

THE EFFECTS OF COUPLE SATISFACTION ON FAMILY CONFLICT
AND ON ADOLESCENTS' FUTURE ANTISOCIAL BEHAVIOR

by

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DISSERTATION ABSTRACT

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Department of Counseling Psychology and Human Services

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The functioning of the family system has a substantial impact on youth social development and behavioral adjustment. Although the impact of parenting, specifically coercive parenting, and the influence of deviant peers are well-documented risk factors for child maladaptive behavior, less understood is how parents' satisfaction in their couple relationship influences family functioning and child outcomes. This study examined negative family conflict as an underlying mediating variable in the association between couple satisfaction and adolescents' future outcomes in a sample of 241 couples and their adolescent children (127 males and 114 females). Adolescents were an average age of 16 to 17 at the initial time point and they participated in follow-up one year later. Structural equation modeling on longitudinal data showed that the model fit the data well and that higher couple satisfaction was related to better future outcomes (defined as lower levels of future antisocial behavior). Higher couple satisfaction was also associated with lower levels of negative family conflict which predicted lower levels of adolescent future antisocial behavior (ASB). For all adolescents, findings also demonstrated that negative family conflict completely mediated the relationship between couple relationship

satisfaction and adolescents' future ASB. Sex differences were found in these relationships when males and females were examined separately, especially related to couple dissatisfaction, which was directly predictive of male future ASB but not female future ASB.

This study supports existing research demonstrating that adolescents in families with poor couple satisfaction are more likely to engage in ASB than those whose parents reported higher levels of couple satisfaction. Furthermore, these findings highlight the mediating role of negative family conflict in the association between couple satisfaction and adolescents' future ASB. Findings from this study have implications for couples and family interventions. For instance, clinical intervention focused on enhancing couple satisfaction and reducing negative family conflict may promote better outcomes for children.

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CHAPTER I

INTRODUCTION

Nearly 4 million children in the United States (5%) are reported by their parents to experience serious emotional or behavioral problems (Centers for Disease Control and Prevention [CDC], 2010). Similarly, based on a report of the Surgeon General, one in five children and adolescents ages 9 to 17 have a diagnosable mental health disorder (U.S. Department of Health and Human Services, 1999). Children who exhibit emotional or behavior problems are at higher risk for engaging in dangerous behaviors such as substance use and risky sexual activity, and are more likely to experience social consequences such as high school dropout and incarceration (American Psychological Association [APA], 2000; Dishion & Stormshak, 2007; Jianghong, 2004; McWhirter, McWhirter, McWhirter, & McWhirter, 2007). The CDC notes that 25% of parents report that their child uses alcohol; 23% report that their child uses illicit drugs; and 48% report that their child is engaged in sexual intercourse (CDC, 2010). Parents of young adults, ages 18 to 24, report that 10% of their children did not graduate from high school (CDC, 2010). In addition to the negative impact on youth development, the cost of problem behavior on society is estimated at more than \$300 billion per year (Miller, 2004). Despite these risks and adverse consequences, many children experiencing problematic symptoms do not receive mental health services, with the rates of unmet needs of ethnic minority youth even higher than that of non-Hispanic White youth (Garland et al., 2005; Gudiño, Lau, Yeh, McCabe, & Hough, 2009; Institute of Medicine, 2002).

Child problem behaviors can be grouped into two general categories: emotional distress (or internalizing behaviors) and social maladaptation (or externalizing behaviors) (Achenbach, 1978; Dishion & Stormshak, 2007). Emotional distress refers to behaviors that are typically more inwardly directed, such as depressive symptoms or somatic complaints. In contrast, social maladaptation describes behaviors that are more outwardly directed, such as aggressive or delinquent behaviors (Achenbach, 1978). While emotional distress is clearly problematic, socially maladaptive behaviors (a) are the most costly to society; (b) are more immediately measureable; and (c) have a negative impact on a broader range of people, including parents, teachers, schools, and communities (Achenbach, 1978; Dishion & Stormshak, 2007). Furthermore, socially maladaptive behaviors in adolescence are linked to lower status attainment in adulthood, which includes poorer educational and occupational attainment (Siennick, 2007; Walton, Ormel, & Krueger, 2011).

Socially maladaptive behavior may refer to a variety of problems, but the term *antisocial behavior* (ASB) is more precise and easier to define. Although many researchers use these terms synonymously, some differentiate antisocial behavior to be a more severe presentation of recurrent maladaptive behaviors, or a pattern, rather than isolated incidences of social maladaptation (Jianghong, 2004). As such, I will use the term *antisocial behavior* in the remainder of this manuscript.

Antisocial behaviors range on a continuum of severity, and are defined as aggressive, rule-breaking, and intrusive behaviors. Aggressive behavior includes bullying, threatening, or intimidating others, initiating physical fights, being cruel to people or animals, using weapons to harm others, or forcing someone into sexual activity

(American Psychological Association, 2000). Dodge (1991) further subtyped aggressive behavior into reactive aggression, such as uncontrolled anger in response to a threat, and proactive aggression, which includes premeditated behaviors such as bullying. Examples of rule-breaking antisocial behaviors include lying, cheating, stealing, and abusing drugs (Jiangong, 2004). Intrusive behaviors include behaviors that may be used to charm or manipulate others, including bragging, demanding attention, teasing, showing off, and sensation-seeking (O'Neill, Nenzel, & Caldwell, 2009). In addition to the reoccurring nature of antisocial behaviors, these behaviors also progress over time from lower to higher levels of risk (Reid & Eddy, 1997). For instance, threatening to hurt someone is an example of a less severe form of aggressive behavior which can progress to the act of physically harming someone. Substance use is an example of a rule-breaking ASB that can progress in severity into substance abuse or dependency. A sign that ASB has achieved a high level of severity is when the behaviors occur across multiple settings (e.g., home and school) and are reported by multiple informants (e.g., parents and teachers) (Dishion, French, & Patterson, 1995).

According to Moffitt's (1993) taxonomy of ASB, its heterogeneity can be reduced to two subtypes: adolescent-limited and life-course persistent. Life-course persistent ASB begins in childhood and, by definition, continues through adolescence and into adulthood. In contrast, adolescent-limited antisocial behavior arises and subsides during adolescence and typically does not involve violent behaviors. However, a growing body of behavioral, cognitive, and neuropsychological evidence suggests that differences between subtypes are more quantitative than qualitative (Walters, 2010). For example, a longitudinal study following young adults with both subtypes of ASB showed that young adults with

adolescent-onset ASB continued to engage in rule-breaking or delinquent behavior beyond adolescence (Moffitt, Caspi, Harrington, & Milne, 2002). This is especially true for substance dependent adolescents.

Substance abuse or dependency is a major factor contributing to the development of life-course persistent ASB for young adults with adolescent-onset ASB, whose antisocial behavior may have otherwise subsided in late adolescence (Moffitt, 1993; Moffitt et al., 2002). In addition to continuing to engage in frequent substance use, these young adults may also engage in low-level crimes such as property damage or theft (Moffitt et al., 2002). The association between substance use during middle adolescence and the development of later substance dependence in young adulthood is well documented (Anthony & Petronis, 1995; Englund, Egeland, Oliva, & Collins, 2008; Tolan, 1987). Along with these risks, substance abuse is the one ASB that occurs at similar rates for both males and females, whereas other ASBs are typically more common among males (Moffitt, Caspi, Rutter & Silva, 2001). The damaging effect of substance abuse on youth development causes a number of social and psychological problems that impact multiple domains of functioning (Chassin, Beltran, Lee, Haller, Villalta, 2010; Moffitt et al., 2001).

At the biological level, the developing brain is exposed to toxic substances which can impact somatic, cognitive, reproductive, and neurological maturation as well as compromise other domains such as academic achievement (Guerra & Pascual, 2010; Tarter, 2002). In addition to the neurotoxic effects of substances, females in particular are at high risk for being victimized when under the influence of alcohol or drugs. Freshman and Leinwand (2001) reported alarmingly high rates of victimization, with 70% of

substance using adolescent females reporting unwanted sexual contact before the age of 16 (Freshman & Leinwand, 2001). Substance use is also associated with increased concomitant risk-taking behaviors, such as theft or risky sexual behavior (Dishion et al., 1995), and both males and females who exhibit early onset of substance use before age 16 are at greater risk for incarceration by early adulthood compared to those who have later onset disorders (Slade et al., 2008). To prevent the negative impact of substance abuse and other types of ASB on youth development, researchers have identified specific factors in childhood and adolescence that provide an initial marker of later ASB and that can be the potential focus of preventive intervention (Brown, Schulenberg, Bachman, O'Malley, & Johnston, 2001; McWhirter et al., 2007; Wilson, Hurr, Shaw, Dishion, & Gardner, 2009). These risk and protective factors, or clusters, marking children's future ASB occur in a complex ecology.

Ecological Etiology

The ecological model (Bronfenbrenner, 1979) provides a framework to conceptualize the multiple ecological levels of risk and protective factors related to child problem behaviors. At the individual level of the ecology, specific biological, cognitive, and emotional risk factors are linked to an increased propensity for the development of ASB. For instance, family history of substance use disorders (SUDs) is a biological risk factor for adolescent ASB (Finn & Justus, 1997; King et al., 2009), and the presence of daring and impulsive behaviors are emotional risk factors (Eisenberg et al., 2000; Hann & Borek, 2002). At the macrosystemic level, cultural beliefs and attitudes of the larger society contribute to risk and protective factors for child problem behavior. For example,

social norms indicate the situations, related to age and social roles, during which alcohol use is acceptable or unacceptable (Zucker, Donovan, Masten, Mattson, & Moss, 2008). Risk factors related to ASB at the micro- and mesosystemic levels of the ecology typically occur, in childhood, well before the time of first substance use, and are related to family functioning (Arteaga, Chen, & Reynolds, 2010; Zucker et al., 2008).

At the microsystemic level, the coercion theory model provides a dynamic map to explain how certain behavioral contingencies influence parent-child interactions that can lead to problems with youth socialization and development (Dishion & Stormshak, 2007; McHale & Grolnick, 2002; Patterson, 1997; 2002). The coercion theory model is characterized by interactions between parent and child in which the parent requests the child to comply, the child ignores the request and escalates in the negative behavior, and the parent (at some point during the interaction) yields to the child. This type of response results in the parent reinforcing the child's aversive behavior; over time, this dynamic increases the likelihood that the child will develop aggressive behavior, and decreases parental control over aversive behavior (Granic & Patterson, 2006). Another negative result of the coercion model is parental disengagement or rejection, which could lead to decreased parental monitoring and lower parental involvement in the life of the child or adolescent, thereby increasing the risk that the adolescent will engage with deviant peers (Dishion, 1990; Dodge, 1983).

Whereas a coercive parent-child dynamic is an influential childhood risk factor for developing problem behavior, deviant peers are the primary risk factor in adolescence (Dishion & Stormshak, 2007; Reid, Patterson, & Snyder, 2002). For instance, one of the strongest correlates of substance use is association with substance using peers (Dishion,

Capaldi, Spracklen, & Li, 1995). However, parents also contribute to the likelihood of their child engaging with deviant peers through the degree of parental monitoring and the quality of the parent-child relationship. At the mesosystemic level of the ecology, parents influence their child's risk of ASB through the indirect influence of the functioning of the parent-parent dyad on the child (Grych & Fincham, 1990; Linville et al., 2010), which is the principal focus of the present study.

Family Functioning and the Impact of Family Conflict

The functioning of the family system has a substantial impact on the developing child. Correlates of parenting and family functioning that have demonstrated key roles in adolescent behavioral outcomes are parental monitoring, parent-child communication, negative family conflict, positive family relationships, and parent-child trust (Ary, Duncan, Duncan, & Hops, 1999; Stattin & Kerr, 2000). Trust, is often defined by a relationship that includes predictability and dependability (Rempel, Holmes, & Zanna, 1985). Trust in relationships with caregivers enables children to develop healthy self-esteem, creative intellect, and adequate peer relationships (Rotenberg et al., 2005). Parent-child trust affects parental monitoring, influencing how much the child is willing to share about his or her activities (Kerr & Stattin, 2000).

Parental monitoring is the adolescent's perception of how much the parents know about the adolescent's activities outside the home (DiClemente et al., 2001). Parent self-report measures of monitoring often ask questions to find out *how* parents attempt to get information about their children (Stattin & Kerr, 2000). Some monitoring strategies such as restrictive monitoring, which include behaviors like going through the adolescent's

personal belongings, may reduce adolescents' willingness to disclose information to their parents (Cottrell, Branstetter, Cottrell, Harris, & Rishel, 2007). Parent-child communication, or the extent to which information is disclosed in the context of a parent-child relationship, is another major dimension of family functioning (Barnes & Olsen, 1985; Epstein, Bishop, & Levin, 1978). Parent-child communication includes three categories: open, problematic, and coercive. *Open* communication, or the ability to share information, is associated with more positive outcomes (Cottrell et al., 2007; Patterson, 1997). In contrast, *problematic* communication, or a restraint in disclosing true feelings, is often associated with poorer outcomes (Barnes & Olsen, 1985). *Coercive* communication also contributes to poorer outcomes through reinforcement of aversive behavior (Patterson, 1997).

Positive family relationships, another factor that contributes to the emotional, social, and intellectual development of children and adolescents, is defined as a secure, supportive interaction that serves as a base from which exploration and growth can occur. Moreover, adolescents who view their parents as warm, supportive, and reliable are more likely to develop positive coping, problem-solving, and self-regulation strategies (Dishion & Stormshak, 2007). However, when high levels of negative family conflict are present, families tend to engage in fewer of the positive or constructive behaviors such as effective communication and supportive interactions (Bradbury, Rogge, & Lawrence, 2001). In fact, of all the family factors described, negative family conflict is the strongest childhood predictor of adolescent ASB and later adult substance abuse (Arteaga et al., 2010; Ary et al., 1999; Dishion & Stormshak, 2007; Klahr, Rueter, McGue, Iacono, & Burt, 2011). For instance, Buehler et al. (1997) reported an effect size for family conflict

on child adjustment (.32) that was twice as large as the effect of divorce on child adjustment (.14) reported by Amato and Keith (1991).

Family conflict is a multidimensional concept that varies in chronicity, frequency, and intensity as well as in mode of expression, content, and degree of resolution (Buehler, et al., 1997). In a meta-analysis including 68 studies, Buehler et al. (1997) identified and tested the association of five distinct types of conflict (overt, covert, constructive, avoidant, and withdrawn) on child adjustment and found an average effect size of .32. More overt expressions of conflict had the largest effect size of .35, compared to other types of conflict, such as covert conflict (.28) and withdrawn conflict (.27). Cummings and Merrilees (2010) found that children exposed to destructive conflict (or *overt*, using Buehler's terminology), which is characterized by hostile tactics and negative emotionality, were more likely to act out emotionally or behaviorally to distract parents. Although acting out may be adaptive for these children in the short-term by allowing them to regain a temporary sense of security or to end the conflict, these patterns of externalizing behavior can progress into more stable, maladaptive behaviors that are displayed in other relationships, contexts, and settings (Cummings & Merrilees, 2010). For instance, Kouros Cummings, and Davies (2010) demonstrated that increases in interparental conflict directly predicted increases in preadolescents' externalizing behaviors. In a multiethnic study using growth curve analysis, Bray, Adams, Getz, and Baer (2001) found that negative family conflict was a risk factor while family cohesion was a protective factor for adolescent drinking. They also found that White and Mexican American youth progressed towards increased alcohol use at a faster rate than African American youth.

Family conflict is a wide-ranging construct that includes multiple types of conflict that are often interpreted and experienced differently by children than by their parents. I will specifically focus in this study on the expression of conflict in the family system that uses more overt tactics and negative emotionality, given the strong association between more overt expressions of conflict and child maladjustment. To be clear, I will use the term *negative family conflict* to refer to this concept in the remainder of this manuscript.

The development of adolescent antisocial behaviors is also influenced by parent depression (Goodman & Gotlib, 1999; Gross, Shaw, Moilanen, Dishion, & Wilson, 2008; Kane & Garber, 2004). The link between mother depression and child antisocial behavior is well established; for example, in a longitudinal study examining boys and their caregivers, maternal depression was significantly associated with ASB for boys' ages 11 to 12 and ages 12 to 15 (Gross, Shaw, & Molinen, 2008). Munson, McMahon, and Spieker (2001) showed that maternal depression in early childhood predicted externalizing problems in middle childhood. And, in a study examining both adoptive and birth mothers, Natsuaki et al. (2010) provided support for parent responsiveness as a mediating factor in the relationship between maternal major depressive disorder and infant fussiness. Although the relationship between paternal depression and ASB is less studied than maternal depression, meta-analytic studies have been conducted showing a significant positive association between paternal depression and youth antisocial behavior (Kane & Garber, 2004).

The Parent-Parent Relationship and Couple Satisfaction

Problems in the couple relationship increase the risk of child ASB (Cui, Conger & Lorenz, 2005; Grych & Fincham, 1990; Linville et al., 2010). In fact, in a study of parents with toddlers ages 2 to 3 years, Linville et al. (2010) demonstrated that child behavior problems were *directly predicted* over time by couple satisfaction. Family systems theory provides a theoretical framework for understanding this phenomenon. According to the tenets of family systems theory, the family is an interconnected group of individuals that function as a complex whole, which cannot be reduced to the sum of its parts, or individual members. The interconnectivity of the family system causes changes in one family member's behavior to influence the behavior of other family members (Watzlawick, Bavelas, & Jackson, 1967). This concept also applies to dyadic relationships within the family, where one dyadic pair, such as the couple, mutually influences other dyadic relationships within the family, such as the parent-child dyad.

Based on the assumptions of family systems theory, the spillover hypothesis posits that negativity is transmitted from the couple relationship to the parent-child relationship, and thereby spills over to affect the individual child. This hypothesis is well supported in the research as one of the processes by which distress in the couple relationship impacts child outcomes and leads to increased risk for adolescent problem behavior (Cui et al., 2005; Erel & Burman, 1995; Hair et al., 2009; Katz & Gottman, 1996; Malinen et al., 2010; Schulz, Pruett, Kerig, & Parke, 2010; Shek, 1998; Wang & Crane, 2001).

In accordance with family systems theory and the spillover hypothesis, research demonstrates that adolescents and young adults in families with poor marital satisfaction are more likely to engage in ASB and have worse outcomes related to physical and mental health compared to those whose parents report high quality relationships (Hair et al., 2009). For example, child depressive symptoms were strongly associated with fathers' levels of marital satisfaction, marital stability, and perceived family triangulation in a study examining families with children ages 6 to 16 years (Wang & Crane, 2001). In a study utilizing a sample of 378 Chinese married couples, Shek found a positive association between couple satisfaction and parent-child relationship quality. Malinen et al. (2010) reported similar findings for a sample of 157 Finnish and 256 Dutch couples. Grych and Fincham (1990) also found support for the spillover hypothesis with the child exhibiting more distress when exposed to more interparental conflict.

To complicate matters, relationship satisfaction is not a static concept but can change based on biological, cognitive, and social factors impacting the couple and family. One type of change influencing couple satisfaction that is well documented in the literature includes changes associated with life-cycle transitions. For instance, a meta-analysis including 37 studies examining relationship satisfaction for new parent couples found that these couples reported small declines in relationship satisfaction following pregnancy until nearly one year after childbirth (Mitnick, Heyman, & Slep, 2009). This finding could be due partly to very high reports of marital satisfaction during pregnancy (Perren, Von Wyl, Bürgin, Simoni, & von Klitzing, 2005), or the decrease may be related to normative decline in relationship satisfaction over time, limited family resources, or shorter duration of the couple relationship prior to parenthood (Mitnick et al., 2009).

Another life-cycle transition that slightly decreases satisfaction in the couple relationship is caring for an aging parent (Bethea, 2002). Understanding common changes across the life cycle that impact couple satisfaction can aid us in understanding child problem behavior.

Another factor related to couple satisfaction that impacts child outcomes is whether or not parents agree about the quality of their couple relationship, which has implications for their overall level of satisfaction and influences how they perceive their child (Christensen, Margolin, & Sullaway, 1992; Lau & Pun, 1999). For instance, couples experiencing more distress in their relationship reported more discordance in ratings of child problem behaviors (Christensen et al., 1992). Mothers in particular reported more child problem behaviors if they were experiencing stress in their marital relationship (Seiffge-Krenke & Kollmar, 1998). Lau and Pun (1999) found that parent perceptions of the child's level of functioning impacts child outcomes. More specifically, children whose parents agreed positively about their child's self-concept reported higher scores on a measure of self-concept than those whose parents disagreed. Parent well-being also influenced informant discrepancies; mothers with depression tended to overreport and overgeneralize her child's problem behavior compared to mothers without depression (Chilcoat & Breslau, 1997; Najman et al., 2000; Tarullo, Richardson, Radke-Yarrow, & Martinez, 1995). Furthermore, research supports a bidirectional, longitudinal association between parent depression and marital dissatisfaction (Whisman & Uebelacker, 2009). In general, few studies have examined the impact of interparental agreement about relationship satisfaction on child outcomes, and even fewer studies have examined

interparental agreement at the individual item level, which provides a more precise analysis than using a total mean score (Maguire, 1999).

Many studies have demonstrated the link between marital problems and poor adolescent outcomes (Buehler et al., 1997; Cui et al., 2005; Hair et al., 2009; Harold & Conger, 1997; Ingoldsby, Shaw, Owens, & Winslow, 1999; Katz & Gottman, 1996). Less is known about the underlying processes by which the couple dyad influences family functioning, namely, the level of negative family conflict and the impact of family functioning on adolescents' future outcomes (Schulz et al., 2010). Research that captures the complexity of the family as an interconnected system and examines the multiple relationships within the family is necessary for advancing knowledge in the field toward a comprehensive understanding of how parents contribute to child problem behavior, potential future drug and alcohol use, risky sexual behavior, and other problem behaviors, as well as how to prevent such behaviors (Lindsey & Caldera, 2005; Lindsey & Mize, 2001; McHale & Grolnick, 2002).

Purpose of the Study

Given the body of research and these theoretical underpinnings, the overarching purpose of this study is to explore family risk and protective factors that are related to developing ASB; and, more specifically, to examine how negative family conflict may mediate the relationship between couple satisfaction and adolescents' future outcomes in young adulthood. In this study, I extend previous research on marital conflict and adolescent adjustment by examining how the more inconspicuous signs of marital problems, namely couple satisfaction or dissatisfaction, negatively influence the

functioning of the whole family system. I focus on couple satisfaction, instead of overt couple relationship conflict, because children in adolescence are more sensitive to subtle signs of marital problems, such as lack of intimacy, affection, and communication (e.g., see Davies & Windle, 2001), that are reflections of couple satisfaction. In addition, couple conflict is measured in the study within the construct of negative family conflict, so examining couple satisfaction as well adds a more positive focus that allows for the examination of protective factors in addition to risk factors. To explore these relationships, I use a longitudinal design to measure family risk factors in the middle of adolescence and then antisocial behavior in the beginning of adulthood. I include parent depression in this examination as an exploratory relationship that provides more data about the couple, specific to each partner's internalized experience. Ultimately, increased understanding of the risk and protective factors associated with ASB can inform early detection and prevention, and may allow for the prevention of lifelong ASB through targeted intervention (Mash & Dozois, 2003). Based on predictions of family systems theory and the spillover hypothesis, my primary question of interest is whether negative family conflict mediates the relationship between couple satisfaction and adolescents' future outcomes as young adults. The conceptual model for this study is depicted in Figure 1.

Research Questions of Interest

Previous research demonstrated a modest correlation between parent report and observational data (Patterson, Reid, & Dishion, 1992). So in this study I am interested to

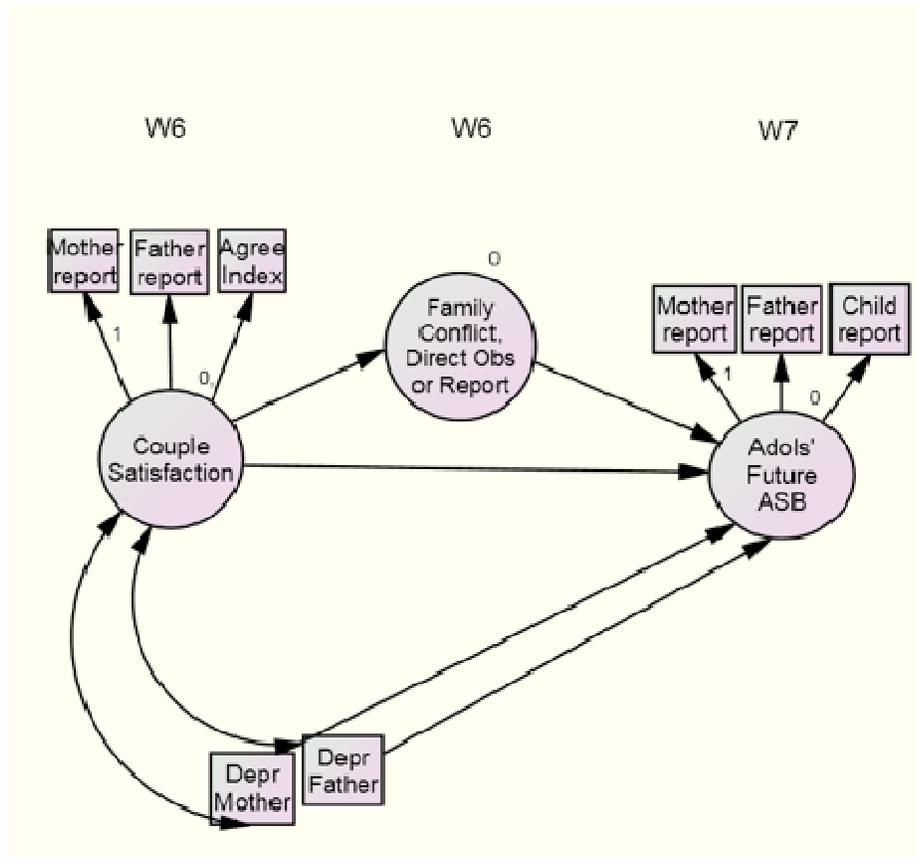


FIGURE 1. Conceptual model of the proposed relationships among study variables. Agree Index = Intraclass correlation coefficient of interparental agreement; Direct Obs = Direct Observation; Depr Mother = Depression Mother; Depr Father = Depression Father; Adols' Future ASB= Adolescents' Future Antisocial Behavior.

find which method of data collection best predicts adolescents' future ASB. I will address the following questions:

1. Does *direct observation* and *mother, father, and child report* of negative family conflict mediate the relationship between couple satisfaction and adolescent future ASB?
2. Does *direct observation* of negative family conflict mediate the relationship between couple satisfaction and adolescent future ASB?

3. Does *mother, father, and child report* of negative family conflict mediate the relationship between couple satisfaction and adolescent future ASB?

Because parents' level of well-being also influences their report of their child's problem behavior (De los Reyes & Kazdin, 2005; Najman et al., 2000), in this study I will also control for parent depression—an important risk factor for child problem behavior and a indicator of each partner's internal experience—in my proposed model and analysis (Natsuaki et al., 2010).

Research Hypotheses

Mediation

I predict that negative family conflict at Time 1 will mediate the relationship between couple satisfaction at Time 1 and adolescent future ASB at Time 2. I will explore negative family conflict using two methods of data collection, direct observation and self-report, and I will test these two methods of data collection as in the same model as well independently to determine the best fitting model. I also predict that the mediating effect will differ for male and female adolescents (Moffit et al., 2001; Silverthorn & Frick, 1999).

Significant relationships

I hypothesize that couple satisfaction will have a negative association with family conflict at Time 1 as well as a negative association with adolescent future ASB at Time 2 (Christensen et al., 1992; Hair et al., 2009; Linville et al., 2010). More specifically, I

predict that higher levels of couple satisfaction at Time 1 will predict lower levels of adolescents' future ASB at Time 2, and vice-versa (Hair et al., 2009). I also predict that each parent's report of couple satisfaction at Time 1 will be significantly correlated with that same parent's report of negative family conflict at Time 1.

Depression

I hypothesize that mother depression and couple satisfaction at Time 1 will have a significant negative correlation; and I also predict a significant negative correlation for father depression and couple satisfaction (Whisman, & Uebelacker, 2009). Furthermore, I predict a significant negative correlation for mother depression and adolescent future ASB at Time 2 as well as for father depression and adolescent future ASB at Time 2 (Gross, Shaw, Moilanen, Dishion, et al., 2008; Kane & Garber, 2004).

CHAPTER II

METHODS

Participants

In this study I utilized secondary data from the sixth and seventh wave of data collection for the Project Alliance-1 (PAL-1) research project, a federally funded grant from the National Institute of Health (Dishion & Kavanagh, 2003). The original sample of PAL-1 study participants were 998 6th grade students and their parents from three middle schools in an ethnically diverse community in the Northwest region of the U.S. An active consent protocol was used to approach the parents for participation, and 90% consented to participate in the school-based assessment. The sample of students included 526 males (52.7%) and 472 females (47.3%). Based on youth self-report, the group of students included 423 Caucasians (42.4%); 291 African Americans (29.2%); 68 Latinos (6.8%); 52 Asian Americans (5.2%); and 164 (16.4%) youth of other ethnicities (including biracial). Biological fathers were present in 585 families (58.6%). Youth were randomly assigned at the individual level to either control (498 youth) or intervention (500 youth) groups in the spring of 6th grade. Approximately 80% of the youth were retained across the longitudinal span of the Pal-1 study.

Of the original sample, participants in the present study were part of the sixth and seventh waves of data collection of the larger Pal-1 study. These waves of data collection were chosen because parent participants completed a couple's assessment during the sixth wave of data collection and the seventh wave provided follow-up data one year

later. Out of the original Pal-1 sample, there were a total of 794 families that participated in the sixth wave of the study. Of these 794 families, 241 families met the inclusion criteria for the present study, which only included families where both parents participated in the study at Time Point 1 (Wave 6) and at Time Point 2 (Wave 7).

The majority of couples included in the study were married (94%) with an average length of marriage of 18 years. Those couples in the study that were not married had one member who identified as a live-in partner (6%). Of the mothers in the study, the majority were birth mothers (92%), and the sample also included stepmothers (4%), adoptive mothers (3%), and live-in parents (1%). The majority of fathers in the study were birth fathers (80%), with some stepfathers (14%), adoptive fathers (3%), and live-in parents (3%).

There were 241 adolescents in the study, including 127 males (53%) and 114 females (47%), ranging in age from 15 to 18 years (mean age = 16 to 17 years) at Time Point 1 and 16 to 20 years (mean age = 17 to 18 years) at Time Point 2. Parents of adolescents in the study identified their children's ethnicity as follows: European American (69%), African American (13%), Latino (5%), Biracial (7%), Other (6%). The present study's sample was less diverse than the original sample because two-parent families in Wave 6 of the Pal-1 study were mostly European American.

Intervention Protocol

The Family Check Up (FCU) is part of the multilevel intervention program called EcoFIT (Dishion & Kavanagh, 2003; Dishion & Stormshak, 2007). The first level of the multilevel intervention program was the development of a family resource center (FRC)

for parents in each of the three participating public middle schools. This universal intervention was available for the entire intervention group and included the following services: brief in-person consultations with parents; telephone consultations; feedback to parents about their student's behavior at school; and access to videotapes and books. The goal of the FRC services was to support all parents in positive parenting practices as well as to engage parents of high-risk youth for the FCU intervention.

The second component of the multilevel intervention program was a selected Family Check Up intervention for families of high-risk youth that was offered when the youth were in 7th and 8th grade. Although the selected FCU intervention targeted the families of youth who were identified by teacher rating as being at high risk, all families could participate. The FCU intervention is based on motivational interviewing (MI), is modeled on the Drinker's Check-Up, and follows a brief three-session structure (Miller & Rollnick, 2002). The first session consists of an initial interview, during which the therapist explores parents' presenting concerns and readiness for change, and motivates the family to participate in a family assessment. The second session is an assessment of parent-child interactions where the family completes a variety of in-home videotaped assessment tasks. In the third session, the therapist uses MI skills to provide strength-based feedback to the family based on the assessment data.

The goal of the feedback session is to explore potential intervention services that the family can utilize to support positive parenting and family management practices (Dishion & Stormshak, 2007). In addition to exploring ways to support parents, the FCU involves a collaborative decision-making process between the parent and the interventionist regarding the indicated services most appropriate for the family. The

services offered to families are empirically validated interventions such as individually-based behavior family therapy (Patterson, Reid, Jones, & Conger, 1975), a behaviorally oriented parent group intervention (Dishion & Andrews, 1995), and multisystemic family therapy (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). If students left the targeted schools but remained in the county, they were offered continued services. The FRC services for parents were discontinued when the students moved on to high school. The intervention was delivered by parent consultants, who were trained using a combination of strategies, including didactic instruction, role playing, and videotaped supervision throughout the two years of intervention activity. Two of the parent consultants were master's level therapists and one held a bachelor's of science degree. The ethnicity of the parent consultant closely matched that of the participating families.

There were 115 families (23%) in the intervention condition that elected to receive the FCU intervention, and 88 of these families received further intervention services after the FCU. The intervention group was divided into two cohorts, and families completed the FCU intervention across 6th, 7th, and 8th grades. For families in Cohort 1, 46% completed the FCU intervention following the 7th grade family assessment; 53% completed following the 8th grade family assessment; and 1% completed the intervention following the 9th grade family assessment. Most of the families in Cohort 2 completed the FCU intervention following the 7th grade family assessment (93%), and the remaining families (7%) completed following the 8th grade family assessment. The average amount of direct contact hours that families spent with the intervention staff during the course of the study was 8.9 hours (SD = 9.42 hours). Most families elected to receive brief

consultations and attend periodic FCU meetings rather than engage in more intensive forms of intervention, such as a behavioral intervention to enhance parenting strategies.

Assessment Procedures

Students and families completed surveys annually in the spring semester of students' 6th grade year through their 9th grade year and then again when they were in 11th grade. These surveys were administered primarily in the schools and were voluntary. An instrument developed and reported by colleagues at the Oregon Research Institute was used to conduct the surveys (Metzler et al., 2001). For completing each of the first three waves of assessment, students were paid \$20, and were paid \$30 for Wave 4. Each family participating in PAL-1 was paid \$75 for completing each assessment. Those students who agreed to continue participating in the study into Wave 7 were young adults and they completed new consent forms, questionnaires, and a diagnostic interview. Young adult participants were paid \$150 upon completion of all materials as well as a \$25 bonus for completing the materials within two weeks. They were also informed that their parents had been contacted to participate in the study. Parent participants were paid \$50 to complete the materials as well as a \$25 bonus for completing the materials within two weeks.

Measured Variables

The independent variable in the study was couple satisfaction, which was measured using the Dyadic Adjustment Scale for Couples (DAS) that was completed by both partners in the couple relationship. The mediating variable was negative family

conflict, which was measured using the parent and child versions of the Child and Family Center Questionnaire. Negative family conflict was also measured using direct observation data collected as part of the FCU intervention. The outcome variable was adolescents' future ASB, which was measured using the Adult Behavior Checklist (ABCL) completed by each parent and the Adult Self-Report (ASR) measure completed by the youth. Finally, parent depression was measured using the Center for Epidemiologic Studies Depression Scale (CES-D).

Couple Satisfaction

The DAS is a 32-item measure of couple relationship quality and adjustment collected at Wave 6 of the PAL-1 study (Spanier, 1976). The DAS measures relationships along four key categories: dyadic consensus, dyadic cohesion, affection expression, and dyadic satisfaction. Mother and father reports of couple satisfaction were not based on the whole DAS measure but only on the ten items of the Dyadic Satisfaction subscale; whereas, interparental agreement scores were based on the whole DAS measure. Response options, on a Likert-type scale, vary slightly within and across subscales. Most of the items on the Dyadic Satisfaction subscale are on a 6-point Likert-type scale ranging from "0 = all the time" to "5 = never." A sample item on the Dyadic Satisfaction subscale is, "In general, how often do you think that things between you and your partner are going well?"

The latent construct, *couple satisfaction*, included three indices: (a) an interparental agreement score for each couple based on the whole DAS measure, (b) mother report of couple satisfaction based on the Dyadic Satisfaction subscale, and

(c) father report of couple satisfaction based on the Dyadic Satisfaction subscale.

Interparental agreement was calculated at the individual item level using intraclass correlation coefficients (Shrout & Fleiss, 1979), which provides a more precise analysis than using a total mean score because the latter potentially washes out important differences between parents' reports at the item level (Maguire, 1999). The DAS has strong reliability for each of the measure's four subscales (ranging from .73 to .94) and for the total measure ($\alpha = .96$) (Spanier, 1976). The Dyadic Satisfaction subscale of the DAS has reliability coefficients in this sample of .89 for mothers and .86 for fathers ($N = 241$). Construct validity for the DAS is also well established and the measure is highly correlated with the Locke-Wallace Marital Adjustment Scale, a previously established measure of marital satisfaction (Locke & Wallace, 1959).

Negative Family Conflict

Self-Report Data

Negative family conflict was assessed based on mother report, father report, and child report on five items of the Child and Family Center Questionnaire (CFC-QC). The 5-item *negative family conflict* subscale is part of the 92-item CFC-QC measure of child perception of parenting and family management practices. Parents and children completed different forms of the questionnaire (Parent Report form, CFC-QP; Child Report form, CFC-QC). The child version of the CFC questionnaire includes the same items as the parent version but reworded to address the child.

Item responses are on a 6-point scale ranging from “0 = Never” to “6 = More than 7 times.” For parents, each item followed the prompt, “In the past week did the following things happen between you and your teen?” A sample item is, “We had a big argument about a little thing.” For children, each item followed the prompt, “How many times in the last week did the following things happen between you and at least one of your parents?” A sample item is, “I got my way by getting angry.” For this sample, internal consistency was good with a Cronbach’s alpha of $\alpha = .74$ for mother report, of $\alpha = .71$ for father report, and $\alpha = .76$ for child report.

Direct Observation Data

Following the coding of a series of family tasks, coders provided ratings on negative family interactions using the Coder Impressions scale, a 10-point response scale ranging from “0 = Not Present” to “5 = Sometimes” to “9 = A Lot.” Negative interactions focused on: nonverbal expressions of disengagement (e.g., contempt, frowning), put downs of ideas or implied criticism, and any escalating conflict or tension that occurred during the family task. Family member pairs were rated; for example, negative interactions from the child to the mother were rated as well as negative interactions from the father to the child. A sample item is, “For each pair, how often did the following occur: Conflict or tension.” The seven family tasks included a conflict task, a monitoring and listening task, and a problem-solving task (see Family Task examples in Appendix). The family engaged in each task for 5 to 8 minutes. The range of observers’ scores was between 4 and 6 points. Reliability coefficients ranged from .82 to .86 for the present sample.

Antisocial Behavior at Age 18-19

Adolescents' future ASB was assessed at Wave 7 using parent ratings (mother and father) of the child's externalizing problem behaviors on the ABCL and child ratings (in young adulthood) of externalizing problem behaviors on the ASR self-report measure. The 34-item externalizing behavior subscale is part of the larger 123-item ABCL and ASR measures, which are both derived from the widely used Child Behavior Checklist (CBCL) (Achenbach, 1991). Externalizing behaviors are categorized into the following subscales: Aggressive, Rule-Breaking, and Intrusive Behaviors. The ASR has the same items as the ABCL except items are reworded to address the adult's own behavior instead of worded to address a third party.

Items are rated on a 3-point scale from "0 = rarely/never," to "1 = somewhat or sometimes true," and "2 = very or often true." A sample item is, "I drink/[Name] drinks too much alcohol or I get/[Name] gets drunk" and I physically attack/[Name] physically attacks people." In a previous PAL-1 study, high internal consistency was found for the ABCL with Cronbach's alpha for the Internalizing scale ranging from $\alpha = .89$ to $.92$, and from $\alpha = .90$ to $.93$ for the Externalizing scale (Connell & Dishion, 2008).

Parent Depression

Each parent completed the CES-D, a 20-item measure of maternal and paternal depression (Radloff, 1977). Participants are instructed to report frequency of depressive symptoms over the past week. Items are on a 4-point scale ranging from "0 = rarely or none of the time" to "3 = most or all of the time." A sample item is, "During the past

week, I felt hopeful about the future.” Scores are summed to create an overall score of depressive symptoms ranging from 0 to 60. High internal consistency was demonstrated for the CES-D with Cronbach’s alphas ranging from 0.86 to 0.91 (Radloff, 1977). For the present study, high internal consistency was found with Cronbach’s alpha of $\alpha = .91$ for mothers and .87 for fathers.

Proposed Model

In this study, I tested family risk and protective factors for developing ASB utilizing structural equation modeling to examine the mediating role of negative family conflict on couple satisfaction and on adolescents’ future ASB. Longitudinal data was examined across a one-year period using Wave 6 (Time 1) and, later, Wave 7 (Time 2) data. As a preliminary analysis, I employed exploratory and confirmatory factor analysis to examine the psychometric properties of the data measuring the mediating variable, negative family conflict. Negative family conflict was measured using two different methods of data collection: direct observation data of multiple family member dyads, and written report data completed by mother, father, and adolescent. I utilized factor analysis to assess for evidence of latent variables and to inform model specification.

The proposed model tested the following variables. First, *couple satisfaction*, the predictor variable, was a latent construct comprised of: (a) mother report of dyadic satisfaction, (b) father report of dyadic satisfaction, and (c) couple agreement of relationship satisfaction calculated as an intraclass correlation coefficient. Using intraclass correlation coefficients to examine interparental agreement is an approach superior to using Pearson's correlation or mean scores for describing similarity between

the responses of each partner in the couple because this analytic approach captures the actual match between scores to determine “the degree to which the two scores fail to agree” (Maguire, 1999, p. 215).

Couple satisfaction was specified in the model to have a direct relationship with the outcome variable, future adolescent problem behavior, which was comprised of the following three indices: (a) mother report of adolescent problem behavior, (b) father report of adolescent problem behavior, (c) adolescent self-report of problem behavior. I also specified maternal and paternal depression as control variables with a covarying relationship between couple satisfaction and parent depression, and a direct relationship between parent depression and adolescents’ future ASB (Natsuaki et al., 2010). As a follow-up analysis, I examined differences in model fit between adolescent males and adolescent females in the study. I predicted that negative family conflict would mediate the relationship between couple satisfaction and adolescent future ASB. To evaluate goodness of model fit, I used a variety of fit indices, including the chi-square likelihood ratio test, the Comparative Fit Index (CFI), with values greater than .95 indicating good model fit; Root Mean Square Error of Approximation (RMSEA), with values less than .08 indicating reasonable model fit, and Standardized Root Mean Square Residual (SRMR), with values less than .06 indicating good fit (Hu & Bentler, 1999; Tanaka, 1993).

CHAPTER III

RESULTS

A total of 241 couples with at least one child were included in the sample. Maximum likelihood estimation (ML) was used to estimate the model and obtain the variance-covariances of the parameters. Variance-covariance data was analyzed using AMOS Software 19.0 (Arbuckle, 2010). Data was screened for outliers and missing values. There were data missing for the two parent-report variables collected at Time 2 of the longitudinal study. Specifically, data for the variables *mother report of adolescent future ASB* (4% missing) and *father report of adolescent future ASB* (16% missing) were imputed using single imputation in AMOS Software 19.0. The correlation matrix of all variables is displayed in Table 1 and the means and standard deviations for male and female youth across all study variables are provided in Table 2.

The structural equation model tested negative family conflict as the proposed mediating variable. Mediation was evaluated according to the criterion recommended by Kenny, Kashy, and Bolger (1998) and Shrout and Bolger (2002). This criterion is an updated version of that proposed by Baron and Kenny (1986) in their seminal paper on mediation (also see Cerin & MacKinnon, 2008; Frazier, Barron, & Tix, 2004; Preacher & Hayes, 2008, for further support of the updated meditation model criterion). The first step to establishing mediation is to test the significance of the direct relationship between the predictor variable (X) and outcome variable (Y) path. Since Baron and Kenny's original article (1986), this step has undergone the most change with many researchers deeming that this step is not necessary for establishing mediation because it is too conservative and

TABLE 1. Correlation Matrix of All Variables for the Full Sample ($N = 241$)

	DAS ICC	DAS M	DAS F	Conf C	Conf M	Conf F	ASB C	ASB M	ASB F	Depr M	Depr F
DAS ICC	1.00										
DAS M	.69**	1.00									
DAS F	.65**	.64**	1.00								
Conf C	-.14*	-.18**	-.19**	1.00							
Conf M	-.05	-.12	-.07	.31**	1.00						
Conf F	-.14*	-.13*	-.15*	.31**	.37**	1.00					
ASB C	-.10	-.12	-.16*	.15*	.12	.13*	1.00				
ASB M	-.04	-.04	-.10	.12	.26**	.18**	.34**	1.00			
ASB F	-.23**	-.12	-.23**	.16*	.20**	.19**	.47**	.67**	1.00		
Depr M	-.36**	-.39**	-.29**	.20**	.19**	.05	.07	.19**	.11	1.00	
Depr F	-.25**	-.22**	-.30**	.08	-.07	.15*	.09	.05	.21**	.12	1.00

Note. **DAS ICC** = Dyadic Adjustment Scale Intraclass Correlation Coefficient of interparental agreement; **DAS M** = DAS Mother report; **DAS F** = DAS Father report; **Conf C** = Negative Family Conflict Child report; **Conf M** = Negative Family Conflict Mother report; **Conf F** = Negative Family Conflict Father report; **ASB C** = Adolescents' Future Antisocial Behavior Child report; **ASB M** = ASB Mother report; **ASB F** = ASB Father report; **Depr M** = Depression Mother; **Depr F** = Depression Father.

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

TABLE 2. Means and Standard Deviations for Male ($N = 127$) and Female ($N = 114$) Youth for All Variables

Variable	Males		Females	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Couple Satisfaction				
Couple Agreement (ICC)	.70	.27	.72	.22
Mother Report (DAS subscale)	29.69	6.22	30.07	5.38
Father Report (DAS subscale)	30.10	5.93	30.57	4.77
Negative Family Conflict				
Child Report	.72	.77	.65	.73
Mother Report	1.36	.45	1.39	.39
Father Report	1.34	.37	1.35	.39
Adolescent Future Antisocial Behavior				
Mother Report	13.87	12.88	17.52	17.83
Father Report	14.52	13.41	18.95	18.53
Youth Report	39.91	24.87	46.07	26.89
Parent Depression				
Mother Report	9.75	9.86	8.78	6.64
Father Report	7.17	6.80	8.41	7.80

Note. ICC = Intraclass Correlation Coefficient; DAS subscale = Dyadic Satisfaction scale.

could result in Type II error (Cerin & MacKinnon, 2008; Kenny et al., 1998). Kenny et al. (1998) stated that the first step is not required if there is a significant relationship established between the $X \rightarrow M$ path and the $M \rightarrow Y$ path, emphasizing that the significance of these two paths are the most essential to determining mediation. Shrout and Bolger (2002) recommended skipping this step if the relationship between the predictor (X) and outcome variable (Y) is temporally distal because when X and Y are distal, there is a greater likelihood that the effect of X on Y will be influenced by additional mediating variables. This means that the effect of the mediating relationship of X on Y through mediator (M) may be more powerful than the relationship between X and

Y. In the present study, the relationship between variables *X* and *Y* was temporally distal because of the longitudinal design, which means that a zero-order correlation test of *X* and *Y* is not recommended. Finally, Frazier et al. (2004) recommended establishing this relationship theoretically based on previous research findings rather than requiring a statistically significant direct relationship.

The second step is to test significant relationships between the predictor (*X*) and the mediator (*M*) path, while holding the direct relationship between the $X \rightarrow Y$ path constant. The third step tests the relationship between the $M \rightarrow Y$ path, while holding the relationship between the $X \rightarrow Y$ path constant. The fourth step is to test the indirect relationship between the effects of the $X \rightarrow M \rightarrow Y$ path. The fifth step is to test the $X \rightarrow Y$ path, while holding the $M \rightarrow Y$ path constant. Furthermore, the updated recommendations to Baron and Kenny's (1986) article are to use bootstrapping techniques to test the significance of the indirect effect and determine confidence intervals. Mediation is demonstrated by showing that there is a significant indirect relationship, with confidence intervals that do not include zero, in the fourth step described above, and a nonsignificant direct relationship between the predictor and outcome variables for the fifth step described above (Bollen & Stine, 1990; Cerrin & MacKinnon, 2008; Shrout & Bolger, 2002).

Model Assumptions

Model assumptions were determined tenable for structural equation modeling based on an examination of descriptive statistics for all variables, including mean, standard deviation, and frequency distributions, displayed for the final model in Table 3

(Kline, 2010). The distributions of observed variables were tested and univariate and bivariate normality were found tenable. Using a bivariate correlation matrix, correlations between independent variables were evaluated and found to be small to moderate, which is supporting evidence against the problem of multicollinearity (Kline, 2010). Tolerance values were examined and found to be within normal limits at greater than .20. Data normality was tested for extreme skew, kurtosis, influential outliers, and tolerance values and met the recommended limits of ± 2.0 for skew, -10.0 to $+10.0$ for kurtosis, and greater than .20 for tolerance (Kline, 2010; Schumacker & Lomax, 2004). Multivariate normality was assessed to be tenable based on the evaluation of univariate and bivariate normality (Kline, 2010).

TABLE 3. Means and Standard Deviations for the Final Structural Equation Model ($N = 241$)

Parameter	Mean	SD
Couple Satisfaction		
Mother Report on DAS Subscale	29.867	5.828
Father Report on DAS Subscale	30.324	5.403
Couple Agreement (ICC)	.706	.247
Negative Family Conflict		
Mother Report	1.372	.421
Father Report	1.348	.381
Youth Report	.686	.752
Adolescent Future Antisocial Behavior		
Mother Report	15.595	15.495
Father Report	16.616	16.153
Youth Report	42.826	25.977

Note. The Dyadic Satisfaction subscale was the DAS Subscale used to measure mother and father report of couple satisfaction.

To determine if the mediation model assumptions were tenable, the following relationships were examined and found to be true: (a) Couple satisfaction was theoretically linked to *adolescent future ASB*, (b) couple satisfaction was significantly related to the mediating variable *negative family conflict* ($X \rightarrow M$ path), (c) negative family conflict was significantly related to adolescent future ASB ($M \rightarrow Y$), (d) the indirect relationship between couple satisfaction on negative family conflict on adolescent future ASB was statistically significant ($X \rightarrow M \rightarrow Y$), and (e) the direct relationship between couple satisfaction and adolescent ASB was not significantly different from zero while holding the $M \rightarrow Y$ path constant. The fourth step used nonparametric bootstrapping techniques to test whether the indirect relationship (couple satisfaction \rightarrow negative family conflict \rightarrow adolescent future ASB) was skewed away from zero, and the mediator was found to be reliable because the confidence interval for the indirect relationship did not contain zero. These findings are reported in more detail in the subsequent section, following a discussion of the preliminary analyses conducted to inform model specification.

Analysis of Measurement Model

Principle Axis Factoring of Negative Family Conflict Items

Nine total items, including six direct observation scores for negative family conflict and mean scores for each of the three informants on the self-report measure of negative family conflict, were submitted to an exploratory factor analysis with principle axis factoring and oblique direct (Oblimin) rotation in SPSS 19.0. Sample sizes were

moderate ($N = 241$). The results of the initial factor analysis on these 9 items revealed a 2-factor solution that accounted for 52.88% of the total explained variance. However, all the items submitted to the factor analysis loaded on the first factor except for the following two items, which loaded on the second factor: *mother-to-father negative interaction* and *father-to-mother negative interaction*. Given that better guideline practices state that a latent factor should contain at least three items (Comrey & Lee, 1992), I did not retain these two items and re-ran the exploratory factor analysis by setting the parameters to retain two factors. The resulting 7-item solution included two distinct factors and accounted for 53.14% of the variance explained.

The two distinct factors each had initial Eigenvalues above 1.0 and no items loaded above .32 on more than one factor. Results of the factor analysis can be found in Tables 4 and 5. The factor that emerged with the largest explained variance included all the items collected by direct observation of the negative interactions between parents and children. The factor that emerged second included all the items collected through family members' self-reports of negative family conflict.

The first factor that emerged was labeled as *negative family conflict direct observation* (4 items), which accounted for 42.40% of the variance explained, and consisted of the following items in order of largest to smallest coefficient size: (a) child to mother negative interactions, (b) child to father, (c) mother to child, and (d) father to child. The second factor was labeled as *negative family conflict self-report* (3 items), which accounted for 10.73% of the variance explained, and consisted of data reported about negative family conflict by: (a) mother, (b) father, and (c) child.

TABLE 4. Factor Loadings for Negative Family Conflict Self-Report and Direct Observation Items Based on the Full Sample ($N = 241$), EFA Using Oblique Rotation (Pattern Matrix)

Item	Factor Loading	Mean	SD
Factor 1: Negative Family Conflict Direct Observation			
1. Child-to-Mother negative interaction	.906	2.22	.94
2. Child-to-Father negative interaction	.884	2.21	.97
3. Mother-to-Child negative interaction	.784	2.25	.89
4. Father-to-Child negative interaction	.700	2.35	.94
Eigenvalue = 2.97; variance = 42.40%			
Factor 2: Negative Family Conflict Self-Report			
1. Mother report family conflict	.646	1.37	.42
2. Father report family conflict	.588	1.35	.38
3. Child report family conflict	.488	.69	.75
Eigenvalue = .751; variance = 17.73%			
Cumulative percent of explained variance = 53.14%			

Note. Principal axis factoring, oblimin rotation with Kaiser normalization, and pattern matrix.

TABLE 5. Factor Correlation Matrix for Negative Family Conflict Self-Report and Direct Observation Items Based on the Full Sample ($N = 241$), EFA Using Oblique Rotation (Pattern Matrix)

Factor	Direct	Report
Direct	1.000	
Report	.428	1.000

Note. Factors abbreviated above are: Direct Observation and Self-Report of Negative Family Conflict. Extraction method: principal axis factoring and oblimin rotation with Kaiser normalization.

Confirmatory Factor Analysis of Negative Family Conflict Items

Based on the results from the exploratory factor analysis, the mediating variable, negative family conflict, was further analyzed as two latent constructs using confirmatory factor analysis (CFA). The two latent constructs of negative family conflict direct

observation and negative family conflict self-report were specified to covary in the model. This model did not show adequate fit to the data: $\chi^2(13) = 122.47, p < .001$, RMSEA = 0.19, CFI = .85. However, all factor loadings were significant at the .05 level. Negative family conflict direct observation included four indices with (a) mother to child negative interaction accounting for 64% of the variance explained by family conflict, (b) child to mother negative interaction accounting for 91%, (c) father to child negative interaction accounting for 41%, and (d) child to father negative interaction accounting for 72%. Self-report of negative family conflict included three factors with (a) mother report accounting for 34% of the variance explained by negative family conflict, (b) father report accounting for 37%, and (c) child report accounting for 28%. The correlation between the two latent constructs was .45. Despite the poor fit of this measurement model to the data, the factor loadings were all significant, and I continued by running this measurement model as a full structure equation model with predictor, outcome, and control variables to further explore what was contributing to poor model fit.

Analysis of Full Structural Equation Model

Full Model 1: Couple Satisfaction, Negative Family Conflict Self-Report and Negative Family Conflict Direct Observation, and Adolescents' Future Problem Behavior

The full model tested the relationships between couple satisfaction, direct observation of negative family conflict, self-report of negative family conflict, and child problem behavior (see Figure 2). This model did not show adequate fit to the data based

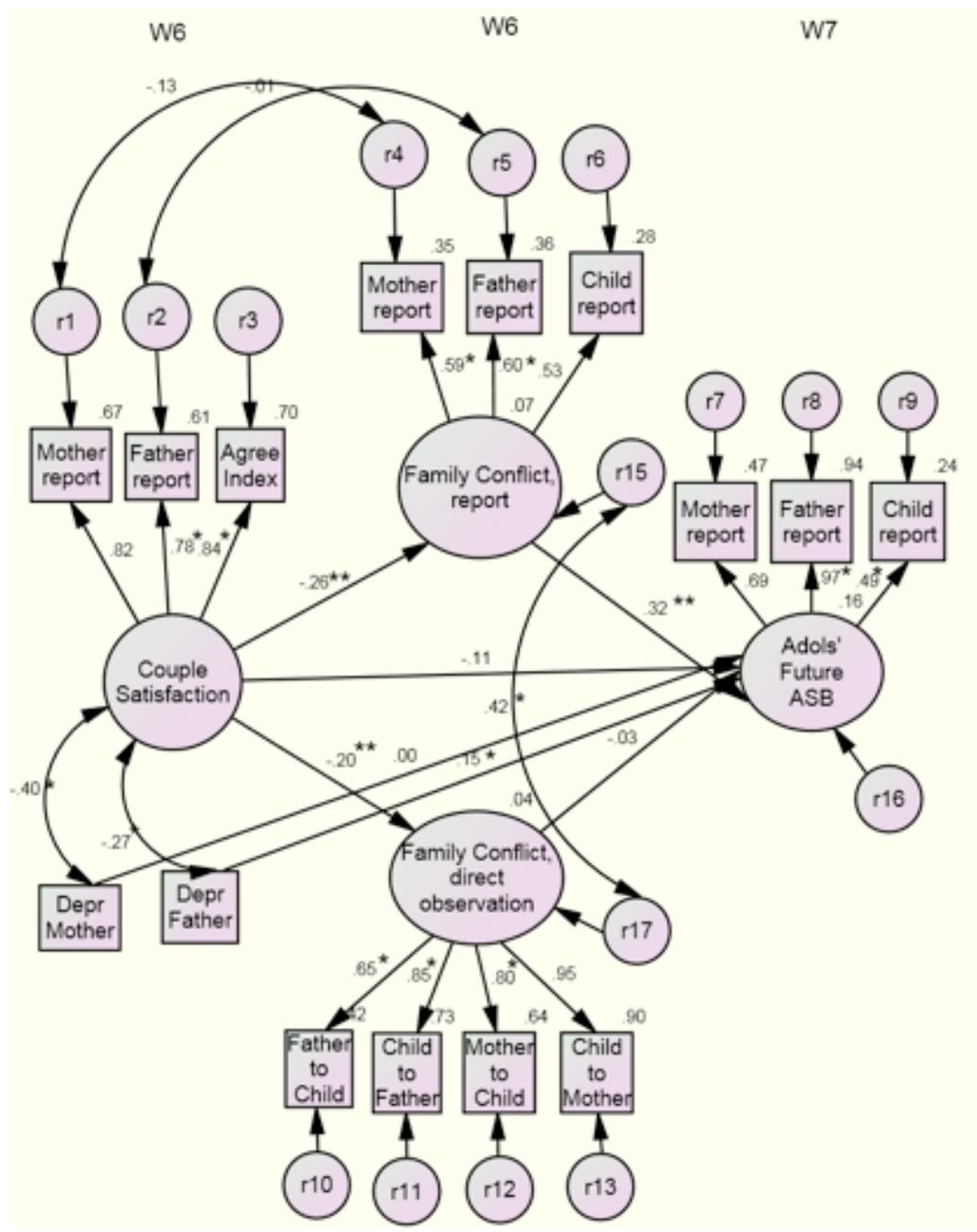


FIGURE 2. Full structural equation model (Model 1) examining two latent mediator variables of negative family conflict (direct observation and self-report) on couple satisfaction and adolescents' future problem behavior ($N = 241$). Agree Index = Intraclass correlation coefficient of interparental agreement; Depr Mother = Depression Mother; Depr Father = Depression Father; Adols' Future ASB= Adolescents' Future Antisocial Behavior. * $p < .05$. ** $p < .01$.

on the goodness of fit indices proposed by Hu and Benter (1999) for achieving good model fit: $\chi^2(80) = 237.27$, $p < .001$, RMSEA = 0.09, CFI = .87.

The factor loadings for each latent construct were all significant at the .05 level. Estimates of the model parameters show that the relationship between the predictor variable, couple satisfaction, and the outcome variable, adolescent future ASB, was negative, small ($\beta = -.11$), and not significant ($p > .05$). Additionally, the relationship between couple satisfaction and the mediator variable, negative family conflict self-report, was negative, small ($\beta = -.26$), and significant ($p < .01$). And, the relationship between negative family conflict self-report and the latent outcome variable, adolescent future ASB, was positive, small ($\beta = .32$), and significant ($p < .01$). The relationship between couple satisfaction and negative family conflict direct observation was negative, small ($\beta = -.20$), and significant ($p < .01$), and the relationship between negative family conflict direct observation and adolescent future ASB, was negative, small ($\beta = -.03$), and not significant ($p > .05$).

Contrary to my prediction, each parent's report of couple satisfaction at Time 1 was not significantly correlated with that same parent's report of negative family conflict at Time 1. Another surprising finding was that the two different methods of data collection—self-report and direct observation—were significantly correlated ($r = .42$) at the .05 level. Last, regarding depression, the covarying relationship between couple satisfaction and *maternal depression* was negative, medium ($\beta = -.40$), and significant ($p < .05$), and the relationship between couple satisfaction and *paternal depression* was negative, small ($\beta = -.27$), and significant ($p < .05$). In addition, paternal depression was significantly and positively ($\beta = .15$) related to adolescents' future ASB at the .05 level.

These preliminary results suggest that negative family conflict direct observation does not mediate the relationship between couple satisfaction and adolescent future problem behavior. Although the *direct observation* latent construct was found to be a strong measure of negative family conflict, it did not have strong predictive validity for adolescents' future ASB. Instead, the *negative family conflict self-report* latent construct was the best predictor of the outcome construct. This may be because the observational data provided a more subtle measure of negative family conflict, such as negative humor or complaining, compared to the more overt signs of negative conflict assessed in the self-report measure. Given that the model did not fit well with two latent constructs, the model was respecified to include only one mediating latent construct. The respecified model retained the mediating latent construct, negative family conflict self-report, and excluded the mediating latent construct, negative family conflict direct observation, because the latter was not a strong predictor of adolescents' future ASB.

Analysis of Final Structural Equation Model

Final Model (Model 2): Couple Satisfaction, Self-Report of Negative Family Conflict, and Adolescents' Future Problem Behavior

Based on the findings just reported, the final model examined the relationship between couple satisfaction and negative family conflict self-report at Time 1 and adolescents' future ASB at Time 2. This model showed good fit to the data across Wave 6 and Wave 7: $\chi^2(37) = 73.51, p < .001, RMSEA = 0.06, CFI = .95, SRMR = .05$ (see Figure 3).

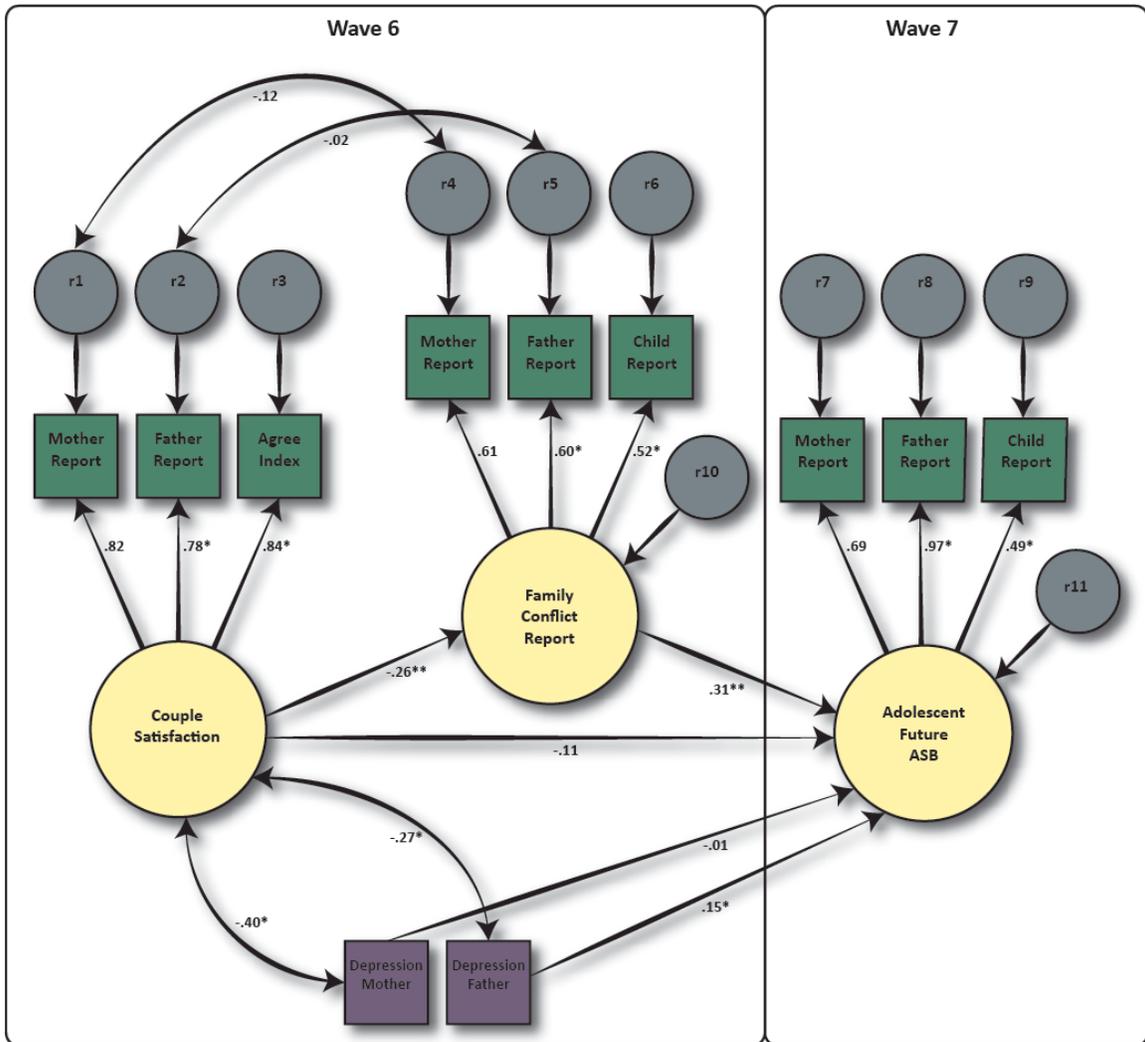


FIGURE 3. Final structural equation model (Model 2) examining the mediating role of negative family conflict (self-report) on couple satisfaction and adolescents' future problem behavior ($N = 241$). Agree Index = Intraclass correlation coefficient of interparental agreement; Depr Mother = Depression Mother; Depr Father = Depression Father; Adols' Future ASB = Adolescents' Future Antisocial Behavior. $\chi^2(37) = 73.51, p < .001, RMSEA = 0.06, CFI = .95, SRMR = .05$. * $p < .05$. ** $p < .01$.

The factor loadings for each latent construct were all significant at the .05 level.

The predictor latent construct, couple satisfaction, consisted of the following three factors: (a) mother report of dyadic satisfaction accounted for 68% of the variance

explained by couple satisfaction; (b) father report of dyadic satisfaction accounted for 60% of the variance explained by relationship satisfaction; and (c) an intraclass correlation coefficient of couple agreement of relationship satisfaction accounted for 70% of the variance explained by relationship satisfaction.

The mediator latent construct, negative family conflict self-report, included three factors with mother report accounting for 37% of the variance explained by negative family conflict, father report accounting for 36%, and child report accounting for 27%. The outcome latent construct, adolescent future ASB, included the following factors: (a) mother report accounting for 47% of the variance explained by adolescent future ASB, (b) father report accounting for 94% of the variance explained, and (c) child report accounting for 24%.

Estimates of the model parameters can be in found in Table 6. Using the previously described criteria for testing a mediation model, the following relationships were found. The direct relationship between couple satisfaction and the mediating variable, family conflict, ($X \rightarrow M$ path) was negative, small ($\beta = -.26$), and significant ($p < .01$). The direct relationship between family conflict at Time 1 and the outcome variable, adolescent future ASB, at Time 2 ($M \rightarrow Y$) was positive, small ($\beta = .31$), and significant ($p < .01$).

The control variables included in the model were maternal depression and paternal depression. The covarying relationship between maternal depression and couple satisfaction was negative, medium ($\beta = -.40$), and significant ($p < .05$), and the direct relationship between maternal depression and adolescent future ASB was negative, very small ($\beta = -.01$), and not significant ($p > .05$). The covarying relationship between

TABLE 6. Maximum Likelihood Estimates of Factor Variances and Covariances and Error Covariance for the Final Model of Couple satisfaction, Negative Family Conflict, and Future Adolescent Problem Behavior ($N = 241$)

Parameter Estimate	Unstandardized	SE	Standardized
Factor Loadings			
Couple satisfaction			
Mother Report	1.000 ^a	—	.822
Father Report	.873	.070	.777*
Couple Agreement (ICC)	.043	.003	.836*
Negative Family Conflict			
Mother Report	1.000 ^a	—	.608
Father Report	.888	.182	.597*
Child Report	1.521	.317	.518*
Adolescent Problem Behavior			
Mother Report	1.000 ^a	—	.685
Father Report	1.475	.181	.970*
Child Report	1.189	.165	.486*
Error Covariance			
Error term 1 (rel. satisfaction - Mother report) \leftrightarrow Error term 4 (Family Conflict – Mother report)			
	-.132	.097	-.119
Error term 2 (rel. satisfaction - Father report) \leftrightarrow Error term 5 (Family Conflict – Father report)			
	-.019	.085	-.019
Rel. Satisfaction latent variable \leftrightarrow Depression – Mother report			
	-16.111	3.002	-.399*
Rel. Satisfaction latent variable \leftrightarrow Depression – Father report			
	-9.268	2.363	-.267*

Note. $\chi^2(37) = 73.51$, $p < .001$, RMSEA = 0.06, CFI = .95, SRMR = .05

^aNot tested for statistical significance. All other unstandardized estimates are significant at .05 level.

* $p < .05$.

paternal depression and couple satisfaction was negative, medium ($\beta = -.27$), and significant ($p < .05$), and the direct relationship between paternal depression and adolescent future ASB was positive, small ($\beta = .22$), and significant ($p < .05$). The

covarying relationship between mother report of couple satisfaction and mother report of family conflict at Time 1 was negative, small ($\beta = -.12$), and not significant ($p > .05$).

The covarying relationship between father report of couple satisfaction and father report of family conflict at Time 1 was negative, small ($\beta = -.02$), and not significant ($p > .05$).

This suggest that higher parental depression predicts lower couple satisfaction for both mothers and fathers, and only father depression was predictive of adolescents' future ASB with higher depression associated with higher ASB.

Nonparametric bootstrapping is a computer-based method that I used to simulate 1,000 random samples that are generated from my original dataset (Kline, 2010). Using bootstrapping procedures, the indirect relationship between couple satisfaction on family conflict and on adolescents' future ASB ($X \rightarrow M \rightarrow Y$) was negative, small ($\beta = -.08$), and significant ($p = .01$) with a standard error of .04. The 90% bootstrap confidence interval estimate for the standardized beta weight was between -.16 and -.03, which does not contain zero and thus provides further evidence that the indirect effect is significantly different from zero. Lastly, the direct relationship between couple satisfaction and adolescent future ASB was negative, small ($\beta = -.11$), and not significant ($p > .05$), while holding the $M \rightarrow Y$ path constant. Based on these findings, negative family conflict mediates the relationship between couple satisfaction and adolescents' future ASB, which means that when negative family conflict is included in the model it is associated with increased adolescent future ASB.

Given that the model contained a distal mediating variable, the criterion to establish a significant relationship between the predictor and outcome variable was not required (Shrout & Bolger, 2002). For this study, the bootstrap estimates of the

standardized direct relationship between the predictor and the outcome variable was between $-.249$ and $.047$ and not significant ($p > .05$). Although this value contains zero, this does not violate the criteria required for a mediation model because the first step to mediation, which is to demonstrate that the predictor and outcome variables are related, does not have to be statistically proven if there is theoretical evidence of this relationship based on previous research (Cerrin & MacKinnon, 2008; Frazier et al., 2004; Kenny et al., 1998). These results are consistent with the prediction that the relationship between couple satisfaction and adolescent future problem behavior is completely mediated by negative family conflict.

Analysis of Sex Differences

Differences in model fit for male adolescents compared to female adolescents in the study were examined. Participants were adolescents with an average age of 16 to 17 years at Time 1 and nearing adulthood with an average age of 17 to 18 years at Time 2. For males ($N = 127$), model fit was acceptable: $\chi^2(37) = 77.73$, $p < .001$, RMSEA = 0.09, CFI = .90, SRMR = .05 (See Figure 4). For females ($N = 114$), model fit was acceptable and slightly better than for males: $\chi^2(37) = 56.85$, $p < .05$, RMSEA = 0.07, CFI = .94, SRMR = .05 (see Figure 5).

Male Participants

The model parameter estimates showed differences between males and females. For males, the direct relationship between couple satisfaction and the mediating variable family conflict ($X \rightarrow M$ path) was negative, small ($\beta = -.18$), and not significant ($p > .05$).

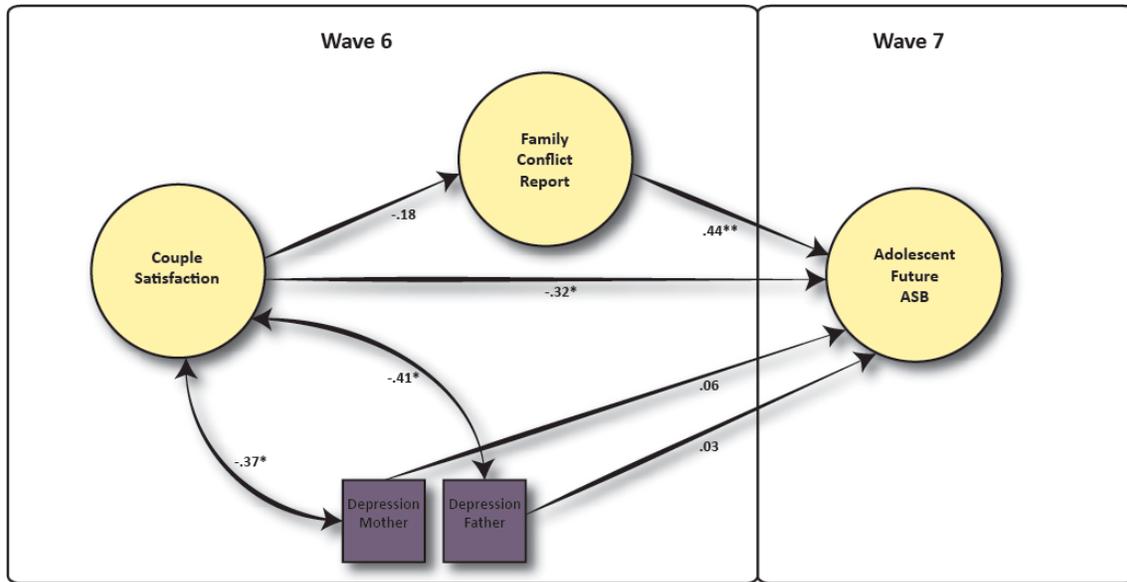


FIGURE 4. Male participants: final structural equation model testing the mediating role of negative family conflict (self-report) on couple satisfaction and adolescents’ future problem behavior ($N = 127$). Agree Index = Intraclass correlation coefficient of interparental agreement; Depr Mother = Depression Mother; Depr Father = Depression Father; Adols’ Future ASB= Adolescents’ Future Antisocial Behavior. $*p < .05$. $**p < .01$.

The direct relationship between family conflict and the outcome variable adolescent future ASB ($M \rightarrow Y$) was positive, medium ($\beta = .44$), and significant ($p < .01$). The indirect relationship between couple satisfaction on negative family conflict on adolescent future ASB ($X \rightarrow M \rightarrow Y$) was calculated using the Aroian version of the Sobel test (MacKinnon, Warsi, & Dwyer, 1995) and found to be negative, small ($\beta = -.08$), and not significant ($p > .05$). Lastly, the direct relationship between couple satisfaction and adolescent future ASB was negative, small ($\beta = -.32$), and significant ($p < .05$), while holding the $M \rightarrow Y$ path constant.

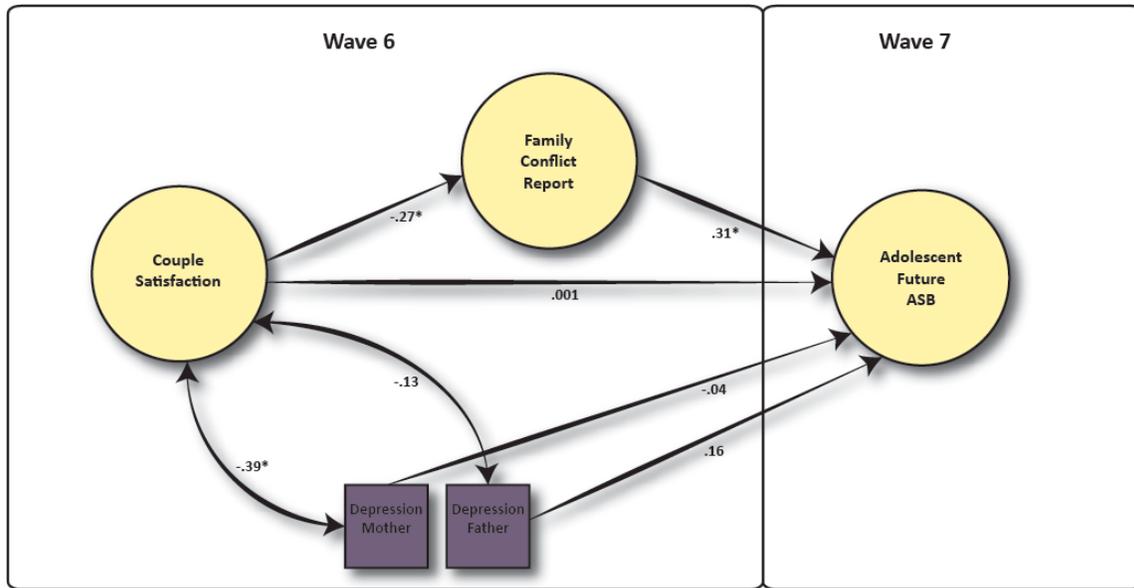


FIGURE 5. Female participants: final structural equation model testing the mediating role of negative family conflict (self-report) on couple satisfaction and adolescents' future problem behavior ($N = 114$). Agree Index = Intraclass correlation coefficient of interparental agreement; Depr Mother = Depression Mother; Depr Father = Depression Father; Adols' Future ASB= Adolescents' Future Antisocial Behavior. $*p < .05$. $**p < .01$.

The control variables included in the model were maternal depression and paternal depression. For males, the covarying relationship between maternal depression and couple satisfaction was negative, medium ($\beta = -.37$), and significant ($p < .05$), and the direct relationship between maternal depression and adolescent future ASB was positive, small ($\beta = .06$), and not significant ($p > .05$). The covarying relationship between paternal depression and couple satisfaction was negative, medium ($\beta = -.41$), and significant ($p < .05$), and the direct relationship between paternal depression and adolescent future ASB was positive, small ($\beta = .03$), and not significant ($p > .05$). While maternal and paternal depression are significantly correlated with couple satisfaction, the

results do not suggest that there is a significant relationship between parent depression and adolescent future ASB. Furthermore, these results do not support a mediation model, but there is support for a significant negative relationship between couple satisfaction and adolescent future ASB. The findings also demonstrate a significant positive relationship between negative family conflict and adolescent future ASB for males in the study.

Female Participants

For females, the direct relationship between couple satisfaction and the mediating variable family conflict ($X \rightarrow M$ path) at Time 1 was negative, small ($\beta = -.27$), and significant ($p < .05$). Additionally, the direct relationship between the mediating variable, family conflict, at Time 1 and the outcome variable, adolescents' future ASB, at Time 2 ($M \rightarrow Y$), was positive, small ($\beta = .31$), and significant ($p < .05$). The indirect relationship between couple satisfaction on family conflict on adolescent future ASB ($X \rightarrow M \rightarrow Y$) was calculated using the Aroian version of the Sobel test (MacKinnon, Warsi, & Dwyer, 1995) and found to be negative, small ($\beta = -.09$), and not significant ($p > .05$). Last, for females, the direct relationship between couple satisfaction and adolescent future ASB was negative, very small ($\beta = .001$), and not significant ($p > .05$), while holding the $M \rightarrow Y$ path constant. These findings imply that negative family conflict cannot be established as a mediator variable because the indirect effect was not significant. However, negative family conflict was found to predict future ASB for females in the study.

For females, the covarying relationship between maternal depression and couple satisfaction was negative, medium ($\beta = -.39$), and significant ($p < .05$), and the direct relationship between maternal depression and adolescent future ASB was positive, small

($\beta = -.04$), and not significant ($p > .05$). The covarying relationship between paternal depression and couple satisfaction was negative, small ($\beta = -.13$), and not significant ($p > .05$), and the direct relationship between paternal depression and adolescent future ASB was positive, small ($\beta = .16$), and not significant ($p > .05$). The results showed that although paternal depression was not significantly related to couple satisfaction or adolescent future ASB for females in the study, there was a significant relationship between maternal depression and couple satisfaction for females. Furthermore, the findings do not support a mediation model because the indirect effect was not significant. However, the findings highlight a significant negative relationship between couple satisfaction and negative family conflict as well as between negative family conflict and adolescent future ASB for females in the study.

CHAPTER IV

DISCUSSION

In the present study I examined the influence of couple satisfaction and negative family conflict on the development of adolescents' future antisocial behavior (ASB). More specifically, I tested negative family conflict as a mediating factor in the relationship between parents' couple satisfaction, reported during their child's adolescent years, and future ASB reported in early adulthood.

To revisit my hypotheses, I predicted that negative family conflict at Time 1 would mediate the relationship between couple satisfaction at Time 1 and adolescent future ASB at Time 2, and I tested negative family conflict using two methods of data collection, direct observation and self-report. I also predicted that higher levels of couple satisfaction at Time 1 would predict lower levels of adolescents' future ASB at Time 2 (Hair et al., 2009). All of these hypotheses were supported by the findings.

Overall, I found that self-report of negative family conflict completely mediated the relationship between couple satisfaction and adolescents' future ASB, showing that couple satisfaction influences child outcomes through its effect on the level of conflict in the family system. Moreover, higher couple satisfaction was predictive of lower negative family conflict and lower adolescent future ASB. This final statistical model fit the data well and full mediation was determined by establishing that the following key relationships were significant. First, the predictor variable was significantly related to the mediator variable, with lower levels of couple satisfaction predicting higher levels of negative family conflict. Second, the mediator variable was significantly related to the

outcome variable, with higher levels of negative family conflict associated with higher adolescent future ASB. Third, the indirect relationship between couple satisfaction, negative family conflict, and adolescents' future ASB was significant. Finally, when negative family conflict was included in the model, the direct relationship between couple satisfaction and adolescent future ASB was not significant. These findings support a full mediation model (see Chapter III of this manuscript for mediation model criteria). Parent depression was also examined in the statistical analysis because of evidence showing that it is related to marital dissatisfaction (Whisman & Uebelacker, 2009) and the development of adolescent antisocial behaviors (Goodman & Gotlib, 1999; Gross, Shaw, Moilanen, Dishion, et al., 2008; Kane & Garber, 2004). Parent depression findings for this study will be discussed in more detail later in this section.

Findings of this study are consistent with past research and also add an additional dimension to understanding these relationships. For example, marital researchers already agree that couple distress affects child outcomes (Cui, Conger & Lorenz, 2005; Grych & Fincham, 1990; Hair et al., 2009). Now, the more interesting question is: By what process does couple distress affect child outcomes (Schulz et al., 2010)? The current findings provide an answer to this process-focused research question by demonstrating that negative family conflict is a key underlying mechanism mediating the link between couple satisfaction and child outcomes as measured by adolescents' future ASB. By focusing on couple satisfaction, rather than couple conflict, I utilized a positive psychology approach to examine whether couple satisfaction was related to negative conflict between family members, such as anger, hitting, and arguing. The present

findings revealed that couple satisfaction was indeed a protective factor with higher levels of couple satisfaction predicting lower levels of negative family conflict.

This study also provided further evidence for the spillover hypothesis showing that couple dissatisfaction predicted higher levels of negative family conflict. Jouriles, Murphy, and O’Leary (1987) reported a similar finding demonstrating that greater amounts of negative affect in the couple relationship were associated with higher levels of negative family conflict, as measured by parental expressions of anger and hostility. This study goes beyond the focus of the study by Jouriles et al. (1987) to examine how the spillover of dissatisfaction in the couple relationship affects child outcomes. The present findings showed that lower levels of couple satisfaction between parents predicted higher negative family conflict and poorer outcomes for the child, as measured by higher levels of adolescent future ASB. But, why does negative family conflict lead to adolescent future ASB?

Kerig and Swanson (2010) found evidence for some of the underlying mechanisms influencing the relationship between negative family conflict and adolescent future ASB in a study examining 680 emerging adults who reported on their parents’ relationship, parent-child boundaries, and their own problem behaviors. The authors found that maternal intrusiveness, maternal hostile spousification, and paternal hostile spousification mediated the relationship between interparental conflict and externalizing behaviors, suggesting that negative family conflict leads to adolescent future ASB through the dissolution of healthy parent-child boundaries.

Clear boundaries that are stable enough to provide continuity but that can be flexible in response to changes in the environment are important for healthy child

development (Minuchin, 1974; Nichols & Schwartz, 2007). Boundary dissolution, on the other hand, can prevent children from developing critical competencies, such as control and coping. For instance, Minuchin, Rosman, and Baker, (1978) found that when parents in conflict tried to diffuse the conflict by drawing their children into the discussion or by changing the subject from their own relationship to focus on the child, the parents' level of free fatty acid cells (a measure of stress response) dropped while the child's level continued to rise. This research provides a possible explanation for how negative family conflict leads to poorer child outcomes, suggesting that negative family conflict causes boundary dissolution, which leads to heightened levels of distress for the child. Other research shows that the impact of interparental conflict on child maladjustment depends on individual child factors; for instance, a child's interpretation of the conflict as external to him or her can have a buffering effect against distress and other negative outcomes (Grych & Fincham, 1990).

In a previous study focused on negative conflict in the parent-child dyad, shared environment was identified as a mediating factor for adolescent ASB (Klahr et al., 2011). Other studies have shown that parenting—specifically, decreased positive parenting—is an important factor in the link between couple distress and child maladjustment (Katz & Gottman, 1996). One factor that can lead to decreased positive parenting is parent depression, which has been shown to have a significant bidirectional relationship with child problem behavior (Gross, Shaw, Moilanen, Dishion, et al., 2008). For instance, Gross and colleagues (2008) found that higher levels of child noncompliance at age 2 were associated with elevated levels of parent depression, especially for mothers.

It is important to note that research shows that not all forms of conflict have negative outcomes for child development. For instance, it is possible that children's exposure to low levels of constructive conflict between parents can prepare children to deal constructively with conflict themselves (Grych & Fincham, 2001). Katz, Kramer, and Gottman (1992) also note that exposure to low levels of conflict, especial conflict that is resolved, can teach children that some degree of interpersonal conflict is normative. In a qualitative study examining conflict in 17 stepfamilies, Coleman, Fine, Ganong, Downs, and Pauk (1998) found that conflict that was successfully resolved led to increased closeness between family members and enhanced overall family functioning, which implies that conflict may lead to growth and healthy change.

A unique contribution of this study is that I examined multiple family subsystems, including the couple dyad, the parent-child dyad, and the individual child, and found that couple satisfaction (e.g., the couple dyad) influenced adolescents' future ASB (e.g., the individual child) by affecting the amount of negative family conflict in the family system (e.g., the parent-child dyad and the parent-parent dyad). Families with higher couple satisfaction reported less negative conflict and less adolescent future ASB. Families with lower couple satisfaction reported more negative conflict and more future ASB. In addition to these main findings, I also attended to the unique aspects of depression and sex differences; but first, I discuss more specific findings related to measurement and to building the final model in this study.

Model Testing

In order to arrive at the concluding model a series of steps were required, which merit some clarification and discussion here. The findings of the preliminary factor analyses provided evidence that both negative family conflict direct observation and negative family conflict self-report by mother, father, and child are reliable and valid measures of negative family conflict in this study. A confirmatory factor analysis was run, followed by the initial full structural equation model, and each of these analyses examined both methods of data collection in the same model and found that they were strongly correlated ($r = .45$, and $r = .42$, respectively), contrary to previous findings (Patterson et al., 1992). Although the two methods of data collection were significantly correlated with each other, the results of the initial structural equation model showed unacceptable fit to the data with both included because the direct observation of negative family conflict method of measurement showed that negative family conflict was not predictive of adolescents' future outcomes.

One possible explanation for this finding is related to the narrow focus of observational data on a snapshot of the overall behavior (Klahr et al., 2011). In the present study, the "snapshot" of family behavior was captured using coder observations of families completing a series of tasks, lasting 5 to 8 minutes each. Coders rated their impressions of interactions between family member dyads, which provided an important but limited snapshot of family interactions. Another possible reason why the direct observation measure of negative family conflict was not significantly predictive of adolescents' future ASB is that the observational data may have measured subtler signs

of conflict compared to the self-report of negative family conflict measure, which assessed more harsh types of conflict. Therefore, perhaps subtle types of negative family conflict are not predictive of adolescents' future antisocial behavior. In addition, the observational data is much more subject to families presenting their behaviors in a more socially desirable direction while being observed than self-report (Leary & Kowalski, 1990), which may also result in lower scores of negative family conflict.

In the present study I found that self-report data was the best predictor of adolescents' future outcomes, and the construct validity of the self-report data was enhanced through multi-modal data collection and triangulation of information reported by mothers, fathers, and adolescent participants. The adolescent participants were old enough to report on their own behavior; however, if the study had focused on younger children instead, then the validity of the self-report data may have been compromised by the child's early stage of development. For example, child development research demonstrates that at age 7 or 8 children only begin to realize that pre-existing beliefs and biases can influence how people interpret the same information differently (Chandler & Lalonde, 1996). And, even though younger children can recognize covert signs of nonverbal anger between their parents, identifying and labeling the behaviors proves more difficult (Ablow, 2005; Cummings, Ballard, El-Sheikh, & Lake, 1991). Therefore the present study was able to measure the perspective of the adolescent, but the ability for research to measure the perspective of younger children who are not able to accurately self-report is more challenging. Research including younger children may benefit from using direct observation measures, suggesting the need for continued research examining the predictive validity of direct observation measures of family conflict on future ASB.

I also found evidence in the preliminary analyses that interparental agreement about relationship satisfaction is an important contributing factor to the larger latent construct of couple satisfaction. Interparental agreement, which was measured at the item level, accounted for 70% of the variance explained by couple satisfaction followed by mother- and father-report of dyadic satisfaction, accounting for 68% and 60%, respectively. Interparental agreement is related to higher family functioning and positive child outcomes (Christensen et al., 1992; Lau & Pun, 1999). For instance, Vuchinich, Vuchinich, and Wood (1993) showed that interparental agreement about parenting issues was predictive of effective family problem solving skills, and the authors suggested that effective problem solving is a mechanism by which the benefits of agreement between parents are transmitted to the child. This research suggests that youth benefit from high interparental agreement. Specifically, adolescents in the present study benefitted from higher levels of interparental agreement because it was associated with higher levels of couple satisfaction, which was thereby related to lower levels of negative family conflict and less future ASB.

Depression Findings

As previously mentioned, parent depression is associated with couple satisfaction and adolescents' future ASB. In the present study, I hypothesized that parent depression and couple satisfaction at Time 1 would have a significant negative correlation (Whisman, & Uebelacker, 2009). This hypothesis was supported by the findings. Furthermore, I predicted that both mother and father depression would have a significant

negative association with adolescent future ASB at Time 2, and I found mixed support for this hypothesis.

In support of my hypotheses, parent depression was found to be another significant factor related to couple satisfaction and adolescents' future ASB. Not surprisingly, mother and father depression were both significantly associated with lower levels of couple satisfaction. This finding is consistent with much past research (e.g., see Davila, Karney, Hall, & Bradbury, 2003; Whisman, & Uebelacker, 2009). The bidirectional relationship between depression and couple satisfaction was slightly stronger for mothers than for fathers. Fincham, Beach, Harold, and Osborne (1997) also found a slightly stronger relationship between depression and couple satisfaction for mothers when they examined simple correlations as part of a larger study. On the other hand, there is stronger evidence from several longitudinal research studies examining sex differences in the relationship between parent depression and couple satisfaction that do not support significant differences between males and females (Davila et al, 2003; Whisman & Uebelacker, 2009).

As predicted, father depression was significantly associated with adolescents' future ASB. This finding corresponds with the findings in Malmberg and Flouri's (2011) study, where the authors found that father depression when children were around 9 months old predicted externalizing behaviors for children at age 3. The authors also found that the association between father depression and child externalizing behaviors was completely mediated by the quality of the father-child relationship. In this study, father depression was significantly related to adolescents' future ASB, but mother depression was not significantly related to adolescents' future ASB. Thomas and

Forehand (1991) also noted a similar finding with paternal depression as a better predictor than maternal depression of child outcomes. However, this finding is surprising given a considerable amount of evidence that shows that maternal depression adversely affects child outcomes (Goodman & Gotlieb, 1999; Gross, Shaw, Moilanen, Dishion, et al., 2008; Natsuaki et al., 2010). Given past research showing that maternal depression is a stronger predictor of offspring depression than paternal depression (Foley, Pickles, Simonoff, et al., 2001), perhaps maternal depression in this study would have been a better predictor of adolescents' future emotional distress rather than future ASB, suggesting an internalizing versus externalizing response difference. Overall, the findings of the present study showed that paternal depression, not maternal depression, predicted adolescents' future ASB.

Sex Differences and Predictors of Adolescents' Future ASB

I found support for my prediction that the relationships between study variables would be different for males compared to females (Moffit et al., 2001; Silverthorn & Frick, 1999). Although the overall model fit slightly better for females than males, the present findings showed that the relationship between couple satisfaction and adolescents' future ASB was stronger for males, with a significant negative association between couple satisfaction and male future ASB. This relationship between couple satisfaction and female ASB was not significant. Family conflict was found to predict future ASB for both males and females, and this relationship was slightly stronger for males. However, couple satisfaction was not predictive of family conflict for male participants and this relationship was significant for females with higher levels of

satisfaction associated with lower levels of negative conflict. I also found that the mediation model did not hold for males or females when analyzed separately, and this is likely due a reduction in sample size to nearly half of the original sample needed to analyze males and females separately (Kline, 2010). Another possible reason may be due to general limitations of ASB measurements, which do not include an internal mechanism for examining antisocial behavior. For instance, alcohol use is an externalizing behavior that has internalizing symptoms as well, but the internalizing symptoms are far more difficult to capture with the measures available.

One possible explanation for the finding that couple satisfaction predicted male future ASB but not female future ASB is that males may be more sensitive to marital distress than females (Cummings, Davies, & Simpson, 1994). Cummings et al. (1994) found that the impact of the relationship between marital distress and problem behavior for boys depended on their level of perceived threat and coping efficacy. These are examples of the kinds of individual child factors that can buffer or increase child maladjustment in response to couple conflict; for instance, greater coping efficacy was associated with fewer problem behaviors. An alternative explanation for the finding that couple dissatisfaction predicted negative outcomes for males but not for females may be due to my focus in this study on antisocial behavior rather than emotional distress. Past research shows that males have a greater tendency to demonstrate ASB than females (Moffitt et al., 2001; Zahn-Waxler, 1993), which is consistent with the present finding that males exhibited ASB in response to couples distress but females did not. However, this does not mean that females in the study were not affected by couple distress. Instead,

females could have been experiencing emotional distress in response to couple dissatisfaction but emotional distress was not directly measured in this study.

Although couple satisfaction was not predictive of future female ASB, other family factors were predictive of female ASB, and females in the study exhibited similar rates of ASB as males. This is surprising given past findings that males are more likely to exhibit ASB (Moffitt et al., 2001). Research supports sex differences in the trajectory of ASB, with males demonstrating higher rates of ASB than females at every age except for age 15 when females have a peripubertal peak in the prevalence and incidence of ASB (Silverthorn & Frick, 1999; Moffitt et al., 2001). The one exception to males demonstrating higher ASB at every age is in regard to alcohol and other drug (AOD) related offenses, with males and females engaging in AOD-related offenses at similar rates at every age (Moffitt et al., 2001). This may provide further explanation for why females in the present study were found to demonstrate similar rates of ASB as males, in contrast to previous research, because the present study included questions about alcohol and drug use as part of the measure of ASB. Another possible reason for similar rates of ASB across males and females in the study is the high comorbidity between anxiety, mood, and substance disorders among young adults (Newman, Moffitt, Caspi, & Magdol, 1996).

I also found sex differences for the relationship between couple satisfaction and family conflict. For male adolescents, couple satisfaction was not predictive of negative family conflict but couple satisfaction was a significant predictor of male future ASB, and for female adolescents couple satisfaction was predictive of negative family conflict with higher couple satisfaction predicting lower negative family conflict. The finding that

female participants in the present study did not display ASB in response to couple dissatisfaction suggests that perhaps the level of intensity of the conflict is an important factor influencing how females respond to the conflict (Grych, 1998), with females in this study showing increased ASB in response to more overt, higher intensity types of conflict (e.g., negative family conflict) compared to more subtle types of conflict (e.g. couple dissatisfaction). Male future ASB was also directly predicted by high intensity levels of family conflict, which demonstrates the insidious impact of negative family conflict on child development and future outcomes.

Sex Differences and Parent Depression

For male participants, maternal and paternal depression was significantly related to their parents' level of couple satisfaction. Conversely, for female participants, only maternal depression influenced ratings of parent couple satisfaction. A significant relationship between parent report of depression and adolescent future ASB was not found when males and females were examined separately. Similarly, Gryczkowski, Jordan, and Mercer (2010) did not find sex differences for the relationship between parent depression and child externalizing behaviors; however, they did find that higher levels of parent depression for both mothers and fathers were associated with higher levels of child externalizing behaviors. One possible explanation for why the relationship between parent depression and adolescent future ASB was not significant across sex in the present study is because this study did not measure parenting practices. More specifically, research suggests that harsh parenting, which is characterized by negative emotional expressions and coercive interactions, is one of the operating mechanisms in

the relationship between parent depression and future ASB, and harsh parenting was not examined in the present study (Erath, El-Sheikh, Hinnant, & Cummings, 2011; Patterson et al., 1992).

Another potential reason why parent depression and adolescents' future ASB was not significant across sex is because of the reduced sample size in the multi-group analysis. This is a plausible explanation because the analysis of the full sample demonstrated a significant relationship between father report of depression and adolescents' future ASB, but this relationship was not significant when males and females were examined separately. In the multi-group analysis, the male only model included 127 male adolescents and the female only model included 114 female adolescents, and these smaller sample sizes limit the statistical power to detect a significant relationship (Kline, 2010).

Implications

The present findings support family systems theory and the spillover hypothesis theory. Explicitly, the spillover hypothesis theory posits that the functioning of the couple dyad spills over to impact the functioning of the parent-child dyad and, thus, causes negative outcomes for the child. In this study, the spillover hypothesis can be used to understand how couple dissatisfaction spills over and disrupts the larger family system through elevated levels of negative family conflict and greater likelihood of adolescent future ASB. Furthermore, the present findings showed that males and females displayed similar rates of ASB, contrary to previous findings suggesting that males are more susceptible to developing antisocial behavior as a result of marital conflict (Grych &

Fincham, 2001). These findings imply that males and females may have a more similar response to marital conflict than previously thought; however, in order to more fully understand sex differences in response to marital conflict, researchers need to examine externalizing (e.g. ASB) and internalizing (e.g. adolescent depression) outcomes within the same study.

The implications of the present findings for clinical practice suggest that interventions that focus on enhancing couple satisfaction and reducing negative family conflict can promote better child outcomes. For some couples, it may not be a realistic goal to try to enhance couple satisfaction; however, these couples may still benefit from interventions that aim to prevent couple dissatisfaction from spilling over and negatively affecting parent-child relationships (Schulz et al., 2010).

Another area to attend to in practice is interparental agreement because it has implications not only for the quality of the couple's relationship but also for clinical assessment. Collecting reports from multiple informants on a child's problem behavior is necessary for assessment because children's behavior varies across relationships, settings, and time (De Los Reyes, Henry, Tolan, & Wakschlag, 2009). However, utilizing these multiple reports is challenging because there are often discrepancies across different informants' reports (Achenbach et al., 1987; De los Reyes & Kazdin, 2005). Parent discrepancies are particularly problematic because they can derail a clear assessment of the family's presenting problem and goals for treatment (De Los Reyes & Kazdin, 2005; Duhig, Renk, Epstein, & Phares, 2000).

The effectiveness of clinical intervention may also benefit from a greater focus on interparental agreement. For instance, we may discover through further research that

current interventions for child problem behaviors, such as increasing positive parenting (Arteaga, et al., 2010) and parental monitoring (Ary et al., 1999), can benefit from a greater focus on increasing agreement between caregivers about their level of relationship satisfaction as well as agreement about other topics related to parenting practices and perception of child behavior.

Strengths of the Study

Design strengths of the current study include the longitudinal nature of the data, from adolescents at a mean age of 16-17 and at a mean age of 17-18, the use of multiple informants in data collection (adolescents, mothers, and fathers), the use of multiple, reliable measures, and the use of multiple methods of data collection (observational and self-report). In particular, this study used the DAS, one of the most widely used measures of relationship satisfaction, and a measure demonstrated to have good reliability and validity (Spanier, 1976). In fact, Graham, Liu, and Jeziorski (2006) conducted a meta-analysis examining reliability of the DAS across studies and reported reliability coefficients similar to those reported by Spanier (1976) in his initial report.

Another strength of this study, in this case relative to other research, is that it included fathers, who are a less well-studied family member than mothers and children. The present findings provide supportive evidence for the strong influence of fathers on child outcomes and the need to include fathers in future family research and intervention efforts.

The findings of the current study also contribute to the growing body of process-focused research that aims to understand the underlying mechanisms mediating the

relationship between couple satisfaction and child outcomes. Another strength of the present study is that it utilized a positive psychology approach by examining couple satisfaction rather than couple conflict, which can provide information about protective factors for child maladjustment in addition to risk factors.

Limitations of the Study

This study included some potential limitations that merit clarification. First, this study relied on self-report data, which is inherently subject to rater bias. Prior research addressing rater bias in reporting ASB found that youth tend to self-report more ASB compared to the amount that their parents report about them (De los Reyes & Kazdin, 2005; van der Ende, Verhulst, & Tiemeier, 2011). This finding was also repeated in the present study, with youth reporting ASB scores ($mean = 43$) that were nearly three times higher than the scores reported by their mothers ($mean = 16$) and fathers ($mean = 17$). These discrepancies across informants impact inter-rater reliability.

Although agreement between different raters increases the validity of self-report data (Morsbach & Prinz, 2006), disagreement across different informants' reports are extremely common (Achenbach et al., 1987; De los Reyes & Kazdin, 2005). This is especially true for informants with more discrepant roles, such as a parent and a teacher, in which case parents consistently report elevated levels of child problem behaviors compared to teachers (van der Ende et al., 2011). Reports between two parents in a family about child behavior, tends to be less discrepant than reports from less similar types of informants (Achenbach et al., 1987), which was found to be true for the present study with parents reporting more similarly to each other than to their child.

Informant discrepancies may occur for a variety of reasons related to the informant's perception of reality, the accuracy of information that the informant provides, and the ability for the construct validity of the measure. For instance, informant discrepancies related to the parent informant's perception of reality might occur when the parent's perception is altered by a mental health problem (De los Reyes & Kazdin, 2005). The informant's perception of reality and the accuracy of the report could also be influenced by a reverse halo effect bias—where the parent's dissatisfaction in his or her couple relationship contributes to a more negative evaluation of the child's behavior (Hair et al., 2009). Inaccurate reports are also influenced by the tendency for parents to edit their answers on more sensitive topics to appear more socially desirable (Morsbach & Prinz, 2006). Another possible factor contributing to informant discrepancies in this study is that parents simply do not know about their children's ASB due to low parental monitoring and reduced parent-child communication, revealed more fully in this study because the adolescent youth were moving into the life stage of emerging adulthood and, thus, seeking greater autonomy. One way that emerging adults may attempt a form of pseudoautonomy is by lying to their parents to avoid conflict or to preserve what they believe is their right to make decisions independently from their parents (Jensen, Arnett, Feldman, & Cauffman, 2004).

Second, the study used the Dyadic Satisfaction subscale alone as a measure of each partner's report of couple satisfaction, rather than using the full DAS measure. The decision was made because the ten questions comprising the Dyadic Satisfaction subscale more precisely captured the construct of interest; whereas, the full measure focused more globally on relationship quality and adjustment. Although using the subscale alone may

have increased construct validity, it is also a potential limitation of this study because it may reduce the reliability of the measure, which was originally created as a global summary measure of relationship quality (Spanier, 1988). Spanier (1976) stated that using one of the subscales alone is permissible for the purposes of research, but in a latter article he added that this would be risky to do for the purposes of clinical diagnosis or interpretation (1988). Other limitations of the DAS are that the reliability of the Affective Expression subscale is not stable, and this limitation is relevant to the present study's measure of interparental agreement about couple satisfaction, which was an intraclass correlation coefficient based on the full DAS measure.

Third, this study did not include an examination of depression of adolescent and young adult participants, which would have strengthened the study considerably if included. More research is needed to understand how family factors impact adolescents' future emotional distress as well as ASB (Dishion & Stormshak, 2007). Moreover, a model that includes young adult depression may help to explain sex differences, as such a model may fit better for females who tend to be more likely than males to exhibit internalizing problems through emotional distress rather than externalizing problems through ASB (Moffitt et al., 2001; Zahn-Waxler, 1993). Without a measure of adolescent depression, the study could be biased toward assessing male vulnerability to couple dissatisfaction while underestimating the level of distress experienced by females in the study (Grych & Fincham, 2001).

Fourth, this study primarily focused on negative conflict and did not measure other types of conflict that may prove to be less harmful, such as constructive or covert conflict (Cummings & Merrilees, 2010). One particular question that emerged from this

study is whether couples with higher levels of satisfaction are more likely to engage in constructive conflict tactics? Although constructive conflict may be less harmful for the couple relationship as well as a potential catalyst for change and improvement, Cummings Goeke-Morey, and Papp (2004) suggests that children may still have negative reactions to witnessing constructive conflict between their parents, especially if related to behavioral dysregulation. To gain a better understanding of the impact of different types of conflict on couple satisfaction and youth development, more longitudinal studies of constructive conflict are warranted.

Last, the size and diversity of the sample presented a limitation. Although the original sample was ethnically diverse, the present study only included two-parent families, which in Wave 6 of the Pal-1 study were mostly families who identified as European American. In addition, most of the couples in this study were married and identified as heterosexual; therefore, the generalizability of the present findings to sexual or ethnic minority couples is limited. Another limitation related to the sample was that it was not large enough to allow for male and female participants to be analyzed separately without reducing the original sample size considerably. These smaller sample sizes reduced the power to detect significant findings where they may have been present, resulting in possible Type II error.

Recommendations for Future Research

Through its strengths and limitations, several recommendations for future research emerge from this study. First, in future research, data should be collected regarding the way that negative conflict ends between parents. This would allow a more

complex and nuanced examination to see whether adolescents' future outcomes are better when interparental conflict ends in compromise versus unresolved conflict or boundary dissolution, such as drawing the child into the interparental conflict (Goeke-Morey, Cummings, Papp, 2007). Although the child may still experience a stress response if exposed to any form of interparental conflict (Goeke-Morey, Cummings, Harold, & Shelton, 2003), the ability for parents to achieve compromise without drawing the child into the dispute would signify the presence of healthy boundaries as well as good modeling for the child. Next, substance use should continue to be a focus of future research, especially given that it is the one ASB that affects males and females at similar rates and can lead to life-course persistent ASB for youth whose ASB may have otherwise desisted in late-adolescence. Third, more research examining how the couple relationship influences child development and applying research findings to clinical practice with couples and families is needed. Part of this may include measuring and comparing the effects of different types of conflict on youth development as well.

Summary

The results of the present study show that higher levels of couple satisfaction are predictive of lower levels of negative family conflict and lower levels of adolescent future ASB. In addition, negative family conflict mediates the relationship between couple satisfaction and adolescents' future ASB, such that couple satisfaction influences child outcomes through its effect on the level of conflict in the family system. These findings differed across biological sex, with females displaying less ASB compared to males in response to more subtle forms of distress (e.g., relationship dissatisfaction), but

higher levels of ASB than males in response to higher levels of negative conflict (e.g., hitting and arguing). Findings also suggested that males are more sensitive to subtler signs of relationship distress than females.

Results also showed that negative family conflict self-report data was more predictive of adolescents' future ASB than negative family conflict direct observation data, and that adolescents' self-reports of ASB were nearly three times higher than their parents' reports. The findings related to parent depression demonstrated that parent depression was significantly related to lower couple satisfaction, and this relationship was slightly stronger for mothers. Moreover, father depression was a significant predictor of adolescents' future ASB, which suggests that increasing parent well-being may be an effective point of intervention for increasing couple satisfaction and preventing adolescents' future ASB.

Conclusion

Overall, this investigation supports a body of research that emphasizes the important role that healthy couple relationships play in promoting positive child development. Moreover, the present findings contribute to a greater understanding of the complex processes by which a couple's level of satisfaction in their partnership influences the future outcomes of their children. The findings also demonstrate the pivotal role of negative family conflict to either increase or buffer the effect of couple dissatisfaction on the development of adolescents' future antisocial behavior.

APPENDIX

MEASURES

Dyadic Adjustment Scale

rev. 11/6/02 TELEFORM:PALDYADC52 PAL 2: Dyadic Adjustment Scale DYADC (52) Page 1

Family: U X **Resp:** Father Mother 2nd Male Parent 2nd Female Parent

Date: / /

Int #:

Wave: 5 6 7

Mark choices like this:

INSTRUCTIONS: Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	Always agree	Almost always agree	Sometimes agree	Hardly ever agree	Never agree
1. Handling family matters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Matters of recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Religious matters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Demonstrations of affection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Sex relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Conventionality (correct or proper behavior)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Philosophy of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Ways of dealing with parents or in-laws	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Aims, goals, and things believed important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Amount of time spent together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Making major decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Household tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Leisure time interests and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Career decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	All the time	Most of the time	Sometimes	Hardly ever	Never
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. How often do you or your mate leave the house after a fight?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Family: U X Resp: Father Mother 2nd Male Parent 2nd Female Parent

	All the time	Most of the time	Sometimes	Hardly ever	Never
18. In general, how often do you think that things between you and your partner are going well?	<input type="radio"/>				
19. Do you confide in your partner?	<input type="radio"/>				
20. Do you ever regret that you married your partner (or lived together)?	<input type="radio"/>				
21. How often do you and your partner quarrel?	<input type="radio"/>				
22. How often do you and your partner "get on each other's nerves?"	<input type="radio"/>				

How often:	Every day	Almost every day	Sometimes	Hardly ever	Never
23. Do you kiss your partner?	<input type="radio"/>				
24. Do you and your partner engage in outside interests together?	<input type="radio"/>				

How often do you:	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
25. Have an interesting chat?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Laugh together?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Calmly discuss something?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Work together on a project?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Indicate if the items below were problems in your relationship during the past **FEW WEEKS** by filling in a circle for **YES** or **NO**.

- 29. Being too tired for sex No Yes
- 30. Not showing love No Yes
- 31. Please fill in one circle that best describes the degree of happiness in your relationship.
 - Very unhappy Somewhat unhappy Fairly happy Mostly happy Very happy
- 32. Which one of the following statements best describes how you feel about the future of your relationship (please fill in the circle for the most appropriate statement)?
 - I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
 - I want very much for my relationship to succeed, and will do all I can to see that it does.
 - I want very much for my relationship to succeed, and will do my fair share to see that it does.
 - It would be nice if my relationship succeeded, but I can't do much more than I'm doing now to help it succeed.
 - My relationship can never succeed, and there is no more that I can do to keep the relationship going.



Child and Family Center Questionnaire – Parent

How many times in the past week did the following things happen between you and your teen?	<u>Never</u>	<u>Once</u>	<u>2-3 times</u>	<u>4-5 times</u>	<u>6-7 times</u>	<u>More than 7 times</u>
36. We got angry at each other	<input type="radio"/>					
37. We argued during dinner	<input type="radio"/>					
38. We had a big argument about a little thing	<input type="radio"/>					
39. One of us got so mad we hit the other person	<input type="radio"/>					
40. My teen got his or her way by getting angry	<input type="radio"/>					

Child and Family Center Questionnaire – Child

rev. 10/26/01 TELEFORM:PALCFCQCCC PAL Teen Questionnaire CFCQC (CC) Page 3

Family: U X Resp: Son Daughter Male Peer Female Peer

How many times in the last week did the following things happen between you and at least one of your parents?	<u>Never</u>	<u>Once</u>	<u>2-3 times</u>	<u>4-5 times</u>	<u>6-7 times</u>	<u>More than 7 times</u>
36. We got angry at each other	<input type="radio"/>					
37. We argued during dinner	<input type="radio"/>					
38. We had a big argument about a little thing	<input type="radio"/>					
39. One of us got so mad we hit the other person	<input type="radio"/>					
40. I got my way by getting angry	<input type="radio"/>					

Adult Behavior Checklist

rev. 03/01/04

PAL: Adult Behavior Checklist Ages 18-59 (Achenbach, 2003)

ABCL(5E)

Page 3

Fam ID: <input type="radio"/> U <input checked="" type="radio"/> X 	Resp: <input type="radio"/> Father <input type="radio"/> Mother <input type="radio"/> 2nd Male Parent <input type="radio"/> 2nd Female Parent
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Please print your answers. Be sure to answer all items. * In the instructions below, 'the adult' refers to your child.

IV. Below is a list of items that describe people. As you read each item, please decide whether it has been true of the adult *over the past 6 months*. Then fill in the circle 0, 1, or 2 to describe the adult. Please answer all items as well as you can, even if some do not seem to apply to the adult.

0=Not True (as far as you know)			1=Somewhat or Sometimes True			2=Very True or Often True		
0	1	2	0	1	2	0	1	2
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		1.						30.
		2.						31.
		3.						32.
		4.						33.
		5.						34.
		6.						35.
		7.						36.
		8.						37.
		9.						38.
		10.						39.
		11.						40.
		12.						41.
		13.						42.
		14.						43.
		15.						44.
		16.						45.
		17.						46.
		18.						47.
		19.						48.
		20.						49.
		21.						50.
		22.						51.
		23.						52.
		24.						53.
		25.						54.
		26.						55.
		27.						56.
		28.						a.
		29.						b.
								c.

Please be sure you have answered all items. Then turn the page.

4700



Fam ID: U X Resp: Father Mother 2nd Male Parent 2nd Female Parent

Please print your answers. Be sure to answer all items.

0=Not True (as far as you know)			1=Somewhat or Sometimes True			2=Very True or Often True												
0	1	2	0	1	2	0	1	2										
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Problems with eyes (<i>not</i> if corrected by glasses) (describe): _____	<input type="radio"/>	79. Speech problem (describe): _____							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. Rashes or other skin problems	<input type="radio"/>	80. Stares blankly							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	f. Stomachaches	<input type="radio"/>	81. Very changeable behavior							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	g. Vomiting, throwing up	<input type="radio"/>	82. Steals							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	57. Physically attacks people	<input type="radio"/>	83. Is easily bored							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	58. Picks skin or other parts of his/her body (describe): _____	<input type="radio"/>	84. Strange behavior (describe): _____							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	59. Fails to finish things he/she should do	<input type="radio"/>	85. Strange ideas (describe): _____							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	60. There is very little that he/she enjoys	<input type="radio"/>	86. Stubborn, sullen, or irritable							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	61. Poor work performance	<input type="radio"/>	87. Sudden changes in mood or feelings							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	62. Poorly coordinated or clumsy	<input type="radio"/>	88. Enjoys being with people							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	63. Would rather be with older people than with people of own age	<input type="radio"/>	89. Rushes into things without considering the risks							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	64. Has trouble setting priorities	<input type="radio"/>	90. Drinks too much alcohol or gets drunk							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	65. Refuses to talk	<input type="radio"/>	91. Talks about killing self							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	66. Repeats certain acts over and over; compulsions (describe): _____	<input type="radio"/>	92. Does things that may cause trouble with the law (describe): _____							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	67. Has trouble making or keeping friends	<input type="radio"/>	93. Talks too much							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	68. Screams or yells a lot	<input type="radio"/>	94. Teases a lot							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	69. Secretive, keeps things to self	<input type="radio"/>	95. Temper tantrums or hot temper							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	70. Sees things that aren't there (describe): _____	<input type="radio"/>	96. Passive or lacks initiative							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	71. Self-conscious or easily embarrassed	<input type="radio"/>	97. Threatens to hurt people							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	72. Worries about his/her family	<input type="radio"/>	98. Likes to help others							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	73. Meets responsibilities to his/her family	<input type="radio"/>	99. Dislikes staying in one place for very long							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	74. Showing off or clowning	<input type="radio"/>	100. Has trouble sleeping							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	75. Too shy or timid	<input type="radio"/>	101. Stays away from job even when not sick and not on vacation							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	76. Irresponsible behavior	<input type="radio"/>	102. Underactive, slow moving, or lacks energy							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	77. Sleep more than most other people during day and/or night (describe): _____	<input type="radio"/>	103. Unhappy, sad, or depressed							
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	78. Has trouble making decisions	<input type="radio"/>	104. Is unusually loud							
										<input type="radio"/>	105. Is disorganized							
										<input type="radio"/>	106. Tries to be fair to others							
										<input type="radio"/>	107. Feels he/she can't succeed							
										<input type="radio"/>	108. Tends to lose things							
										<input type="radio"/>	109. Likes to try new things							

Please be sure you have answered all items. Then turn the page.



Fam ID: U X Resp: Father Mother 2nd Male Parent 2nd Female Parent

Please print your answers. Be sure to answer all items.

0=Not True (as far as you know)			1=Somewhat or Sometimes True			2=Very True or Often True				
0	1	2	0	1	2	0	1	2		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	110. Makes good decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	117. Has trouble managing money or credit cards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	111. Withdrawn, doesn't get involved with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	118. Is too impatient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	112. Worries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	119. He/she is not good at details	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	113. Sulks a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	120. Drives too fast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	114. Fails to pay his/her debts or meet other financial responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	121. Tends to be late for appointments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	115. Is restless or fidgety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	122. Has trouble keeping a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	116. Gets upset too easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	123. He/she is a happy person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

124. In the past 6 months, about how many times per day did he/she use tobacco (including smokeless tobacco)? times per day

125. In the past 6 months, on how many days was he/she drunk? days

126. In the past 6 months, on how many days did he/she use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? days

Please be sure you have answered all items.



Adult Self-Report

rev. 03/01/04

PAL: Adult Self Report for Ages 18-59 (Achenbach, 2003)

ASR(5F)

Page 4

= aggressive bx
 = rule-breaking bx
 = intrusive bx

Fam ID: U X Resp: Son Daughter

Please print your answers. Be sure to answer all items.

VIII. Below is a list of items that describe people. For each item, please fill in the circle 0, 1, or 2 to describe yourself over the past 6 months. Please answer all items as well as you can, even if some do not seem to apply to you.

0=Not True			1=Somewhat or Sometimes True			2=Very True or Often		
0	1	2		0	1	2		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1. I am too forgetful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	30. My relations with the opposite sex are poor	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2. I make good use of my opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	31. I am afraid I might think or do something bad	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3. I argue a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	32. I feel that I have to be perfect	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4. I work up to my ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	33. I feel that no one loves me	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5. I blame others for my problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	34. I feel that others are out to get me	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6. I use drugs (other than alcohol and nicotine) for nonmedical purposes (describe): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	35. I feel worthless or inferior	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7. I brag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36. I accidentally get hurt a lot	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8. I have trouble concentrating or paying attention for long	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	37. I get in many fights	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	9. I can't get my mind off certain thoughts (describe): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	38. My relations with neighbors are poor	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	10. I have trouble sitting still	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39. I hang around people who get in trouble	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	11. I am too dependent on others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	40. I hear sounds or voices that other people think aren't there (describe): _____	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	12. I feel lonely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	41. I am impulsive or act without thinking	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13. I feel confused or in a fog	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	42. I would rather be alone than with others	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	14. I cry a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	43. I lie or cheat	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	15. I am pretty honest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	44. I feel overwhelmed by my responsibilities	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	16. I am mean to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	45. I am nervous or tense	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	17. I daydream a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	46. Parts of my body twitch or make nervous movements (describe): _____	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	18. I deliberately try to hurt or kill myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	47. I lack self-confidence	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	19. I try to get a lot of attention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	48. I am not liked by others	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	20. I damage or destroy my things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	49. I can do certain things better than other people	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	21. I damage or destroy things belonging to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	50. I am too fearful or anxious	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	22. I worry about my future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	51. I feel dizzy or lightheaded	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	23. I break rules at work or elsewhere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	52. I feel too guilty	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	24. I don't eat as well as I should	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	53. I have trouble planning for the future	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	25. I don't get along with other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	54. I feel tired without good reason	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	26. I don't feel guilty after doing something I shouldn't	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	55. My moods swing between elation and depression	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	27. I am jealous of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	56. Physical problems <i>without known medical cause</i> :	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	28. I get along badly with my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	a. Aches or pains (<i>not</i> stomach or headaches)	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	29. I am afraid of certain animals, situations, or places (describe): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. Headaches	
				<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Nausea, feel sick	

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Please be sure you have answered all items. Then turn the page.



Fam ID: U X Resp: Son Daughter

Please print your answers. Be sure to answer all items.

0=Not True			1=Somewhat or Sometimes True			2=Very True or Often			
0	1	2	0	1	2	0	1	2	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Problems with eyes (not if corrected by glasses) (describe): _____	<input type="radio"/>	81. My behavior is very changeable				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. Rashes or other skin problems	<input type="radio"/>	82. I steal				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	f. Stomachaches	<input type="radio"/>	83. I am easily bored				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	g. Vomiting, throwing up	<input type="radio"/>	84. I do things that other people think are strange (describe): _____				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	h. Heart pounding or racing	<input type="radio"/>	85. I have thoughts that other people would think are strange (describe): _____				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	i. Numbness or tingling in body parts	<input type="radio"/>	86. I am stubborn, sullen, or irritable				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	57. I physically attack people	<input type="radio"/>	87. My moods or feelings change suddenly				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	58. I pick my skin or other parts of my body (describe): _____	<input type="radio"/>	88. I enjoy being with other people				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	59. I fail to finish things I should do	<input type="radio"/>	89. I rush into things without considering the risks				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	60. There is very little that I enjoy	<input type="radio"/>	90. I drink too much alcohol or get drunk				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	61. My work performance is poor	<input type="radio"/>	91. I think about killing myself				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	62. I am poorly coordinated or clumsy	<input type="radio"/>	92. I do things that may cause me trouble with the law (describe): _____				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	63. I would rather be with older people than with people of my own age	<input type="radio"/>	93. I talk too much				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	64. I have trouble setting priorities	<input type="radio"/>	94. I tease others a lot				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	65. I refuse to talk	<input type="radio"/>	95. I have a hot temper				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	66. I repeat certain acts over and over (describe): _____	<input type="radio"/>	96. I think about sex too much				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	67. I have trouble making or keeping friends	<input type="radio"/>	97. I threaten to hurt people				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	68. I scream or yell a lot	<input type="radio"/>	98. I like to help others				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	69. I am secretive or keep things to myself	<input type="radio"/>	99. I dislike staying in one place for very long				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	70. I see things that other people think aren't there (describe): _____	<input type="radio"/>	100. I have trouble sleeping (describe): _____				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	71. I am self-conscious or easily embarrassed	<input type="radio"/>	101. I stay away from my job even when I'm not sick and not on vacation				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	72. I worry about my family	<input type="radio"/>	102. I don't have much energy				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	73. I meet my responsibilities to my family	<input type="radio"/>	103. I am unhappy, sad, or depressed				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	74. I show off or clown	<input type="radio"/>	104. I am louder than others				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	75. I am too shy or timid	<input type="radio"/>	105. People think I am disorganized				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	76. My behavior is irresponsible	<input type="radio"/>	106. I try to be fair to others				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	77. I sleep more than most other people during day and/or night (describe): _____	<input type="radio"/>	107. I feel that I can't succeed				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	78. I have trouble making decisions	<input type="radio"/>	108. I tend to lose things				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	79. I have a speech problem (describe): _____	<input type="radio"/>	109. I like to try new things				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	80. I stand up for my rights	<input type="radio"/>					

Please be sure you have answered all items. Then turn the page.

47910



Fam ID: U X Resp: Son Daughter

Please print your answers. Be sure to answer all items.

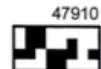
0=Not True			1=Somewhat or Sometimes True			2=Very True or Often			
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	110. I wish I were of the opposite sex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	117. I have trouble managing money or credit cards		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	111. I keep from getting involved with others						
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	112. I worry a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	118. I am too impatient		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	113. I worry about my relations with the opposite sex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	119. I am not good at details		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	114. I fail to pay my debts or meet other financial responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	120. I drive too fast		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	115. I feel restless or fidgety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	121. I tend to be late for appointments		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	116. I get upset too easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	122. I have trouble keeping a job		
				<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	123. I am a happy person		

124. In the past 6 months, about how many times per day did you use tobacco (including smokeless tobacco)? times per day

125. In the past 6 months, on how many days were you drunk? days

126. In the past 6 months, on how many days did you use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? days

Please be sure you have answered all items.



Center for Epidemiologic Studies Depression Scale

rev. 9/25/01 TELEFORM:PALCESDD57 PAL 2: Parent Questionnaire CES-D CESDD (57) Page 1*
 (L.S. Radloff, 1997)

Family: U X [] [] [] Resp: Father Mother 2nd Male Parent 2nd Female Parent

Date: [] [] / [] [] / [2] [0] [0] []

Int #: [] []

Wave: 5 6 7

Mark choices like this:

Do not write above this line

INSTRUCTIONS: Fill in the circle for each statement that best describes how often you felt this way during the past week

During the past week. . .	Rarely or none of the time (0-1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I did not feel like eating; my appetite was poor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I felt that I could not shake off the blues, even with help from my family or friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I felt that I was just as good as other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I had trouble keeping my mind on what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I felt depressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I felt that everything I did was an effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I felt hopeful about the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I thought my life had been a failure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I felt fearful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My sleep was restless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I was happy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I talked less than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I felt lonely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. People were unfriendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I enjoyed life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I had crying spells.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I felt sad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I felt that people disliked me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I could not "get going."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6336



Family Task, Example of Tasks

FAST: merit
version 7.25.01

PHASE TWO: PARENT(S) AND TARGET CHILD

Invite teen to join parents for part 2 & 3

New Encouraging Growth (5 minutes):

To the family:

"For this first activity, we'd like you to talk about a topic that (TC), identified at our last visit. You identified _____ as one area of growth for yourself. I'd like you to talk about how you'd like to improve and then talk with your parents about how they can support and encourage your progress. Here is a card to remind you of what we would like you to discuss. Any questions? I'll be back in five minutes."

(after 5 minutes, knock and enter)

Monitoring and Listening (5 minutes):

To the teen

"(TC), it is common for teens to spend more and more time with friends when adults aren't around. Please talk about a time in the last month when you spent at least an hour with friends without an adult around. Go into as much detail as you'd like starting from the beginning and going to the end, describing where you were, who you were with and what you were doing. Here's a card to remind you what we'd like you to talk about. *(Give reminder card)*

To the parent/s:

(Parent/s), please, first listen to (TC) and then comment or gather any other information you might be interested in.

To everyone:

Is that clear? Do you have any questions? I'll be back in 5 minutes."

(after 5 minutes, knock and enter)

New Task Family Conflict (5 minutes):

To the family

"It's typical for parents and teens to have disagreements, sometimes they get resolved and sometimes they don't. Please talk about a disagreement that you had in the last month and how it was resolved. If it is still an ongoing disagreement talk about how you might resolve it. Here is your card for this discussion. Is that clear? Do you have any questions? I'll be back in 5 minutes."

(after 5 minutes, knock and enter)

"You're all done with this part. Would you like to take a break for 5 minutes or continue on."

If applicable, remind them that the next part includes the rest of the family.

(5 MINUTE BREAK)

Coder Impressions, Example of Items

1. Rate for each pair how often the following occurred. Note: For TC-Mom, rate how much TC did each behavior toward Mom. For Mom-TC, rate how much Mom did each behavior toward TC. Only put 0 is one or both of the family members is not present. If a family member does a behavior toward everyone else in the interaction, record that the behavior occurred to each person present.

SCALE: A lot Sometimes Not at All Not present

9 8 7 6 5 4 3 2 1 0

	TC-Mom	Mom-TC	TC-Dad	Dad-TC	TC-2nd Parent	2nd Parent-TC	Mom-Dad	Dad-Mom	Sibling-Parent	Parent-Sibling	TC-Sibling	Sibling-TC	Sibling-Sibling	
o. Conflict or tension (-)	<input type="radio"/> 9													
	<input type="radio"/> 8													
	<input type="radio"/> 7													
	<input type="radio"/> 6													
	<input type="radio"/> 5													
	<input type="radio"/> 4													
	<input type="radio"/> 3													
	<input type="radio"/> 2													
	<input type="radio"/> 1													
	<input type="radio"/> 0													
p. Anger or irritability (-)	<input type="radio"/> 9													
	<input type="radio"/> 8													
	<input type="radio"/> 7													
	<input type="radio"/> 6													
	<input type="radio"/> 5													
	<input type="radio"/> 4													
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