)
	Boys	-.19(.99)	-.30(.82)	-.15(.64)	-.21(.81)

mothers than to fathers ( $F(1, 47) = 5.93, p = .02$ ). However, these main effects were moderated by a significant interaction of parent gender and child gender on attachment security ( $F(1,47) = 4.25, p = .05$ ). As can be seen in Figure 1, girls showed greater attachment security to their mothers than did boys, and girls were more securely attached to their mothers than to their fathers. Boys reported similar levels of attachment security to mothers and fathers. We therefore left attachment security to mothers and fathers separate to examine the differences between male and females' perceptions of attachment to their mothers and fathers.

*Associations Between Attachment Security, Marital Conflict and  
Adolescent Competence*

In order to examine associations between this study's variables of interest, bivariate correlations were conducted among children's reactions to marital conflict (Wave 1), attachment security to mothers and fathers (Wave 3), and adolescent competence (Wave 3) (See Table 3). Children's reactions to interparental conflict were significantly related to adolescent's attachment security with mothers ( $r(53) = -.27, p < .05$ ). Children with lower levels of anxiety and concern about their parents' marital disagreements at Wave 1 were more securely attached to their mothers at Wave 3. Attachment security with mothers was significantly related to adolescent's attachment security with fathers ( $r(53) = .38, p < .01$ ). As such, children who perceived themselves as more securely attached to their mother also perceived themselves as more securely attached to their father. As well, attachment security to both mothers and fathers was significantly related to overall ratings of adolescent competence ( $r(52) = .49, p < .00, r(52) = .44, p < .001$ , respectively). Adolescents who were more securely attached to their

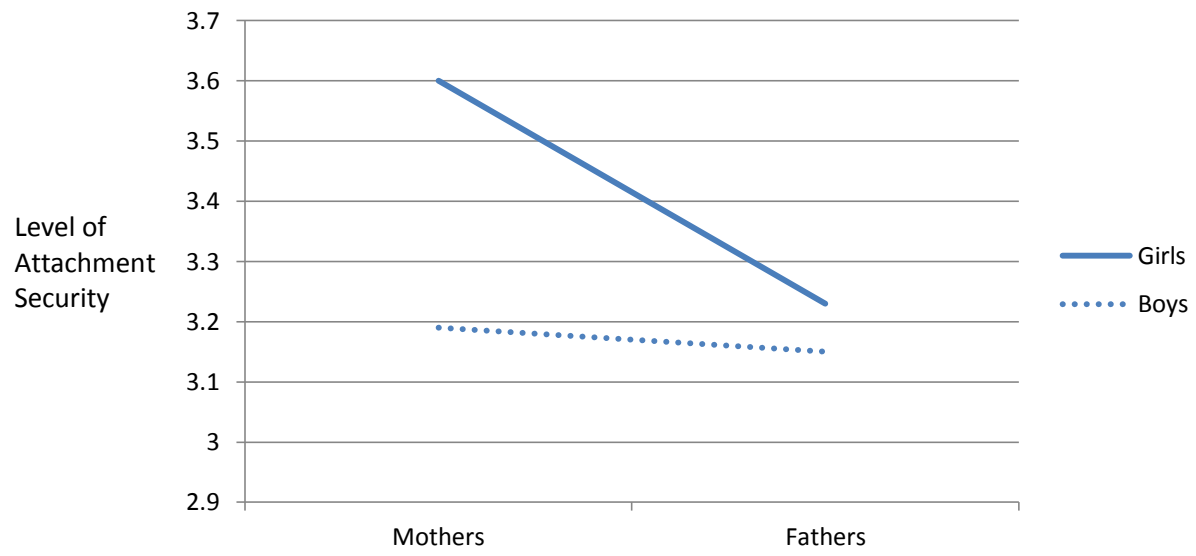


Figure 1. Attachment Security with Mothers and Fathers by Child Gender

Table 3. Intercorrelations Among Children's Reactions to Interparental Conflict (Wave 1), Attachment with Mothers and with Fathers (Wave 3), and Adolescent Competence (Wave 3).

Variables	1	2	3	4
1. Children's Reactions to Marital Conflict	-	-.27*	-.26	-.22
2. Attachment with Mothers		-	.38**	.49***
3. Attachment with Fathers			-	.44***
4. Overall Adolescent Competence				-

*Note:* Ns vary from 47 to 65

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

mothers and adolescents more securely attached to their fathers were more competent. In contrast to our expectations, the association between children's reactions to marital conflict and adolescent competence was not significant. However, based on the consideration that steps for a mediated analysis are stated in terms of zero and nonzero coefficients (Kenny, 2012), additional analyses were conducted examining attachment security as a potential mediator, despite the fact that marital conflict was not significantly associated with adolescent competence.

*Wave 3 Attachment Security as a Mediator of the Association Between  
Wave 1 Children's Reactions to Marital Conflict and Wave 3  
Adolescent Overall Competence*

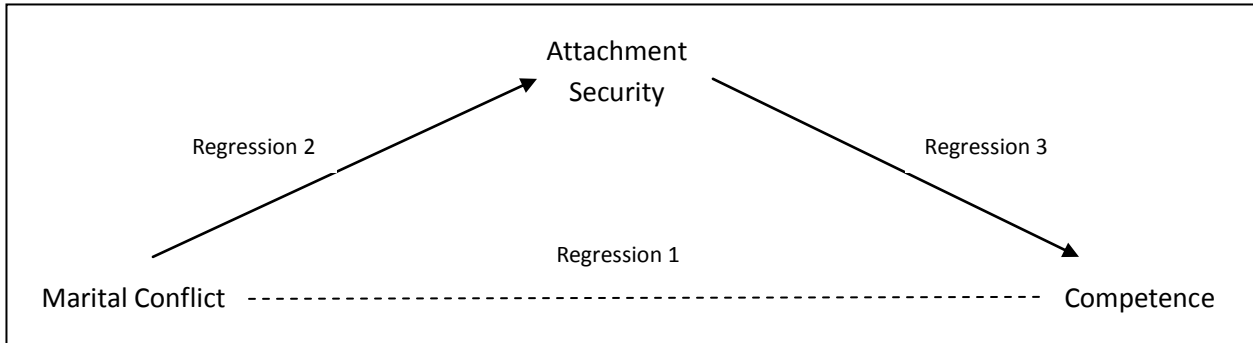
My main analyses examined whether Wave 3 attachment security mediates the association between Wave 1 child reactions to marital conflict and Wave 3 adolescent competence. Baron and Kenny (1986) provide criteria for establishing a mediated relation. The first criterion requires that the predictor variable (Child Reactions to Interparental Conflict), the criterion variable (Overall Adolescent Competence), and the proposed mediator (Attachment Security) should all be intercorrelated. Kenny (2012) also suggests that because trivially small coefficients can be statistically significant with large sample sizes and very large coefficients can be insignificant with small sample sizes. Thus, instead of using terms of statistical significance, the steps for a mediated analysis are stated in terms of zero and nonzero coefficients. As reported previously, simple correlations were examined to observe relationships between these three variables (see Table 3). As discussed above, there were significant relationships reported between children's reactions to marital conflict and attachment security with mothers; attachment

security with mothers and overall adolescent competence; and attachment security with fathers and overall adolescent competence (see Figure 2). In contrast to our expectations, the association between children's reactions to marital conflict and adolescent competence was not significant. However, based on the consideration that steps for a mediated analysis are stated in terms of zero and nonzero coefficients (Kenny, 2012), the first criterion was met.

In order to test the above conditions further, Baron and Kenny (1986) direct the use of three multiple regression analyses. The first regression examined the significance of the Wave 1 Marital Conflict → Wave 3 Adolescent Competence relationship while also controlling for covariates. The second regression evaluated the significance of the Wave 1 Marital Conflict → Wave 3 Attachment Security path and the third regression analysis uses Wave 3 Socioemotional Competence as the dependent variable and Wave 1 Marital Conflict and Wave 1 Attachment Security as predictor variables. Using these regression analyses we were able to compare the relative effect of Marital Conflict on Adolescent Competence while controlling and not controlling for Attachment Security. We were examining the degree that the effect of marital conflict was reduced as an indicator of the potency of Attachment Security as a mediator.

The first regression analysis examined whether Wave 1 children's reaction to marital conflict predicted Wave 3 adolescent overall competence while controlling for Wave 3 mother's marital status, Wave 1 father's education level, and child gender; we controlled for these variables because preliminary analyses indicated they were significantly related to the variables of interest. This equation was significant ( $F(4,53) = 4.55, p = .003, \text{Adjusted } R^2 = .20$ ) establishing that there was an effect that can be

Figure 2. Mediation Regression Analysis for Children's Reactions to Interparental Conflict, Attachment Security, and Overall Adolescent Competence.



mediated. As well, the coefficients for Wave 3 mother's marital status ( $\beta = .35, p = .01$ ), Wave 1 father's educational level ( $\beta = -.26, p = .04$ ), and children's reactions to marital conflict ( $\beta = -.28, p = .024$ ) were all significant, indicating that these variables significantly predicted competence (see Model 1 in Table 4).

The second regression analyses examined whether Wave 1 children's reaction to marital conflict predicted Wave 3 attachment security with mothers and attachment security with fathers (run separately), while controlling for child gender, Wave 1 father's education level, and Wave 3 mother's marital status. The equation for predicting attachment security to mothers was significant,  $F(4,43) = 5.04, p = .002$ , Adjusted  $R^2 = .26$  and also showed significant coefficients for child gender ( $\beta = .42, p = .002$ ) and children's reactions to interparental conflict ( $\beta = -.34, p = .01$ ). Thus, as expected, Baron and Kenny's 2<sup>nd</sup> criterion for mediation was met for attachment security with mothers (see Model 2a in Table 4). Conversely, the overall equation for predicting attachment security with fathers from children's reaction to marital conflict was not significant ( $F(4,43) = 1.25, p = .31$ , Adjusted  $R^2 = .02$ ), but the coefficient for children's reactions to interparental conflict was significant, ( $\beta = -.29, p = .05$ ) (see Model 2b in Table 4). Kenny (2012) suggests that because trivially small coefficients can be statistically significant with large sample sizes and very large coefficients can be insignificant with small sample sizes, instead of using terms of statistical significance, the steps for a mediated analysis are stated in terms of zero and nonzero coefficients. Under this consideration, criterion 2 was also met for adolescent's attachment security to their fathers.

Table 4. Regression Analyses Examining Mediation Model

Variables	Adolescent Competence			
	$\beta$	$R^2$	Adjusted $R^2$	$F$
<i>Regression 1:</i>				
<i>Predicting Competence</i>		.26	.20	4.55**
<i>Child gender</i>	.12			
<i>Mother's marital status</i>	.35*			
<i>Father's education level</i>	-.26*			
<i>Children's reactions to conflict</i>	-.28*			
<i>Regression 2a:</i>				
<i>Predicting Attachment Security with Mothers</i>		.32	.26	5.04**
<i>Child gender</i>	.42**			
<i>Mother's marital status</i>	-.11			
<i>Father's education level</i>	-.18			
<i>Children's reactions to conflict</i>	-.34**			
<i>Regression 2b:</i>				
<i>Predicting Attachment Security with Fathers</i>		.10	.02*	1.25
<i>Child gender</i>	.10			
<i>Mother's marital status</i>	.11			
<i>Father's education level</i>	-.10			
<i>Children's reactions to conflict</i>	-.29*			
<i>Regression 3a:</i>				
<i>Predicting Competence</i>		.43	.36***	6.30***
<i>Child gender</i>	-.09			
<i>Mother's marital status</i>	.40***			
<i>Father's education level</i>	-.17			
<i>Children's reactions to conflict</i>	-.11			
<i>Attachment security with mothers</i>	.50***			
<i>Regression 3b:</i>				
<i>Predicting Competence</i>		.36	.28*	4.62*
<i>Child gender</i>	.09			
<i>Mother's marital status</i>	.31*			
<i>Father's education level</i>	-.23			
<i>Children's reactions to conflict</i>	-.18			
<i>Attachment security with fathers</i>	.33*			

The third step in Baron and Kenny's criteria is to assess the predictive value of attachment security as a mediator. In order to assess attachment security as a mediator, separate regression equations were computed, one for attachment security with mothers and one for attachment security with fathers. The independent variables were Wave 3 mothers' marital status, Wave 1 fathers' education level, and child gender. As hypothesized, the regression examining the decreased predictive power of Wave 1 children's reactions to marital conflict on Wave 3 adolescent's overall competence by controlling for Wave 3 attachment security with mothers was significant ( $F(5,42) = 6.30$ ,  $p = .000$ , Adjusted  $R^2 = .36$ ) and reported significant coefficients for Wave 3 mother's marital status ( $\beta = .40$ ,  $p = .001$ ) and adolescent's attachment security with mothers ( $\beta = -.50$ ,  $p = .001$ ). These results, as expected, also indicated that attachment security with mothers' accounts for a significant amount of variance related to overall adolescent competence, above that accounted for by children's reactions to marital conflict (see Model 3a, Table 4).

The next regression examined the decreased predictive power of Wave 1 children's reactions to marital conflict on Wave 3 adolescent's overall competence by controlling for Wave 3 attachment security with fathers. As anticipated, these results indicated that attachment security accounted for a significant amount of variance related to overall adolescent competence, above that accounted for by children's reactions to marital conflict ( $F(5,42) = 4.62$ ,  $p = .002$ , Adjusted  $R^2 = .28$ ) (see Model 3b, Table 4), which provided evidence for supporting Baron and Kenny's (1986) requirement for a partial mediation model. Additionally, these results showed significant coefficients for

Wave 3 mother's marital status ( $\beta = .31, p = .02$ ) and adolescent's attachment security with fathers ( $\beta = .33, p = .02$ ).

## DISCUSSION

The purpose of this study was to examine attachment security as a mediator of the effects of children's reactions to interparental conflict on their competence as adolescents, measured by self and parent report. We examined longitudinal data collected over an 8-year period of time to assess children's reactions to interparental conflict and the long-term effects of these reactions on adolescent competence. In addition, we examined the roles of child gender, parent gender, child age and parent demographics in accounting for observed associations between attachment security, reactions to marital conflict and adolescent competence. The findings of this research provide valuable data on attachment security as a mediator of children's reactions to marital conflict and overall adolescent competence over time, an area with limited research.

As anticipated, our findings revealed that attachment security with both mothers and fathers acted as a mediator in the relationship between children's reactions to interparental conflict and adolescent's overall competence. This research supports attachment security as one of the pathways through which marital conflict is affecting competence. These results indicate that as children experience conflict between their parents, their reactions to that conflict impacts their ability to create secure attachment relationships with their parents. There is the possibility that because children feel angry at their parents about the conflict, they could be pulling away from their parents' attempts to interact. Or, because the marital relationship is strained, parents could be less available to console or meet the needs of their children. As children experience decreased safety and

security in their relationships with their parents, this study indicates that, as adolescents, these children exhibit decreased social skills and increased emotional issues which ultimately decrease their ability for success in the world around them. These findings support evidence which suggests that marital conflict negatively affects the bond between parent and child (Amato & Sobolewski, 2001; Davies & Cummings, 1994; Mann & Gilliom, 2002). Further, these findings provide additional support for empirical evidence suggesting that child perceived attachment security and children's reactions to interparental conflict are not only associated with one another, but also affect and are related to their subsequent social, academic, and emotional competencies (Axam & Hanif, 2011, Isabella & Diener, 2010; Ross & Fuertes, 2010; Shelton & Harold, 2008). These findings help to highlight the significance of the meanings that children place on interparental conflict and show that, even 8 years later, children's reactions to interparental conflict impacts the attachment security they feel with their mother and father, and affects the competence they display and feel as adolescents.

Even though there is empirical evidence supporting the intercorrelation of these variables of interest, little research has been done to examine the pathway of attachment security between marital conflict and adolescence competence, and even less research has explored this relationship over time. Attachment security provides children with a secure base from which to explore their world and to eventually gain an identity, social relationships and competence. However, our research shows lasting and long-term effects of children's heightened anxiety and concern related to interparental conflict can lead adolescents to feel instability and to expect negative relationships. These feelings and expectancies may lead long-term to decreased feelings of safety and security for the

adolescent, which in turn has effects on an adolescent's ability to interact appropriately in social situations, perform well in school and process emotion in a constructive manner.

As attachment relationships are forming, the child also begins to construct an internal working model of the self. This model is a cognitive framework children use to understand their world, self and others and guides the interpretation of others behaviors. When the internal working model is clouded by high levels of anxiety and concern, children may lack the necessary skills to make appropriate judgments about others' behavior or may fail to understand their own worth. These inadequacies may lead them to misinterpret cues in their social environment and may potentially lead to social and emotional dysfunctions as well as internalizing or externalizing behaviors, such as depression or acting out as adolescents. From the internal working model, adolescents carry representations from their relationships with their parents which they project onto other close relationships. These representations shape core strategies for self-regulating emotions, behaviors and thoughts for children's close relationships and influence appraisals and expectations of interactions with others (Kerns, 1994). For instance, an adolescent who has experienced heightened reactions to high levels of marital conflict as a child may learn to expect conflict in other close relationships, which may further affect their cognitive and emotional resources, creating even lower levels of competence and higher levels of dysfunction.

As individuals advance through life they develop the aptitude to form new relationships that are qualitatively diverse, each building on previously gained skills (Englund et al., 2011). When these skills are not gained, the development of new relationships can become strained (Engels et al., 2001). Our research, along with others'

indicates that exposure to interparental conflict has important implications for children's ability to form interpersonal bonds in relationships inside and outside of the family and shows that lower levels of security in attachment relationships are associated with less positive relationships (La Freniere & Sroufe, 1985; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Youngblade & Belsky, 1992) and decreased social, academic and emotional competence during adolescence.

We found it interesting that while the bivariate correlation between children's reaction to marital conflict and adolescent competence was not significant, the regression analyses that controlled for fathers' education and mothers' marital status reported a significant relationship. While we are unable to state the reason for this discrepancy, there is the possibility that a larger sample size would have had the ability to explain the relationship between adolescent competence and interparental conflict with more clarity. It is clear that the relationship between children's reactions to interparental conflict and adolescent overall competence became more apparent when using a complex regression analyses versus the bivariate correlation which examines fewer factors; it is unclear why this happened. Future research using a larger sample size could possibly clarify the discrepancy between the bivariate correlation and the regression analysis.

We found that overall adolescent competence differed based on whether a mother was married or divorced ( $n=5$ ). This finding could be related to prior or current decreases in home stability, decreases in SES, low levels of parental support or other potential readjustments related to divorce. Research has suggested that children of divorce initially fare more poorly on a number of psychosocial dimensions than their nondivorced peers (Amato & Keith, 1991; Emery & Forehand, 1994).

Also, we found as father's level of education increased that adolescents showed lower overall competence. Normally, we would have expected the relationship between father's higher education levels and adolescent's overall competence to be positively correlated; negative correlation was unexpected. These results, which included both self-perceptions and parents' ratings of adolescent competence, could perhaps suggest that homes with highly educated fathers have higher expectations for social and academic performance, leaving children to feel less competent.

Our findings also examined the relationships between child and parent gender on children's perceptions of marital discord, attachment security and overall competence. These analyses revealed that marital conflict and competence did not differ for boys or girls or by child age. These results suggest that regardless of age, boys and girls tend to place similar meanings on parental conflict and tend to display and feel similar levels of competence. However, this study did show differences in the way that boys and girls feel about their attachment relationships with their fathers and mothers. Overall, adolescent girls tended to feel more securely attached to their mothers; this finding is consistent with previous research which states that girls report relying more on their mothers (Kerns, Tomich & Kim, 2006) and report higher levels of attachment security with their mothers (Verschuren & Marcoen, 2005) than do boys. Adolescent boys show less attachment security with both parents compared to adolescent girls. These results could perhaps indicate that adolescent boys tend to rely more heavily on their peer group and may be more heavily socialized to earlier independence than females (Larsen & Verma, 1999).

### *Implications*

These results can offer insights for therapists working with families experiencing high conflict in the parental relationship. For example, if therapists identify high-conflict parents they could provide therapeutic interventions focusing on increasing parental understanding regarding the effects of their marital conflict and the subsequent consequences to their children. Education highlighting the converse effects of intense conflict and teaching effective communication methods might help parents seek more positive forms of communication, with their partners and their children. This education could in turn help minimize children's reactions, potentially providing a more secure parent relationship for children, and allow children to function more optimally in their overall competencies. Additionally, for therapists working with high conflict parents, it would be beneficial to discuss the importance of parents' interactions with their children, so that parents can reassure their children and work to relieve anxiety and concern children might be experiencing regarding marital conflict.

For school counselors, careful assessment should be given to adolescents struggling with social, emotional and academic competencies at school. School counselors may benefit from assessing and addressing instabilities along with focusing on actual deficits in skills that may be interfering with the success of adolescents meeting the developmental demands of their life stage (Wierson & Forehand, 1992).

### *Limitations*

It is important to recognize some limitations of this study when interpreting the results. First, the sample size was too small to disentangle why mother's marital status was important. Second, analyses reported significant differences in father's age and

income for those participating in Wave 3 versus those who participated only during Wave 1. These results reported that fathers who were older at Wave 1 and had more education at Wave 1 were more likely to remain in the study for Wave 3. This presents a limitation by creating a biased sample that does not generalize well to the average population. Third, though great attempts were made to retain as many original participants as possible, external and internal validity may be affected by selective attrition. However, the sample who participated at Wave 3 did not differ on the variables of interest at Wave 1. The sample who participated was different from the more general population in that the sample was more likely to be White, was more educated, and had higher household incomes than the U. S. Census Bureau's 2011 census data for the area.

### *Strengths*

Notwithstanding these limitations, this study also contains strengths worth noting. First, the present study extends recent research (Axim & Hanif, 2011; Isabella & Diener, 2010) by highlighting attachment security as a mediator between marital conflict and competence. Although more research has examined associations between the variables of marital conflict, attachment security and adolescent competence, less research has examined the mechanisms between marital conflict and its affects on competence. Second, this study provides a longitudinal perspective of the impact of children's reactions to marital conflict and its long term associations to adolescent competence. Third, the measures used for this study included competence perspectives from both parent and child and adolescent attachment perspectives for mothers and fathers separately. Including separate perspectives for adolescent mother and father attachment

security coincides with previous research identifying a distinction between mother and father attachment (McCarthy, Moller, & Fouladi, 2001; Ross & Fuertes, 2010).

### *Future Research*

As noted above, one of the strengths of my study was the longitudinal design. For future research, it would be beneficial to use a larger longitudinal sample to help disentangle the effects of marital conflict and divorce. Also, this study focused on a single measure assessing attachment security. Future research might consider examining attachment insecurity along with attachment security. Further, the gender findings of this study indicate that child and parent gender may be important factors in adolescents' attachment relationships and merits further study. Lastly, future research may be interested in looking for potential interventions targeting attachment security as one the mechanism through which marital conflict is effecting competence outcomes.

## REFERENCES

- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Allen, J. P., & Land, D. (1999). Attachment in adolescence. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*. New York: Guilford.
- Allen, J. P., Porter, M. R., McFarland, C., McElhaney, K. B., & Marsh, P. (2007). The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Development, 78*, 1222–1239.
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family, 62*, 1269-1287.
- Amato, P. R., Loomis, L. S., & Booth, A. (1995). Parental divorce, marital conflict, and offspring well-being during early adulthood. *Social Forces, 73*, 895-915.
- Amato, P. R., & Sobolewski, J.M. (2001). The effects of divorce and marital discord on adult children's psychological well-being. *American Sociological Review, 66*, 900–921.
- Axom, A., & Hanif, H. (2011). Impact of parents' marital conflicts on parental attachment and social competence of adolescents. *European Journal of Developmental Psychology, 8*, 157-170.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1, Attachment*. Harmondsworth, UK: Penguin.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2, Separation*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1, Attachment (2<sup>nd</sup> ed.)*. New York, NY: Basic Books.

- Boyce, W. T. (1985). Social support, family relations, and children. In S. Cohen & S. L. Syme (Eds.), *Social Support and Health* (pp. 151-173). San Diego, CA: Academic Press.
- Cassidy, J., & Kobak, R. R. (1988). Avoidance and its relation to other defensive processes. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment: Child psychology* (pp. 300-323). Hillsdale, NJ: Lawrence Erlbaum.
- Cassidy, J., & Shaver, P. R. (2008). *Handbook of attachment: Theory, research and clinical applications*, 2<sup>nd</sup> ed. New York: Guilford Press.
- Cole, L., & Del Giudice, M. (2010). Patterns of attachment and emotional competence in middle childhood. *Social Development*, 28, 555-582.
- Cooper, M., Shaver, P., & Collins, N. (1998). Attachment styles, emotional regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology*, 75, 1380-1397.
- Crittenden, P. M. (1990). Internal representational models of attachment relationships. *Infant Mental Health Journal*, 11, 259-277.
- Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent: Conflict and growth in the teenage years*. New York: Basic Books.
- Cummings, E. M., & Davies, P. T. (1994). *Children and marital conflict: The impact of family dispute and resolution*. Guilford, New York.
- Cummings, E. M., & Davies, P. T. (1996). Emotional security as a regulatory process in normal development and the development of psychopathology. *Development and Psychopathology*, 8, 123-139.
- Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging theme in process-oriented research. *Journal of Child Psychology and Psychiatry*, 43, 31-63.
- Cummings, E. M., Davies, P. T., & Simpson, K. S. (1994). Marital conflict, gender, and children's appraisals, and coping efficacy, as mediators of child adjustment. *Journal of Family Psychology*, 8, 141-149.
- Cummings, E. M., Goeke-Morey, M. C., Papp, L. M., & Dukewich, T. L. (2002). Children's responses to mothers' and fathers' emotionality and conflict tactics during marital conflict in the home. *Journal of Family Psychology*, 16, 478-492.
- Cummings, E. M., Zahn-Waxler, C., & Radke-Yarrow, M. (1981). Young children's responses to expressions of anger and affection by others in the family. *Child Development*, 52, 1274-1281.

- Cummings, E. M., Zahn-Waxler, C., & Radke-Yarrow, M. (1982). Developmental changes in children's reactions to anger in the home. *Journal of Child Psychology and Psychiatry* 25, 63-74.
- Cummings, J. S., Pelligrini, D. S., Notarius, C. I., & Cummings, E. M. (1989). Children's responses to angry adult behavior as a function of marital distress and history of inter-parental hostility. *Child Development*, 60, 1035-1043.
- Crockenberg, S. C., & Leerkes, E. M. (2003) Parental acceptance, postpartum depression, and maternal sensitivity: Mediating and moderating processes. *Journal of Family Psychology*, 17, 80-93.
- Dadds, M. A., Atkinson, E., Turner, C., Blums, G. J., & Lendich, B. (1999). Family conflict and child adjustment: Evidence for a cognitive-contextual model of intergenerational transmission. *Journal of Family Psychology*, 13, 194-208.
- David, K. M., & Murphy B.C. (2004). Interparental conflict and late adolescents' sensitization to conflict: the moderating effects of emotional functioning and gender. *Journal of Youth and Adolescence*, 33, 187-200.
- Davies, P. T., & Cummings, E. M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin*, 116, 387-411.
- Davies, P. T., & Cummings, E. M. (1998). Exploring children's emotional security as a mediator of the link between marital relations and child adjustment. *Child Development*, 69, 124-139.
- Davies, P. T., Forman, E. M., Rasi, J. A., & Stevens, K. I. (2002a). Assessing children's emotional security in the interparental relationship: The security in the interparental subsystem scales. *Child Development*, 73, 544-562.
- Davies, P. T., Harold, G. T., Goeke-Morey, M. C., & Cummings, E. M. (2002b). Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development*, 67, vii-viii.
- Davies, P. T., & Lindsay, L. L. (2004). Interparental conflict and adolescent adjustment: Why does gender moderate early adolescent vulnerability? *Journal of Family Psychology*, 18, 160-170.
- Davies, P. T., & Windle, M. (2001). Interparental discord and adolescent adjustment trajectories: The potentiating and protective role of intrapersonal attributes. *Child Development*, 72, 1163-1178.

- Diener, M. L., Isabella, R. A., Behunin, M. G., & Wong, M. S. (2008). Attachment to mothers and fathers during middle childhood: Associations with child gender, grade, and competence. *Social Development, 17*, 84-101.
- Doyle, A. B., & Markiewicz, D. (2005). Parenting marital conflict and adjustment from early – to mid-adolescence: Mediated by adolescent attachment style? *Journal of Youth and Adolescence, 34*, 97-110.
- Dozier, M., & Kobak, R. R. (1992). Psychophysiology in attachment interviews: Converging evidence for deactivating strategies. *Child Development, 63*, 1473–1480.
- El-Sheikh, M. (1997). Children's responses to adult–adult and mother–child arguments: The role of parental marital conflict and distress. *Journal of Family Psychology, 11*, 165–175.
- El-Sheikh, M., & Elmore-Straton, L. (2004). The link between marital conflicts and child adjustment: Parent-child conflicts and perceived attachments as mediators, potentiators and mitigators of risk. *Development & Psychopathology, 16*, 631-648.
- Elicker, J., Englund, M., & Sroufe, L. A. (1992). Predicting peer competence and peer relationships in childhood from early parent–child relationships. In R.D. Parke & G.W. Ladd (Eds.), *Family-peer relationships: Modes of linkage* (pp. 77-106). Hillsdale, NJ: Lawrence Erlbaum.
- Emery, R.E. (1982). Interparental conflict and the children of discord and divorce. *Psychological Bulletin, 92*, 310–330.
- Engels, R. C. M. E., Finkenauer, C., Meeus, M., & Dekovic, M. (2001). Parental attachment and adolescents' emotional adjustment: The associations with social skills and relational competence. *Journal of Counseling Psychology, 48*, 428-439.
- Englund, M. M., I-Chun-Kuo, S., Puig, J., & Collins, W. A. (2011). Early roots of adult competence: The significance of close relationships from infancy to early adulthood. *International Journal of Behavioral Development, 35*, 490-496.
- Epstein, M. K., Renk, K., Duhig, A. M., Bosco, G. L., & Phares, V. (2004). Interparental conflict, adolescent behavioral problems, and adolescent competence: Convergent and discriminant validity. *Educational and Psychological Measurement, 64*, 475-495.
- Epstein, M. H., Ryser, G., & Pearson, N. (2002). Standardization of the behavioral and emotional rating scale: Factor structure, reliability, and criterion validity. *Journal of Behavioral Health Services & Research, 29*, 208-216.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin 118*, 108-132.

- Erikson, E. H. (1968). *Identity: Youth in crisis!* (Reissued 1994) W.W. Norton & Co., New York, NY
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships-relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment, 23*, 615-625.
- Fincham, F.D. (1998). Child development and marital relations. *Child Development, Vol. 69*, 543-574.
- Fincham, F. D. (1994). Understanding the association between marital conflict and child adjustment: Overview. *Journal of family Psychology, Vol. 2*, 123-127.
- Fincham, F.D., & Grych, J. H. (2001). Advancing understanding of the associations between interparental conflict and child development. In J. Grych & F. Fincham (Eds.), *Child development an interparental conflict* (pp. 443-451). New York: Cambridge University Press.
- Forehand, R., Long, N., & Brody, G. (1988). Divorce and marital conflict: relationship to adolescent competence and adjustment in early adolescence. *Impact of divorce, single parenting and step parenting on children* (pp. 155-167). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.
- Grych, J. H. (1998). Children's appraisals of interparental conflict: Situational and contextual influences. *Journal of Family Psychology, 12*, 1-17.
- Grych, J.H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin, 108*, 267-290.
- Grych, J. H., & Fincham, F. D. (1993). Children's appraisals of marital conflict: Initial investigations of the cognitive-contextual framework. *Child Development, 64*, 215-230.
- Grych, J.H., Harold, G.T., & Miles, C.J. (2003). A prospective investigation of appraisals as mediators of the link between interparental conflict and child adjustment. *Child Development, 74*, 1176-1193.
- Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict and children's adjustment: A cognitive-contextual framework. *Child Development, 63*, 558-572.

- Grych, J.H., Wachsmuth-Schlaefler, T., & Klockow, L. L. (2002). Interparental aggression and young children's representations of family relationships. *Journal of Family Psychology, 16*, 259-272.
- Harold, G. T., & Conger, R. D. (1997). Marital conflict and adolescent distress: The role of adolescent awareness. *Child Development, 68*, 333-350.
- Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, E.M. (2002). Relations between interparental conflict, child emotional security, and adjustment in the context of cognitive appraisals (in Davies, Harold, Goeke-Morey, & Cummings): Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development, 67*, vii-viii.
- Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, E. M. (2004). Marital conflict, child emotional security about family relationships and child adjustment. *Social Development, 13*, 350-376.
- Harter, S. (1979). *Perceived competence scale for children: Manual*. Denver: University of Denver.
- Harter, S. (1982). The perceived competence scale for children. *Child Development, 53*, 87-97.
- Harter, S., & Whitesell, N. R. (1996). Multiple pathways to self-reported depression and psychological adjustment among adolescents. *Development and Psychopathology, 8*, 761-777.
- Hogge, J. L. (2007). Relationships among marital satisfaction, marital conflict dimensions, and marital conflict strategies (unpublished doctoral dissertation). Utah State University, UT.
- Isabella, R. A., & Diener, M. L. (2010). Self-representations of social and academic competence: Contextual correlates in middle childhood. *Journal of Research in Childhood Education, 24*, 315-331.
- Jouriles, E. N., Bourg, W. J., & Farris, A. M. (1991). Marital adjustment and child conduct problems: A comparison of the correlation across subsamples. *Journal of Consulting and Clinical Psychology, 59*, 354-357
- Katz, L. F., & Gottman, J. M., (1997). Buffering children from marital conflict and dissolution. *Journal of Clinical Child Psychology, 26*, 157-171.
- Keating, D. (2004). Cognitive and brain development. In R. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 45-84). New York: Wiley.

- Kenny, D. A. (2012). Mediation. David A. Kenny. Retrieved April 5, 2013, from <http://www.davidakenny.net/cm/mediate.htm>.
- Kenny, M. E., & Donaldson, G. A. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first-year college students. *Journal of Counseling Psychology, 38*, 479-86.
- Kerns, K. A. (1994). A developmental model of the relations between mother-child attachment and friendship. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 129-156). Hillsdale, NJ: Lawrence Erlbaum.
- Kerns, K.A., Tomich, P. L., & Kim, P. (2006). Normative trends in children's perceptions of availability and utilization of attachment figures in middle childhood. *Social Development, 15*, 1-22.
- Kerns, K. A., Klepac, L., & Cole, A. K. (1996). Peer relationships and preadolescents' perceptions of security in the child-mother relationship. *Developmental Psychology, 32*, 457-466.
- Kerns, K. A., Abraham, M. M., Schlegelmilch, A., & Morgan, T. A. (2007). Mother-child attachment in later middle childhood: Assessment approaches and associations with mood and emotion regulation. *Attachment & Human Development, 9*, 33-53.
- Kitzmann, K. M. (2000). Effects of marital conflict on subsequent triadic family interactions and parenting. *Developmental Psychology, 36*, 3-13.
- Kobak, R. R., & Duemmler, S. (1994). Attachment and conversation: Toward a discourse analysis of adolescent and adult security. In K. Bartholomew & D. Perlman (Eds.), *Attachment processes in adulthood: Advances in personal relationships* (Vol. 5, pp. 121-149). Bristol: Jessica Kingsley.
- LaFreniere, P. J., & Sroufe, L. A. (1985). Profiles of peer competence in the preschool: Interrelations between measures, influence of social ecology, and relation to attachment history. *Developmental Psychology, 21*, 56-69.
- Larsen, R., & Verma, S. (1999). How children and adolescents around the world spend time: Work, play and developmental opportunities. *Psychological Bulletin, 125*, 701-736.
- Lemerise, E. A., & Arsenio, W. F. (2000). An integrated model of emotional processes and cognition in social information processing. *Child Development, 71*, 107-118.

- Long, N., Forehand, R., Fauber, R., & Brody, G. H. (1987). Self perceived and independently observed competence of young adolescents as a function of parental marital conflict and recent divorce. *Journal of Abnormal Child Psychology*, *15*, 15-27.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development*, *50*, 66–104.
- Mann, B. J., & Gilliom, L. A. (2002). Emotional security and cognitive appraisals mediate the relationship between parents' marital conflict and adjustment in older adolescents. *Journal of Genetic Psychology*, *165*. 250-271.
- Martin, B. (1990). The transmission of relationship difficulties from one generation to the next. *Journal of Youth and Adolescence*, *19*, 181-200.
- McCarthy, C. J., Moller, N. P., & Fouladi, R. T. (2001). Continued attachment to parents: Its relationship to affect regulation and perceived stress among college students. *Measurement and Evaluation in Counseling and Development*, *33*, 198-211.
- McCoy, K., Cummings, E. M., & Davies, P.T. (2009). Constructive and destructive marital conflict, emotional security and children's prosocial behavior. *Journal of Child Psychology and Psychiatry*, *50*, 270-279.
- McDonald, R & Grych J. H. (2006). Young children's appraisals of interparental conflict: Measurement and links with adjustment problems. *Journal of Family Psychology*, *20*, 88-99.
- Parke, R. D., & Buriel, R. (1998). Socialization in the family: Ethnic and ecological perspectives. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (pp. 463-552). New York, NY: John Wiley.
- Picklesimer, B. K., Roberson-Hooper, D., & Ginter, E. J. (1998). Life skills, adolescents, and career choices. *Journal of Mental Health Counseling*, *20*, 272-282.
- Quintana, S. M., & Lapsley, D. K. (1990). Rapprochement in late adolescent separation-individuation: A structural equations approach. *Journal of Adolescence*, *13*, 371-385.
- Rands, M., Levinger, G., & Mellinger, G. D. (1981). Patterns of conflict resolution and marital satisfaction. *Journal of Family Issues*, *2*, 297- 321.
- Rice, K. G., Cunningham, T. J., & Young, M. B. (1997). Attachment to parents, social competence, and emotional well-being: A comparison of black and white late adolescents. *Journal of Counseling Psychology*, *44*, 89-101.

- Rose-Krasnor, L., Rubin, K. H., Booth, C. L., & Coplan, R. J. (1996). Maternal directiveness and child attachment security as predictors of social competence in preschoolers. *International Journal of Behavioral Development, 19*, 309–325.
- Ross, J., & Fuertes, J. (2010). Parental attachment, interparental conflict, and young adults' emotional adjustment. *The Counseling Psychologist, 38*, 1050-1077.
- Schneider, B. H., Atkinson, L., & Tardif, C. (2001). Child-parent attachment and children's peer relations: A quantitative review. *Developmental Psychology, 37*, 86–100.
- Shelton, K. H., & Harold, G. T. (2008). Pathways between interparental conflict and adolescent psychological adjustment. *Journal of Early Adolescence, 28*, 555-582.
- Shomaker, L. B., & Furman, W. (2009). Parent-adolescent relationship qualities, internal working models, and attachment styles as predictors of adolescents' interactions with friends. *Journal of Social and Personal Relationships, 26*, 579-603.
- Shulman, S., Elicker, J., & Sroufe, L. A. (1994). Stages of friendship growth in preadolescence as related to attachment history. *Journal of Social and Personal Relationships, 11*, 341-361.
- Simon, V. A., & Furman, W., (2010). Interparental Conflict and Adolescents' Romantic Relationship Conflict. *Journal of Research on Adolescence, 20*, 188-209.
- Slicker, E. K., Picklesimer, B. K., Guzak, A. K., & Fuller, D. K. (2005). The relationship of parenting style to older adolescent life-skills development in the United States. *Nordic Journal of Youth Research, 13*, 227-245.
- Sperling, M. B., & Berman, W. H. (1994). *Attachment in adults: Clinical and developmental perspectives* (pp. 1- 30). New York, NY: The Guilford Press.
- Sroufe, L. A., Egeland, B., & Carlson, E. A. (1999). *One social world: The integrated development of parent-child and peer relationships*. In W. A. Collins & B. Laursen (Eds.), *Relationships as developmental contexts. The Minnesota symposia on child psychology* (Vol. 30, pp. 241 – 261). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Sroufe, L. A., Egeland, B., Carlson, E., & Collins, W. A. (2005). *Placing early attachment experiences in developmental context*. In K. E. Grossmann, K. Grossmann, & E. Waters (Eds.), *The power of longitudinal attachment research: From infancy and childhood to adulthood* (pp. 48 – 70). New York: Guilford.
- Steele, R., Forehand, R., & Devine, D. (1996). Adolescent social and cognitive competence: Cross-informant and intra-individual consistency across three years. *Journal of Clinical Child Psychology, 25*, 60-65.

- Suess, G. J., Grossmann, K. E., & Sroufe, L. A. (1992). Effects of infant attachment to mother and father on quality of adaptation in preschool: From dyadic to individual organization of self. *International Journal of Behavioral Development, 15*, 43 – 65
- Tannenbaum, L., Neighbors, B., & Forehand, R. (1992). The unique contribution of four maternal stressors to adolescent functioning. *Journal of Early Adolescence, 12*, 314-325.
- Turner, H. A., & Kopiec, K. (2006). Exposure to inter-parental conflict and psychological disorder among young adults. *Journal of Family Issues, 27*, 131-158.
- U. S. Census Bureau. (2011). *People and households*. Retrieved September 20, 2012 from <http://www.census.gov/people/>.
- Verschueren, K., & Marcoen, A. (2005). Perceived security of attachment to mother and father: Developmental differences and relations to self-worth and peer relationships at school. In K. A. Kerns & R. A. Richardson (Eds.), *Attachment in middle childhood* (pp. 212-230). New York: Guilford.
- Westervelt, K., & Vandenberg, B. (1997). Parental divorce and intimate relationships of young adults. *Psychological Reports, 80*, 923-926.
- Wierson, M., & Forehand, R. (1992). Family stressors and adolescent functioning: A consideration of models for early and middle adolescents. *Behavior Therapy, 23*, 671-688.
- Wong, M. S., Diener, M. L., & Isabella, R. A. (2007). Parents' emotion related beliefs and behaviors and child grade: Associations with children's perceptions of peer competence. *Journal of Applied Developmental Psychology, 29*, 175-186.
- Youngblade, L. M., & Belsky, J. (1992). Parent–child antecedents of 5-year-olds' close friendships: A longitudinal analyses. *Developmental Psychology, 28*, 700–713.
- Zimet, D.M., & Jacob, T. (2002). Influences of marital conflict on child adjustment: Review of theory and research. *Clinical Child and Family Psychology Review, 4*, 319-33.