

**Marital Conflict, Maternal and Paternal Closeness and Monitoring, and Adolescent Internalizing Problems: A Test of Mediation and Moderation**

by

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## Abstract

To explore the mechanism underlying the link between marital conflict and adolescent depression and anxiety (internalizing symptoms), this study examined parenting as a mediator in the relationship between adolescent reports of marital conflict and internalizing symptoms. This study extended previous work by testing the spillover hypothesis and family systems theory specifying two dimensions of both maternal and paternal parenting as possible mediators: closeness and monitoring. Furthermore, this study examined adolescent gender as a moderator of the association between perceived marital conflict and adolescent depression and anxiety. Data for this study were collected as part of the International Study of Adolescent Development and Problem Behaviors (ISAD). The sample consisted of  $N = 1,080$  students ( $n = 390$  males,  $n = 690$  females) attending a technical secondary school (mean age = 17 years) in Maribor, Slovenia. Students responded to demographic questions (age, sex, and home situation), a marital conflict measure, parenting process measures (maternal and paternal closeness and monitoring), and internalizing behaviors (depression and anxiety). As hypothesized, results indicated that both dimensions of maternal and paternal parenting were negatively associated with marital conflict. Furthermore, findings supported the hypothesis that maternal closeness mediated the effects by marital conflict on adolescent depression and that maternal monitoring mediated the effects by marital conflict on adolescent anxiety. Paternal closeness also mediated the relationship between perceived marital conflict and adolescent depression. However, when maternal and paternal measures were tested simultaneously in a model, only maternal constructs remained significant, due to redundancy and overlap. The results also indicated that although previous research argues

that marital conflict has stronger effects for adolescent males, no evidence was found supporting the claim. Indeed, the results suggested that girls were more likely to report low paternal closeness, paternal monitoring, and maternal monitoring than were boys. Additionally, the evidence suggests that because maternal parenting processes in effect eclipse paternal parenting processes, paternal parenting behaviors should not be examined without controlling for maternal behaviors. Future work needs to explore these relationships using multiple sources (i.e. parents and children). Research will benefit from expanding on the current study by examining additional dimensions of parenting. Future work should also test these questions across time.

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## INTRODUCTION

Adolescence is a period riddled with numerous changes and transformations (Malekoff, 2004) that are said to have important implications for adolescent mental health and later life adjustment (Amato & Afifi, 2006). Along with the normative biological changes that come with the onset of puberty, adolescents undergo significant social and environmental changes (Beyers & Goossens, 2008). For instance, adolescence marks a shift from spending most of the day at home with family to spending an increasing amount of time alone and with peers (Kuhn & Laird, 2011; Larson & Richards, 1991; Sheeber, Davis, Leve, Hops, & Tildesley, 2007). Children also experience new challenges during adolescence, including the competitive nature of the peer group (Brown, 1990) and increasing expectations and demands from parents (De Goede, Branje, & Meeus, 2009). Furthermore, compared with younger children adolescents are at higher risk for dropping out of school (Eccles et al., 1993) and attempting suicide (Garland & Zigler, 1993; National Institute of Mental Health, 2010). These challenges are often associated with increases in internalizing behaviors, specifically, depression and anxiety (Garland & Zigler, 1993; Kessler et al., 2005; NIMH, 2010). Thus, understanding the antecedents of these behaviors is critical.

Research indicates that there are many contextual factors that may contribute to or exacerbate depression and anxiety in adolescents. One such factor is marital conflict. Marital conflict is particularly salient for adolescents because it has been associated with many aspects of negative child outcomes, including low academic achievement (Ghazarian & Buehler, 2010), low peer competence (Finger, Eiden, Edwards, Leonard, Kachadourian, 2010), low self-esteem and life satisfaction (Milevsky et al., 2007), and high levels of externalizing problems (McCoy et

al., 2009). However, it is the link between marital conflict and high levels of internalizing problems that has been most consistently verified (McCoy, Cummings, & Davies, 2009; Milevsky, Schlechter, Netter, & Keehn, 2007; O'Donnell, Moreau, Cardemil, & Pollastri, 2010). Few studies have examined mechanisms through which marital conflict influences adolescent depression and anxiety and none have examined each mechanism using the perspective of a large sample of adolescents. The current study investigated how perceived marital conflict influences self-reported symptoms of depression and anxiety via perceived affective and instrumental aspects (closeness and monitoring, respectively) of maternal and paternal parenting.

Parents play an integral role in adolescent development and hostility within a marriage has the ability to increase the amount of negative parenting behaviors (Belsky, 1984). Negative parenting behaviors have generally been associated with negative child outcomes. According to Baumrind's typology of parenting styles, authoritarian parenting is parenting with low warmth in the parent-child relationship and low levels of parent-child closeness, authoritative parenting is characterized by high levels of warmth and closeness, and permissive parenting is marked by low levels of supervision (as cited by Milevsky et al., 2007). Authoritative parenting is commonly associated with positive outcomes in children while authoritarian and permissive parenting are associated with negative outcomes in children. For instance if an adolescent reports that his mother or father does not give him the desired amount of affection or does not know who his friends are, that mother or father may be categorized as being an authoritarian parent. In the case of authoritative parents, the reverse may be true; the adolescent would report that his parent gives him the right amount of affection and knows who his friends are. Researchers have since expanded on Baumrind's parenting styles by distinguishing two categories of permissive parenting: indulgent (parenting that is a mix of low levels of demandingness and high levels of

responsiveness) and neglectful (parenting that involves low levels of demandingness and low levels of responsiveness) (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Most research has assumed that mothers and fathers utilize the same parenting styles. The focus of most previous work has been on overall parenting; previous research either averages maternal or paternal scores or obtains reports of maternal parenting without consideration to paternal parenting. Milevsky et al. (2007) found that mothers tend to be authoritative while fathers are more permissive in their parenting. The authors also found that mothers' and fathers' parenting had varying effects on adolescents. For example, paternal permissiveness was not found to be as detrimental to adolescents as was maternal permissiveness.

Some studies have examined the mediating role negative or compromised parenting has in the association between marital conflict and child or adolescent outcomes (e.g., O'Donnell et al., 2010). However, few of these studies have explored the separate mediating influences of fathers' negative parenting and mothers' negative parenting on adolescents' internalizing behaviors. Of the studies that have been conducted, there is evidence that mothers' and fathers' parenting is impacted by marital conflict in similar and different ways (Buehler, Benson, & Gerard, 2006). For instance, Buehler et al. (2006) found that marital conflict was positively related to mothers' and fathers' harshness and positively related to only fathers' inconsistency. Subsequently, mothers' harshness was positively related to adolescent internalizing problems while fathers' harshness was not. There are mixed findings regarding whether the sex of the parent matters in determining child outcomes. For instance, Davies, Sturge-Apple, Woitach, and Cummings (2009) found that marital conflict influenced fathers' parenting (inversely), but mothers' parenting was not predicted by marital conflict. On the other hand, Furman and Simon (2004) theorize that there should be no difference between mothering and fathering in families

with low marital quality based on longitudinal studies that show that, as children age, they begin to perceive maternal and paternal parenting as one construct.

The sex of the parent may explain variability in depression and anxiety among adolescents from high conflict homes (Grych, Jouriles, Swank, MacDonald, & Norwood, 2000). However, the sex of the adolescent may further explain the relationship between perceived marital conflict and adolescent depression and anxiety. Parents in conflict may treat boys differently than they do girls and boys may react to negative parenting differently than girls do which would account for differences between boys' and girls' internalizing problems (Davies & Lindsay, 2004). Furthermore, parent gender and adolescent gender may interact to show that perceived marital conflict impacts father-son/daughter and mother-son/daughter relationships in different ways (Davies et al., 2009). The current study began to examine the effects of parent and adolescent sex in the proposed mediation model. Like Kaczynski et al. (2006), the current study will control for adolescents' age.

The present study seeks to extend and add to previous research by examining three areas using a large, non-U.S. sample: (1) whether the association between high levels of marital conflict and adolescents' self-report of depression and anxiety is mediated by maternal and paternal closeness and monitoring, (2) whether parental sex moderates the relation between perceived marital conflict and perceived maternal and paternal parenting, and (3) whether sex of the adolescent and/or parental sex moderates the relation between parenting and adolescent depression and anxiety.

The following literature review addresses: (1) the developmental context of adolescence, (2) relevant theoretical literature on marital conflict, (3) the direct effects by marital conflict on

adolescent internalizing problems, and (4) the mediating role of maternal and paternal parenting behaviors.

## LITERATURE REVIEW

### **Developmental Context**

Research has found that adolescence is a period marked with normative distress as children undergo significant biological, social, and environmental changes (Fenzel, 1989). The onset of puberty is often marked by physical changes; adolescent boys may start to grow facial hair and girls may experience menarche. Adolescents also start to rely more on their peers than on their parents for instrumental aid, companionship, and a sense a self-worth (Parker & Gottman, 1989). Of critical importance is the formation of new friendships within an ever-expanding peer group.

The relationship within the parent-child subsystem also undergoes significant changes during adolescence. There are two general thoughts about the development of adolescent-parent relationships. The first view is that adolescents disengage from family both emotionally and behaviorally. The accepted theory for this change is that adolescent disengagement from their family is a normal occurrence on the road to independence and adulthood (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996). The separation-individuation perspective states that adolescents develop more autonomy and independence from their parents which may cause a sense of disconnect in the parent-child subsystem (De Goede, Branje, & Meeus, 2009). The second view is that the relationships between adolescents and their parents look different from how it looked during childhood, but the underlying feelings of closeness and warmth remain (Larson et al., 1996). Researchers hypothesize that the continuity in adolescent-parent relationships is especially found when older adolescents undergo a kind of renegotiation with

their parents that results in a “more symmetric and mutual relationship,” (pp. 744) at least with mothers. During this renegotiation, parents may surrender some of their power to their adolescents and develop different, more age-appropriate expectations of their adolescents (De Goede et al., 2009). For example, an adolescent may ask for and receive a later curfew (a restriction on how late in the day a child is allowed to return to their home) from their parents.

Adolescence is also a period when children are at high risk for dropping out of school (Eccles et al., 1993) or engaging in suicidal behaviors (Garland & Zigler, 1993; NIMH, 2010). Dropouts are defined as individuals who are not enrolled in and have not completed high school (Chapman, Laird, Ifill, & KewalRamani, 2011). In 1988, 15% to 30% of adolescents in the United States (U.S.) did not complete their high school education (Eccles et al., 1993). Since then, the rates have steadily declined. However, an alarming 3 million individuals ages 16 to 24 did not receive a high school diploma as recently as 2009. Males and older adolescents maintain the highest dropout rates (Chapman et al., 2011).

Like dropout rates, rates of suicide among adolescents have decreased. In 1988, suicide accounted for 11.3 deaths per 100,000 adolescents ages 15-19 and was the third leading cause of death for this age group (Garland & Zigler, 1993). More recently, suicide rates dropped to 6.9 deaths per 100,000 adolescents ages 15-19, but remains the third leading cause of death for adolescents (NIMH, 2010). Suicide rates are higher among adolescent males (Garland & Zigler, 1993; NIMH, 2010); approximately five times as many males as females died by suicide in 2007 (NIMH, 2010). Although suicide rates have declined, a longitudinal study showed that rates of suicide ideation (or serious thoughts about killing oneself) in adolescence have remained stable (Kessler, Berglund, Borges, Nock, & Wang, 2005). According to Kessler et al. (2005), suicide



ideation is significantly positively related to suicidal planning which may lead to suicidal gestures.

The prevalence of discontinued education and suicidal behaviors are often attributable to adolescents experiencing depressive and anxiety symptoms (Garland & Zigler, 1993; Kessler et al., 2005; NIMH, 2010). Adolescents are generally at increased risk of developing depression and/or anxiety than are younger children. The prevalence rates of depressive and anxiety symptoms among adolescents are estimated to be as high as 20% to 50% (Kessler, Avenevoli, & Merikangas, 2001) and 3.8% to 25% (Boyd, Kostanski, Gullone, Ollendick, & Shek, 2000), respectively. Furthermore, Merikangas and Avenevoli (2002) stress that the level of comorbidity between anxiety and depression is high. The authors' review of relevant research found that 20% to 75% of depressed adolescents also have symptoms of an anxiety disorder, while 5% to 55% of anxious adolescents also have symptoms of a depressive disorder. The prevalence of depression and anxiety makes adolescence an especially vulnerable time in a child's life. Understanding factors that prevent or exacerbate adolescent depression and anxiety is critical.

An adolescent's perception of risk factors that predict adolescent internalizing may be an important factor in how adolescents develop symptomology (Yahav, 2007). As with all self-reports, some amount of bias is expected when using adolescent perceptions, but there is ample evidence that adolescent reports are better able to account for the variance in adolescent internalizing problems (Beaumont & Wagner, 2004; Paley, Conger, & Harold, 2000; Pelegrina, Garcia-Linares, & Casanova, 2003). Thus, this study will utilize adolescent reports to help discover some antecedents of adolescent depression and anxiety based on the evidence showing that adolescents are more knowledgeable of their own internalizing symptoms than are their parents.

## **Conceptual Framework/Theory**

Family systems theory is a theory commonly applied to social systems. Minuchin (1974), in his seminal article, conceptualizes a family as complex, hierarchically organized system made up of subsystems that are interdependent. The system as a whole is governed by rules and boundaries among the subsystems (Kaczynski, et al. 2006).

In a review of family systems theory, Hughes and Gullone (2008) pull on more recent studies to summarize family systems theory in its contemporary form. The authors maintain that an individual's behaviors and characteristics have the ability to influence the family system or subsystem(s). Likewise, other members of the family system are able to influence an individual's behaviors. The last, and most understudied, tenet of family systems theory is that the influences that occur in a system are circular. In other words, there is feedback between the effects of the individual on the family system, or the family system on the individual, creating a feedback loop or a cycle of interaction.

Family systems theory is frequently used to argue that marital problems can affect the children as the two systems are often in contact (Schudlich & Cummings, 2007; Young & Ehrenberg, 2007). For instance a child exhibiting aggressive behaviors may continue to do so as his behaviors serve to distract parents from their marital problems. Likewise, when there are high levels of marital conflict, a child may respond by acting out. Marital problems may also act as a precursor to how parents behave toward their children. As the following sections will demonstrate, studies have examined how parenting mediates the association between marital problems and child behavior. The spillover hypothesis serves as a basis for studying the mediating effects of negative parenting. The basic premise of the spillover hypothesis is that the emotions, affect and mood within one subsystem of the family invariably transfers to another

subsystem (Buehler et al., 2006; Davies et al., 2009; O'Donnell et al., 2010). Based on spillover hypothesis, marital conflict might increase adolescent internalizing behavior because parents become less warm or less vigilant due to the strain in their marital relationship. The current study captured both aspects of parenting (warmth and vigilance) using measures of perceived parental closeness and monitoring. Additionally, this study showed that hostility within the marital relationship spills into maternal and paternal closeness and monitoring and ultimately promotes adolescent internalizing problems.

### **Direct Effects of Marital Conflict on Adolescent Internalizing Problems**

The link between persistent exposure to marital conflict and negative child and adolescent consequences is a well-documented topic (e.g., Davies & Windle, 2001). When scientists searched for the manner in which conflict had an impact on children, they found that *how* parents manage disagreements proved most influential. As a result, some scientists emphasize that it is important to classify marital conflict into two categories, constructive and destructive marital conflict, as all conflict may not be detrimental to children. This study focuses on perceived destructive marital conflict which is defined as marital conflict that is antagonistic in nature and managed with physical aggression, verbal aggression, insults, and threats. Research has consistently linked destructive conflict to children worrying about the state of the family system to the extent that they experience anxiety, hopelessness, and internalizing disorders (Cummings & Davies, 1996, McCoy et al., 2009).

The current study examined the direct effects of high levels of destructive marital conflict on depression and anxiety in adolescence, using the adolescent's perspective.

More recent studies have been motivated to determine the mechanisms through which marital conflict influences adolescent internalizing behaviors. An important mechanism that has

been supported in a few studies (e.g., Buehler et al., 2006; O'Donnell et al., 2010; Schoppe-Sullivan, Schermerhorn, & Cummings 2007; Kaczynski et al., 2006), reviewed in greater detail in the following section, is parenting behaviors.

### **The Mediating Role of Maternal and Paternal Behaviors**

The spillover hypothesis serves as a basis for why parenting may be an explanation for the link between marital conflict and adolescent internalizing behaviors. As noted earlier, spillover is the process in which marital conflict increases the levels of negative parenting behaviors (Buehler et al., 2006). Research shows that parenting behaviors play a significant role in the development of adolescent internalizing and externalizing behaviors (Hair, Moore, Garrett, Ling, & Cleveland, 2008). Indeed, family factors like parental behaviors may act as a precursor to the appearance of internalizing and externalizing symptoms in adolescents (Muris et al., 2003). Belsky (1984) agrees that parenting is an important predictor of children's development. He postulates that an important determinant of parental functioning is marital quality; such that hostility within marital relationships spills over into the parent-child relationship, thereby, increasing the risk of negative parenting. Moreover, negative parenting, due to interparental conflict, shapes adolescent internalizing behaviors (Bradford et al., 2003; Davies & Cummings, 1994; Krishnakumar, Buehler, & Barber, 2003; O'Donnell et al., 2010; Schoppe-Sullivan, Schermerhorn, & Cummings 2007). Some of the studies mentioned above have failed to include specific parenting characteristics as an explanation for the relationship between marital hostility and children's problem behavior (see Buehler et al., 2006).

Research regarding negative parenting has mixed results. Some studies conclude that negative parenting behaviors play a very small role in explaining the relationship between marital conflict and children's maladjustment while others claim that negative parenting might

be a highly significant mediator. Buehler et al. (2006) also note that most studies of this nature found a partial and/or complete mediational pattern.

For instance, McCoy et al. (2009) found that destructive marital conflict at Time 1 predicted negative parenting at Time 2. However, in instances where couples engaged in destructive marital conflict, negative parenting was not related to children's behavior, indicating a partial mediation. In a longitudinal study of low-income, urban sample of elementary students (mean age at Time 1 = 10.74 years), child reports indicated that parenting behaviors acted as a full mediator of the relationship between marital conflict and childhood depression. In other words, higher marital conflict was directly related to higher depression scores, and high marital conflict was positively related to high parental rejection, which in turn predicted higher depression scores (O'Donnell et al., 2010). Similarly, another longitudinal study by Schoppe-Sullivan et al. (2007) found an indirect effect of marital conflict on children's internalizing behaviors through three dimensions of parenting (firm behavioral control, psychological autonomy, and acceptance). More specifically, high levels of marital conflict were associated with low levels of behavioral control, psychological autonomy, and warmth over time. Lower levels of positive parenting in all three dimensions predicted internalizing symptoms. These findings suggest that marital conflict influences specific aspects of parenting (i.e., warmth) just as it influences specific adolescent outcomes (i.e., depression). However, these studies fail to consider whether paternal parenting has unique influences on adolescent internalizing behaviors.

Milevsky et al. (2007) examined how maternal and paternal parenting styles were related to adolescent adjustment (depression, self-esteem, and life satisfaction). The authors' study was unique in that in addition to measures of authoritative and authoritarian parenting styles, they included measures of indulgent and neglectful parenting styles. A survey of 272 students in

grades 9 and 11 found that mothering and fathering behaviors had unique effects on adolescent adjustment. Although authoritative parenting was related to an overall well-being in adolescents when compared to permissive parenting, this was more so for mothers than for fathers. In fact, the advantage of paternal authoritarian parenting over paternal permissive parenting was only found for depression. The authors speculate that fathers may occupy a more playful role in the lives of adolescents; therefore, permissiveness may complement fatherhood rather than inhibit adolescent well-being. It may also be true that fathering behaviors are more salient with regards to adolescent internalizing problems than other aspects of adolescent well-being. Few studies have investigated how fathering behaviors, apart from mothering behaviors, mediate the relationship between marital conflict and adolescent internalizing problems.

Some studies propose that marital quality may have a greater impact on the father-child relationship than on the mother-child relationship. Davies et al. (2009), for example, proposes that father-child relationships are especially influenced by low marital quality. Meanwhile others say that low marital quality affects mother-child and father-child relationships similarly (Coiro & Emery, 1998). According to systems theory, parenting effects are similar across parent sex because mothers and fathers are using similar messages to manage family relationships and children throughout each developmental period (Furman & Simon, 2004). On the other hand, mothers and fathers may differ on aspects of parenting because fathers have traditionally taken the role of disciplinarian while mothers tend to have the nurturing and caring roles. Scholars have argued that, if this is the case, discipline measures may be more salient for fathers regarding adolescent symptomology while relational measures are more salient for mothers, an idea discussed by Buehler et al. (2006). Unfortunately, literature tends to be either vague about whose

behaviors the parenting measures capture or averages the scores for mothering and fathering to create a “parent score” (Bradford et al., 2003; Krishnakumar et al., 2003).

**The differential influences of mothers’ and fathers’ parenting.** Family systems theory would concur that there can be many influences on parenting behaviors, including individual characteristics (Hughes, 2008). Therefore gender may play an important role in the proposed model. Although studies do not typically focus on specific fathering behaviors, there is evidence that paternal parenting has an impact on adolescent internalizing problems separate from maternal parenting (Cookston & Finlay, 2006). In a 2-Wave study, Cookston and Finlay (2006) analyzed whether adolescent reports of maternal and paternal involvement at Wave 1, evidenced by activities shared with the parent, time spent talking to the parent and parent-child closeness, predicted adolescent delinquency, depression, and alcohol use at Wave 2. The authors found that paternal involvement continued to be an important predictor of depression, even when controlling for problem behaviors and maternal involvement at Wave 1. On the other hand, maternal involvement at Wave 2 was weakened to a nonsignificant level for all adolescent outcomes when controlling for problem behaviors and parental involvement at Wave 1. Parent-child relationships have vast social and emotional implications within and beyond one’s childhood and fathers and mothers share the responsibility of these implications, thus neither fathering nor mothering should be overlooked (Pleck & Hofferth, 2008). This paper aims to expand on a rarely explored area of research by examining how distinct maternal and paternal behaviors are influenced by marital conflict and how those same behaviors influence adolescent depression and anxiety.

**Overall differences in mothers’ and fathers’ parenting.** There have been some differences across mothers and fathers in the relationship between marital conflict and parenting

among the few studies that have considered both sexes. In Buehler et al. (2006), all but two dimensions of mothers' parenting (inconsistency and monitoring) were associated with marital conflict. In contrast, all five dimensions of fathers' parenting (acceptance, harshness, inconsistency, intrusiveness, and monitoring) were associated with marital conflict suggesting that fathers' parenting may be particularly susceptible to the negative effects of marital conflict. The authors also found that overall fathering did not differ from overall mothering in their relationship with marital conflict. Kaczynski et al. (2006), on the other hand, did not find evidence that parent gender moderated the pathways. The authors did find evidence suggesting that the paths from maternal and paternal behaviors to girls' internalizing behaviors were not significant. However, the mediational model provided a poor fit most likely due to the small sample of families with- adolescent girls ( $N = 80$ ). In families with boys, the paths from marital conflict to maternal and paternal parenting behaviors were significantly stronger for fathers than for mothers. Additionally, the path from parenting behaviors to boys' internalizing behaviors was significantly stronger for fathers than for mothers. These findings indicate that there may be some interaction between parent and adolescent sex, and, unlike Kaczynski et al. (2006), the current study will be able determine the nature of the interactions for both adolescent males and females.

***The mediating role of mothers' parenting.*** Mothers are the most widely used reporters in parenting research. The literature discussed in this section focuses on the association between marital conflict and adolescent internalizing behaviors via maternal parenting behaviors. In an effort to explain the relationship between marital conflict, specific maternal and paternal behaviors, and adolescent internalizing problems, Buehler et al. (2006) examined a sample of sixth-grade adolescents from a larger study. The larger sample was representative of a county in



the southeast United States. Four hundred and sixteen families ( $N = 211$  daughters, 205 sons) were included in this study because they were headed by married parents who had no stepchildren. This study used multiple informants and multiple methods to examine interparental hostility and five aspects of mothers' parenting: harshness, inconsistency, psychological intrusiveness, acceptance, and monitoring. Parents, adolescents, and teachers also completed the Child Behavior Checklist (CBCL) and Children's Depression Inventory, when appropriate, to indicate adolescent internalizing problems.

Buehler et al. utilized structural equation modeling (SEM) to determine that marital conflict (mother and observer reports) was positively related to adolescent reports of mothers' harshness and intrusiveness while negatively related to adolescent reports of mothers' acceptance. Furthermore, internalizing problems were predicted by all five dimensions of mothers' parenting. However, only mothers' lower levels of acceptance, harshness and intrusiveness served as complete mediators of the association between marital conflict and adolescent internalizing problems. Somewhat consistent with Buehler et al. (2006), Kaczynski et al. (2006) found that a latent construct for maternal behaviors fully mediated the relationship between marital conflict and child internalizing behaviors.

Benson, Buehler, and Gerard (2008) attempted to replicate the work of Buehler et al. (2006). They surveyed 1,893 youth, aged 10 to 14 years ( $N = 980$  daughters, 913 sons). The adolescents in this study completed questionnaires about marital conflict, internalizing problems and maternal behaviors that were similar to those used in Buehler et al. (2006). Benson et al. focused on four aspects of mothers' parenting: harshness, inconsistency, psychological intrusiveness, and acceptance. Results from SEM indicated that all four aspects of mothering partially mediated the association between marital conflict and internalizing behaviors; the

statistically significant association between marital conflict and adolescent internalizing problems remained, in a reduced form, when maternal parenting behaviors were added. Like Buehler et al. (2006) and Benson et al. (2008), the current study will use specific aspects of parenting to capture the emotional and functional qualities of maternal and paternal parenting (closeness and monitoring, respectively) to test a mediational model. However, this study will also test whether those specific aspects of parenting will have an effect on specific measures of internalizing behaviors.

*The mediating role of fathers' parenting.* Unlike mothers, fathers have not held a prominent position in parenting research. Fatherhood research is on the rise, but fathering behaviors have rarely been studied as the mechanism through which marital conflict shapes adolescent internalizing behaviors. Kaczynski et al. (2006) and Buehler et al. (2006) found evidence that father behaviors mediate the relationship between marital conflict and adolescent internalizing problems. However, neither Kaczynski et al. (2006) nor Buehler et al. (2006) specify which adolescent internalizing behaviors are negatively affected by negative parenting behaviors. Additionally, Kaczynski et al. (2006) failed to indicate which aspects of parenting were included in their models. The current study adds to the general body of knowledge by adding a level of specificity to the model, in terms of maternal and paternal behaviors as well as adolescent internalizing behaviors, which has not been reached. Kaczynski et al. (2006) used data from a larger study obtained from 226 children (N = 80 girls and 146 boys) in second through eighth grade and their parents residing in a county in the southeast United States. Like Buehler et al. (2006), the children (range = 7 to 12 years) and their families were generally representative of the county, with African Americans somewhat underrepresented. However, Kaczynski et al. (2006) noted that 70% of the fathers included in this study were biological

fathers to the target children, whereas Buehler et al. (2006) did not note family structure. Every other father figure (stepfathers and partners) had cohabitated with the mothers for a minimum of three years. In this study, families attended a 3-hour laboratory session where they completed questionnaires (e.g., CBCL) and a videotaped interaction task. The videotapes were used to code the extent to which mothers and fathers showed rejection, coercion, and emotional support toward their child. The parenting behaviors were combined to form latent constructs of maternal and paternal parenting. SEM indicated that paternal parenting behaviors fully mediated the relationship between marital conflict and child internalizing behaviors.

Buehler et al. (2006) used similar analyses and found that marital conflict was related in expected directions to all five dimensions of fathers' parenting (harshness, inconsistency, psychological intrusiveness, acceptance, and monitoring). Moreover, internalizing problems were predicted by fathers' monitoring. Thus, regarding early adolescent internalizing problems, only fathers' monitoring served as a full mediator (all in the expected direction).

Buehler et al. (2006) and Kaczynski et al. (2006) had limitations that the current study will attempt to address. Both studies focused mostly on European American families or had small samples. These studies also fail to maintain consistency among the reporters. For instance, reports on parenting behaviors were obtained from only adolescents, while internalizing behaviors were obtained from fathers, teachers, and youth (Buehler et al., 2006). Small sample size also hindered Kaczynski et al. (2006) from making strong conclusions based on child sex. Furthermore, the Kaczynski et al. (2006) did not assess specific aspects of parenting; the authors did not distinguish how marital conflict predicted rejection, coercion, and emotional support separately. The current study uses reports from a large sample of Slovene adolescents to examine

how two specific aspects of fathers' and mothers' parenting (closeness and monitoring) mediate the hypothesized association between marital conflict and adolescent depression and anxiety.

## THE PRESENT STUDY

Existing research suggests that specific parenting characteristics explain how interparental hostility is associated with adolescent internalizing behavior. However, of the two recent studies found investigating this mechanism using a similar model as the present study, only one study examines specific parenting behaviors (Buehler et al., 2006). Both studies found moderate evidence that fathers' parenting predicts adolescents' internalizing behaviors, independent of mothers' parenting. Parent sex was found as moderator of this model in one study (Buehler et al., 2006), while Kaczynski et al. (2006) reported evidence that suggested different results for boys than for girls, indicating that parent and adolescent sex may be important factors within the model.

The present study added to existing literature by using a large, non-U.S. sample to address the gaps in three areas. Fathering behaviors are often overlooked in parenting research, thus, this study will include perceived paternal monitoring and, an even lesser studied, perceived paternal closeness in the proposed model. To address this gap in literature, the present study first examined whether two specific dimensions of perceived maternal and paternal parenting mediate the relationships between perceived marital conflict by youth and measures of depression and anxiety, both separately and simultaneously (see Figures 1, 2, and 3). There has been no empirical study that includes both paternal and maternal closeness and monitoring in the same mediational model. Second, the study explored whether parental sex moderate the relationships between perceived marital conflict and adolescent depression and anxiety. Third, this study

investigated whether adolescent sex moderates the association between perceived maternal and paternal closeness and monitoring and adolescent depression and anxiety.

*Research Question 1: Do perceived parental closeness and monitoring mediate the relationships between marital conflict and adolescent depression and anxiety?*

Hypothesis 1: Based on spillover theory and previous research (Krishnakumar et al., 2003), it is expected that perceived parental closeness and monitoring will mediate the relationship between perceived marital conflict and adolescent depression and anxiety. Parents experiencing marital stress may be less able to regulate their children's activities. Furthermore, negative emotionality from marital conflict may spill over to the parent-child relationship such that the adolescent feels less close to each parent. Due to perceived marital conflict, lack of monitoring from their parents, and lower perceived closeness to their parents, adolescents might be more likely to worry and internalize their problems. Thus, adolescents who perceive high marital conflict and low levels of parental monitoring and closeness may report higher levels of depression and anxiety in comparison to their peers.

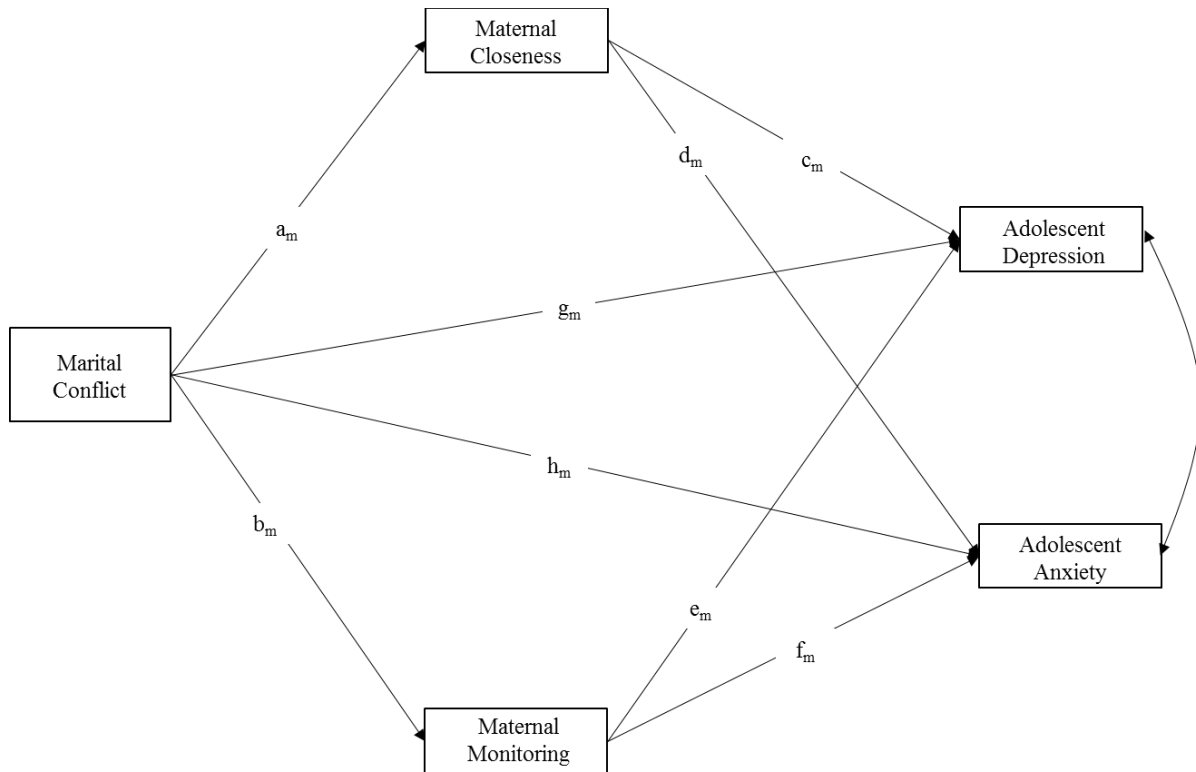
*Research Question 2: Does parental sex moderate the relation between perceived marital conflict and adolescent depression and anxiety?*

Hypothesis 2: It is expected that perceived marital conflict will have a stronger, negative effect on fathering than on mothering. Father-child relationships may be more susceptible to the negative effects of marital conflict because the caregiving role is less defined for fathers than it is for mothers (Davies et al., 2009). In contrast, mothers, who are more socialized to be caregivers, may be better able to separate their wife and mother roles.

Mothers' parenting may better buffer the effects of high marital conflict on adolescent depression and anxiety in comparison to fathers.

*Research Question 3:* Does sex of the adolescent moderate the relation between parenting and adolescent depression and anxiety and are there differences between maternal and paternal parenting?

Hypothesis 3: It is expected that the effects of low perceived closeness and monitoring on adolescent depression and anxiety will be stronger for girls than for boys. Past research suggests that girls report higher levels of internalizing than do boys when parents are in conflict (Benson et al., 2008).



*Figure 1.* Hypothesized mediation model for relationships among perceived marital conflict, maternal closeness, maternal monitoring, and adolescent depression and anxiety.

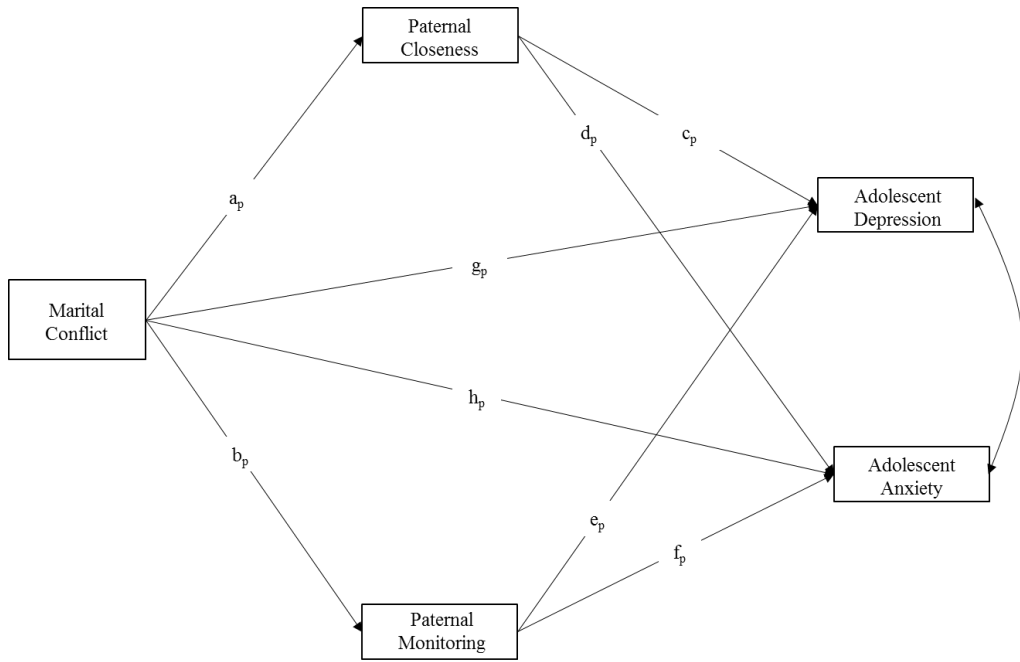


Figure 2. Hypothesized mediation model for relationships among perceived marital conflict, paternal closeness, paternal monitoring, and adolescent depression and anxiety.

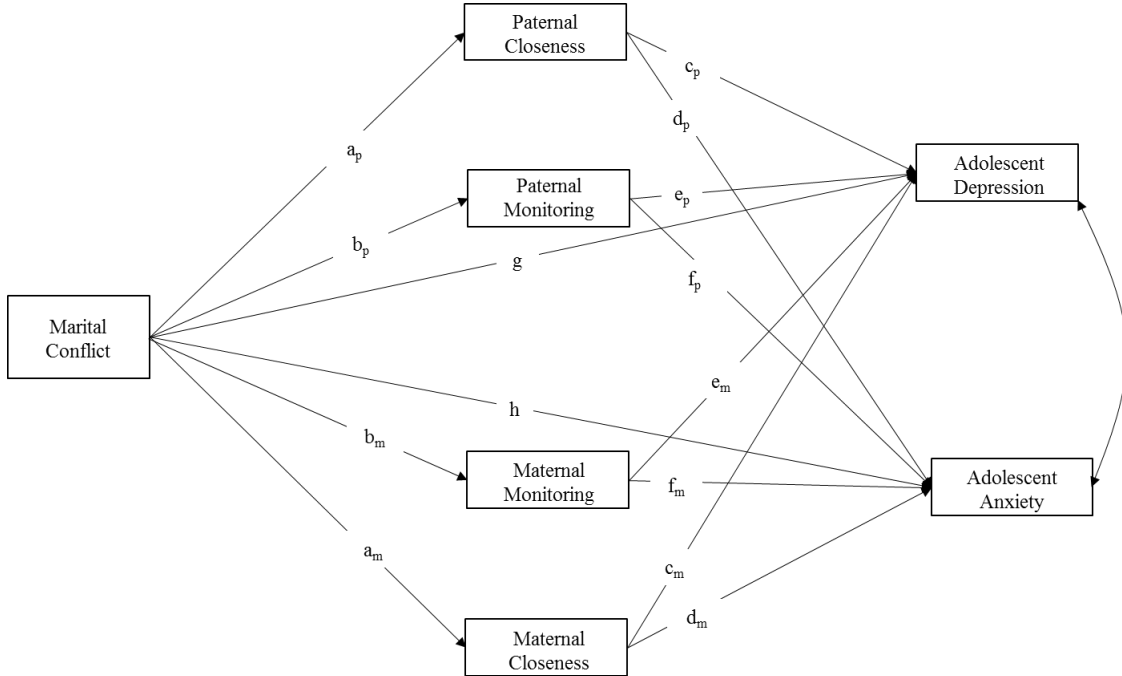


Figure 3. Hypothesized mediation model for relationships among perceived marital conflict, maternal and paternal closeness, maternal and paternal monitoring, and adolescent depression and anxiety.



## METHODS

### **Participant Selection and Sample**

Data are part of the International Study of Adolescent Development and Problem Behaviors (ISAD; Vazsonyi, Hibbert, & Snider, 2003). The study was approved by a University International Review Board (IRB). A standard data-collection protocol was used where teachers or research assistants administered the surveys in classrooms. Teachers and assistants were given detailed directions on how to administer and complete the surveys. Students were given a one to two hour period to complete the survey. Bilingual research assistants translated the surveys from English to Slovene to ensure that great care was taken such that meaning was not lost in translation (for more on sampling procedures, see Vazsonyi et al., 2003).

### **Sample**

Anonymous self-report data were collected from approximately  $N = 1,101$  Slovene youth attending a technical secondary school in the city of Maribor, Slovenia in the fall of 2004. Fifteen adolescents were missing data regarding their sex and had to be dropped from the current study. In addition to the 15 youth mentioned above, 5 adolescents were dropped from the current study because their ages fell outside the normal range of age distribution and one adolescent was missing data regarding their date of birth. Thus, this study will include a final sample of  $N = 1,080$  (mean age = 16.7 years,  $SD = 1.2$ ) adolescents. The sample included 690 female adolescents (age:  $M = 16.7$ ,  $SD = 1.2$ ) and 390 male adolescents (age:  $M = 16.8$ ,  $SD = 1.2$ ). Most adolescents (84%) reported living with both biological parents. Furthermore, the

majority of parents in this study were married (70%). Those who were not married were divorced (9%), separated (5%), widowed (3%), or had never married (13%).

The entire school was invited for participation; it was selected based on proximity to the University of Maribor and based on an existing relationship with the school administration which was supportive of the effort.

## **Measures**

*Internalizing Behaviors.* Adolescent depression and anxiety was measured using the Weinberger Adjustment Inventory (WAI; Weinberger, 1997; Weinberger & Schwartz, 1990; see Appendix C). Adolescent depression and anxiety will be separate observed variables including 7 and 8 survey items, respectively. The 7-item depression and the 8-item anxiety subscales are part of a larger distress dimension. Participants rated items on two 5-point Likert-type scales. The first scale asks adolescents how true each item was, responses ranged from 1 = not at all true of me to 5 = very true of me. The second scale asks adolescents how often they felt a certain way, responses ranged from 1 = never to 5 = always. Examples of the depression subscale include: “I often feel sad or unhappy” and “I feel so down and unhappy that nothing makes me feel much better”. Examples of the anxiety subscale include: “I spend a lot of time thinking about things that might go wrong” and “I feel afraid that something terrible might happen to me or somebody I care about”. The adolescent depression and anxiety subscales have good psychometric properties. The reliability estimates for depression and anxiety among the total sample of ISAD participants was .80 and .73, respectively (Vazsonyi et al., 2003). Reliability analyses for the current sample indicated adequate reliability for adolescent depression ( $\alpha = .74$ ). Items 2 and 3 (see Appendix C) in the anxiety subscale were negatively worded and, consequently, were reverse coded; the reliability estimate for adolescent anxiety was  $\alpha = .65$ .

*Marital Conflict.* Destructive marital conflict was assessed using a scale based on the Conflict Tactics Scale (CTS; Straus, 1979; see Appendix A). The scale includes one item measuring verbal aggression (“yelled or shouted insults”) and 8 items measuring physical aggression (e.g., “pushed or grabbed”). The scale prompts adolescents to recall, on a 5-point scale (0 = never, 1 = once, 2 = 2-3 times, 3 = 4-10 times, 4 = 11-19 times, and 5 = 20 or more times), how many times fathers or mothers’ boyfriend/partner had engaged in each aggressive behavior toward his/her mother in the past. The marital conflict has a good reliability estimate ( $\alpha = .83$ ) (Vazsonyi et al., 2003). Reliability analyses on the current sample indicated good internal consistency ( $\alpha = .92$ ).

*Parenting Processes.* The Adolescent Family Process (AFP) assessed perceived maternal and paternal parenting processes by the adolescent (Vazsonyi et al., 2003; see Appendix B). Maternal and paternal closeness consisted of six items while maternal and paternal monitoring included four items. Parenting processes were measured using the closeness subscale (6 items; e.g., “My father gives me the right amount of affection”) and the monitoring subscale (4 items; e.g., “When I am not home, my mother knows about my whereabouts”). Both subscales were rated on a 5-point Likert-type response scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree. The reliability estimates for maternal and paternal closeness among the total sample of ISAD participants were .77 and .82, respectively. The reliability estimates for maternal and paternal monitoring were .78 and .86, respectively (Vazsonyi et al., 2003). Reliability estimates for youth reports of maternal closeness ( $\alpha = .80$ ) and monitoring ( $\alpha = .72$ ) were adequate in the current sample. As were the reliability estimates for youth reports of paternal closeness ( $\alpha = .87$ ) and monitoring ( $\alpha = .84$ ).

*Age.* Adolescents were asked to specify in which month and year they were born. Age was calculated using the 15th day of the specified month.

*Sex.* Participants were asked: “What is your sex?” Responses were either “1 = male” or “2 = female”. Sex of the adolescent will be recoded “0 = male” and “1 = female” to facilitate analysis.

### **Plan of Analysis**

The first analytic procedure was to perform exploratory data analyses in order to obtain measures of central tendency, variability, and distribution of the data. Hypotheses were tested using structural equation models (SEMs) in AMOS. Full information maximum likelihood (FIML) estimation was used to handle missing data in AMOS. FIML is a theoretically based consistent and efficient procedure that, when compared to other approaches to handling missing data, is the least biased (Byrne, 2009).

This paper used an approach similar to that of Baron and Kenny (1986) to test for mediational pathways, but in a path analytic framework conducted in SEM. The first step documented a statistically significant association between perceived marital conflict and adolescent depression and anxiety, first separately and then together. The second step tested the main effects of marital conflict on maternal and paternal closeness and monitoring. The third step was to test the main effects of maternal and paternal closeness and monitoring on adolescent depression and anxiety, first separately and then together. The outcome variables, adolescent depression and anxiety, were tested separately in order to determine whether there were significant changes in the findings when depression and anxiety were both in the model as compared to when they were separated. Evidence of mediation was found if, first, all three associations were statistically significant inclusions in the model (as determined by chi-square

tests) and, second, if the significance of the first association became nonsignificant or reduces when parenting is added to the model. However, indirect effects may have been found if the last two associations were statistically significant irrespective of statistically significant direct effects (Baron & Kenny, 1986). Next, a series of mediated models were estimated using the parenting variables. Indirect pathways from perceived marital conflict to adolescent depression and anxiety through mothers' and fathers' parenting were added to the model to test whether any of the parenting variables acted as mediators. Simultaneously, the models were examined to determine whether the association between perceived marital conflict and adolescent internalizing problems was reduced (partial mediation) or became statistically non-significant (complete mediation) (Baron & Kenny, 1986; MacKinnon, 2008). Tests including parenting measures were, first, conducted separately for mothers and fathers followed by tests including mothering, controlling for fathering behaviors and vice versa. This procedure resulted in findings that distinguish the mediating role of mothering apart from fathering. An a priori decision was made to allow the error variances for youth reports of parenting and internalizing problems to covary as it was expected that there was some shared variance.

To test whether mothers' and/or fathers parenting moderated the relationship between perceived marital conflict and adolescent depression and anxiety, four interaction variables were created. Each variable stood for the interaction between perceived marital conflict and a parenting variable (i.e., fathers' monitoring). The interaction between perceived marital conflict and parenting were added to the appropriate main effects model – first, for mothers, then for fathers, finally for mothers and fathers. To calculate whether the interactions had a significant effect on a model, the chi-square values from unconstrained models were compared to the chi-square values from constrained models where the mother and/or father interaction were set to

zero. If the change in chi-square values was significant, it was determined that each constrained path had a significant effect on its model.

Multi-group modeling was used to determine whether the mediated model is moderated by adolescents' sex (Byrne, 2009). Each test will begin by comparing models where all structural parameters are allowed to vary across groups to models where pathways are selectively constrained. The critical ratio difference statistic will determine if the  $\chi^2$  changed significantly. If there is a significant change in  $\chi^2$ , the findings will conclude that there are group differences. Finally, to remove the effect adolescents' age might have in the findings of this study, analyses for all SEMs will be conducted that control for age and home situation.

For all SEMs, model fit will be evaluated using the  $\chi^2$  statistic and several fit indices. A non-significant  $\chi^2$  statistic would indicate good model fit. However, large samples tend to result in significant  $\chi^2$  so three other fit indices will be examined (Byrne, 2009). The Tucker-Lewis index (TLI) and the comparative fit index (CFI) will indicate how the model fits when compared to a baseline model (a model in which all variables are uncorrelated). The TLI and CFI ranges from 0 to 1.00 with a cutoff of .90 or higher indicating adequate fit (Byrne, 2009). The root mean square error of approximation (RMSEA) compares the model to the predicted population covariance matrix (Browne & Cudeck, 1993). RMSEA values below .05 indicate good fit and values between .06 and .08 indicate adequate fit (Browne & Cudeck, 1993; Byrne, 2009).

## RESULTS

### Descriptive Analysis

Descriptive analyses were conducted to determine the ranges, means ( $M$ ), and standard deviations ( $SD$ ) of the main study variables for the total sample (Table 1). On average, adolescents reported experiencing some anxiety and depressive symptoms. Adolescents also reported low levels of marital conflict. On average, adolescents reported similar levels of paternal closeness and monitoring. However, the average adolescent reported higher levels of maternal closeness and monitoring than paternal parenting behaviors.

Correlations were conducted for all study variables (Table 2). Findings suggest that adolescent depression and anxiety are significantly correlated ( $r = .49, p < .01$ ); the moderate correlation suggests that adolescent-reports on depression and anxiety overlap but measure distinct aspects of internalizing behaviors. Adolescent anxiety was positively correlated with perceived marital conflict ( $r = .06, p < .05$ ) and maternal monitoring ( $r = .07, p < .05$ ). Adolescent depression was significantly correlated with perceived marital conflict ( $r = .20, p < .01$ ), maternal closeness and monitoring ( $r = -.26$  and  $-.08, p < .01$ , respectively), and paternal closeness and monitoring ( $r = -.17$  and  $-.09, p < .01$ , respectively). Higher levels of maternal monitoring were associated with higher levels of adolescent anxiety. Higher levels of maternal and paternal closeness and monitoring were associated with lower levels of adolescent depression. Perceived marital conflict was significantly correlated with both adolescent depression and anxiety such that high levels of perceived marital conflict were associated with high levels of adolescent depression and adolescent anxiety.

There was a moderate, positive correlation between maternal closeness and maternal monitoring ( $r = .40, p < .01$ ). Both maternal closeness and monitoring were positively related to paternal closeness ( $r = .41$  and  $.20, p < .01$ , respectively) and paternal monitoring ( $r = .24$  and  $.42, p < .01$ , respectively). Higher levels of closeness and monitoring in one parent were associated with higher levels of closeness and monitoring the other parent. Maternal closeness and monitoring were significantly correlated with perceived marital conflict ( $r = -.24$  and  $-.18, p < .01$ , respectively) such that higher levels of perceived marital conflict were associated with lower levels of maternal closeness and monitoring. There was a moderate, positive correlation between paternal closeness and paternal monitoring ( $r = .55, p < .01$ ). Both paternal closeness - and monitoring were significantly correlated with marital conflict ( $r = -.30$  and  $-.19, p < .01$ , respectively).

### **Preliminary Analysis**

As mentioned earlier, separate analysis were conducted to predict adolescent depression and anxiety, both separately and together. Findings suggest that there was little, if any, difference between the pathways where adolescent depression and anxiety were taken together and when they were not, therefore the following results will focus on models where adolescent depression and anxiety were both included in the model. Also, as mentioned earlier, all models controlled for adolescents' age. To remove the effects of age, each dependent variable (parental closeness and monitoring, adolescent depression, and adolescent anxiety) were residualized for adolescents' age. Residualization was chosen over simply controlling for adolescent age not only to produce results without the confounding effects of age, but also to simplify an otherwise complicated analysis. Additionally, in order to account for shared variance, errors of parental processes and errors of adolescent depression and anxiety were allowed to covary.



Before including parenting in a mediated model, three sets of main effects models were tested. The first set sought to determine whether perceived marital conflict was directly related to adolescent depression and anxiety (see Figure 4). Like all models in this study, this model was just-identified; the number of parameters that were estimated equaled the number of known parameters [ $\chi^2(0, N = 1080) = .00, p = 0; CFI = 1.00$ ]. Perceived marital conflict was positively associated with adolescent depression ( $b = .20, \beta = .15, p < .001$ ) and anxiety ( $b = .06, \beta = .04, p < .10$ ).

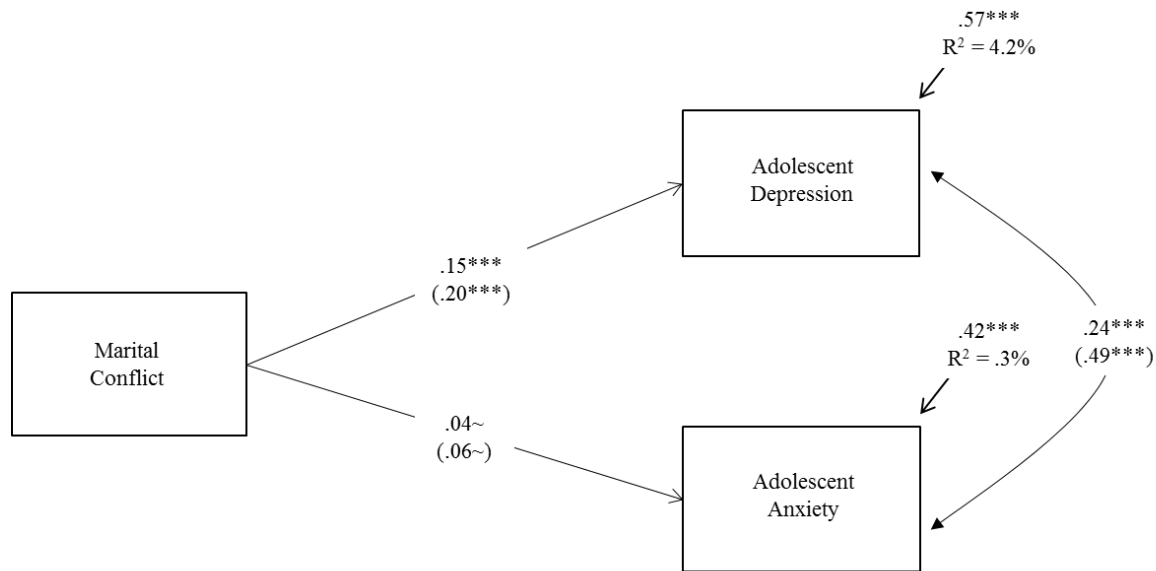


Figure 4. Direct effects model: Perceived marital conflict and adolescent depression and anxiety. Standardized path coefficients (unstandardized path coefficients).  
 ~ $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Adolescents reported having high levels of depression and anxiety when they perceived high levels of marital conflict.

The second set of models tested the main effects of perceived marital conflict on maternal and paternal closeness and monitoring. Perceived marital conflict was associated negatively with maternal closeness ( $b = -.24, \beta = -.18, p < .001$ ) and monitoring ( $b = -.17, \beta = -.15, p < .001$ ).

Perceived marital conflict was also negatively associated with paternal closeness ( $b = -.29, \beta = -.27, p < .001$ ) and monitoring ( $b = -.18, \beta = -.19, p < .001$ ). As expected, when adolescents perceived high levels of marital conflict, they also noted that they were less close to and less monitored by mothers and fathers.

The third set of models tested the direct effects of maternal and paternal closeness and monitoring on adolescent depression and anxiety. Delta chi-square tests for the main effect of mothers' parenting indicate that mothering has a significant influence on the main effects model [ $\Delta\chi^2(2, N = 1080) = 68.10, p < .05$ ]. Maternal closeness was associated negatively with adolescent depression ( $b = -.27, \beta = -.27, p < .001$ ) and anxiety ( $b = -.08, \beta = -.06, p < .05$ ). Maternal monitoring was positively related to adolescent anxiety ( $b = .11, \beta = .08, p < .001$ ), but was not significantly associated with adolescent depression. Delta chi-square test for the main effect of fathers' parenting indicate that fathering has a significant influence on the main effects model [ $\Delta\chi^2(2, N = 1080) = 90.63, p < .05$ ]. Paternal closeness was negatively related to adolescent depression ( $b = -.18, \beta = -.14, p < .001$ ), but was not significantly associated with adolescent anxiety. Paternal monitoring was not significantly associated with either adolescent depression or adolescent anxiety. These results indicate that, when tested separately, maternal closeness predicted adolescent depression and anxiety while maternal monitoring predicted adolescent anxiety and that paternal closeness predicted adolescent depression.

Exploratory tests examined parent gender as a moderator (Hypothesis II); further statistical analyses are needed to determine whether there are any differences in the model across mothers and fathers. Analyses that included the interaction of perceived marital conflict and fathers' closeness and monitoring yielded support for the moderation of mothers' parenting in the relations between perceived marital conflict and adolescent depression and anxiety [ $\Delta\chi^2(4, N$

= 1080) = 11.90,  $p < .05$ ]. The same was true for fathers [ $\Delta\chi^2(4, N = 1080) = 11.2, p < .05$ ].

However, when mothering and fathering is included in the model, fathering fails to moderate the relationship between perceived marital conflict and adolescent depression and anxiety.

### **The Mediating Role of Mothers' Parenting**

The next analysis included two aspects of mothers' parenting as observed variables so that the unique associations of specific dimensions of mothers' parenting could be examined. Hypothesis I proposed that mothers' closeness and monitoring would mediate the relationship between perceived marital conflict and adolescent depression and anxiety. In addition to the direct paths between perceived marital conflict and adolescent depression and anxiety, indirect paths via maternal closeness and monitoring were included in the model. Mothers' closeness completely mediated the associations between perceived marital conflict and adolescent depression and anxiety, while mothers' monitoring completely mediated the association between perceived marital conflict and adolescent anxiety (see Figure 5). Perceived marital conflict was associated negatively with maternal closeness ( $b = -.24, \beta = -.18, p < .001$ ) and maternal monitoring ( $b = -.17, \beta = -.15, p < .001$ ). Controlling for anxiety, adolescent depression was negatively associated with mothers' closeness ( $b = -.24, \beta = -.24, p < .001$ ). Controlling for depression, adolescent anxiety was associated negatively with mothers' closeness ( $b = -.06, \beta = -.05, p < .10$ ). As predicted, perceived marital conflict accounted for some of mothers' lack of closeness to and monitoring of their adolescents and, ultimately, their symptoms of depression and anxiety. However, mothers' monitoring did not mediate the relationship between perceived marital conflict and adolescent depression. Perceived marital conflict and mothers' parenting explained 9% of the variance in adolescent depression and 1.4% of the variance in adolescent anxiety.

Hypothesis III was tested using multi-group modeling to test whether adolescent sex moderates the model shown in Figure 1 (see Tables 3). In the baseline model, all paths were free to vary. This model was the basis on which all following models were compared. In Model 1, all paths were constrained to be equal across the models for sons and daughters [ $\chi^2(22, N = 1080) = 290.40, p < .001$ ]. In Model 2, the structural parameters that estimated the associations between perceived marital conflict and mothers' parenting were allowed to vary across groups (Paths  $c_m$  to  $f_m$ ,  $g_m$ , and  $h_m$  were constrained to equality). The change in chi-square between this model and the baseline model was significant [ $\Delta\chi^2(20, N = 1080) = 244.30, p < .001$ ]. These results indicate that one or more of the paths between perceived marital conflict and mothers' parenting were not operating equivalently across adolescent males and females (Byrne, 2009). To determine which paths were different across groups, path-by-path analyses were conducted in which the differences in chi-square values between models with constrained paths and the second model were examined in sequence. The results revealed that the association between perceived marital conflict and maternal monitoring was significant for girls ( $b = -.18, \beta = -.17, p < .001$ ) but not for boys ( $b = -.09, \beta = -.06, p < .10$ ). Girls experienced lower levels of maternal monitoring in times of conflict than did boys. Girls ( $b = -.21, \beta = -.23, p < .001$ ) also experienced lower levels of maternal closeness in times of conflict than did boys ( $b = -.14, \beta = -.21, p < .001$ ). In Model 3, the structural parameters that estimated the associations between maternal parenting and adolescent depression and anxiety were allowed to vary while all other paths were constrained (Paths  $a_m$ ,  $b_m$ ,  $g_m$ , and  $h_m$  were constrained to equality). The change in the chi-square was significant when compared to the baseline model [ $\Delta\chi^2(18, N = 1080) = 203.30, p < .001$ ]. However, none of the individual paths from maternal parenting to adolescent internalizing had a statistically significant change in the chi-square as was expected. Adolescent depression and

anxiety due to low levels of maternal closeness and monitoring did not differ across boys and girls.

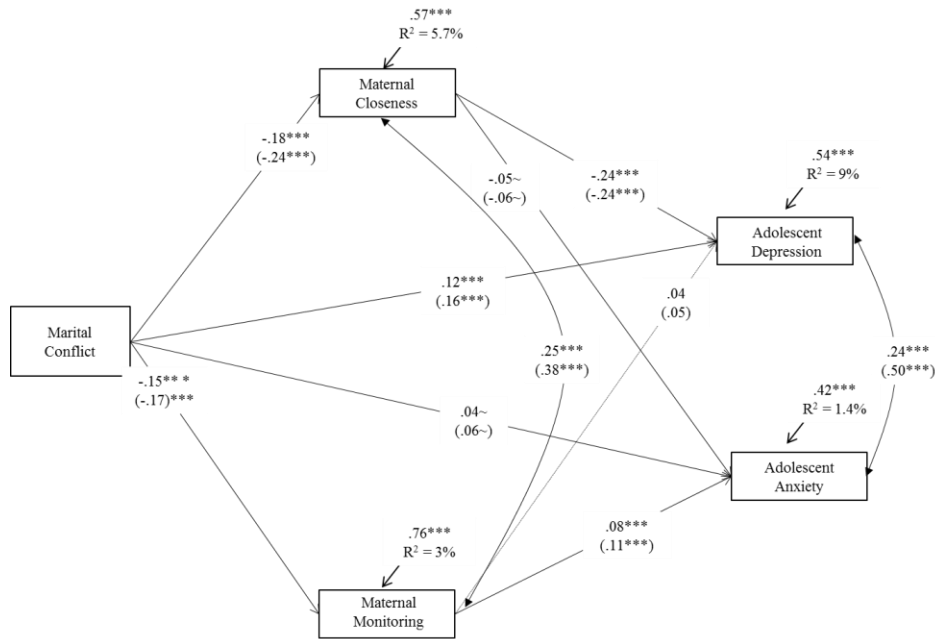


Figure 5. The mediating role of mothers' parenting. Standardized path coefficients (unstandardized path coefficients).  
 $-p < .10$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

### The Mediating Role of Fathers' Parenting

Next, indirect paths via paternal closeness and monitoring were added to a model that included direct paths from perceived marital conflict to adolescent depression and anxiety (see Figure 6). Hypothesis I proposed that fathers' closeness and monitoring would mediate the relationship between perceived marital conflict and adolescent depression and anxiety. Similar to maternal closeness, paternal closeness fully mediated the relationship between perceived marital conflict and adolescent depression; perceived marital conflict was associated negatively with paternal closeness ( $b = -.30$ ,  $\beta = -.27$ ,  $p < .001$ ) and paternal closeness was associated negatively with adolescent depression ( $b = -.13$ ,  $\beta = -.11$ ,  $p < .001$ ). Unlike maternal closeness, paternal closeness was not associated with adolescent anxiety. According to adolescents, low levels of fathers' closeness accounted for high levels of depression, but not anxiety. Paternal monitoring

was significantly related to perceived marital conflict ( $b = -.18, \beta = -.19, p < .001$ ), but was not associated with adolescent depression and anxiety. In sum, as hypothesized, the association between perceived marital conflict and adolescent depression was mediated by paternal closeness. Contrary to expectations, fathering behaviors did not mediate the relationship between perceived marital conflict and adolescent anxiety. Perceived marital conflict and fathers' parenting explained 5.6% of the variance in adolescent depression and .6% of the variance in adolescent anxiety.

Hypothesis III was tested using multi-group model to examine the differences among boys and girls was conducted for the model shown in Figure 2 (see Table 4). In the baseline model, all paths were free to vary. This model was the basis on which all following models were compared. In Model 1, all paths were constrained to be equal across the models for sons and daughters [ $\chi^2(22, N = 1080) = 290.80, p < .001$ ]. In Model 2, the structural parameters that estimated the associations between perceived marital conflict and fathers' parenting were allowed to vary across groups (Paths  $c_p$  to  $f_p$ ,  $g_p$ , and  $h_p$  were constrained to equality). The change in chi-square between this model and the baseline model was significant [ $\Delta\chi^2(20, N = 1080) = 201.10, p < .001$ ], indicating that boys and girls differ on how perceived marital conflict was associated with paternal parenting. Path-by-path analyses suggest that both paths were significantly different across boys and girls. The association between perceived marital conflict and paternal closeness was stronger for girls ( $b = -.39, \beta = -.37, p < .001$ ) than for boys ( $b = -.23, \beta = -.21, p < .10$ ). The path from perceived marital conflict to paternal monitoring was also stronger for girls ( $b = -.22, \beta = -.27, p < .001$ ) than for boys ( $b = -.12, \beta = -.10, p < .10$ ). In Model 3, the

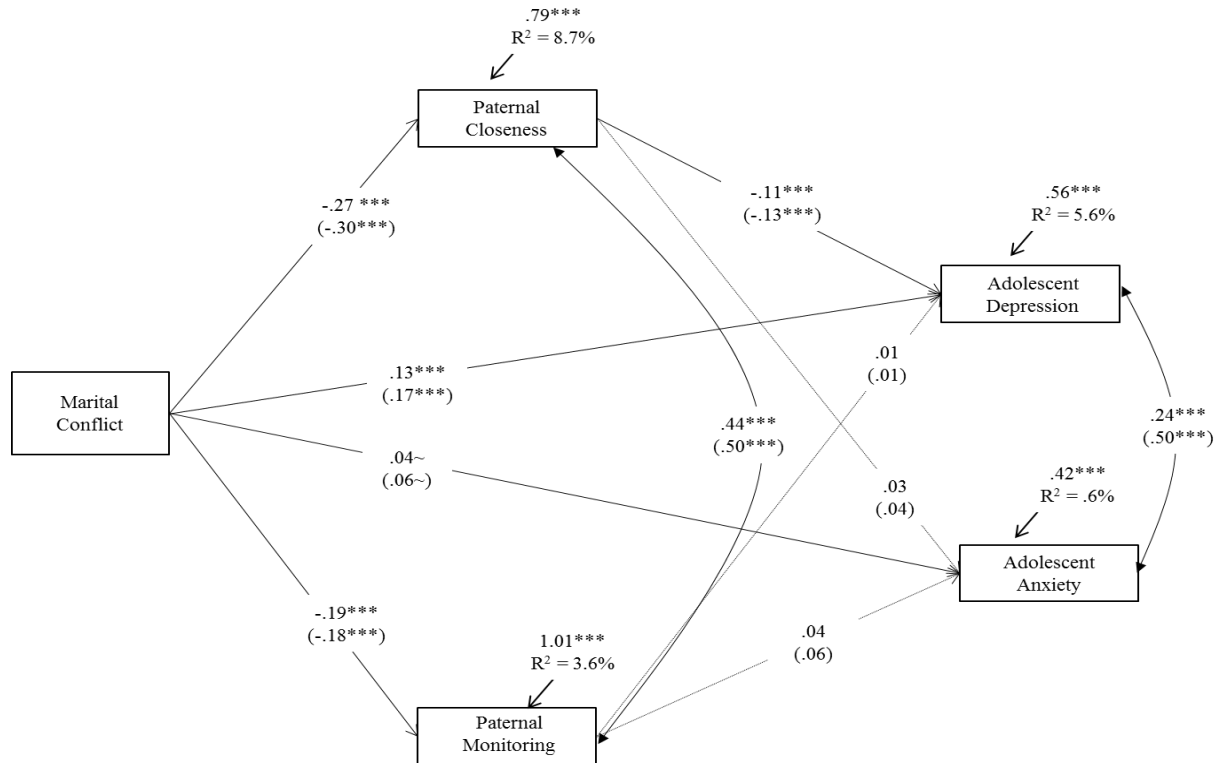


Figure 6. The mediating role of fathers' parenting. Standardized path coefficients (unstandardized path coefficients).  $\sim p < .10$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

structural parameters that estimated the associations between maternal parenting and adolescent depression and anxiety were allowed to vary while all other paths were constrained (Paths  $a_p$ ,  $b_p$ ,  $g_p$ , and  $h_p$  were constrained to equality). The change in the chi-square was significant [ $\Delta\chi^2(18, N = 1080) = 253.20, p < .001$ ], suggesting that the associations between paternal parenting and adolescent depression and anxiety were different across boys and girls. However, path-by-path analyses indicated that the effects of low perceived closeness and monitoring on adolescent depression and anxiety were not stronger for adolescent females than for adolescent males as hypothesized. Therefore, the third hypothesis was not supported.

### The Mediating Effects of Mothers' and Fathers' Parenting

A full model was estimated where each aspect of mothers' and fathers' parenting were included in the mediated model (Figure 7). According to the first hypothesis, mothers' and fathers' closeness and monitoring were expected to mediate the relationship between perceived

marital conflict and adolescent depression and anxiety. These results closely paralleled the previous findings in all instances except for maternal and paternal closeness. As reported earlier, maternal and paternal closeness fully mediated the relationship between perceived marital conflict and adolescent depression. Surprisingly, when maternal parenting behaviors was added to the model, the association between paternal closeness and adolescent depression became non-significant. Another unexpected finding was that when paternal behaviors are considered, the association between maternal closeness and adolescent anxiety became non-significant. The full model explained 9.2% of the variance in adolescent depression and 1.4% of the variance in adolescent anxiety.

The model shown in Figure 3 is the full model which includes all variables considered in this study. The third hypothesis was tested using the full model (Figure 3); the model was compared across adolescent males and females to test whether adolescent sex moderated the model (see Table 5). In the baseline model, all paths were free to vary. This model was the basis on which all following models were compared. In Model 1, all paths were constrained to be equal across the models for males and females [ $\chi^2(29, N = 1080) = 194.00, p < .001$ ]. In Model 2, the structural parameters that estimated the associations between perceived marital conflict and mothers' and fathers' parenting were allowed to vary by sex (Paths  $c_m$  through  $f_m$ ,  $c_p$  through  $f_p$ ,  $g$ , and  $h$  were constrained to equality). The change in chi-square between this model and the baseline model was significant [ $\Delta\chi^2(38, N = 1080) = 319.60, p < .001$ ] indicating that boys and girls differ in terms of how perceived marital conflict influences maternal and paternal parenting. Path-by-path analyses consisted of comparing models where each of the four paths from perceived marital conflict to maternal and paternal parenting were constrained in separate models. The path-by-path analyses suggest that three paths were significantly different across



boys and girls. The association between perceived marital conflict and paternal closeness was stronger for girls ( $b = -.37, \beta = -.36, p < .001$ )

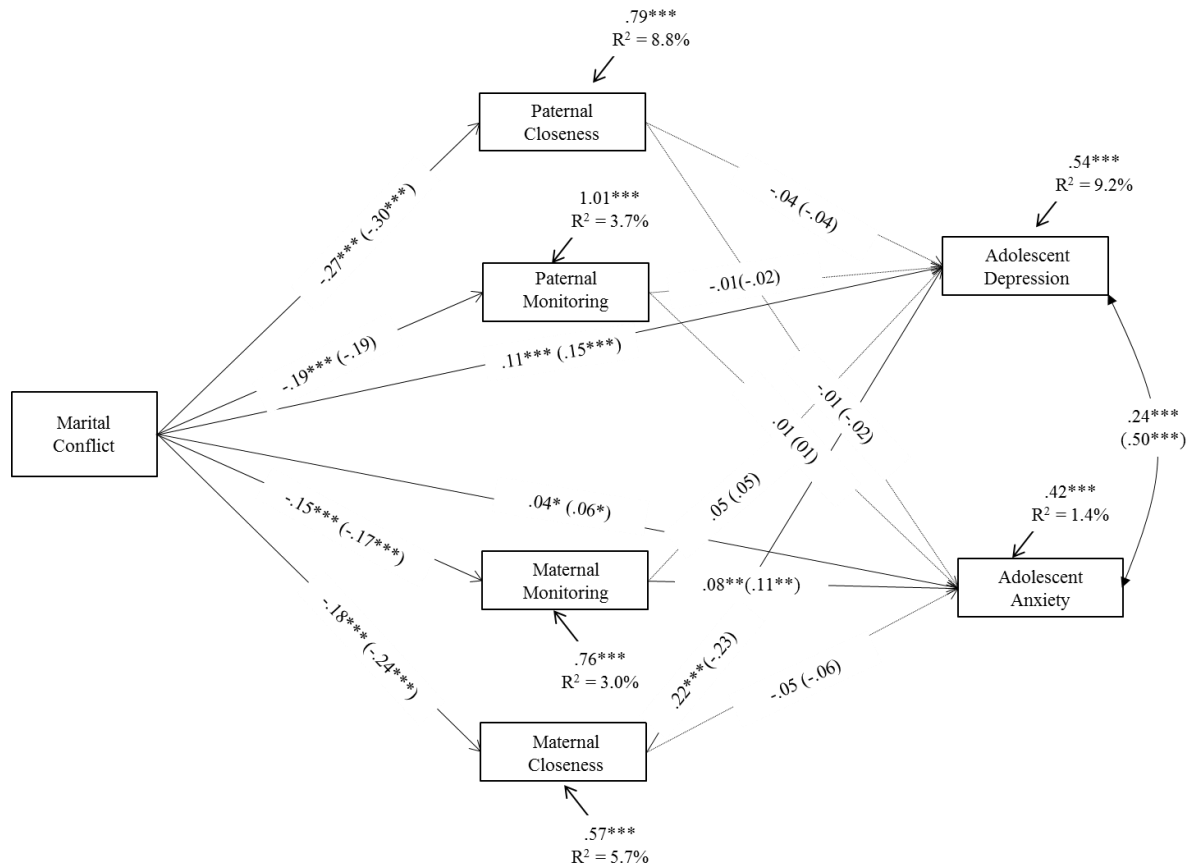


Figure 7. Mediation model: Perceived marital conflict, maternal/paternal closeness, maternal/paternal monitoring, adolescent depression and anxiety. Standardized path coefficients (unstandardized path coefficients). \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

than for boys ( $b = -.53, \beta = -.23, p < .001$ ). The association between perceived marital conflict and paternal monitoring was stronger for girls ( $b = -.25, \beta = -.26, p < .001$ ) than for boys ( $b = -.11, \beta = -.11, p < .05$ ). The association between perceived marital conflict and maternal monitoring also was stronger for girls ( $b = -.18, \beta = -.16, p < .001$ ) than for boys ( $b = -.09, \beta = -.08, p < .10$ ). Overall, girls reported lower levels of paternal monitoring and closeness parenting due to perceived marital conflict than were boys, except in the case of maternal closeness. Finally, in Model 3, the structural parameters that estimated the associations between maternal and paternal parenting and adolescent depression and anxiety were allowed to vary while all

other paths were constrained (Paths  $a_m$ ,  $b_m$ ,  $a_p$ ,  $b_p$ ,  $g$ , and  $h$  were constrained to equality). The change in the chi-square was significant [ $\Delta\chi^2(34, N = 1080) = 316.70, p < .001$ ]. Path-by-path analyses did not reveal that any of the paths from parenting to adolescent internalizing differed by sex girls. This finding suggests that the associations between maternal and paternal parenting and adolescent depression and anxiety were similar for male and female youth. Path-by-path analyses confirmed the finding; hypothesis III was not supported in that male and female youth did not differ along the individual pathways from maternal and paternal parenting to adolescent depression and anxiety.

## DISCUSSION

Adolescence is a period of time when numerous changes occur. During this period, adolescent males and females are expected to experience biological, social, and environmental changes (Fenzel, 1989). Modern literature has found that, not only do adolescents experience changes in the peer domain (Brown, 1990), they also face challenges within the parent-child subsystem (Larson et al., 1996). Along with the normative changes noted above, the transition into adolescence puts children at higher risk of developing depression and anxiety symptoms than younger children (Boyd et al., 2000; Kessler et al., 2001). As depression and anxiety are often precursors to high-risk behaviors like dropping out of school and attempting suicide (Chapman et al., 2001; Kessler et al., 2005), it is important that research strives to understand the mechanisms that underlie the development of adolescent depression and anxiety.

Some studies have found that the environment within an adolescent's home is an important factor in the development of depression and anxiety (Hair et al., 2008). More specifically, research has shown that marital conflict contributes to adolescent internalizing symptoms (Davies & Lindsay, 2004). Some studies proposed that one of the reasons we see the relationship between marital conflict and adolescent internalizing behaviors is because marital conflict leads to negative parenting of the adolescent which then results in adolescent depression and anxiety (Buehler & Gerard, 2002). These studies fail to include specific aspects of maternal and paternal parenting and its influence on specific adolescent internalizing behaviors. Failure to include specific aspects of mothers' and fathers' parenting as well as delineated measures of internalizing behaviors has deprived clinicians and educators of the knowledge regarding how

and why hostility in the marriage can ultimately exacerbate non-normative adolescent development.

This study focuses on parenting behaviors as potential mediators in the relationship between marital conflict (as perceived by the adolescent) and adolescent internalizing behaviors (depression and anxiety). This study contributes to the general body of research by testing multiple aspects of both maternal and paternal parenting (closeness and monitoring) as mediators, considering adolescent sex and parent sex as a potential moderators. This study used SEM to assess the relations between perceived marital conflict, maternal and paternal parenting (both separately and together in a full model), and adolescent depression and anxiety while removing the potentially confounding influence of adolescent age. The hypotheses tested in this study were based on findings from mostly U.S. samples. In this sense, the current study contributes greatly to the literature as it examined and tested some of the same questions in a non-U.S. sample of adolescents and found largely the same relationships based on these data. Thus, findings suggest that adolescent internalizing behaviors are associated with parenting behaviors and marital conflict independent of cultural context. Furthermore, the findings for this study lend some support to the spillover hypothesis (see Davies et al., 2009). Results suggest that parental closeness and monitoring do intervene in the model, controlling for maternal parenting, but that the findings are significantly different for adolescent males and females. The findings also suggest that, although paternal behaviors have a unique influence in the development of adolescent depression and anxiety, the level of said influence is eclipsed by maternal behaviors. The measures in this study were administered in Slovene, the adolescents' native language, which might have arguably had an effect on the study findings. At the same time, measures were developed to be used across cultures, with very few interpretative nuances that could contribute

to cultural biases related to meaning and interpretation by youth. This was largely confirmed in empirical tests across a number of different cultures (Vazsonyi et al., 2003; Vazsonyi & Belliston, 2006). Thus, the study findings should be interpreted as being comparable to ones from previous work based on U.S. samples.

### **Does Parental Closeness and Monitoring Mediate the Model?**

According to family systems theory, subsystems within the family are interrelated with each other such that problems in one subsystem (e.g., marital) may affect other subsystems (e.g., parent-child) (Minuchin, 1974). Indeed perceived marital conflict was consistently with low levels of maternal and paternal closeness and monitoring. In times of marital hostility, parents are less aware of their children's activities and are less likely to be affectionate with their children. There may be several reasons for this finding. The adolescents that perceive considerable strain in the marital relationship may also perceive a sense of disconnect from their parents. It may be that mothers and fathers engaged in conflict may find it difficult to not spread the negative emotionality from their marital relationship to their parent-child relationships. Thus, instead of being warm and caring toward the adolescent, these parents may be rejecting and harsh with their adolescent resulting in a lack of closeness within the parent-adolescent relationship. Additionally, adolescents may observe that their parents are more consumed in the marital conflict than in keeping track of their whereabouts.

When maternal behaviors were considered separately from paternal behaviors, maternal closeness intervened in the relationship between perceived marital conflict and internalizing behaviors. However, when paternal behaviors were introduced into the model, maternal closeness intervened in the relationship between perceived marital conflict and adolescent depression alone. Low levels of mothers' closeness have a harmful effect on both adolescent

depression and anxiety when fathers are not considered. This finding may have important implications in studies including family structure; adolescents of single mothers dealing with conflict from a divorce may experience higher levels of anxiety than would adolescents in two-parent homes. Maternal monitoring only intervened in the relationship between perceived marital conflict and adolescent anxiety. Surprisingly, when mothers are less knowledgeable about their adolescent's whereabouts, adolescents experience low levels of anxiety. This finding counters the argument that high levels of monitoring, a role most often taken by mothers, foster a sense of security in an adolescent (Kerns, Aspelmeier, Gentzler, Grabill, 2001). On the other hand, marital conflict may distract mothers enough to keep them from being overprotective of their adolescents. Children who feel that they are overprotected often exhibit high levels of anxiety (Yahav, 2007). This finding suggests that marital conflict may have some hidden benefits for mothers' parenting to the extent that adolescents may be less likely to suffer from anxiety when their mothers' attention is focused on the marital relationship.

For fathers, closeness intervened in the relationship between perceived marital conflict and adolescent depression. When controlling for maternal behaviors, paternal behaviors did not mediate any association between perceived marital conflict and adolescent internalizing behaviors. Unlike past research (Buehler et al., 2006; Kaczynski et al., 2006), the findings of this study suggest that, when controlling for maternal behaviors, marital conflict does not negatively affect father-child relationships, according to adolescents. The reason for this may be that adolescents have more contact with their mothers than with their fathers and are able to more easily detect negative maternal behaviors. Another reason for this finding may be that adolescents expect more proactive maternal behaviors than paternal behaviors; in other words, mothers are expected to engage in behaviors that promote closeness and to be highly monitoring.

Thus, when mothers do not behave in the way adolescents expect, adolescents begin to internalize. On the other hand, fathers may not be expected to be as involved and as overt in their parental behaviors. Thus, when fathers are not monitoring or are not close to their adolescents, those behaviors are not missed. Regardless of the reason stated above, the implication that fathers' negative parenting may not adversely affect adolescent internalizing behaviors when mothers' negative parenting is taken into account sheds new light on how mothering and fathering behaviors influence each other especially in two-parent households.

### **Do Adolescent Sex and/or Parent Sex Moderate the Model?**

In terms of gender, there were a few gender differences in the link between perceived marital conflict and parenting for mothers and fathers and adolescent males and females. Perceived marital conflict was detrimental to all mothers' and fathers' parenting, however, only low levels of mothers' monitoring were significantly different across boys and girls while both fathers' monitoring and closeness were significantly different across boys and girls. This finding agrees with past research and supports the second hypothesis which suggests that fathers' parenting is more susceptible to marital conflict than is mothers' parenting (Buehler et al., 2006).

Unlike Buehler et al. (2006), the maternal dimension of parenting that reflects "specific parenting skills" (maternal monitoring) *was* related to marital conflict in addition to parenting that reflects "warmth and acceptance" (maternal closeness) (pp. 284). Using the authors' argument, mothers place a higher value on being close to their children than on engaging in negative instrumental parenting of their children (e.g., monitoring). Therefore, marital conflict should be less likely to negatively affect maternal closeness than maternal monitoring; however, there was little evidence. The current study argues that both maternal closeness and monitoring are negatively effected by marital conflict, and that adolescent girls feel less close to their

mothers within that same context than do adolescent boys. Furthermore, although it may appear that fathers' parenting is generally more susceptible to marital conflict, the current study finds that this is only so for adolescent girls and not adolescent boys as hypothesized. Girls are said to be more susceptible to the negative effects of marital conflict due to their high level of interpersonal connectedness (Davies & Lindsay, 2004).

There were no gender differences with respect to the link between parenting and adolescent depression and anxiety. According to adolescents, mothers and fathers parent adolescent boys and girls similarly in times of high marital conflict. The association between marital conflict and internalizing behaviors was also similar for boys and girls. Girls did not report higher levels of internalizing behaviors as a result of negative parenting behaviors than did boys, as hypothesized.

Mothering and fathering did not moderate the relationship between perceived marital conflict and adolescent depression and anxiety as hypothesized. Mothers and fathers seemed to moderate their individual models indicating that mothers and fathers do play distinct roles in how harmful perceived marital conflict can be. Interestingly, when mothering and fathering are taken together, fathers fail to exert influence on the effect of perceived marital conflict while mothering continued to act as a moderator. Fathers may be using maternal behaviors as a gauge against which to base their behaviors. For example, if mothers aren't monitoring their adolescent, fathers are more likely to follow suit than if the roles were reversed. As Pleck and Hofferth (2008) argue, mothers have a significant influence on paternal behaviors. In the future, fatherhood research should consider controlling for maternal behaviors, because failure to do so might overestimate the influence of fathers on adolescent depression and anxiety. The shared variance between mothers' and fathers' parenting may also explain why mothering behaviors



“overshadowed” and statistically eliminated fathering behaviors in regression models, in addition to shared method variance due to one source of data. Mothers and fathers are expected to have unique effects on their children. However, it is also expected that one cannot easily separate parenting effects by each in two-parent families where parents often work together to raise their children. Therefore, in the future researchers may find it necessary to create latent parenting constructs, for instance, thereby combining the effects of mothers and fathers.

### **Limitations**

This study does what very few studies have done by testing a model of the interrelations of marital conflict, maternal and paternal parenting, and adolescent depression and anxiety. Additionally, adolescent and parent sex was considered as moderators. However, there are limitations within the current study that provide a basis for future research. For instance, this study is limited by a cross-sectional design. Multiple waves of data would enable researchers to obtain more conclusive results; however, the current study stands as a foundation on which future longitudinal studies can address changes across time. Three waves of data would also allow researchers to test for reverse causal directions as internalizing adolescent behaviors, for example, could trigger negative parenting behaviors and/or disagreements within the marital relationship (Benson et al., 2008). Furthermore, a longitudinal study could examine how marital conflict and parenting affects children’s well-being at different developmental periods. Kaczynski et al. (2006) discussed several studies which find evidence that marital conflict is linked to child maladjustment at every developmental level. Consequently, future research may find that the current study’s model would stand for older and younger children than those included in this sample.

Another limitation of this study is the focus on internalizing behaviors. Although the current study intentionally focuses on internalizing behaviors in order to elaborate on specific measures of adolescent internalizing and obtain concise results, future research of this nature should also include externalizing behaviors. Failure to do so may have resulted in the current study's finding that suggests that adolescent boys and girls do not differ along pathways from parenting to internalizing problems. Adolescents, especially adolescent boys, may react to negative parenting behaviors in more overt ways that are not captured in the current study (see Buehler et al., 2006). Thus, it may be important to consider externalizing and internalizing behaviors when study the well-being of adolescent boys and girls. Additionally, the explained variance of adolescent internalizing behaviors may be boosted by examining more aspects of parenting. For examples, in addition to monitoring and closeness, future research may include harsh discipline (Benson et al., 2008; Buehler et al., 2006; Buehler & Gerard, 2002) and acceptance (Benson et al., 2008; Buehler et al., 2006). Along the same lines, the current study uses marital conflict that focuses on male against female aggression and does not include female against male aggression. The conservative population from which the sample was collected was not expected to yield a wide range of female versus male aggression, thus, the decision was made to exclude that subset of marital conflict from the analyses. Lastly, the current study is limited by its single source. Using multiple informants could result in more robust findings and may reduce the risk of methods bias (Buehler et al., 2006). This study purposefully analyzed adolescent reports in order to gain an understanding of how their experiences of marital conflict and negative parenting behaviors impact their reports of depression and anxiety. Furthermore, as mentioned earlier, adolescents are more accurate reporters of their internalized experiences when compared to parents and teachers (see Beaumont & Wagner, 2004).

In sum, the findings of the current study show that, when considered separately, aspects of maternal and paternal parenting intervene in and moderate the relationship between perceived marital conflict and adolescent depression and anxiety in unique ways. Greater perceived marital conflict is associated with lower levels of parental closeness and monitoring. This study also contributes to literature by examining the ways by which negative parenting behaviors affect specific measures of adolescent internalizing behaviors, namely depression and anxiety. Moreover, the current study highlights the need to include mothers and fathers in the models considered. The findings suggest that, when controlling for maternal behaviors, paternal behaviors cease to moderate the model and negative paternal behaviors are not associated with adolescent depression and anxiety. Additionally, controlling for paternal behaviors, low levels of maternal monitoring may not have negative effects on adolescent anxiety. These findings of this study may be used to inform clinicians and educators about the mechanisms underlying how the way adolescents perceive marital conflict influences the way they perceive specific maternal and paternal parenting and, ultimately, adolescents' depression and anxiety.

## REFERENCES

- Amato, P., & Afifi, T. (2006). Feeling caught between parents: Adult children's relations with parents and subjective well-being. *Journal of Marriage and Family*, 68(1), 222-235. doi:10.1111/j.1741-3737.2006.00243.x
- 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.
- Beaumont, S. L., & Wagner, S. L. (2004). Adolescent-parent verbal conflict: The roles of conversational styles and disgust emotions. *Journal of Language and Social Psychology*, 23, 338–368.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55(1), 83-96. doi:10.2307/1129836
- Benson, M. J., Buehler C., & Gerard, J. M. (2008). Interparental hostility and early adolescent problem behavior: Spillover via maternal acceptance, harshness, inconsistency, and intrusiveness. *The Journal of Early Adolescence*, 28(3), 428-454. Doi: 10.1177/0272431608316602
- Beyers, W., & Goossens, L. (2008). Dynamics of perceived parenting and identity formation in late adolescence. *Journal of Adolescence*, 31, 165-184. doi: 10.1016/j.adolescence.2007.04.003

- Boyd, C. P., Kostanski, M., Gullone, E., Ollendick, T. H., & Shek, D. T. L. (2000). Prevalence of anxiety and depression in Australian adolescents: Comparisons with worldwide data. *Journal of Genetic Psychology, 161*, 479–492
- Bradford, K., Barber, B. K., Olsen, J. A., Maughan, S. L., Erickson, L. D., Ward, D., & Stolz, H. E. (2003). A multi-national study of interparental conflict, parenting, and adolescent functioning: South Africa, Bangladesh, China, India, Bosnia, Germany, Palestine, Colombia, and the United States. *Marriage & Family Review, 35*(3-4), 107-137.  
doi:10.1300/J002v35n03\_07
- Brown, B.B. (1990). Peer groups and peer cultures. In S. Feldman & G.R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 171-196). Cambridge, MA: Harvard University Press.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Buehler, C., Benson, M. J., & Gerard, J. M. (2006). Interparental hostility and early adolescent problem behavior: The mediating role of specific aspects of parenting. *Journal of Research on Adolescence, 16*(2), 265-292. doi:10.1111/j.1532-7795.2006.00132.x
- Buehler, C. & Gerard, J. M. (2002). Marital conflict, ineffective parenting, and children's and adolescents' maladjustment. *Journal of Marriage and Family, 64*(1), 78-92.
- Byrne, B. M. (2009). *Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed.)*. New York, NY: Routledge Academic.

- Chapman, C., Laird, J., Ifill, N., & KewalRamani, A. (2011). Trends in High School Dropout and Completion Rates in the United States: 1972–2009 (NCES 2012-006). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Coiro, M. J., & Emery, R. E. (1998). Do marriage problems affect fathering more than mothering? A quantitative and qualitative review. *Clinical Child and Family Psychology Review, 1*(1), 23-40. doi:10.1023/A:1021896231471
- Cookston, J. T., & Finlay, A. K. (2006). Father Involvement and Adolescent Adjustment: Longitudinal Findings from Add Health. *Fathering: A Journal of Theory, Research, & Practice about Men as Fathers, 4*(2), 137-158.
- 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.
- Davies, P. T., & Cummings, E. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin, 116*(3), 387-411. doi:10.1037/0033-2909.116.3.387
- Davies, P. T., & Lindsay, L. L. (2004). Interparental conflict and adolescent adjustment: Why does gender moderate early adolescent vulnerability? *Journal of Family Psychology, 18*(1), 160-170. doi: 10.1037/0893-3200.18.1.160
- Davies, P. T., Sturge-Apple, M. L., Woitach, M. J., & Cummings, E. (2009). A process analysis of the transmission of distress from interparental conflict to parenting: Adult relationship security as an explanatory mechanism. *Developmental Psychology, 45*(6), 1761-1773. doi: 10.1037/a0016426

- De Goede, I., Branje, S., & Meeus, W. (2009). Developmental changes in adolescents' perceptions of relationships with their parents. *Journal of Youth and Adolescence*, 38(1), 75-88. doi: 10.1007/s10964-008-9286-7
- Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C., Reuman, D., Flanagan, C., & Mac Iver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist*, 48(2), 90-101. doi:10.1037/0003-066X.48.2.90
- Fenzel, M.L. (1989). Role strain in early adolescence: A model for investigating school transition stress. *Journal of Early Adolescence*, 9, 13-33
- Finger, B., Eiden, R. D., Edwards, E. P., Leonard, K. E., & Kachadourian, L. (2010). Marital aggression and child peer competence: A comparison of three conceptual models. *Personal Relationships*, 17(3), 357-376. doi:10.1111/j.1475-6811.2010.01284.x
- Furman, W., & Simon, V. A. (2004). Concordance in attachment styles of mind and styles with respect to fathers and mothers. *Developmental Psychology*, 40, 1239-1247.
- Galambos, N. L., Sears, H. A., Almeida, D. M., & Kolaric, G. C. (1995). Parents' work overload and problem behavior in young adolescents. *Journal of Research on Adolescence*, 5, 201-223.
- Garland, A. F., & Zigler, E. (1993). Adolescent suicide prevention: Current research and social policy implications. *American Psychologist*, 48(2), 169-182. doi:10.1037/0003-066X.48.2.169
- Ghazarian, S. R., & Buehler, C. (2010). Interparental conflict and academic achievement: An examination of mediating and moderating factors. *Journal of Youth and Adolescence*, 39(1), 23-35. doi:10.1007/s10964-008-9360-1

- Grych, J. H., Jouriles, E. N., Swank, P. R., MacDonald, R., & Norwood, W. D. (2000). Patterns of adjustment among children of battered women. *Journal of Consulting and Clinical Psychology, 68*, 84–94.
- Hair, E. C., Moore, K. A., Garrett, S. B., Ling, T. & Cleveland, K. (2008). The continued importance of quality parent–adolescent relationships during late adolescence. *Journal of Research on Adolescence, 18*(1), 187-200. doi: 10.1111/j.1532-7795.2008.00556.x
- Hawkins, D. N., Amato, P. R., & King, V. (2007). Nonresident father involvement and adolescent well-being: Father effects or child effects? *American Sociological Review, 72*(6), 990-1010. doi:10.1177/000312240707200607
- Hughes, E. K., & Gullone, E. (2008). Internalizing symptoms and disorders in families of adolescents: A review of family systems literature. *Clinical Psychology Review, 28*(1), 92-117. doi:10.1016/j.cpr.2007.04.002
- Kaczynski, K. J., Lindahl, K. M., Malik, N. M., & Laurenceau, J. (2006). Marital conflict, maternal and paternal parenting, and child adjustment: A test of mediation and moderation. *Journal of Family Psychology, 20*(2), 199-208. doi:10.1037/0893-3200.20.2.199
- Kerns, K. A., Aspelmeier, J. E., Gentzler, A. L., Grabill, C. M. (2001). Parent-child attachment and monitoring in middle childhood. *Journal of Family Psychology, 15*(1), 69-81. doi: 10.1037//0893-3200.15.1.69
- Kessler, R. C., Avenevoli, S., & Merikangas, K. R. (2001). Mood disorders in children and adolescents: An epidemiologic perspective. *Biological Psychiatry, 49*, 1002–1014.



- Kessler, R. C., Berglund, P., Borges, G., Nock, M., & Wang, P. S. (2005). Trends in suicide ideation, plans, gestures, and attempts in the united states, 1990-1992 to 2001-2003. *The Journal of the American Medical Association*, 293(20), 2487-2495.
- Krishnakumar, A., Buehler, C., & Barber, B. K., (2003). Youth perceptions of interparental conflict, ineffective parenting, and youth problem behaviors in European-American and African-American families. *Journal of Social and Personal Relationships*, 20(2), 239-260. doi:10.1177/0265407503020002007
- Kuhn, E. S., & Laird, R. D. (2011). Individual differences in early adolescents' beliefs in the legitimacy of parental authority. *Developmental Psychology*, 47, 1353-1365.
- Laird, R. D., Pettit, G. S., Dodge, K. A., & Bates, J. E. (2003). Change in parents' monitoring knowledge: Links with parenting, relationship quality, adolescent beliefs, and antisocial behavior. *Social Development*, 12, 401-419.
- Larson, R. W., & Richards M. H. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development*, 62, 284-300.
- Larson, R. W., Richards, M. H., Moneta, G., Holmbeck, G., & Duckett, E. (1996). Changes in adolescents' daily interactions with their families from ages 10 to 18: Disengagement and transformation. *Developmental Psychology*, 32(4), 744-754. doi:10.1037/0012-1649.32.4.744
- MacKinnon, D. P. (2008). Introduction and Applications of the mediation model. In *Introduction to statistical mediation analysis* (pp. 1-46). NY: Lawrence Erlbaum.
- Malekoff, A. (2004). *Group work with adolescents: Principles and practice* (2nd ed., pp. 4-8). New York: The Guilford Press.

- McCoy, K., Cummings, E., & Davies, P. T. (2009). Constructive and destructive marital conflict, emotional security and children's prosocial behavior. *Journal of Child Psychology and Psychiatry*, 50(3), 270-279. doi:10.1111/j.1469-7610.2008.01945.x
- Merikangas, K. R., & Avenevoli, S. (2002). Epidemiology of mood and anxiety disorders in children and adolescents. In M. T. Tsuang, & M. Tohen (Eds.), *Textbook in epidemiology* (2nd ed., pp. 657-704). New York: John Wiley and Sons, Inc.
- Milevsky, A., Schlechter, M., Netter, S., & Keehn, D. (2007). Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression and life-satisfaction. *Journal of Child and Family Studies*, 16(1), 39-47. doi:10.1007/s10826-006-9066-5
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Muris, P., Meesters, C., & van den Berg, S. (2003). Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *Journal of Child and Family Studies*, 12(2), 171-183.  
doi:10.1023/A:1022858715598
- National Institute of Mental Health. (2010). Suicide in the U.S.: Statistics and Prevention.  
Retrieved from <http://www.nimh.nih.gov/health/publications/suicide-in-the-us-statistics-and-prevention/index.shtml#children>
- O'Donnell, E. H., Moreau, M., Cardemil, E. V., & Pollastri, A. (2010). Interparental conflict, parenting, and childhood depression in a diverse urban population: The role of general cognitive style. *Journal of Youth and Adolescence*, 39(1), 12-22. doi:10.1007/s10964-008-9357-9

- Paley, B., Conger, R. D., & Harold, G. T. (2000). Parent' affect, adolescent cognitive representations, and adolescent social development. *Journal of Marriage and the Family*, 62, 761–776.
- Parker, J. G., & Gottman, J. M. (1989). Social and emotional development in a relational context: Friendship interaction from early childhood to adolescence. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 95-131). New York: Wiley.
- Pelegrina, S., Garcia-Linares, M., & Casanova, P. F. (2003). Adolescents and their parents' perceptions about parenting characteristics. Who can better predict the adolescent's academic competence? *Journal of Adolescence*, 26, 651–665.
- Peris, T. S., Goeke-Morey, M. C., Cummings, E. M., & Emery, R. E. (2008). Marital conflict and support seeking by parents in adolescence: Empirical support for the parentification construct. *Journal of Family Psychology*, 22(4), 633-642. doi: 10.1037/a0012792
- Pleck, J. H., & Hofferth, S. L. (2008). Mother involvement as an influence on father involvement with early adolescents. *Fathering*, 6(3), 267-286. doi:10.3149/fth.0603.267
- Schoppe-Sullivan, S. J., Schermerhorn, A. C., & Cummings, E. (2007). Marital conflict and children's adjustment: Evaluation of the parenting process model. *Journal of Marriage and Family*, 69(5), 1118-1134. doi:10.1111/j.1741-3737.2007.00436.x
- Sheeber, L. B., Davis, B., Leve, C., Hops, H., Tildesley, E. (2007). Adolescents' relationship with their mothers and fathers: Associations with depressive disorder and subdiagnostic symptomatology. *Journal of Abnormal Psychology*, 116(1), 144-154. doi: 10.1037/0021-843X.116.1.144
- Silverberg, S. B., & Steinberg, L. (1987). Adolescent autonomy, parent-adolescent conflict, and parental well-being. *Journal of Youth and Adolescence*, 16, 293–312.

- Steinberg, L., Lamborn, S., Darling, N., Mounts, N., & Dornbusch, S. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*, 754–770.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. *Journal of Marriage & the Family, 41*(1), 75-88. doi:10.2307/351733
- Vazsonyi, A. T., & Belliston, L. M. (2006). The cultural and developmental significance of parenting processes in adolescent anxiety and depression symptoms. *Journal of Youth and Adolescence, 35*(4), 491-505. doi:10.1007/s10964-006-9064-3
- Vazsonyi, A. T., Hibbert, J. R., Snider, J. B. (2003). Exotic enterprise no more? Adolescent reports of family processes from youth in four countries. *Journal of Research on Adolescence, 13*(2), 129-160.
- Weinberger, D. A. (1997). Distress and self-restraint as measures of adjustment across the life span: Confirmatory factor analyses in clinical and nonclinical samples. *Psychological Assessment, 9*(2), 132-135. doi:10.1037/1040-3590.9.2.132
- Weinberger, D. A., & Schwartz, G. E. (1990). Distress and restraint as superordinate dimensions of self-reported adjustment: A typological perspective. *Journal of Personality, 58*(2), 381-417. doi:10.1111/j.1467-6494.1990.tb00235.x
- Yahav, R. R. (2007). The relationship between children's and adolescents' perceptions of parenting style and internal and external symptoms. *Child: Care, Health and Development, 33*(4), 460-471. doi:10.1111/j.1365-2214.2006.00708.x

## APPENDICES

## Appendix A

### The Conflict Tactics Scale (CTS; Straus, 1979)

To your knowledge, how many times has you father or your mother's boyfriend/partner EVER engaged in the following behavior toward you mother? ( $\alpha = .92$ )

*Responses: A = never, B = once, C = 2-3 times, D = 4-10 times, E = 11-19 times, F = 20 or more times*

1. Yelled or shouted insults.
2. Stomped out of the room.
3. Pushed or grabbed.
4. Slapped.
5. Kicked or bit.
6. Hit or tried to hit her with something.
7. Beat her for several minutes.
8. Choked or tried to kill her.
9. Threatened her with a knife or gun.

## Appendix B

### The Adolescent Family Process (AFP; Vazsonyi et al., 2003)

#### Closeness

(Paternal,  $\alpha = .87$ ; Maternal,  $\alpha = .80$ )

*Responses: A = strongly disagree, B = disagree, C = neither disagree or agree, D = agree, E = strongly agree*

1. My father [mother] often asks what I am doing in school.
2. My father [mother] gives me the right amount of affection.
3. One of the worst things that could happen to me would be to find out that I let my father [mother] down.
4. My father [mother] is usually proud of me when I finish something at which I worked hard.
5. My father [mother] trusts me.
6. I am closer to my father [mother] than a lot of kids my age.

#### Monitoring

(Paternal,  $\alpha = .72$ ; Maternal,  $\alpha = .84$ )

*Responses: A = strongly disagree, B = disagree, C = neither disagree or agree, D = agree, E = strongly agree*

1. My father [mother] wants to know who I am with when I go out with friends or on a date.
2. In my free time away from home, my father [mother] knows who I'm with and where I am.
3. My father [mother] wants me to tell him [her] where I am if I don't come home right after school.
4. When I am not at home, my father [mother] knows my whereabouts.

## Appendix C

### Weinberger Adjustment Inventory (WAI; Weinberger, 1997; Weinberger & Schwartz, 1990)

#### Depression

( $\alpha = .74$ )

*Responses: A = false, B = somewhat false, C = not sure, D = somewhat true, E = true*

1. I often feel that nobody really cares about me the way I want them to.
2. In recent years, there have been a lot of times when I've felt unhappy or down about things.
3. I often feel like not trying anymore because I can't seem to make things better.
4. I often feel sad or unhappy.

*Responses: A = never, B = not often, C = sometimes, D = often, E = always*

5. I get into such a bad mood that I feel like just sitting around and doing nothing.
6. I feel so down and unhappy that nothing makes me feel much better.
7. I feel lonely.

#### Anxiety

( $\alpha = .65$ )

*Responses: A = false, B = somewhat false, C = not sure, D = somewhat true, E = true*

1. I spend a lot of time thinking about things that might go wrong.
2. I usually don't let things upset me much.
3. Most of the time, I really don't worry about things much.
4. I worry too much about things that aren't important.

*Responses: A = never, B = not often, C = sometimes, D = often, E = always*

5. I get nervous when I know I need to do my best (on a job, team, etc.).
6. In recent years, I have felt more nervous or worried about things than I have needed to.
7. I feel afraid something terrible might happen to me or somebody I care about.
8. I feel nervous or afraid that things won't work out the way I would like them to.



## Appendix D

### Tables

Table 1

*Descriptive Statistics of Main Study Variables (N = 1080)*

|                  | Minimum | Maximum | <i>M</i> | <i>SD</i> |
|------------------|---------|---------|----------|-----------|
| Depression       | 1       | 5       | 2.65     | .77       |
| Anxiety          | 1       | 5       | 3.10     | .65       |
| Marital Conflict | 1       | 6       | 1.75     | 1.03      |
| M Closeness      | 1       | 5       | 3.95     | .78       |
| M Monitoring     | 1       | 5       | 3.69     | .89       |
| F Closeness      | 1       | 5       | 3.53     | .96       |
| F Monitoring     | 1       | 5       | 3.31     | 1.06      |

*Note:* “M” denotes maternal parenting behaviors and “F” denotes paternal parenting behaviors

Table 2

*Correlations Among Main Study Variables (N = 1080)*

|                     | 1      | 2    | 3      | 4     | 5     | 6     | 7     | 8    |
|---------------------|--------|------|--------|-------|-------|-------|-------|------|
| 1. Depression       | 1.00   |      |        |       |       |       |       |      |
| 2. Anxiety          | .49**  | 1.00 |        |       |       |       |       |      |
| 3. Marital Conflict | .20**  | .06* | 1.00   |       |       |       |       |      |
| 4. M Closeness      | -.26** | -.03 | -.24** | 1.00  |       |       |       |      |
| 5. M Monitoring     | -.08** | .07* | -.18** | .40** | 1.00  |       |       |      |
| 6. F Closeness      | -.17** | -.01 | -.30** | .41** | .20** | 1.00  |       |      |
| 7. F Monitoring     | -.09** | .04  | -.19** | .24** | .42** | .55** | 1.00  |      |
| 8. Sex              | .03    | .14* | -.21** | .12** | .23** | .01   | .12** | 1.00 |

*Note:* Adolescent sex, males = 0, females = 1; using pairwise deletion, *N*s ranged from 1015-1080

\*\* $p \leq .01$ , \* $p \leq .05$

Table 3

*Multigroup Analyses of Maternal Parenting Effects on Internalizing Behaviors by Adolescent Sex (N = 1080)*

| Model          | Constraint            | $\chi^2$  | df | $\Delta\chi^2$ | $\Delta df$ | CFI  | $\Delta CFI$ | RMSEA | $\Delta RMSEA$ |
|----------------|-----------------------|-----------|----|----------------|-------------|------|--------------|-------|----------------|
| Baseline model | None                  | .00       | 0  |                |             | 1.00 |              | .14   |                |
| Model 1        | All                   | 290.40*** | 22 | 290.40***      | 22          | .83  | .17          | .08   | .06            |
| Model 2        | $c_m - f_m, g_m, h_m$ | 244.30*** | 20 | 244.30***      | 20          | .84  | .16          | .09   | .05            |
| Model 3        | $a_m, b_m, g_m, h_m$  | 203.30*** | 18 | 203.30***      | 18          | .82  | .15          | .10   | .04            |

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation. Model 1 constrained all paths to equality. Model 2 constrained paths  $c_m - f_m, g_m,$  and  $h_m$ . Model 3 constrained paths  $a_m, b_m, g_m,$  and  $h_m$ .  $\Delta\chi^2$  scores represent changes in model fit between the baseline model and constrained models (1, 2, and 3). \*\*\* $p \leq .001$

Table 4

*Multigroup Analyses of Paternal Parenting Effects on Internalizing Behaviors by Adolescent Sex (N = 1080)*

| Model          | Constraint            | $\chi^2$  | df | $\Delta\chi^2$ | $\Delta df$ | CFI  | $\Delta CFI$ | RMSEA | $\Delta RMSEA$ |
|----------------|-----------------------|-----------|----|----------------|-------------|------|--------------|-------|----------------|
| Baseline model | None                  | .00       | 0  |                |             | 1.00 |              | .15   |                |
| Model 1        | All                   | 290.80*** | 22 | 290.80***      | 22          | .86  | .14          | .09   | .06            |
| Model 2        | $c_p - f_p, g_p, h_p$ | 201.10*** | 20 | 201.10***      | 20          | .87  | .13          | .09   | .06            |
| Model 3        | $a_p, b_p, g_p, h_p$  | 253.20*** | 18 | 253.20***      | 18          | .86  | .14          | .10   | .05            |

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation. Model 1 constrained all paths to equality. Model 2 constrained paths  $c_p - f_p, g_p,$  and  $h_p$ . Model 3 constrained paths  $a_p, b_p, g_p,$  and  $h_p$ .  $\Delta\chi^2$  scores represent changes in model fit between the baseline model and constrained models (1, 2, and 3). \*\*\* $p \leq .001$

Table 5

*Multigroup Analyses of both Maternal and Paternal Parenting Effects on Internalizing Behaviors by Adolescent Sex (N = 1080)*

| Model          | Constraint                   | $\chi^2$  | df | $\Delta\chi^2$ | $\Delta df$ | CFI  | $\Delta CFI$ | RMSEA | $\Delta RMSEA$ |
|----------------|------------------------------|-----------|----|----------------|-------------|------|--------------|-------|----------------|
| Baseline model | None                         | .00       | 0  |                |             | 1.00 |              | .16   |                |
| Model 1        | All                          | 194.00*** | 29 | 194.00***      | 29          | .92  | .08          | .06   | .10            |
| Model 2        | $c_m - f_m, c_p - f_p, g, h$ | 319.60*** | 38 | 319.60***      | 38          | .92  | .08          | .07   | .09            |
| Model 3        | $a_m, b_m, a_p, b_p, g, h$   | 316.70*** | 34 | 316.70***      | 34          | .89  | .11          | .09   | .07            |

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation. Model 1 constrained all paths to equality. Model 2 constrained paths  $c_m - f_m, c_p - f_p, g,$  and  $h.$  Model 3 constrained paths  $a_m, b_m, a_p, b_p, g,$  and  $h.$   $\Delta\chi^2$  scores represent changes in model fit between the baseline model and constrained models (1, 2, and 3).

\*\*\* $p \leq .001$