# Marital Conflict, Maternal and Paternal Parenting, and Child Adjustment: A Test of Mediation and Moderation

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Parenting was examined as a mediator of associations between marital and child adjustment, and parent gender was examined as a moderator of associations among marital, parental, and child functioning in 226 families with a school-age child (146 boys). Parenting fully mediated associations between marital conflict and child internalizing and externalizing behaviors. Parent gender did not moderate associations when data from the full sample or families with girls only were evaluated. Parent gender did moderate associations when families with boys were evaluated, with the association between marital conflict and parenting stronger for fathers than mothers. A trend suggested fathers' parenting may be more strongly related to internalizing behavior and mothers' parenting may be more strongly related to externalizing behavior in boys.

Keywords: family process, marital conflict, maternal and paternal parenting, child internalizing and externalizing behavior, mediation

Marital conflict is among the most universal problems children face (Katz & Gottman, 1997). Almost all children experience some degree of conflict between their parents, and most identify marital conflict as a source of distress (Lewis, Siegel, & Lewis, 1984). Research consistently shows that the consequences of marital conflict on children's psychological and emotional development are complex, with unresolved marital conflict potentially negatively affecting many areas of children's functioning (e.g., Cummings & Davies, 1994). Moreover, the deleterious effects of marital conflict appear to last well beyond the childhood years (Glenn & Kramer, 1985). Therefore, it is imperative that the processes that account for the association between marital conflict and child maladjustment be identified and understood. The current study was conducted in order to improve our understanding of parenting behavior as a mediator of the association between marital conflict and child outcome, simultaneously assessing whether parent gender serves as a moderator of the pathways that link marital conflict to child outcome.

### Review of the Literature

Associations between marital conflict and child adjustment problems are well established (Cummings & Davies,

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1994). Several mechanisms have been proposed to account for relations between marital conflict and child internalizing and externalizing behaviors. Direct effects models suggest that child maladjustment is directly related to exposure to overt marital conflict due to the child's emotional reaction to or cognitive appraisal of the conflict (Cummings & Davies, 2002). Overt marital conflict has been found to be more strongly associated with both internalizing and externalizing behaviors in children than covert conflict (e.g., tension and resentment), although covert conflict also has been found to be associated with child internalizing behavior (Buehler, Krishnakumar, Stone, Anthony, Pemberton, Gerard, & Barber, 1998). While direct effects may partially explain the association, marital conflict likely exerts indirect effects on child adjustment as well, as marital conflict is associated with child problem behavior even when children are not directly exposed to the conflict (Jouriles & Farris, 1992). One family process through which marital conflict may indirectly affect child functioning is parenting behavior (Cummings & Davies, 2002).

Social learning theory (Bandura, 1973) and family systems theory (Cox & Paley, 1997; Minuchin, 1974) provide valuable conceptual frameworks for understanding ways in which maladaptive behaviors may be passed from one family member or subsystem to another. Social learning theory suggests children may learn dysfunctional behavior patterns by observing their parents (Bandura, 1973). Family systems theory suggests that individual family members are part of an interdependent, hierarchically organized system, with specific rules of interaction and boundaries among subsystems (Cox & Paley, 1997). Child behavior problems may serve a homeostatic function in some families by distracting parents from threatening marital problems; thus, child prob-

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lems may be inadvertently maintained by maladaptive parenting behaviors (Minuchin, 1974). Central to these frameworks is the *spillover hypothesis*, which suggests that negativity from the marital domain is carried into the parenting domain and ultimately affects child adjustment (Engfer, 1988). Two meta-analytic reviews reported effect sizes of .46 to .62 linking marital conflict to disrupted parenting (Erel & Burman, 1995; Krishnakumar & Buehler, 2000), with associations strongest for harsh punishment and lack of parental acceptance.

Research suggests specific parenting behaviors are linked with both marital conflict and child problems, and that these parenting behaviors may mediate the link between the two. Overt hostility in the marital relationship has been found to be related to hostility in the parent-child relationship (Krishnakumar & Buehler, 2000), and parental hostility, in the context of marital conflict, has been found to predict internalizing and externalizing behavior longitudinally (Harold & Conger, 1997; Harold, Fincham, Osborne, & Conger, 1997). Marital conflict also is associated with harsh, coercive (Hetherington & Clingempeel, 1992), and rejecting parenting behaviors (Fauber, Forehand, Thomas, & Wierson, 1990). Coercive parenting behaviors are associated with escalating aggressive behavior in families (Patterson, Reid, & Dishion, 1998), and are among the most robust predictors of child externalizing behavior (Lindahl, 1998; Patterson et al., 1998). Parental rejection implies an extremely negative evaluation of the child, to which children may respond with anxiety or depression (Amato & Ochiltree, 1986). Rejected children also have been found to exhibit serious behavior problems (Fauber et al., 1990) in an attempt to gain parental attention (Patterson, 1982). Webster-Stratton and Hammond (1999) demonstrated an indirect relation between negative marital conflict management and conduct problems in young children through associations with unresponsive parenting by both mothers and fathers. Lack of responsivity, or emotional unavailability of parents, may threaten the child's emotional security, potentially resulting in internalizing and externalizing behavior (Davies & Cummings, 1998).

Researchers have begun to evaluate parenting behavior as a mediator of the relation between marital conflict and child outcome (e.g., Buehler & Gerard, 2002). Studies thus far have yielded inconsistent results, with some supporting partial mediation (Buehler & Gerard, 2002), and others not supporting mediation (Peterson & Zill, 1986). Potential reasons for these inconsistent results are the different dimensions of the family system that have been emphasized across studies, and variable attention to issues such as gender (Harold & Conger, 1997). Evidence suggests the relation between marital conflict and parenting may be moderated by parent gender, as mothers and fathers tend to display different maladaptive parenting behaviors in the context of marital conflict (Kerig, Cowan, & Cowan, 1993). The role of parent gender in pathways between marital conflict and child adjustment, however, has yet to be examined in a comprehensive manner. Some studies have found mothers to be more intrusive and critical (e.g., Katz & Gottman, 1996), while fathers appear to be less assertive and more withdrawn (Howes & Markman, 1989) as marital

conflict intensifies. In contrast, other studies find marital dysfunction to be more closely associated with critical, coercive, controlling, or unsupportive parenting in fathers than in mothers (e.g., Coiro & Emery, 1998; Lindahl & Malik, 1999a). Furthermore, children have been found to respond differently to negative behavior from mothers and fathers, though the findings in the literature are mixed. Some studies have found increased conduct or aggression problems in the context of negative maternal parenting (Davis, Hops, Alpert, & Sheeber, 1998), while others find similar results with critical or hostile paternal behavior (Webster-Stratton & Hammond, 1999). Additionally, anxiety and depression may be more likely in response to negative paternal parenting (Amato, 1986).

The present study sought to examine the effects of maternal and paternal parenting as mediators in family subsystem pathways from marital functioning to internalizing and externalizing problems in school-age children. Based on extant literature, which strongly supports a significant direct relation between marital conflict and child outcome (Zimet & Jacob, 2001), we hypothesized that a partial mediation model would best fit the data. In addition, we hypothesized that parent gender would moderate associations, with the relation between marital conflict and disrupted parenting behavior stronger for fathers than for mothers (Coiro & Emery, 1998). Although typically assessed as a purely dyadic construct with self-report measures, parenting behaviors likely often occur in a larger family context. Therefore, parenting behaviors were measured observationally as they occurred during a triadic family interaction.

# Method

#### **Participants**

As part of a larger study of family interaction patterns, data were collected from 226 children and their parents. To recruit an ethnically diverse sample, approximately 4000 flyers in both English and Spanish were distributed to principals in over 40 local public schools, and flyers were sent home to parents of second- through sixth-grade children at the discretion of the principal. The populations served by these schools were ethnically diverse, primarily urban, and ranged from low to moderate income. The flyers briefly described a study of how families communicate about and manage conflict and stress. Mothers with a 7- to 12-year old biological child and the mothers' husband or partner with whom she had been cohabiting for a minimum of three years were eligible to participate, and interested families contacted the laboratory. Written informed consent and written assent was obtained from parents and children, respectively. Families were paid \$60 as compensation for their participation.

Children (65% boys) ranged in age from 7 to 11 years (see Table 1 for means and standard deviations of demographic and study variables). The racial-ethnic composition of the children in the present sample was 137 (61%) with at least one Hispanic (Cuban American and Latin American) parent, 34 (15%) with at least one Black (African American and Caribbean American) parent, and 55 (24%) with two European American parents. The ethnic breakdown of the sample was generally similar to that of the community from which it was drawn, with the exception of Black children (estimated to make up 33% of the Miami-Dade County Public

Table 1
Means (and Standard Deviations) for Demographic and Study Variables

Demographic/latent construct	Total $(N = 226)$	Girls $(n = 80)$	Boys $(n = 146)$
Variables/indicators	M(SD)	M(SD)	M (SD)
Demographic variables			
Father's age (years)	40.32 (7.96)	41.03 (7.96)	39.93 (7.95)
Mother's age (years)	37.56 (6.14)	38.06 (6.18)	37.30 (6.13)
Child age (years)	9.41 (1.42)	9.89 (1.43)	9.15 (1.35)
Monthly family income (\$)	3,598 (2,042)	3,481 (2,223)	3,661 (1,941)
Marital Conflict <sup>a</sup>			, , , ,
OPS (mother)	12.51 (6.92)	12.38 (7.06)	12.58 (6.86)
OPS (father)	12.34 (6.52)	12.76 (6.42)	12.11 (6.59)
CPIC` ´	13.40 (7.55)	12.40 (8.19)	13.95 (7.14)
Maternal Parenting <sup>a</sup>	` '	, ,	` ,
SCIFF Rejection (mother)	1.71 (0.96)	1.79 (0.94)	1.72 (0.98)
SCIFF Coercion (mother)	1.68 (1.11)	1.45 (0.95)	1.81 (1.17)
SCIFF Support (mother)	2.94 (1.18)	2.81 (1.17)	3.01 (1.18)
Paternal Parenting <sup>à</sup>	` '	, ,	` ,
SCIFF Rejection (father)	1.76 (0.97)	1.60 (0.86)	1.84 (1.01)
SCIFF Coercion (father)	1.74 (1.18)	1.36 (0.78)	1.95 (1.31)
SCIFF Support (father)	3.20 (1.16)	2.95 (1.14)	3.34 (1.15)
Child Internalizing Behavior <sup>a</sup>	· · ·	, ,	
CBCL Internalizing (mother)	56.72 (11.39)	53.88 (10.63)	58.28 (11.52)
CBCL Internalizing (father)	56.74 (10.73)	54.68 (10.49)	57.87 (10.73)
SCIFF Sadness	1.76 (1.12)	1.76 (1.13)	1.76 (1.12)
Child Externalizing Behavior <sup>a</sup>	· · ·	, ,	
CBCL Externalizing (mother)	55.20 (11.00)	50.38 (11.06)	57.85 (10.06)
CBCL Externalizing (father)	53.88 (10.63)	50.36 (9.57)	55.82 (10.72)
SCIFF Oppositionality	1.94 (1.23)	1.56 (0.90)	2.14 (1.34)

*Note.* OPS = O'Leary Porter Scale; CPIC = Children's Perceptions of Interparental Conflict; SCIFF = System for Coding Interactions and Family Functioning; Support = Emotional Support code, reverse scored; CBCL = Child Behavior Checklist.

<sup>a</sup> Name of latent construct (indicators listed below and indented).

School population), who were underrepresented (Office of Educational Evaluation and Management Analysis, 1999).

All mothers were the biological parent of the child participating in the study, and 159 mothers (70%) were married to the child's biological father, who also participated in the study. In families in which the mother was no longer married to the child's biological father, either the child's stepfather (N = 56; 25%) or the mother's partner (N = 11; 5%) participated in the study. In the interest of parsimony, male parent figures are referred to as "fathers" in this manuscript. The average marriage length for married couples was 10.63 years (SD = 5.40 years), and the average relationship length for nonmarried couples was 5.7 years (SD = 4.62). A majority of parents had completed high school (92% of mothers, 90% of fathers) and approximately one third had completed college (33% of mothers, 35% of fathers). The median annual family income was \$39,600, which is above the median household income in Miami-Dade County of \$34,155 (Conway Data, Inc., 2000). It is not clear whether families who did not respond to the flyer differed from the participating families in terms of demographic variables.

# Procedure

As part of the larger study, families came to a laboratory setting for a session that lasted approximately 3 hours. Mothers and fathers completed questionnaires about family demographics, marital functioning, and child behavior, as well as measures of family functioning relevant to the larger project. Children completed a questionnaire about interparental conflict with the assistance of a trained research assistant. All questions were read aloud to the child in the child's primary language in order to minimize differences in children's reading abilities. All family members were separated for filling out questionnaires. After completing the questionnaires, families were videotaped together discussing a recent

parent-child conflict situation. Families were instructed to take 12 minutes to describe what happened during the conflict and to try to reach a solution. Videotaped conflict discussions were later coded.

# Measures

Three questionnaires were included in this investigation, one of which (to our knowledge) had never been translated into Spanish (i.e., O'Leary-Porter Scale [OPS]; Porter & O'Leary, 1980). Prior to initiation of this study, the OPS was translated into Spanish, using a back translation method outlined in Foster & Martinez (1995). The final study measures are grouped into four categories: (1) demographic information; (2) marital conflict measures; (3) parenting measures; and (4) child behavior measures.

Demographic information. The Demographics Questionnaire is a 15-item parent-report measure created for the present study, which assesses parent and child age, ethnicity, relationship status, parental level of education, employment status, family income, and family structure.

*Marital conflict.* Marital conflict was assessed from both the parents' and the child's perspectives. To assess the frequency of interparental conflict witnessed by children, both parents completed the OPS (Porter & O'Leary, 1980). This measure includes 10 items rated on a 5-point Likert-type scale ranging from 0 to 4. Higher scores indicate more frequent conflict. Reliability has been established for this scale, both in terms of internal consistency ( $\alpha = .68$ ) and test–retest reliability (r = .96) (Porter & O'Leary, 1980). In the current study, the original ( $\alpha = .85$ ) and Spanish translation ( $\alpha = .76$ ) versions of the OPS were found to be reliable. Scores ranged from 0 to 31 for mothers and from 0 to 35 for fathers. In general, the families reported a mild level of marital conflict (see Table 1).

Children completed the Children's Perceptions of Interparental Conflict (CPIC; Grych, Seid, & Fincham, 1992), a 51-item questionnaire designed to assess children's appraisals of multiple dimensions of marital conflict. Children rate statements about their parents' conflicts on a 3-point Likert-type scale. For the purposes of the present study, only the Conflict Properties scale (19 items) was used. The Conflict Properties scale assesses children's appraisals of the intensity, frequency, and level of resolution of their parents' conflicts. The Conflict Properties subscale has adequate internal consistency ( $\alpha=.89$ ) and test–retest reliability (r=.70) (Grych, Seid, & Fincham, 1992). In the current study, CPIC scores ranged from 0 to 32.

Contextualized maternal and paternal parenting. A multiethnic team of research assistants who were not informed about the study hypotheses rated the videotaped family interactions using the System for Coding Interactions and Family Functioning (SCIFF; Lindahl & Malik, 2001). The SCIFF is a global coding system, and ratings are based on the overall quality of the entire interaction. Bilingual coders rated interactions that took place in Spanish. Coders received a minimum of 15 hours of training and watched each interaction three times or more. Performance of coders was continuously monitored, and feedback was given weekly to minimize coder drift.

Videotaped family interactions were coded based on the degree to which mothers and fathers each displayed rejection, coercion, and emotional support toward their child. The Rejection code was based on the frequency and intensity with which a parent made critical, insulting, blaming statements to the child. The Coercion code was based on the frequency with which a parent made threatening or manipulative statements to the child. The Emotional Support code was based on the parents' ability to recognize and meet the child's emotional needs. Ratings were made on a 5-point Likert-type scale, with higher ratings indicating more observed rejection, coercion, and emotional support. Emotional support was reverse scored for the analyses. Ninety percent of the interactions were coded by two or more coders, with disagreements settled by discussion. Interrater reliability was calculated with intraclass correlations (Shrout & Fleiss, 1979) and was computed on the 75 families for which the coding of three raters was available. Reliability coefficients were high: father rejection = .87, mother rejection = .81, father coercion = .88; mother coercion = .84, father emotional support = .88, mother emotional support = .81.

Internalizing and externalizing behavior. Mothers and fathers independently rated their child's internalizing and externalizing behavior using the Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is a well-standardized symptom checklist. The reliability and validity of the CBCL have been established. Only the internalizing and externalizing behavior summary codes were used. *T* scores ranged from 24 to 94 for internalizing behavior and from 30 to 83 for externalizing behavior.

The SCIFF was also used to code child behavior during the videotaped family interaction. The Sadness code, which is a behavioral code that assesses the overall quantity of sadness, anguish, grief, and remorse displayed by the child, was used to evaluate internalizing behavior. The Oppositionality code, which assesses the degree to which the child displays oppositional, defiant, or belligerent behavior, was used to evaluate externalizing behavior. Children were coded on a 5-point Likert-type scale, with higher scores indicating more observed sadness and oppositionality. Interrater reliability was calculated with intraclass correlations (Shrout & Fleiss, 1979) and was computed on the 75 families for which the coding of three raters was available. Reliability coefficients were high: child sadness = .88, child oppositionality = .91.

#### Results

A correlation matrix of the study variables is presented in Table 2. Preliminary analyses were conducted to assess differences in household income, child age, ethnicity, and child gender across the measures of marital conflict, parenting, and child adjustment. Results indicated significant associations between family income and child age and the study variables; therefore, family income and child age were controlled for in subsequent analyses. Results of a 3 (European American vs. Hispanic American vs. African American) × 2 (child gender) MANOVA indicated significant effects of child gender, F(15, 206) = 2.31, p < .01 for the variables of interest in this study. No significant effects of ethnicity, and no ethnicity by child gender interactions, however, were found. Following model testing with the full sample, post hoc analyses were conducted separately for families of girls and boys to assess whether similar associations existed among the study variables for girls and boys. Due to the small sample size of families from each ethnic group and the lack of variability on the dependent variables based on ethnicity, analyses were not conducted separately by ethnicity.

Structural equation modeling (SEM) was employed to test the study hypotheses, and multiple structural models were estimated and compared. As recommended by Bollen (1989), nested models were compared whenever possible, and model comparisons are indicated by a change in chisquare  $(\Delta \chi^2)$ . The maximum likelihood estimation method, as implemented through LISREL computer software (Jöreskog & Sörbom, 1999), was used to estimate all models. Factor loadings and path coefficients reported represent standardized values. Family income and child age were controlled for by specifying direct paths from those variables to the endogenous variables in the models. In order to account for shared method variance, errors of indicators assessing identical processes in mothers and fathers were allowed to covary. In addition, errors of indicators that employed a similar assessment method (e.g., self-report) were also allowed to covary for mothers and fathers, in order to account for rater effects.

Results of the confirmatory factor analysis indicated the observed variables loaded adequately on their respective latent variables,  $\chi^2(67) = 99.77$ , p < .01,  $\chi^2/df = 1.49$ , root mean square error of approximation (RMSEA) = .047, comparative fit index (CFI) = .97. All factor loadings were of adequate strength and statistically significant (range .35 to .92). In order to test for mediation, it was first necessary to establish that there was a significant direct effect to mediate, as recommended by Holmbeck (1997). A direct effects model was tested (see Figure 1), in which direct effects were specified between marital conflict and child internalizing and externalizing behavior. The direct effects model provided an excellent fit to the data,  $\chi^2(26) = 30.88$ , p = .23, RMSEA = .03, CFI = .99, and both direct paths were significant, indicating it was appropriate to test for mediation.

Second, a full model was estimated in which, in addition to the direct paths, indirect paths from marital conflict to child internalizing and externalizing behaviors, via maternal

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Pearson Correlation Matrix of Marital Conflict, Parenting, Child Behavior, and Demographic Variables

	r
	0 0 7
	.40*
	.14* .43*
	.18* .44* .36*
	.25* .39* .31* .33*
	.20* .28* .41* .27*
	.22* .14* .22* .39*
.36* .52* — .08 .37* .28* — .32* .26* .63* .51* — .28* .16* .32* .18* .35* — .29* .23* .26* .19* .23* .06 —18*11	.21* .14* .16* .15*
.08 .37* .28* — .32* .26* .63* .51* — .28* .16* .32* .18* .35* — .29* .23* .26* .19* .23* .06 —18*11	.23* .29* .43* .33*
.32* .26* .63* .51* — .28* .16* .32* .18* .35* — .29* .23* .26* .19* .23* .06 — .18* — .11 — .08 — .10 — .13 — .11 — .09 — .03 .00 — .18* — .03 — .11 — .14 — .15 —	.24* .13 .21* .09
.28* .16* .32* .18* .35* — .29* .23* .26* .19* .23* .06 —18*11	.28* .29* .44* .31*
.29* .23* .26* .19* .23* .06 — — — — — — — — — — — — — — — — — — —	.11 .15* .25* .29*
18*11081013110903 .0018*03111415 -	.19* .40* .26*
03 .0018*03111415 -	09011007
	04 .0317*

= O'Leary Porter Scale; mo = mother's report; CPIC CP = Children's Perceptions of Interparental Conflict, Conflict Properties scale; fa = father's report; SCIFF Coding Interactions and Family Functioning; Reject = Rejection; Coerc = Coercion; Supp = Emotional Support code, reverse scored; Opp = Oppositionality; Sad System for Coding Interactions and Family Functioning; Reject = Rejection; Coerc = Coercion; Supp Sadness; CBCL = Child Behavior Checklist; Int. = Internalizing Behavior; Ext. = Externalizing Bel  $^*p < .05$ . and paternal parenting, were included in the model (see Figure 2). By including separate mediation pathways through maternal and paternal parenting behavior in a single model, it was possible to directly compare the mediational roles of parenting behavior for mothers and fathers. The full model provided adequate fit to the data,  $\chi^2(87) = 139.29$ , p < .01,  $\chi^2/df = 1.60$ , RMSEA = .05, CFI = .95. Evaluation of the path coefficients indicated all paths were significant with exception of the direct paths from marital conflict to child internalizing and externalizing behavior, providing initial support for mediation. None of the paths from the demographic controls (i.e., family income and child age) were significant (these paths were not included in Figure 2).

Last, in order to specifically test for mediation, the direct paths were constrained to zero. The model constraint resulted in a nonsignificant deterioration in model fit,  $\Delta \chi^2(2) = 2.99$ , ns, supporting full mediation. The full mediation model fit the data adequately,  $\chi^2(89) = 142.28$ , p < .01,  $\chi^2/df = 1.60$ , RMSEA = .05, CFI = .95. Maternal and paternal parenting fully mediated associations between marital conflict and child internalizing and externalizing behavior.

In order to test for moderation by parent gender, corresponding paths for mothers and fathers were individually constrained to be equal, as recommended when testing moderation with SEM (Holmbeck, 1997). The modified models were compared with the full mediation model. Model constraints were retained that did not result in significant deterioration in model fit, indicated by a nonsignificant  $\Delta \chi^2$ . First, paths from marital conflict to maternal and paternal parenting behavior were constrained to be equal,  $\Delta \chi^2(1) = 2.79$ , ns. Second, paths from maternal and paternal parenting to child internalizing behavior were constrained to be equal,  $\Delta \chi^2(2) = 3.27$ , ns. Third, paths from maternal and paternal parenting to child externalizing behavior were constrained to be equal,  $\Delta \chi^2(3) = 4.84$ , ns. Equality constraints did not result in significant deterioration in model fit, indicating parent gender did not moderate model pathways.

# Post Hoc Analyses

Post hoc analyses were conducted to determine whether the final model differed based on child gender. Since the samples of families with girls (N = 80) and boys (N = 146)were relatively small for estimating such a complex model, potentially resulting in unstable model parameters (Kline, 2005), results are considered preliminary at this time. In addition, error covariances were removed in order to simplify the model. For girls, the mediation model provided a poor fit to the data,  $\chi^2(99) = 181.61$ , p < .001;  $\chi^2/df =$ 1.83; RMSEA = .096, CFI = .76. No paths were moderated by parent gender. However, evaluation of the path coefficients indicated not all relations were significant. Specifically, when equality constraints were included, paths from maternal and paternal parenting to girls' internalizing behavior were not significant. There were no significant effects of family income or child age.

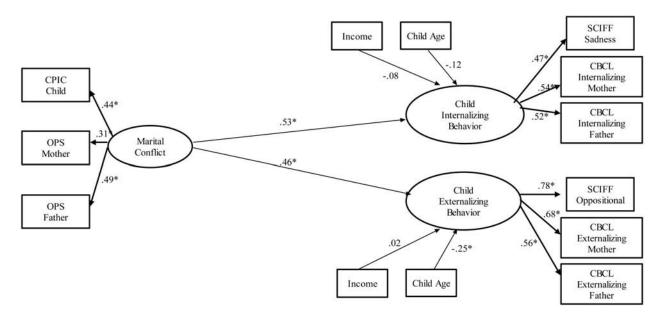


Figure 1. Direct effect model. CPIC = Children's Perceptions of Interparental Conflict; OPS = O'Leary Porter Scale; SCIFF = System for Coding Interactions and Family Functioning; CBCL = Child Behavior Checklist. \*Effect coefficient significant at p < .05.

For boys, the mediation model provided adequate fit to the data,  $\chi^2(98) = 154.70$ , p = .002;  $\chi^2/df = 1.58$ ; RMSEA = .053, CFI = .92. Model tests with equality constraints revealed that the path from marital conflict to maternal and paternal

parenting,  $\Delta \chi^2(1) = 4.45$ , p < .05 was moderated by parent gender, with the path significantly stronger for fathers ( $\beta = .40$ , p < .05) than mothers ( $\beta = .21$ , p < .05). Trends suggested the paths from maternal and paternal parenting to

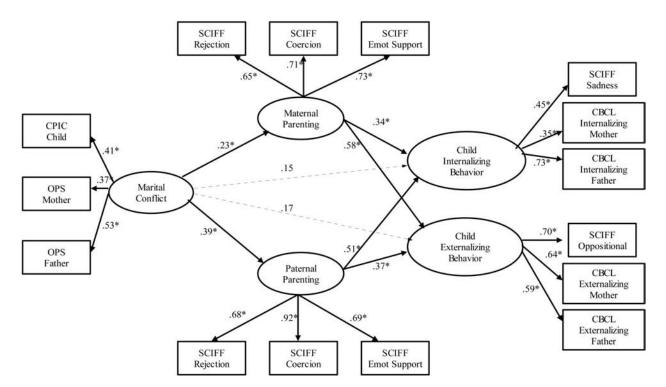


Figure 2. Full model. CPIC = Children's Perceptions of Interparental Conflict; OPS = O'Leary Porter Scale; SCIFF = System for Coding Interactions and Family Functioning; CBCL = Child Behavior Checklist. \*Effect coefficient significant at p < .05.

boys' externalizing behavior,  $\Delta\chi^2(1) = 3.40$ , p < .10 and from maternal and paternal parenting to boys' internalizing behavior,  $\Delta\chi^2(1) = 3.76$ , p < .10, may be moderated by parent gender. Specifically, the path from parenting to externalizing behavior was relatively stronger for mothers ( $\beta = .63$ , p < .05) than fathers ( $\beta = .31$ , p < .05), whereas the path from parenting to internalizing behavior was relatively stronger for fathers ( $\beta = .66$ , p < .05) than mothers ( $\beta = .22$ , ns). All model paths were significant with exception of the path from maternal parenting to internalizing behavior. In terms of the control variables, only the path from family income to fathers' parenting was significant, with fathers with lower incomes engaging in more observed disrupted parenting behavior than fathers with higher incomes (see Figure 2).

As the pattern of associations among the study variables may differ based on family structure, additional post hoc analyses were conducted to evaluate the suitability of the mediation model in a subsample of intact biological families (N=159). The model provided adequate fit to the data,  $\chi^2(92)=145.26, p<.01; \chi^2/df=1.58; RMSEA=.059, CFI=.93. All model paths were significant, with the exception of paths from demographic controls, and model paths were not moderated by parent gender. The small sample of families with a stepfather or cohabiting partner <math>(N=67)$  did not allow for evaluation of the model with SEM in this sample (Kline, 2005).

#### Discussion

Building on previous research, this study focused on parenting behavior as a potential mediator of the relation between marital conflict and child maladjustment, considering parent gender as a potential moderator. This study utilized SEM and assessed the relations among marital conflict, parenting, and child adjustment using multiple methods and informants in a multiethnic sample, taking into account potentially confounding issues such as child age and family income. This study sought to assess multiple dimensions of family relationships within one comprehensive model, allowing for a simultaneous test of both mediational and moderational hypotheses in the intricate links between marital functioning and child adjustment. Results indicated that indeed the interrelations among family processes and child adjustment are complex. SEM with the full sample and a subsample of intact families revealed full mediation of the relation between marital conflict and child internalizing and externalizing behavior by observed parental behaviors. Results, however, did not support moderation by parent gender when the full sample was considered.

Results of this study support the spillover hypothesis, one of the most widely held views regarding how marital conflict impacts other family processes (Engfer, 1988). Marital conflict was consistently significantly associated with higher levels of ineffective parenting by both mothers and fathers. Several explanations may be relevant to these results. Parents who experience considerable marital conflict may lack the energy or motivation to interact effectively with their child. Similarly, parents may be unable to shield their child from intense negativity in the marital relationship and may become coercive and rejecting with their child.

Alternatively, it may be that some parents are consistently ineffective at managing conflict and employ poor conflict management techniques with both their spouse and their child. As marital and parental functioning deteriorates, children appear to exhibit higher levels of both internalizing and externalizing behaviors. Child adjustment problems may also create strain on parents, leading to both marital and parenting problems.

Theories of family functioning provide a framework for understanding the etiological processes by which marital conflict may affect child adjustment via disrupted parenting. According to family systems theory, relationships among family members are interrelated, and disruptions in one relationship (e.g., marital) may be reflected in difficulties in other relationships (e.g., parent-child) (Cox & Paley, 1997; Minuchin, 1974). Although results of the current study indicate marital and parental functioning are associated with both internalizing and externalizing behavior in children, different processes may account for these associations. Findings related to child externalizing behavior in this study are consistent with the escalating cycle of aggressive behaviors first described by Patterson (1982). As marital conflict worsens, parents can become less responsive to and more rejecting of their children and more likely to employ coercive and ineffective disciplinary techniques. In response to parents' coercive behavior, children may exhibit oppositionality and aggression, as predicted by social learning theory (Bandura, 1973). With regard to internalizing behavior, parents in the current study were observed to be more rejecting toward their children and were less able to recognize and respond to their child's emotional needs as marital conflict increased. According to the emotional security hypothesis (Davies & Cummings, 1994), children who experience rejecting and unresponsive parenting behaviors, in the context of a conflictual family environment, may develop feelings of insecurity and internalizing behaviors as a result of perceived family instability and their distressed relationships with caregivers (Cummings & Davies, 2002).

Based on previous literature indicating a strong direct effect of marital conflict on child adjustment, we hypothesized in this study that parenting would partially mediate the relation between those two phenomena. Contrary to prediction, however, parenting behavior fully mediated the association between marital conflict and child maladjustment in our sample. Given the comprehensiveness of the model tested in the current study, with latent constructs including multiple dimensions of marital conflict and parenting, it may be the case that full mediation is the appropriate model for understanding how marital and child adjustment are related. Other studies have found considerable evidence to support a direct effect model (Cummings & Davies, 2002), however, and whether marital conflict exerts a direct influence on child outcome even when parenting behavior is considered remains an important empirical question.

Inclusion in this study of both parent and child gender provides information that may explain some of the inconsistent results in the field thus far. Parent gender did not moderate associations among marital conflict, parenting behavior, and child outcome when both boys and girls were included in the model, but results varied when models for boys and girls were analyzed separately. While the separate samples of families with girls and boys were small for SEM, and our results must therefore be considered exploratory, they suggest many potential areas for further research. First, consistent with the limited prior research in this area (Coiro & Emery, 1998), results of the present study suggest that fathers' parenting may be more closely linked with marital conflict than mothers' parenting, but only with respect to how they parent their sons. Fathers' tendency to display less adaptive parenting strategies, especially in terms of increased power-assertive or coercive behavior (e.g., Crockenberg & Covey, 1991), may have particular saliency for boys. Evidence suggests school age boys may be more vulnerable than girls to the negative impact of marital conflict (Harold & Conger, 1997), and these adjustment difficulties may elicit more dysregulated parenting from fathers. It is also possible that mothers, more than fathers, may perceive their sons as vulnerable and work to shield them from marital conflict.

Although to a lesser degree than fathers, maternal parenting also is disrupted by marital conflict, and boys may display different maladaptive behaviors in response to disrupted parenting from mothers and fathers. School-age children tend to spend more time with their mothers than their fathers, with mothers typically providing for the majority of child rearing needs (Pleck, 1997). Mothers who are stressed by marital conflict may be less able than fathers to effectively manage disruptive behavior in their sons (Calzada, Eyberg, Rich, & Querido, 2004). Lacking a strong parenting alliance, mothers may have difficulty maintaining consistent discipline with their sons, and may be more likely to get caught in coercive motherchild interactions (Patterson et al., 1998). In contrast, boys appear to display relatively more anxiety and depression in response to disrupted paternal parenting as compared with maternal parenting, consistent with research (Katz & Gottman, 1993). Boys may interpret fathers' hostility and withdrawal as indicating possible abandonment of the family, resulting in a serious threat to boys' emotional security (Cummings & Davies, 2002). Alternatively, boys may feel afraid of their fathers in the context of hostile family interactions (Crockenberg & Langrock, 2001), resulting in internalizing behavior. As different maladaptive maternal and paternal parenting behaviors may be more strongly linked with either child internalizing or externalizing behavior, explicating the specific parenting behaviors associated with these different types of child difficulties is an important area for future study. The extremely small sample of families with girls, as well as the poor model fit with the girls' data, prevent the interpretation of the results from the girls' sample. Our preliminary findings by child gender, however, along with the few other studies in this area (Burman, John, & Margolin, 1987; Chang, Schwartz, Dodge, & McBride-Chang, 2003; Deater-Deckard & Dodge, 1997; Osborne & Fincham, 1996), indicate the importance of continuing to study how family system factors influence adjustment differentially in boys and girls.

# Limitations

While this study is one of the first to comprehensively test a model of the relations among multiple aspects of marital, parenting, and child functioning, including parent gender, limitations of the present data set lead to multiple areas for future research. For example, while our sample is multiethnic, the sample size was too small to assess ethnic similarities and differences in the models. While research on ethnic variations in family processes is limited, other studies conducted in our lab indicate that families from different ethnic backgrounds may have unique buffers for children's adjustment in the context of marital conflict (Lindahl & Malik, 1999b; Lindahl, Malik, Kaczynski, & Simons, 2004). The current findings reflect general family interaction patterns across three ethnicities, and should not be considered typical of any one ethnic group. In addition, these findings apply to intact biological families, and it remains unclear whether findings generalize to families with diverse structures, such as stepfamilies.

Findings may also be limited by statistical and design factors. First, although longitudinal research supports the proposed direction of effects (Harold & Conger, 1997), our data are correlational, not longitudinal. Therefore, it is not possible to rule out alternative models, including a model in which a relation between disrupted parenting and child outcome is mediated by marital conflict. Second, a sample of less than 200 participants may result in unstable model parameters when complex models are evaluated in SEM (Kline, 2005). Thus, models based on child gender will need to be tested with a larger sample to further evaluate parent and child gender as moderators. Finally, although the SEM model selected fit the data adequately, it is likely one of several models that would fit the data. These findings must be replicated in diverse populations with longitudinal research in order to verify the current model.

It is also important to consider how marital conflict and parenting may vary in affecting children's adjustment at different developmental levels. Our study focused on school-age children, but there are multiple studies examining marital and parenting subsystem relations with child functioning at various developmental stages, from infancy to adolescence (Grych, Raynor, & Fosco, 2004; Katz & Woodin, 2002; McHale, Kazali, Rotman, Talbot, Carleton, & Lieberson, 2004). At virtually all developmental levels studied, the finding of a relation between marital conflict and child adjustment difficulties is robust. As such, there is considerable evidence across childhood that underscores the importance of family functioning in child adjustment.

## Clinical Implications

The data in this study replicate and extend findings in the extant literature indicating that a broad and inclusive view of family functioning is necessary to accurately reflect the complex intrafamilial relationships that predict child adjustment. In addition to parent—child interactions, which are frequently the target of interventions, dimensions of family functioning that do not directly involve the child, such as marital conflict, are important to consider in understanding children's functioning. In order to more comprehensively assess and treat children's adjustment difficulties, interventions may be most effective when addressing both marital conflict and parenting (Webster-Stratton, 1994), with particular attention to the distinct issues that may arise in parent-son and parent-daughter relationships. While this

study does not include a clinical sample, the findings illustrate several specific aspects of family life that may be targeted in interventions. First, as our latent construct of marital functioning included both child and parent perceptions of conflict, helping parents understand that children are aware of and affected by the conflict between them may in and of itself motivate parents to interact better with one another. Second, our parenting construct included distinct behaviors, including rejection of the child, coerciveness, and emotional support. Parenting and family based therapeutic interventions that help parents communicate with their child more constructively and effectively have certainly been shown to improve family relationships and child functioning (Kazdin & Weisz, 2003).

The current study also highlights the need to include fathers to a greater degree in interventions. While there is a growing literature on father involvement, including a new journal dedicated to the topic (Fagan, 2003), studies indicate that despite their importance in children's lives, fathers tend to be less involved than mothers (Pleck, 1997). Consistent with other literature on the importance of fathers, the current study found that fathers' marital hostility and nonoptimal parenting behaviors were closely linked to child maladjustment. As such, engaging fathers in treatment and improving fathers' awareness of their impact on children should be an important goal when children are presenting in therapy with behavioral or emotional problems. As fathers become more aware of their importance in family and child functioning, they may be more likely to alter their behavior in order to foster more positive child adjustment. This in turn may have a positive impact on the marital relationship.

In two-parent families, where mothers may be more involved in clinical interventions with children, data from this and other studies indicate the importance of involving both parents in interventions. In families where fathers may not be present, however, or in any single-parent family, systems theory and research would still indicate that the parentchild relationship is an important therapeutic vehicle for improving child functioning. Family relationships are complex, and there are strengths in each family, across dyadic and triadic relationships, that need to be supported. Similarly, each relationship has its vulnerabilities, and by taking a systemic approach that seeks to understand both strengths and vulnerabilities across the multiple relationships within families, researchers and clinicians alike will be able contribute to the goal of strengthening the context that is the basic building block of child development, the family.

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