

# Mother Involvement as an Influence on Father Involvement with Early Adolescents

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This study hypothesized that father involvement is influenced by mothers' level of involvement as well as by marital conflict, mothers' work hours, and fathers' status as biological or step father. The analysis also tested hypotheses about mother involvement as a potential mediator of the effects of marital conflict and maternal work hours on father involvement, and hypotheses about factors influencing mother involvement. Children aged 10-14 from the NLSY79 who resided with their biological or step father and with their mother reported on each parent's involvement with them. As hypothesized, father involvement was predicted by mother involvement, and the reciprocal influence was not significant. Father involvement was associated with low marital conflict and being a biological father. Mothers' involvement partially mediated the effects of marital conflict on father involvement. If the mediating role of maternal involvement is not taken into account, the effect of marital conflict on father involvement is overestimated.

*Keywords:* father involvement, mother involvement, marital conflict, step-families, maternal employment

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Early adolescence is a crucial period in development. It marks the decline of exclusive family influence/control and increased independence from family, greater involvement with peers, and more varied nonfamily influences. Nonetheless, as Collins and Laursen (2004) point out, parent-child relationships remain important social and emotional resources well beyond the childhood years despite these alterations in patterns of interaction. Fathers have important influences on adolescent children (Cook-

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ston & Findlay, 2006; Regnerus & Luchies, 2006), but most research examining paternal effects on development, as well as research on the factors influencing father involvement, concerns the early period of the child's life. In addition, most research focuses on either fathering or mothering, not considering both parents' involvement simultaneously.

Using a theoretical model derived from Belsky's (1984) and Lamb, Pleck, Charnov, and Levine's (1985) conceptualizations, this paper examines factors influencing resident fathers' involvement with their 10-14 year-old early adolescents. An innovative feature of the study's theoretical model is its inclusion of mother's level of involvement as an influence on father involvement. Since several recent comprehensive reviews of research on father involvement are available (Parke, 2002; Parke, Dennis, Flyr, Leidy, & Schofield, 2005; Pleck, 1997; Pleck & Masciadrelli, 2004), the review of prior research literature here can highlight current conceptualizations of the factors affecting father involvement, with special attention to evidence suggesting that mothers' level of involvement may be a potential influence.

### Factors Influencing Father Involvement

Belsky (1984) and Lamb et al. (1985; see also Pleck, Lamb, & Levine, 1985) offered the two broad theoretical models most influential in recent research on the sources of father involvement. Belsky's "process model" concerned the determinants of parenting in general, not specified by gender. Interestingly, however, much of the research Belsky cited in support of his model concerned fathers. Belsky's model postulates that parenting behavior is determined by (a) parents' personality, (b) characteristics of the child, and (c) "contextual sources of stress and support" that include the marital relationship, parents' job experiences, and social networks. Lamb et al.'s "four factor model" of paternal involvement specified as predictors (a) motivation, (b) skills and self-confidence, (c) social support, especially from the mother, and (d) institutional factors, especially in the workplace. Pleck (1997) noted three congruencies between the two models. Specifically, Lamb and Pleck's motivation factor can be interpreted as a central concomitant of Belsky's personality factor. Marital relations in Belsky correspond to the most important domain within social support in Lamb et al.'s model. Likewise, parents' jobs are the most important arena in which institutional factors influence fathering.

Both the Belsky and the Lamb et al. models give attention to the role of mothers in father involvement. In prior research, maternal influence has been investigated in several ways. Some research has found that fathers are more involved in couples in which the mother has more favorable attitudes toward father involvement, although the association is not found in several large survey datasets (Pleck & Masciadrelli). Mothers' positive attitudes about the involvement of their own partners, as opposed to father involvement in general, have also been linked to higher levels of involvement (McBride & Rane, 1998). Father involvement is higher when mothers expect fathers to be more involved (Maurer, Pleck, & Rane, 2001). There has also been particular in-

terest in potential “maternal gatekeeping” of father involvement (Allen & Hawkins, 1999). Parke suggested that in some couples there may be an obverse process of maternal “gate opening.” All these aspects of maternal influences are consistent with the overarching idea that father involvement is, in a broad sense, “mediated” by mothers (Ihinger-Tallman, Pasley, & Buehler, 1993).

However, one aspect of mothers’ potential influence has received little attention: mothers’ own level of involvement as a direct influence on fathers’ level. Several pieces of evidence suggest it could be important. Paternal and maternal levels are relatively strongly positively correlated with each other, even when child age and gender as well as parental background characteristics are controlled (Aldous, Mulligan, & Bjarnason, 1998; Amato & Rivera, 1999; Harris & Ryan, 2004; Ishii-Kuntz & Coltrane, 1992). This positive association runs counter to the possible assumption that mothers and fathers compensate for each other, leading paternal and maternal involvement levels to be negatively correlated. The similarity in fathers’ and mothers’ levels of involvement is consistent with other observed congruencies between fathers’ and mothers’ parenting, e.g., in parent-child relationship quality (King & Sobolewski, 2006) and in parental style (Simons & Conger, 2007).

Why are fathers’ and mothers’ levels of involvement positively related? Fathers modeling their level of involvement after mothers’ is one likely source. In a theoretical analysis, Hawkins, Christiansen, Sargent, and Hill (1993) argued that modeling is one of the major ways in which men learn parenting. In particular, in addition to other possible models, “fathers may observe mothers, modeling child care skills and attitudes, and use this as a basis for learning how to be an effective caregiver” (p. 536). Two qualitative studies report that fathers may use their children’s mothers as role models for their own parenting. When asked to discuss role models for their parenting, some fathers explicitly cite their wives (Masciadrelli, Pleck, & Stueve, 2006). In another study, Daly (1993) found that “wives had an important modeling effect on their husbands when it came to the day-to-day decisions of parenting” (p. 25). For example, one father said “certain things [my wife] says and does—and we talk about these things—influence me” (p. 25).

How might this modeling work? Since fathers are less involved than mothers on average, it is clear that most fathers do not model their partners’ *absolute* level of involvement, i.e., spend the same amount of time with the child. Rather, fathers may view their partner’s level of involvement as a baseline against which they calibrate their own level. Many fathers may think that although they do not need to be just as involved as their partners are, in order to “pull their share” as parents, their involvement nonetheless ought to be some reasonable proportion of what the child’s mother does. Though fathers’ perception of the appropriate proportion will vary, on average this “benchmarking” process will lead fathers whose partners are highly involved to be more involved than fathers whose partners are less involved. Fathers’ gauging their own involvement relative to mothers’ in this way may be an important respect in which mothers’ involvement may function within families as a “maternal template” for fathers.

Could the positive association between fathers' and mothers' involvement potentially also be explained by modeling in the other direction, however? No available theory or research has suggested that mothers model their parenting after fathers. Other evidence suggests that in general, mothers influence fathers' parenting more than vice versa. Mothers' expectations about their partner's involvement are associated with father involvement, whereas there is no association between fathers' expectations for mothers and maternal involvement (Maurer et al.). Thus, it appears more likely that fathers model their behavior after mothers more than that mothers model after fathers.

The potential influence of mother involvement on father involvement has important implications for understanding the process by which other factors influence fathering. For example, marital conflict is associated with lower father involvement, generally interpreted as reflecting direct influence of the former on the latter (Conger et al., 1992; Cummings, 1994; Sturge-Apple, Davies & Cummings, 2006). However, since these studies find that marital conflict is also linked with lower mother involvement, the effect of conflict on father involvement may be mediated in part by its effect on mothers. That is, conflict could lead to a decrease in father involvement because the diminished maternal involvement associated with conflict lowers the maternal involvement baseline against which fathers gauge themselves. If maternal involvement is not taken into account as a potential mediator, the direct effect of variables such as marital conflict on father involvement may be overestimated.

In research on the *consequences* of father involvement on child outcomes, the need to take maternal involvement into account has been recognized for some time (Amato & Rivera; Pleck; Pleck & Masciadrelli). That is, because father and mother involvement are positively correlated, the influence of father involvement on child outcomes may be overestimated if mother involvement is not taken into account. Analyses controlling for mother involvement are increasingly frequent, with most finding an independent association between father involvement and child outcomes (Pleck & Masciadrelli). However, prior quantitative research on the *sources* of father involvement has not taken into account mother involvement's positive correlation with father involvement. The present study gives special attention to maternal involvement as a potential predictor of father involvement, and considers it as a possible mediator of other influences on fathering.

### *Theoretical Model*

The study's theoretical model for father involvement (Figure 1) includes predictor variables selected from the broad domains shared in common by the Belsky and the Lamb et al. models. For the model to be realistically testable, of course, only a limited number of predictors can be employed. The model gives special attention to mothers' own level of involvement as a potential influence, fitting within Belsky's marital relations domain and Lamb et al.'s social support factor. In addition, the model specifies three other proximal influences, related to Belsky and to Lamb et al. as discussed below: marital conflict, mothers' work hours, and whether the father is a biological or

step father. The inclusion of these additional proximal influences strengthens the study's test of the influence of maternal involvement on fathering. The model additionally specifies factors influencing maternal involvement. For convenience, Figure 1 also incorporates the study's measurement model for parental involvement, discussed later under Method.

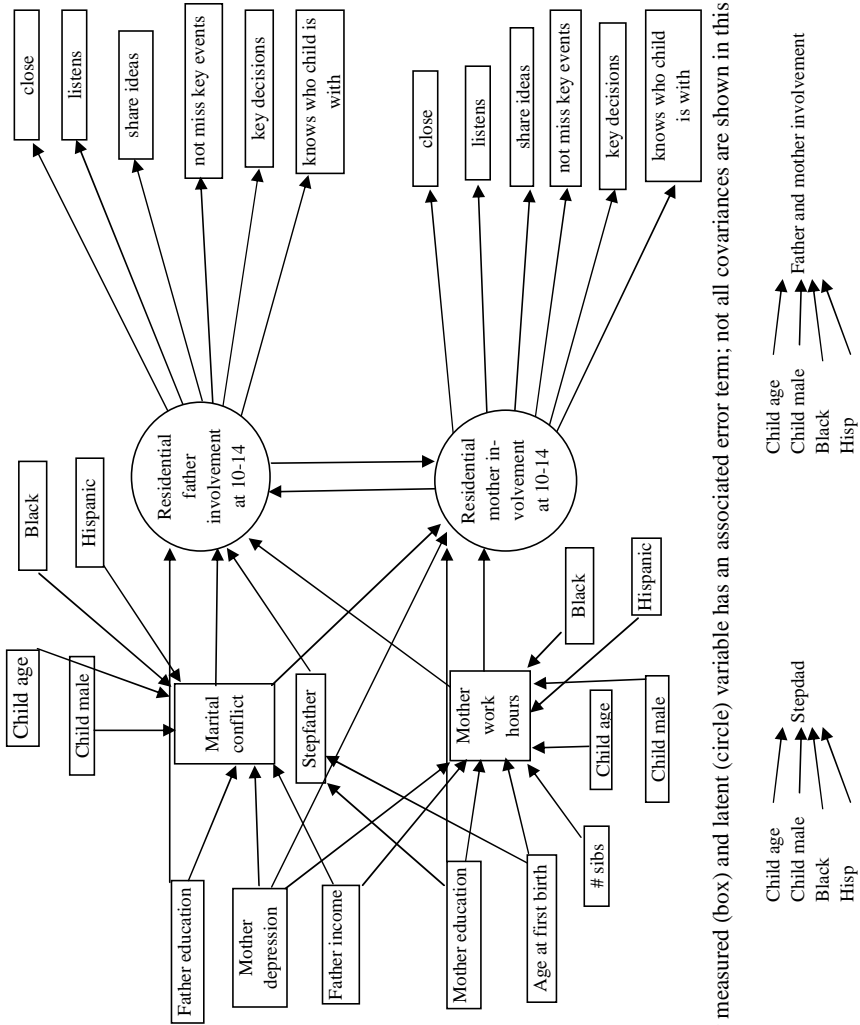
*Mothers' involvement.* The model hypothesizes first that mother involvement is a direct and positive influence on father involvement, based on the research and theory just reviewed. The figure includes the reciprocal path, as testing the hypothesis requires estimating it as well.

*Marital conflict.* Belsky identified marital relations as a key influence on parenting, and the father's relationship with the child's mother is the most important domain of social support in Lamb et al.'s model. A positive association between paternal involvement and marital quality has been found in cross-sectional studies (Blair, Wenk, & Hardesty, 1994; Jump & Haas, 1987; Kalmijn, 1999; McBride & Mills, 1993; NICHD Early Child Care Research Network, 2000), in longitudinal studies (Brody, Pellegrini, & Sigel, 1986; Coysh, 1983; Feldman, Nash, & Aschenbrenner, 1983; Levy-Shiff & Israelashvili, 1988), and in studies explicitly relating the degree and direction of change over time in marital adjustment to change in involvement (Volling & Belsky, 1991). Within the broad area of marital quality, conflict between spouses is receiving special attention as a primary influence on their parenting behavior and on child outcomes (Cummings & Davies, 2002). Decreased involvement by both parents is associated with conflict (Conger et al., 1992; Cummings; Sturge-Apple, Davies, & Cummings). Thus, we hypothesize that marital conflict has a negative effect on father involvement, and on mother involvement as well.

*Mother's work hours.* Belsky identified parents' job experiences as a key influence on parenting, and the Lamb et al. model cited institutional factors, especially in the workplace, as one of its four predictive factors. Employed mothers spend less time with their children (Bianchi, 2000; Bianchi, Robinson, & Milkie, 2006). Many, though not all, studies find that fathers spend more time with children when mothers are employed (Pleck & Masciadrelli; see also Hofferth, 2003; Hofferth & Anderson, 2003). Fathers' warmth is also positively linked with maternal work hours (Hofferth). Consequently, we hypothesize that mother's work hours are positively associated with paternal involvement and negatively associated with maternal involvement.

*Father's bio-step status.* The term stepfather is used here in a broad sense to include all circumstances in which a non-biological father lives with the child of his partner, whether the father is married or unmarried to the partner, and whether the father has or has not legally adopted the child. Being a biological or stepfather is an important structural influence on father involvement that does not have a direct precedent in Belsky's model, which implicitly focused on families with two biological, married parents. How-

Figure 1 . Theoretical model of father involvement.



Every measured (box) and latent (circle) variable has an associated error term; not all covariances are shown in this diagram

ever, this variable can be linked to the marital relations and social network factors in Belsky's model, and the social support factor in Lamb et al. Mothers and other may give less support for involvement to a male who is not the biological father of the child, as a result of weaker normative support for stepfather involvement in the broader culture (Cherlin, 1978). Likewise, being a stepfather may be associated with less motivation for involvement, another factor in Lamb et al.'s model. Empirically, stepfathers are less involved than biological fathers on average (Blair et al.; Hofferth; Hofferth & Anderson; Marsiglio, 1991). Thus, the study hypothesizes that being a biological father is positively associated with father involvement.

The model hypothesizes no direct influence of fathers' bio-step status on maternal involvement, however. Bio-step status may be associated with other proximal influences on maternal involvement such as marital conflict, resulting from ambiguities in the stepparent relationship, and maternal work hours, since mothers living with stepfathers work more hours outside the home (Hofferth & Anderson). No prior evidence, however, suggests that maternal involvement is directly associated with whether her residential partner is a biological father or a stepfather to her children. In summary, our model hypothesizes that being a stepfather is negatively associated with paternal involvement, but is not directly related to maternal involvement.

*Mediating role of maternal involvement.* The model hypothesizes that maternal involvement mediates, at least in part, the influence of both marital conflict and mothers' work hours on father involvement. This hypothesis is based on prior findings that these two variables are associated with both paternal and maternal involvement and that maternal involvement may influence paternal involvement. In the case of marital conflict, the mediational hypothesis is simply that marital conflict decreases maternal involvement, which in turn leads to lower paternal involvement. For the association between maternal employment and father involvement, the implications of the mediational hypothesis are less straightforward. On the one hand, maternal work is hypothesized above to have a direct positive effect on father involvement, based on the positive association found in much but not all prior research. On the other hand, if the hypothesis about the influence of mothers' involvement on fathers' involvement is valid, then there should also be an indirect negative effect of maternal work hours on father involvement, countering the direct positive effect: higher work hours decreases maternal involvement, which lowers paternal involvement. An interpretation of how these hypothetical direct and indirect effects might work simultaneously is that more maternal work hours may have a direct effect leading to higher father involvement, perhaps because women and men as well expect fathers to do more on equity grounds. However, this effect may be countered by maternal employment also lowering the baseline of mothers' involvement against which fathers gauge their own participation.

*Other features of the model.* Child's age and gender are influences on both parents' involvement, consistent with Belsky's emphasis on the influence of child characteristics on parenting. Fathers and mothers spend less time with older children than with



younger children (Bianchi; Hofferth; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). With older children, father's warmth is lower (Hofferth). In most large-scale studies, fathers are more engaged with boys than with girls (Harris, Furstenberg, & Marmer, 1998; Marsiglio; Yeung et al.). The model also includes the effect of a parent's education on that parent's involvement, and on selected proximal variables.

The model links maternal depression directly to maternal involvement, as well as indirectly through both marital conflict and maternal work hours. Maternal depression is interpretable as a personality and a motivational factor in the Belsky and Lamb et al. formulations, respectively. Prior research suggests that parental depression is associated with less nurturant parenting in parents of both genders (Conger et al., 1992; Conger, Ge, & Lorenz, 1994; McLoyd, 1990). Maternal depression is associated with both higher marital conflict (Conger et al.) and lower maternal work hours (Wethington & Kessler, 1989). Our model thus specifies that more symptoms of depression have a direct negative influence on maternal involvement, an indirect influence on both parents' involvement through marital conflict, and an indirect influence on both parents' involvement through mothers' work hours.

*Summary of hypotheses.* (a) Being a stepfather, marital conflict, and fewer maternal work hours are associated with lower paternal involvement, (b) marital conflict and greater mothers' work hours are associated with lower maternal involvement, (c) mother involvement influences father involvement, but father involvement does not influence mother involvement, and (d) the effects of marital conflict and maternal work hours on father involvement are partially mediated by mother involvement. These hypotheses are tested controlling for gender and age of child, number of children, maternal and paternal education, paternal income, mother's age at first birth, maternal depression, and race/ethnicity.

## Method

### *Data: NLSY79*

This analysis uses as its sample the early adolescent children of female youth interviewed as part of the 1979 National Longitudinal Survey of Youth (NLSY79). The NLSY79 data sets contain information on two generations of youth: men and women aged 14 to 21 in 1979, the subjects of the original study, termed here the G1 generation, and the children of the G1 women, the G2 generation. The study sample consists of 3,319 G2 adolescents who were 10-14 between 1994 and 2004, who completed the self-administered questionnaire at least once between 1994 and 2004, and who were living with two parents at the time of the interview(s). The original number of youth aged 10-14 during the study period was 4,796. Excluding those not living with a residential father, and those not filling out the self-administered questionnaire that provided the information on relationship with their mother and father, reduced the sample to 3,319. Those administered the instrument but who omitted only a few of the items used in this study were retained.



Because these youth were eligible to be interviewed every other year between 10 and 14, an early adolescent could theoretically have participated up to three times over that period; about half did complete more than one interview. For those cases, one interview was randomly selected for inclusion in the analysis, with the exception that 10-year-olds were oversampled to yield a more equal age distribution. In the final analysis file, 17% are age 10, 24% age 11, 17% age 12, 25% age 13, and 17% are age 14.

The study dataset includes the G2 generation's detailed reports of their (G1) parents' involvement with them during the ages of 10 to 14, and other information about the children and their parents reported by their mothers (G1). Primary variables used in the analysis were taken from the selected interview year or averaged over the 10-14 age period.

### *Measures*

*Mother and father involvement.* Subsequent to Lamb et al.'s (1985) formulation of paternal involvement, Pleck & Masciadrelli noted that contemporary research in practice generally operationalizes involvement as including engagement in positive activities with the child, closeness and responsiveness, and monitoring and decision-making. In this study, these three aspects of parental involvement are assessed with identical items for both fathers and mothers. Engagement in positive activities was measured by two questions: How well do your father/mother and you share ideas or talk about things that really matter? (1 = *not very*, 2 = *fairly*, 3 = *quite*, 4 = *extremely well*), and How often does your father/mother miss the events or activities that are important to you? (1 = *a lot*, 2 = *sometimes*, 3 = *almost never*). The closeness and responsiveness component of involvement was assessed by: How close do you feel to your father/mother? (1 = *not very*, 2 = *fairly*, 3 = *quite*, 4 = *extremely*), and How often does your father/mother listen to your side of an argument (1 = *often*, 2 = *sometimes*, 3 = *hardly ever*) (reverse-coded). The monitoring and decision-making aspect of involvement was measured by: How often does your father/mother know whom you are with when you are not at home? (1 = *often*, 2 = *sometimes*, 3 = *hardly ever*) (reverse-coded), and the early adolescent's report of how many of five areas each parent participated in making decisions about: clothes, spending money, which friends to go out with, how late to stay out, how much TV to watch. For each area, the adolescent reported whether mother, father, and/or the adolescent herself decided, with multiple responses possible.

*Father and mother characteristics.* In order to determine fathers' bio-step status and other family background characteristics, parental and family characteristics reported at child's ages 10-14 were used. Paternal characteristics refers to the residential father, whether the biological or not, or married to the child's mother or not. A dummy variable (1, 0) indicated whether the residential father was ever a stepfather when the child was 10-14. Mother's and residential father's completed years of education when the child was 10-14 were calculated. The mother's age at first birth was calculated based on her own birth year and the year in which she first gave birth herself. The 20-

item Center for Epidemiological Studies-Depression Scale (CES-D) (Radloff, 1977), administered in 1992, provided a measure of depression (technically, a measure of depressive symptoms since a clinical cut-off is not employed). The reliability (Cronbach's alpha) for this scale is .89.

*Employment and income.* The average annual hours the mother worked for pay over the period the child was 10-14, divided by 1,000, was calculated. Paternal employment characteristics were not utilized since the NLSY survey indicates only father's employment status, not his hours nor his wages; missing data are substantial missing data even in the employment status reports. The income of household members other than the mother (almost always the father's income) every year was averaged over the years the child was 10-14, and converted to the natural log of dollars in ten thousands.

*Family context.* The number of children in the G1 mother's family is available every survey year. Total number of children in the family was averaged over the years the child was 10-14. Marital conflict was assessed by the adolescent's response to: How often do your parents argue? (1 = never, 2 = once in a while, 3 = fairly often, 4 = very often). Mother's race-ethnicity is indicated with two dummy variables, non-Hispanic African American (1, 0) and Hispanic (1, 0). The omitted category is non-Hispanic White.

*Child characteristics.* These include age in the year of the child's self-administered interview, and gender, coded 1 for male and 0 for female.

### *Data Analysis Plan*

Confirmatory factor analysis using EQS was first used to test whether the six involvement items formed a single factor for each parent. Because the items are reported by the early adolescent for both parents, the question of measurement equivalence between paternal and maternal factors does not arise. Structural equation models based upon Figure 1 were conducted, using population weights. All paths among the independent variables in Figure 1 were estimated. We permitted errors between each of the mother involvement and father involvement items to be correlated; this helps address same-informant bias in assessments of parental involvement. Cases with missing data were retained; the model was estimated using maximum likelihood.

Model fit is evaluated using the chi-square statistic and fit indexes. A nonsignificant chi-square indicates a good model fit. When sample sizes are large, however, a significant chi-square is generally expected. Thus, greater attention is given to two additional fit indices (Byrne, 2001). The comparative fit index (CFI) (Bollen & Long, 1993) compares the hypothesized model and the independence model (e.g., there are no relationships between the variables in the model). The CFI ranges from 0 to 1.00, with a cutoff of .95 or higher indicating a well fitting model and .90 indicating an ad-

equate fit (Byrne; Hu & Bentler, 1995). Browne and Cudeck's (1993) root mean square error of approximation (RMSEA) compares the model to the projected population covariance matrix. RMSEA values below .05 indicate a good model fit and values between .05 and .08 indicate an adequate fit (Browne & Cudeck; Byrne).

In testing the hypothesis that maternal involvement influences paternal involvement, but not vice versa, the reciprocal path is estimated. Although longitudinal analysis in principle might help disentangle cause-effect relationships among family variables, it cannot help to disentangle the direction of maternal and paternal involvement influences on each other because even with data starting at birth, we could not determine which came first. Here we use a simultaneous model to assess direction of influence in the short-term. Estimation of reciprocal relationships in the model is possible because instrumental variables are available for both paternal involvement (father's bio-step status, paternal education) and maternal involvement (maternal depression, maternal education). These instrumental variables can be argued on theoretical grounds to have a direct influence on only one parent's involvement, e.g., paternal education should directly influence only paternal involvement; thus, their path to the other parent's involvement can be set to zero.

## Results

Table 1 shows the means and standard deviations for all study variables.

### *Measurement Model: Mother and Father Involvement*

Table 2 shows the standardized factor loadings for mother and father involvement and each of the individual variables. The fit indices were taken from confirmatory factor analyses for father involvement by itself, mother involvement by itself, and both involvement latent variables in the same model. Model fit for a single involvement factors was good (mothers: CFI = .965, RMSEA = .048; fathers: CFI = .987, RMSEA = .039; combined: CFI = .970, RMSEA = .046). Closeness and sharing ideas were the most highly associated with the underlying involvement factors for mothers and for fathers. Listens was the variable associated next most highly with mother and father involvement. The other variables load at lower levels, but the loadings are still highly significant. Although the factor loadings for mother involvement are somewhat lower than those for father involvement, the model for mother involvement nonetheless has good fit, and all loadings are statistically significant. Also shown are the correlations between the error terms for the items across parents from a model run with both maternal and paternal involvement indicators included. The errors for parallel items for maternal and paternal involvement are significantly associated.

A two-factor model in which the decisions item and the monitoring item (knows who the child is with) comprised a separate factor was also tested (not shown), but did not fit the data as well as the one-factor model. Thus, the involvement factors are sim-

Table 1  
*Means and Standard Deviations of All Variables (N = 3319)*

	Mean	SD
Child age	12.063	1.317
Child male	0.498	0.500
Stepfather	0.156	0.363
Maternal depression	8.642	8.497
Paternal education	13.362	2.555
Maternal education	13.240	2.159
Mother's age at first birth	22.942	3.855
Maternal annual work hours/1000	1.246	0.885
Number of children	2.595	1.015
African American	0.073	0.260
Hispanic	0.064	0.244
Marital conflict	2.123	0.736
Father income/10.000 (Natural Log)	1.271	0.802
Close to mother	3.564	0.690
Mother listens	2.303	0.722
Shares ideas with mother	3.159	0.855
Mother knows who child is with	2.834	0.436
# of decisions mother makes	3.668	1.547
Mother does not miss key events	2.592	0.607
Close to father	3.238	0.914
Father listens	2.128	0.761
Shares ideas with father	2.861	0.952
Father knows who child is with	2.561	0.630
# of decisions father makes	2.526	1.757
Father does not miss key events	2.289	0.715

ilar for mothers and for fathers, and a single-factor model for involvement fits the data better than a two-factor model.

*Structural Model: Associations among Background Variables, Proximal Variables, and Father and Mother Involvement*

The study hypotheses are tested by a structural equation model for the influence of background and proximal variables on the involvement of fathers and mothers (Table 3), and for the influence of background on proximal variables (Table 4). Model 2 in these tables corresponds to the study's model shown in Figure 1; the results for Model 2 in the two tables are from the same SEM analysis. Model 1 reports results from an alternative model in which maternal involvement was not included. Coefficients for

Table 2  
*Measurement Model for Father and Mother Involvement (Standardized Loadings)*

Items	Separate Models		Joint Model		Correlation between errors in mother and father items
	Mother	Father	Mother	Father	
Close to mother/father	0.448	0.628	0.666	0.733	0.485
Mother/father listens	0.496	0.521	0.402	0.497	0.585
Shares ideas with mother/father	0.546	0.648	0.68	0.752	0.568
Mother/father knows who child is with	0.331	0.491	0.257	0.435	0.442
# of decisions mother/father makes	0.275	0.386	0.252	0.315	0.52
Mother/father does not miss events	0.332	0.445	0.307	0.395	0.423
Fit (CFI/RMSEA)	.965/.048	.987/.039	.970/.046		

*Note.* All coefficients significant at  $p < .001$

the influence of background on proximal variables in Model 1 differ only trivially from those in Model 2, and are not shown in Table 4.

For Model 2, CFI = .917 and RMSEA = .047, with a confidence interval of .044 to .050, indicating that the model has good fit. For the alternative Model 1 without maternal involvement, with a CFI of .888 and an RMSEA of .056, the fit is only adequate. The difference in model fit is statistically significant ( $p < .001$ ). Model 2's R square (.337) is also substantially higher than Model 1's (.147), another indicator of an improved model. Thus, the study's model incorporating the influence of maternal involvement on paternal involvement fits the data significantly better than a model in which this influence is not taken into account.

*Influences on father involvement.* In Table 3, Model 2, the coefficient for the path from mother involvement to father involvement is significant and large (beta = .429) as hypothesized. This coefficient is twice as high as that of any other predictor in Model 2. In contrast, the influence of father on mother involvement is small and nonsignificant (beta = .043), as expected.

Among the proximal variables, being a stepfather and marital conflict are significant negative predictors of father involvement in Model 2, as hypothesized (beta = -0.202; -0.129). Contrary to hypothesis, maternal work hours are not significantly linked to father involvement (beta = .008). Among the background variables, child age and gender and paternal education are also significant predictors (see table; betas provided in text for hypothesized associations only).

Table 3  
*Effects of Background and Proximal Variables on Father/Mother Involvement*

Variable Description	Father Involvement Model 1		Father Involvement Model 2		Mother Involvement Model 2	
	Beta	SE	Beta	SE	Beta	SE
Child Age	-0.128*	0.012	-0.072*	0.014	-0.205*	0.012
Child Male	0.117*	0.030	0.120*	0.029	-0.036	0.027
Maternal Depression	0.065*	0.015	0.053*	0.014	-0.111*	0.001
Paternal Education					0.004	0.006
Maternal Education					-0.094*	0.021
Marital Conflict	-0.176*	0.021	-0.129*	0.021		
Stepfather	-0.242*	0.043	-0.202*	0.040		
Maternal Work Hours	-0.004	0.017	0.008	0.017	-0.065*	0.014
African American	0.005	0.015	0.011	0.016	0.046*	0.071
Hispanic	-0.004	0.067	-0.007	0.032	0.036	0.075
Mother Involvement			0.429*	0.125		
Father Involvement					0.043	0.077
R square	0.144		0.334		0.115	
Model 1						
Chi Square		1442.214, 209 df				
Fit		CFI = .884, RMSEA = .054, range = .051-.056				
Model 2						
Chi Square		1078.956, df = 201				
Fit		CFI = .917, RMSEA = .047, range = .044-.049				

\*p < .05

*Influences on mother involvement.* Lower mother involvement is predicted by greater marital conflict (beta = -.094) and higher work hours (beta = -.065), supporting the hypotheses. Additionally, greater maternal depression is associated with less maternal involvement. Having an older early adolescent is associated with lower maternal involvement as well.

*Mediating role of mother involvement.* Model 2's results can be compared with those in Model 1 to evaluate the hypothesized mediating role of mother involvement in the effect of other influences on father involvement. For marital conflict, the criteria for partial mediation are met. The beta coefficient for the path from conflict to father involvement drops from -.176 in Model 1 without mother involvement, to -.129 in Model 2 with mother involvement, a 27% reduction. In addition, as reported above, the paths from conflict to mother involvement, and from mother involvement, are significant. The Sobel test indicated that the indirect effect of marital conflict on paternal involvement through maternal involvement is statistically significant at  $p < .05$  ( $t = -2.475, p = .013$ ). Thus, in addition to the direct negative effect of marital conflict on father involvement noted earlier, conflict also has an indirect negative effect through mother involvement.

Maternal involvement does not, however, mediate the effect of maternal work hours on father involvement. In Model 1 without mother involvement, maternal work hours were unrelated to father involvement (beta = -.004), and this coefficient changes only trivially (beta = .006) in Model 2 including mother involvement. However, prior findings indicate that higher maternal work hours do have an indirect negative effect on father involvement via mother involvement: higher work hours are significantly associated with lower mother involvement (beta = -.065), which in turn leads to lower father involvement (beta = .429).

Additionally, higher child age is associated with lower father involvement directly, as well as indirectly via its influence on mother involvement.

### *Structural Models: Associations between Background and Proximal Variables*

Table 4 shows the associations between the background variables and the three proximal variables (marital conflict, fathers' bio-step status, and maternal work hours). These additional results complete the estimation of the model, but are not presented in detail since no hypotheses were developed for these associations.

## Discussion

The study found that indicators of parental engagement in positive activities, warmth and closeness, and monitoring and decision-making form a single latent factor for father involvement as well as for mother involvement. This finding is consistent with other research suggesting that parenting has similar dimensions across gender (Skinner, Johnson, & Snyder, 20065). It also contributes to the literature on whether pa-



Table 4  
*Effects of Background Variables on Proximal Variables (Model 2)*

Variable Description	Marital conflict Model 1		Stepfather Model 2		Maternal Work Hours Model 2	
	Beta	SE	Beta	SE	Beta	SE
Child Age	-0.021	0.012	0.069*	0.019	-0.042*	0.014
Child Male	-0.014	0.032	-0.060*	-0.043	0.000	0.036
Maternal Depression	0.102*	0.009			-0.082*	0.002
Paternal Education	-0.090*	0.007				
Maternal Education						
Mother's Age at First Birth			-0.064*	-0.011	0.170*	0.010
Number of Children			-0.200*	-0.019	-0.135*	0.006
African American	0.005	0.015	0.011	0.016	0.306*	0.018
Hispanic	-0.004	0.012	-0.007	-0.010	0.046*	0.071
Spouse Income	-0.035	0.032			0.036	0.075
R square	0.025				-0.177*	0.025
Chi Square					0.134	
Model Fit		1078.956, df = 201				
		CFI = .917, RMSEA = .047, range = .044-.049				
Correlations between Errors						
Maternal work hours	-0.033					0.038
Stepfather						-0.010

\**p* < .05

ternal involvement is best conceptualized as unidimensional or multidimensional. Consistent with Schoppe-Sullivan, McBride, and Ho (2004), decision-making and monitoring had somewhat weaker relationships to the latent involvement factor than did other indicators. Nonetheless, a one-factor model fits the data best.

As hypothesized, high marital conflict and being a stepfather are associated with lower father involvement. The study's key hypothesis that level of maternal involvement positively influences level of father involvement was supported. The SEM model including maternal involvement as an influence on father involvement (Model 2) fit the data significantly better than an alternative model omitting this variable (Model 1). The coefficient for the effect of mother involvement on father involvement in Model 2 was both significant and substantial, whereas the reciprocal effect of father involvement on mother involvement was not significant. Since the model controlled for child characteristics, race-ethnicity, marital conflict, and mothers' work hours, these variables' common influence on both fathers' and mothers' involvement can be ruled out as the source of the link between parent's involvement. The finding that maternal involvement influences the level of father involvement provides additional reason to control for the former in studies of the effects of the latter on child outcomes (Amato & Rivera; Pleck; Pleck & Masciadrelli). Further, results supported the hypothesis that the effect of marital conflict on fathers' involvement is partially mediated by maternal involvement. If this partial maternal mediation is not considered, the direct effect of marital conflict on father involvement will be overestimated. Altogether, results provide support for the study's key hypotheses about maternal involvement as both a direct influence and as a mediator of other influences on paternal involvement.

One limitation of the study is that the data about father and mother involvement are provided by a single reporter, the early adolescent. Although same-informant bias is reduced to some degree by allowing the error in the involvement indicators to be correlated across parents, the linkage between parents' involvement may nonetheless be overestimated. It should also be noted that same-informant bias does not account for the much stronger influence of maternal involvement on paternal compared to influence in the other direction. The availability of only six indicators of involvement may also have limited the study's ability to detect multiple factors within parental involvement as well as to detect differences in its structure between fathers and mothers. Marital conflict was assessed by a single item, reported by the same informant providing data on parental involvement. Although we used instrumental variables to help assess the bidirectional influence of maternal and paternal involvement on each other, the data used are cross-sectional. Given that most of these families have been together for the child's entire lifetime, and short-term cross-lagged models are unlikely to show sufficient variation for identification, this cross-sectional design was the best available. Finally, the results can be generalized only to two parent families; comparable work needs to be conducted on single parent families with non-resident fathers as well.

The study's strengths include its focus on parental involvement with early adolescents, important because it is less often studied than involvement with younger children. The sample is large and nationally representative of early adolescents in the 1990s. The

data about parental involvement are from different informants than the data about two of the proximal predictors (maternal work hours and fathers' biostep status) and the background variables, avoiding same-informant bias in assessing relationship between the latter variables and parental involvement.

In conclusion, although mother involvement has been taken into account in research on the *consequences* of father involvement, this has not been the case in prior quantitative studies of the *sources* of father involvement. This study's inclusion of mother involvement in modeling father involvement provides new understanding of the joint nature of coresidential parenting. The role of mother involvement in father involvement, and the manner in which maternal involvement mediates other influences on father involvement, merit increased research attention as part of the broader exploration of the dynamics of co-parenting.

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