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# Maternal Coparenting Attitudes and Toddler Adjustment: Moderated Mediation through Father's Positive Engagement

Jia Yan, Sarah J. Schoppe-Sullivan, and Claire M. Kamp Dush

## SYNOPSIS

**Objective.** To better understand the antecedents of fathers' positive engagement and child externalizing behaviors, we examined the roles of maternal coparenting attitudes and fathers' prenatal intuitive parenting behaviors in predicting fathers' positive engagement and toddler externalizing behaviors. **Design.** One hundred and eighty-two dual-earner families residing in Columbus, Ohio, were recruited when parents were expecting their first child. They were followed across the transition to parenthood and assessed at the third trimester (Time 1), 3 months postpartum (Time 2), 9 months postpartum (Time 3), and when the child reached approximately 27 months of age (Time 4). Mothers reported their perceptions of their partners' parenting competence (i.e., coparenting attitudes) and their children's externalizing behaviors at Times 2 and 4, respectively. Fathers reported their own positive engagement at Times 2 and 3. Fathers' intuitive parenting behaviors were observed at Time 1. **Results.** After controlling for fathers' positive engagement at Time 2, maternal endorsement of fathers' parenting competence positively predicted fathers' positive engagement at Time 3, especially for fathers who displayed average or high levels of prenatal intuitive parenting behaviors. For families with fathers who displayed average or above-average intuitive parenting behaviors, maternal endorsement of fathers' parenting competence was negatively associated with children's externalizing behaviors through its positive association with fathers' positive engagement. **Conclusions.** Maternal coparenting attitudes in conjunction with fathers' prenatal intuitive parenting predicted toddler externalizing behaviors through their association with fathers' positive engagement.

## INTRODUCTION

The role that fathers play in U.S. American families has changed. Historically, they were considered the moral teachers and breadwinners for their families (Pleck & Pleck, 1997). Since the 1970s, fathers have been urged to serve a nurturing paternal role (Lamb, 2010). Through the latter half of the twentieth century, resident fathers' involvement in child-rearing has gradually increased (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Pleck & Masciadrelli, 2004), particularly in dual-earner families (Raley, Bianchi, & Wang, 2012). However, compared with working mothers, fathers still maintain a relatively lower level of participation in childrearing (Kotila, Schoppe-Sullivan, & Kamp Dush, 2013). The changing roles of fathers prompted more research on fathers,

which has shown that multiple components of father involvement benefit children (Pleck, 2010).

According to Lamb, Pleck, Charnov, and Levine (1987), father involvement comprises three components: engagement, availability, and responsibility. Of these three components, most of the fathering literature has focused on engagement, defined as face-to-face father-child interaction (Pleck, 2010). A revision of Lamb et al.'s (1987) conceptualization of father involvement expanded the engagement component to three domains: (1) positive engagement activities, (2) warmth and responsiveness, and (3) control (Pleck, 2010). Specifically, positive engagement was defined as interactive activities that fathers engage in that are likely to promote child development. Greater paternal positive engagement predicts better social adjustment (Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008) and cognitive development (Tamis-LeMonda, Baumwell, & Cabrera, 2013) among children across developmental stages. Compared with other domains of father involvement, fathers' positive engagement may be particularly important to children's development of social competence. Positive engagement activities provide children opportunities to learn and practice social skills with their fathers (Leidy, Schofield, & Parke, 2013). Identifying the determinants of fathers' positive engagement is therefore important both to increase understanding of why some fathers are more involved in positive engagement than others and to efforts aimed at increasing fathers' positive engagement.

One key influence on fathers' positive engagement may be the coparenting relationship (Schoppe-Sullivan, Brown, Cannon, Mangelsdorf, & Sokolowski, 2008). Coparenting is defined as the ways in which adults in families share responsibilities for childrearing and manage parental roles together (Talbot & McHale, 2004). Supportive coparenting behaviors (e.g., warmth, cooperation) often predict increased father involvement in childrearing, whereas undermining coparenting behaviors (e.g., displeasure, competition) predict decreases in father involvement (Waller, 2012). Although many studies have investigated the associations between father involvement and coparenting behaviors, less is known about whether maternal coparenting attitudes are also associated with fathers' positive engagement.

The present study examined mothers' coparenting attitudes as a predictor of fathers' positive engagement and child adjustment in dual-earner families. Specifically, we tested whether maternal endorsement of fathers' parenting competence predicted fathers' positive engagement and child externalizing behaviors. We further examined whether mothers' coparenting attitudes were associated with child adjustment via fathers' positive engagement, which has been linked with children's adjustment in prior research (Sarkadi et al., 2008).

### **Predictors of Fathers' Positive Engagement: Theoretical Frameworks**

Several theoretical frameworks have guided research that explores the antecedents of father involvement in childrearing, including Belsky's (1984) process model of parenting, Lamb and colleagues' (1987) and Doherty, Kouneski, and Erickson's (1998) more specific models that identified determinants of fathering, and Cabrera, Fitzgerald, Bradley, and Roggman's (2014) expanded model of responsible fathering. This last model specifically stressed the importance of considering the interplay of multiple factors (e.g., each family member's characteristics and behaviors) when studying the

antecedents of fathering behaviors (also referred to as “a buffered system” in Belsky, 1984).

Guided by these frameworks, researchers have identified multiple antecedents of father involvement. Most studies have focused on father and child characteristics and the romantic relationship between the father and the child’s mother. For example, Volling and Belsky (1991) tested associations of fathers’ age, education, income, marital relationships, and work–family interface with father involvement (i.e., observed father-child interaction and father responsibility in child care) at 3 and 9 months postpartum. Parents’ mental health, infant age, and fathers’ work hours were also identified as antecedents of fathers’ physical play engagement (Cabrera, Hofferth, & Chae, 2011).

Consistent with the notion that coparenting relationships may be particularly influential for fathers’ involvement in parenting, increased scholarly interest in relations between coparenting and father involvement has emerged. For instance, Schoppe-Sullivan et al. (2008) found that greater maternal encouragement and better coparenting quality predicted increased father involvement in child care at 3.5 months postpartum. Fagan and Palkovitz (2011) found coparenting support positively predicted father engagement (i.e., paternal engagement in child care, play, and oral language activities) after controlling for partner relationships. These findings suggest that mothers might serve as “gatekeepers” who either facilitate or restrict fathers’ involvement (Fagan & Barnett, 2003; Schoppe-Sullivan, Altenburger, Lee, Bower, & Kamp Dush, 2015). Such gatekeeping behaviors are considered an important part of the coparenting relationship. Although previous studies have demonstrated that maternal gatekeeping behaviors are associated with father involvement, less is understood regarding the association between fathers’ positive engagement and maternal coparenting attitudes, a less explicit aspect of coparenting.

### **Maternal Endorsement of Fathers’ Parenting Competence**

Maternal endorsement of fathers’ parenting competence has been recognized as an important aspect of coparenting relationships (Feinberg, Brown, & Kan, 2012). Although coparenting relationship quality is associated with father involvement among dual-earner couples in cross-sectional studies (e.g., Buckley & Schoppe-Sullivan, 2010), less is known about whether maternal endorsing attitudes facilitate father involvement. Fathers with supportive partners who endorse and acknowledge their parenting competence might be motivated to become more competent in parenting, and thus might involve themselves more with their children.

However, most studies that have linked maternal attitudes to father involvement have focused on mothers’ traditional gender role attitudes in general (e.g., Bonney, Kelley, & Levant, 1999; Hoffman & Moon, 1999; Zvara, Schoppe-Sullivan, & Dush, 2013) or mothers’ general attitudes about the importance of the father’s role in child development (e.g., Beitel & Parke, 1998; Fagan, Newash, & Schloesser, 2000; McBride et al., 2005). Fewer studies have examined the role of the mother’s specific endorsement of her partner’s parenting. These studies have been cross-sectional and have yielded mixed findings (e.g., Bonney et al., 1999; Fagan & Barnett, 2003). For example, in a study of resident and non-resident fathers of children ranging in age from 3 to 16 years, Fagan and Barnett (2003) found that maternal perceptions of fathers’ competence in relating to their children were positively associated with

paternal participation in play, homework helping, and solo child care. Contrarily, Bonney et al. (1999) did not detect a significant association between mother-rated paternal parenting competence and the percentage of time the father served as the primary caregiver among dual-earner families of toddlers and preschool aged children. These mixed findings might have resulted from different assessment tools and varied sample composition. Moreover, such findings suggest the necessity of exploring moderators affecting the association between maternal attitudes and father involvement.

Although many studies have indicated that relations and negotiation among members in the family system influence the way fathers behave in childrearing (e.g., Doherty et al., 1998; Fagan & Barnett, 2003), very few studies have gone beyond main-effects models to examine interactions between factors that may predict father involvement, or more specifically, fathers' positive engagement (Cabrera et al., 2014; but see Schoppe-Sullivan, Altenburger, Settle, Kamp Dush, Sullivan, & Bower, 2014). Primarily guided by Cabrera et al. (2014), but also enlightened by other frameworks (Doherty et al., 1998; Lamb et al., 1987), the current study considered the interaction of paternal and maternal (coparental) characteristics in predicting father involvement.

### **Fathers' Characteristics as Correlates of Father Involvement**

Accumulating evidence indicates that paternal prenatal behaviors inform the prediction of postpartum involvement among fathers (Bronte-Tinkew, Ryan, Carrano, & Moore, 2007; Cabrera, Fagan, & Farrie, 2008; Schoppe-Sullivan et al., 2014; Zvara, Schoppe-Sullivan, & Dush, 2013). For instance, Zvara et al. (2013) found that fathers' prenatal involvement (i.e., attendance at prenatal doctor's visits) was positively associated with father involvement in child health care after the child's birth. Moreover, Schoppe-Sullivan et al. (2014) found that fathers' prenatal intuitive parenting behavior in conjunction with that of their partner predicted fathers' positive engagement at 3 months postpartum. Intuitive parenting behaviors are the subtle and non-conscious parental behaviors (e.g., smiling, high-pitched rhythmic voice, eye contact, etc.) that facilitate infant-caregiver interaction and infants' optimal development (Papoušek & Papoušek, 1987). Displaying prenatal intuitive parenting behavior indicates fathers' preparedness and readiness for parenting their infant (Papoušek & Papoušek, 1987).

### **Child Externalizing Behaviors**

Child externalizing behaviors, a salient domain of children's behavior problems, are predicted by both coparenting relationship quality (Farr & Patterson, 2013) and father involvement (Sarkadi et al., 2008). Specifically, Teubert and Pinquart (2010) detected the negative association between coparenting quality and externalizing behavior problems in a meta-analytic review of 59 studies. In addition to coparenting, disengaged father-infant interactions also predict increased externalizing behavioral problems at 1 year of age (Ramchandani et al., 2013), whereas greater father involvement predicts fewer child externalizing behaviors (Carlson, 2006; Gryczkowski, Jordan, & Mercer, 2010; Williams & Kelly, 2005). Fathers' positive engagement may be particularly beneficial: Jia, Kotila, and Schoppe-Sullivan (2012) reported that fathers' positive engagement predicted decreases in preschoolers'

externalizing behaviors over time. Given the links among maternal coparenting attitudes, fathers' positive engagement, and child externalizing behaviors, we hypothesized that the association between maternal coparenting attitudes and child externalizing behaviors could be explained by an indirect effect through fathers' positive engagement.

### The Current Study

Using a longitudinal design, the current study examined the interaction of maternal coparenting attitudes and paternal prenatal intuitive parenting behaviors as predictors of fathers' positive engagement with their infants in the early postpartum months and child externalizing behaviors at approximately 2 years of age. Given that temperament is considered a strong predictor of toddlers' externalizing behaviors (Caspi, Henry, McGee, Moffitt, & Silva, 1995; Schermerhorn et al., 2013) and may also influence fathers' positive engagement (Manlove & Vernon-Feagans, 2002), the direct association between fathers' positive engagement and externalizing behaviors might result from shared covariance with infant temperament. Thus, we included infant temperamental characteristics as covariates in the analyses. In addition, to further strengthen our model, we controlled for fathers' positive engagement at a prior time point, in order to test whether maternal endorsement predicted residual change in fathers' positive engagement, consistent with the hypothetical causal sequence. The current study tested the following two hypotheses:

Hypothesis 1: Fathers' intuitive parenting will interact with maternal endorsement of fathers' parenting competence to predict fathers' positive engagement. Based on theoretical considerations, we posed two competing hypotheses.

After accounting for fathers' positive engagement at an earlier time point, the positive association between maternal endorsement of fathers' parenting competence and fathers' positive engagement will be either

- (1a) stronger when fathers display more prenatal intuitive parenting behaviors, because they may be more prepared for parenthood and thus more easily motivated by their partner's endorsement; or
- (1b) stronger when fathers display fewer prenatal intuitive parenting behaviors, because they may have fewer parenting skills and thus benefit more from their partner's endorsement.

Hypothesis 2: Maternal endorsement of fathers' parenting competence will exert an indirect effect on toddler externalizing behaviors through its association with fathers' positive engagement, after accounting for children's temperament during infancy, with fathers' intuitive parenting moderating the indirect effect.

## METHOD

### Participants

We used data from New Parents Project, a longitudinal study of 182 different-sex dual-earner couples residing in Columbus, Ohio, and followed across the transition to

parenthood. Participants were recruited through childbirth education classes, advertisements in local newspapers, flyers posted at health-care facilities and local businesses, and snowball sampling. To be eligible for participation, parents had to be currently married or cohabiting, each expecting their first biological child without prior parenting experience, at least 18 years of age, fluent in English, and working full-time with plans of returning to work at least part-time after the child's birth.

Among 182 sets of participating parents, 157 sets (86.3%) were married, and 25 sets (13.7%) were cohabiting. At the time of recruitment, fathers' ages ranged from 18 to 50,  $M = 30.20$ ,  $SD = 4.81$ , and mothers' ages ranged from 18 to 42,  $M = 28.24$ ,  $SD = 4.02$ . Sixty-five percent of expectant fathers and 75% of expectant mothers held a Bachelor's or higher degree. Participating parents were predominantly European Americans (85.6% of fathers and 85.2% of mothers). Of the remainder, 12 fathers (6.7%) identified themselves as African American, 6 (3.3%) as Asian American, 1 (0.6%) as Pacific Islander, 6 (3.3%) as other, and 1 (0.6%) as mixed race, with the remaining two fathers refusing to respond. Eleven mothers (6%) identified themselves as African American, 5 (2.7%) as Asian American, 4 (2.2%) as other races, and 7 (3.8%) as mixed race. The median household income was \$81,000. Fifty-one percent of the infants were boys.

## Procedures

Data were collected during the third trimester of pregnancy (Time 1), 3 months postpartum (Time 2), 9 months postpartum (Time 3), and when infants were about 27 months of age (Time 4) from 2008 to 2012. At Times 1, 2, and 3, mothers and/or fathers completed surveys on demographic information, coparenting quality, parenting engagement, and/or infant temperament (details below). At Time 4, only mothers' reports on toddler development were collected. The Prenatal Lausanne Trilogue Play (PLTP; Carneiro, Corboz-Warnery, & Fivaz-Depeursinge, 2006) assessments were conducted at Time 1 during a home visit.

The 5-min PLTP (Carneiro et al., 2006) was designed to elicit parenting behaviors using a doll which represented the baby of the expectant parents. In the PLTP, a research assistant pretends to be a nurse, introducing the doll to the expectant parents and leading them to imagine it is their first time to meet their baby. Expectant parents have to decide who plays with the doll first. When one parent is playing with the doll, the other parent sits by their side and watches his/her partner until the roles are reversed. After both parents take turns to play with the doll, they play with the doll together. At the end of the procedure, the parents are asked to put the doll to sleep together and discuss their experience.

To standardize the procedure across homes, researchers brought two chairs, a table, and a special mat (marked with proper position of the chairs and the table) to each home visit. The PLTP procedure was videotaped with a tripod-mounted camera which was able to capture the parents' faces and upper bodies from the waist up. The gender-neutral doll was approximately 7–8 lbs. with rice sewn inside to make its weight similar to that of a newborn. The doll had a green fabric head and no facial features. The average duration of the PLTP procedure in the current study was 6.29 min ( $SD = 2.49$ ).

**Measure: Third Trimester (Time 1)**

**Fathers' intuitive parenting in the PLTP.** Fathers' intuitive parenting behaviors in the PLTP were coded based on the frequency, variety, and intensity of six behaviors displayed toward the doll observed from the recorded videos: holding and facing the baby, dialogue distance, baby talk and/or smiles at the baby, caresses and/or rocking, exploration of the baby's body, and preoccupation with the baby's well-being. Two trained observers (one male, one female) coded fathers' intuitive parenting behaviors on a 5-point scale, with 1 representing a father who displayed no intuitive parenting behaviors, 3 representing a father who displayed up to three intuitive parenting behaviors but did not maintain them throughout the interaction, or demonstrated a limited repertoire of behaviors and/or showed self-doubt, and 5 representing a father who displayed five or six intuitive parenting behaviors and appeared to be comfortable and natural. The reliability of the coding scales has been demonstrated in previous studies (Carneiro et al., 2006; Schoppe-Sullivan et al., 2014). Interrater reliability was computed through double coding of 33% randomly selected PLTP episodes. Gamma statistics (Liebetrau, 1983) indicated acceptable reliability for the fathers' intuitive parenting scale,  $\gamma = .76$ .

**Measures: 3 and 9 Months Postpartum (Times 2 and 3)**

**Maternal endorsement of fathers' parenting competence: 3 months postpartum.** Mothers reported on their coparenting relationships at Time 2 with a measure developed by Feinberg et al. (2012). We used the 7-item subscale on which mothers reported their endorsement of their partner as a parent. Mothers were instructed to "select the response that best describes the way you and your baby's father work together as parents" on items such as "I believe my baby's father is a good parent" on a 7-point Likert type scale (0 = *not true of us*; 2 = *a little bit true of us*; 4 = *somewhat true of us*; 6 = *very true of us*). The internal consistency (Cronbach's alpha) for maternal endorsement in the current sample was .79.

**Frequency of paternal positive engagement: 3 and 9 months postpartum.** At Times 2 and 3, fathers were asked to indicate how many days a week (on an 8-point scale from 0 to 7 days) they engaged in developmentally appropriate activities with their infant using four items (i.e., play games like "peek-a-boo" with baby; sing songs or nursery rhymes to baby; read/tell stories to baby; play inside with toys) from the *Fragile Families and Child Well-being Study* (<http://www.fragilefamilies.princeton.edu>). The scale demonstrated acceptable reliability in the current sample,  $\alpha = .77$  (Time 2) and .72 (Time 3).

**Infant temperament: 3 months postpartum.** Mothers rated infant surgency, negative affect, and effortful control on the Very Short Form of the Revised Infant Behavior *Questionnaire* (Gartstein & Rothbart, 2003), based on infants' behaviors over the past 7 days. The IBQ-R is a 7-point Likert type scale that consists of 37 items, with 1 representing the lowest level of surgency/negative affect/effortful control, and 7 representing the highest level of surgency/negative affect/effortful control. Infant surgency reflected the extent to which infants were happy, active, and

sensation seeking. Mothers rated infant surgency on 13 items including “When tossed around playfully, how often did the baby laugh?”. Infant negative affect reflected the extent to which infants displayed negative emotions including fear, anger, sadness, discomfort, and frustration. Mothers rated infant negative affect on 12 items including “When tired, how often did your baby show distress?”. Infant effortful control reflected the extent to which infants could focus attention and restrain an impulse. Mothers rated infant effortful control on 12 items including “How often during the last week did the baby play with one toy or object for 5–10 minutes?”. Cronbach’s alphas showed acceptable reliabilities across the three subscales,  $\alpha = .82$  for surgency;  $\alpha = .80$  for negative affect; and  $\alpha = .65$  for effortful control.

### Measures: 27 Months (Time 4)

**Child externalizing behaviors.** The Externalizing domain of the Infant Toddler Social Emotional Assessment (ITSEA; Carter & Briggs-Gowan, 2006) was employed to assess toddler externalizing behaviors when children were approximately 27 months of age (min = 14.63; max = 45.23;  $M = 27.26$ ;  $SD = 11.37$ ). The ITSEA contains 3 subscales (24 items in total) representing toddler externalizing behaviors. The externalizing domain included (1) activity/impulsivity, a 6-item subscale reflecting the extent to which the toddler showed overactivity (e.g., “Gets hurt so often that you can’t take your eyes off him/her”); (2) aggression/defiance, a 12-item subscale reflecting the extent to which the toddler displayed defiance (e.g., “is disobedient or defiant. For example, refuses to do as you ask”), relational defiance (e.g., “Acts bossy”), dispositional aggression (e.g., “Acts aggressive when frustrated”), and conduct related problems (e.g., “Hurts animals on purpose”); (3) peer aggression, a 6-item subscale reflecting the extent to which the toddler displayed relational (e.g., “Won’t let other children play with his/her group”) and overt aggressive behaviors in a peer group (e.g., “Hits, shoves, kicks, or bites other children”).

Mothers used a 3-point Likert type scale (0 = *not true/rarely*, 1 = *somewhat true/sometimes*, and 2 = *very true/often*) to rate all ITSEA items. A higher score in the externalizing domain represents a higher level of externalizing behaviors. Mothers were allowed to select “no opportunity” to indicate that they did not have the opportunity to observe certain behaviors. Items coded as “no opportunity” were not included when computing scores on each subscale. Cronbach’s alpha in the current study was  $\alpha = .80$  for the Externalizing total score, which was used for analysis.

## RESULTS

### Analysis Plan

First, preliminary analyses examined missing data as well as descriptive statistics and correlations among the study variables. We also tested for possible group differences in the study variables based on demographic characteristics. Next, we performed procedures recommended by Preacher, Rucher, and Hayes (2007) to test the first hypothesis. Finally, we tested the predicted moderated mediation model. Five thousand bootstrap resamples were utilized to generate 95% confidence intervals that estimated

effect size and significance. The moderated mediation procedure was performed with the SPSS PROCESS Macro (Hayes, 2013).

### Preliminary Analyses

The missing rates for data collected at Time 1 and Time 2 were between 1.6% and 6.6%. The missing rates for fathers' positive engagement at Time 3 and toddler externalizing behaviors at Time 4 were 17.0% and 37.9%, respectively, due to the attrition in our longitudinal project. Missing value analysis including all study variables revealed that the data were missing completely at random (MCAR), Little's MCAR test Chi-Square = 86.83,  $df = 68$ ,  $p > .05$ . Therefore, the Expectation Maximization method (Gold & Bentler, 2000) was used to impute missing data before conducting the following analyses (Dong & Peng, 2013).

The preliminary analyses first examined potential differences by demographic variables (i.e., parents' age, ethnicity, education level, child gender, and socioeconomic status) in all of the study variables. Correlational results showed that parents' age was not significantly associated with any of the study variables. A series of analyses of variance (ANOVAs) was conducted to examine the associations between non-continuous demographic variables and all study variables. The results of ANOVAs revealed that fathers' education level,  $F(7, 174) = 2.41$ ,  $p = .02$ , mothers' education level,  $F(7, 174) = 2.49$ ,  $p = .02$ , and annual household income,  $F(10, 171) = 2.18$ ,  $p = .02$ , were associated with child externalizing behaviors, but not with maternal endorsement or fathers' positive engagement. Specifically, toddlers in families with higher household incomes and more highly educated parents showed lower levels of externalizing behaviors. In addition, fathers' education level,  $F(7, 174) = 2.07$ ,  $p = .05$ , and annual household income,  $F(10, 171) = 2.74$ ,  $p = .004$ , were associated with fathers' intuitive parenting behavior prenatally. Specifically, fathers who held at least a Bachelor's degree

**TABLE 1**  
Means (*M*), Standard Deviations (*SD*), and Bivariate Correlations of Study Variables and Continuous Covariates

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. M-Age	28.74	4.08									
2. F-Age	30.70	4.79	.67**								
3. T1F-IPB	3.22	.96	.14	.05							
4. T2M-End	5.12	.83	.01	-.01	-.08						
5. T2 Surg	3.96	.89	-.11	-.02	-.08	-.02					
6. T2 Neg	3.40	.87	-.06	-.04	.01	-.02	.11				
7. T2 Eff	5.49	.58	-.08	-.01	-.09	-.07	.45**	-.14			
8. T2F-PE	4.80	1.67	.02	-.03	.06	.27**	-.04	.00	-.13		
9. T3F-PE	5.46	1.23	.08	.03	.00	.32**	-.03	.13	-.06	.65**	
10. T4 Exter	.48	.19	-.10	-.02	-.12	-.22**	.21**	.32**	-.05	-.10	-.21**

*Notes.* M-Age = Mother age; F-Age = Father age; T1 = The third trimester; T2 = 3 months postpartum; T3 = 9 months postpartum; F-IPB = Fathers' intuitive parenting behaviors; M-End = Maternal endorsement of fathers' parenting competence; Surg = Infant surgency; Neg = Infant negative affect; Eff = Infant effortful control; F-PE = Fathers' positive engagement; T4 Exter = Child externalizing behaviors at 27 months.

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

or had higher household incomes showed the most intuitive parenting behaviors. We did not detect group differences on any of the study variables (i.e., maternal endorsement, fathers' positive engagement, toddler externalizing behaviors, or fathers' intuitive parenting behaviors) by child gender or parents' ethnicity (coded as 1 for European American and 0 for Other).

We next tested the correlations among the control variables and key variables of interest. The means, standard deviations, and correlations are shown in Table 1. Child externalizing behavior at 27 months was positively associated with surgency,  $r(180) = .21, p = .005$ , and negative affect at 3 months,  $r(180) = .32, p < .001$ , but not with effortful control,  $r(180) = -.05, p = .48$ . No other significant correlations were found between infant temperament indicators and other variables. Fathers' positive engagement at Time 2 was significantly correlated with maternal endorsement of fathers' parenting competence at Time 2,  $r(180) = .27, p < .001$ , and fathers' positive engagement at Time 3,  $r(180) = .65, p < .001$ . All three temperament indicators and fathers' positive engagement at Time 2 were included in the subsequent moderated mediation analysis as covariates. The demographic variables were included at first, but none of them were significant predictors, and when excluded, the parameter estimates of the key variables of interest were not altered.

Other significant correlations (Table 1) indicated that child externalizing behavior at Time 4 was negatively associated with both maternal endorsement of fathers' parenting competence at Time 2,  $r(180) = -.22, p = .003$ , and fathers' positive engagement at Time 3,  $r(180) = -.21, p = .004$ . In addition, maternal endorsement of fathers' parenting competence at Time 2 was positively associated with fathers' positive engagement at Time 3,  $r(180) = .32, p < .001$ .

## Hypothesis Testing

**H1: Fathers' intuitive parenting will interact with maternal endorsement of fathers' parenting competence in predicting fathers' positive engagement.** Procedures recommended by Preacher et al. (2007) were performed to test the

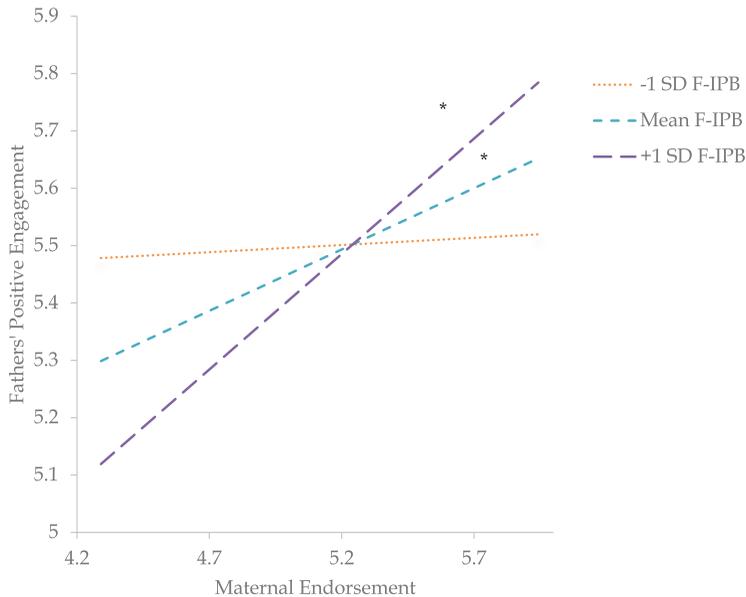
TABLE 2

Results for the Moderation Model and the Conditional Effects of Maternal Endorsement in Association with Fathers' Positive Engagement

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
<i>Moderation Model (DV = fathers' positive engagement at Time 3)</i>				
Constant	5.58**	1.64	3.40	.00
Maternal endorsement (ME)	-.42	.31	-1.34	.18
Fathers' intuitive parenting behaviors (FIPB)	-1.04	.47	-2.17	.30
ME × FIPB	.20*	.09	2.14	.03
Fathers' positive engagement at Time 2	.45**	.04	10.48	.00
	<i>Effect</i>	<i>SE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
<i>Conditional effects of moderator</i>				
-1 SD fathers' intuitive parenting behaviors	.03	.13	-.23	.28
Mean fathers' intuitive parenting behaviors	.21*	.09	.04	.38
+1 SD fathers' intuitive parenting behaviors	.40*	.12	.17	.64

Notes. -1 SD represents one standard deviation below mean; +1 SD represents one standard deviation above mean.

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



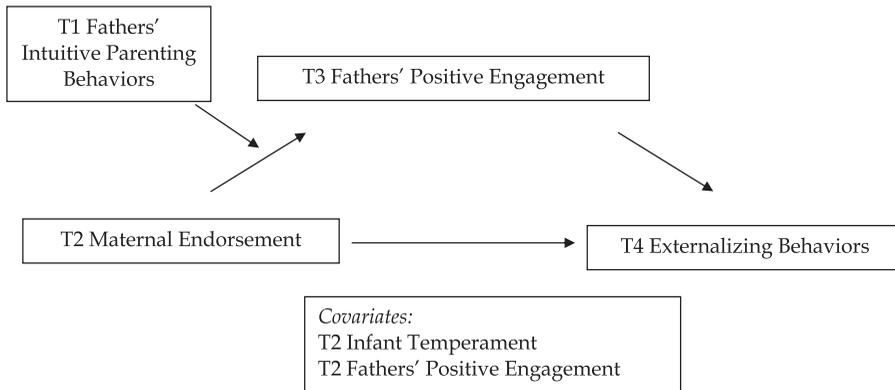
**FIGURE 1.**

Associations between maternal endorsement at Time 2 and fathers' positive engagement at Time 3, holding fathers' positive engagement at Time 2 constant, at different levels of fathers' prenatal intuitive parenting behaviors (F-IPB).

*Note.* Asterisk (\*) denotes significant conditional effects. The three groups were created for data presentation purposes.

predicted moderation model for this hypothesis with the PROCESS Macro (Hayes, 2013). Fathers' positive engagement at Time 3 was entered as the outcome variable. Fathers' intuitive parenting behavior was entered as the moderator. Maternal endorsement of fathers' parenting competence at Time 2 was entered as the independent variable. Fathers' positive engagement at Time 2 was entered as the covariate. The results for the moderation model are shown in Table 2. The moderation model in total explained 45.6% of the variance in fathers' positive engagement at Time 3,  $F(4,177) = 27.07, p < .001$ . The addition of the interaction term significantly increased overall goodness-of-fit,  $R^2$  change = .014,  $F(1,177) = 4.59, p = .03$ . There were also conditional effects of mothers' endorsement on fathers' positive engagement at 9 months postpartum (Time 3). The positive association between maternal endorsement at Time 2 and fathers' positive engagement at Time 3 became stronger when fathers showed more intuitive parenting behaviors prenatally, after controlling for fathers' positive engagement at Time 2 (Figure 1). The association was only significant when fathers displayed average or high levels of intuitive parenting.

**H2: Maternal endorsement of fathers' parenting competence will exert an indirect effect on toddler externalizing behaviors through its association with fathers' positive engagement, with fathers' intuitive parenting moderating the indirect effect.** A moderated mediation model was tested to examine this hypothesis concerning the conditional indirect effect. As shown in Figure 2, we entered maternal endorsement of fathers' parenting competence at Time 2 as the independent variable,



**FIGURE 2.**

The proposed conceptual model for associations between maternal endorsement of fathers' parenting competence at 3 months postpartum (T2) and child externalizing behaviors at 2 years old (T4) as mediated by fathers' positive engagement at 9 months postpartum (T3), with fathers' intuitive parenting behaviors at T1 moderating such an indirect effect.

toddler externalizing behaviors at Time 4 as the dependent variable, fathers' positive engagement at Time 3 as the mediator, and fathers' intuitive parenting behaviors at Time 1 as the moderator. The result of the moderated mediation analysis is summarized in Table 3. In general, the results showed that maternal endorsement of fathers' parenting competence exerts both a direct effect and an indirect effect on child externalizing behaviors in toddlerhood. The indirect effect was through fathers' positive engagement, and was significantly different from zero only on the condition that fathers showed a moderate or high level of intuitive parenting behavior, total  $R^2 = .24$ ,  $F(6, 175) = 9.04$ ,  $p < .001$ . A "high" level of intuitive parenting behavior represented one standard deviation above the mean level of intuitive parenting behavior, "moderate" represented the mean level, and "low" was equivalent to one standard deviation below the mean. Thus, for fathers who showed at least a mean level of intuitive parenting behavior, greater maternal endorsement of the father's parenting was associated with more frequent paternal positive engagement in infancy, which in turn was linked with fewer child externalizing behaviors in toddlerhood.

## DISCUSSION

Guided by Cabrera et al. (2014), the current study aimed to expand knowledge about predictors of fathers' positive engagement and child adjustment by exploring their associations with maternal coparenting attitudes toward their partners and expectant fathers' preparedness for fathering (indicated by fathers' intuitive parenting behaviors). In particular, we examined the roles of maternal coparenting attitudes, fathers' intuitive parenting behaviors, and the interaction between the two in predicting fathers' positive engagement with their 9-month-old infants as well as their children's externalizing behaviors in toddlerhood. We found that the positive associations between maternal endorsement of fathers' parenting competence and paternal positive engagement at 9 months postpartum

**TABLE 3**  
 Conditional Indirect Effect of Maternal Endorsement in Association with Toddler Externalizing Behaviors through Fathers' Positive Engagement

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
<i>Mediator model (DV = T3 fathers' positive engagement)</i>				
Constant	4.14**	1.86	2.23	.03
T2 Maternal endorsement (ME)	-.39	.31	-1.24	.22
T1 Fathers' intuitive parenting behaviors (FIPB)	-1.00*	.47	-2.09	.04
T2 ME × T1 FIPB	.19*	.09	2.07	.04
T2 infant surgency	-.09	.09	-1.03	.30
T2 infant negative affect	.21**	.08	2.59	.01
T2 infant effortful control	.16	.13	1.20	.23
T2 fathers' positive engagement	.45**	.04	10.63	.00
<i>Dependent variable model (DV = T4 toddler externalizing behaviors)</i>				
Constant	.63**	.16	3.87	.00
T3 fathers' positive engagement	-.04**	.01	-3.12	.00
T2 maternal endorsement (ME)	-.04*	.02	-2.25	.03
T2 infant surgency	.05**	.02	2.92	.00
T2 infant negative affect	.07**	.02	4.54	.00
T2 infant effortful control	-.04	.02	-1.55	.12
T2 fathers' positive engagement	.01	.01	1.37	.17
	Indirect Effect	<i>SE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
<i>Conditional Indirect effects of moderator (DV = toddler externalizing behaviors)</i>				
-1 SD fathers' intuitive parenting behaviors	-.002	.01	-.02	.10
Mean fathers' intuitive parenting behaviors	-.01*	.01	-.03	-.001
+1 SD fathers' intuitive parenting behaviors	-.02*	.01	-.04	-.004

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

were stronger for fathers who were more prepared for fathering (i.e., displayed more prenatal intuitive parenting behaviors), while holding fathers' positive engagement at 3 months postpartum constant. Moreover, we found that maternal coparenting attitudes predicted child externalizing behaviors in toddlerhood in part through their associations with fathers' positive engagement in infancy, especially for fathers who displayed at least average levels of prenatal intuitive parenting, and after accounting for infant temperament.

Consistent with Hypothesis 1a, we found that the positive association between maternal endorsement of fathers' parenting competence and fathers' positive engagement with their infants was present for fathers who displayed average or high levels of intuitive parenting behaviors. For fathers who displayed low levels of intuitive parenting behaviors, there was no association between maternal endorsement of fathers' parenting competence and fathers' positive engagement with their infants. The competing Hypothesis 1b was therefore not supported. A father who displays moderate to high levels of intuitive parenting likely has parenting skills and is reasonably psychologically prepared and motivated for parenthood. With these components for successful parenting in place, these fathers stand to benefit most (in terms of greater positive engagement) from mothers' affirmation of their parenting. In contrast, a father who displays lower levels of intuitive parenting may lack parenting skills and/or psychological preparedness and motivation. Without these components of successful parenting in place, even if mothers endorse fathers' parenting, the end result may not be greater father positive engagement.

This finding supports Doherty et al.'s (1998) and Cabrera et al.'s (2014) theoretical models that posit that not only do maternal and paternal characteristics individually play critical roles in determining father involvement, it is also important to consider the interplay between them. This finding also contributes to the historical debate about whether maternal attitudes impact father involvement. Our findings partially corroborate those of Fagan and Barnett (2003), in that maternal attitudes towards their own partner's parenting competence predicted father involvement. But we only found such associations for fathers who were prenatally better prepared for parenthood. Consistent with Bonney et al. (1999), who found no associations between maternal attitudes and father involvement, maternal endorsement did not predict an increase or decrease in fathers' positive engagement for less prepared fathers. In general, our findings supported the hypothesis that positive coparenting attitudes (i.e., high expectations) held by mothers predict better parenting performance of fathers in a majority of families (i.e., those with fathers who displayed at or above average intuitive parenting behaviors).

In support of our second hypothesis, we found that maternal endorsement of paternal parenting competence was positively associated with fathers' positive engagement with infants for fathers who showed average or above-average intuitive parenting behaviors, which in turn was related to fewer child externalizing behaviors in toddlerhood. Such associations were not detected among families with fathers who displayed lower than average prenatal intuitive parenting behaviors. This finding suggests that in families in which maternal endorsement predicts greater paternal positive engagement, positive engagement of fathers underlies the association between maternal coparenting attitudes and child adjustment. One notable issue was that the mediation through fathers' positive engagement was not full mediation. In addition to the indirect effect through fathers' positive engagement, maternal endorsement of fathers' parenting competence also exerted a direct effect. Maternal endorsement of fathers' parenting competence may be associated with child externalizing behaviors through other pathways as well, including observed coparenting behavior or other aspects of fathers' parenting such as sensitivity, warmth, or control.

The current study had several notable strengths. First, we built on previous literature by examining the interplay of several family members' characteristics in predicting fathers' positive engagement, as well as the mechanism underlying the associations between parental coparenting attitudes and children's social adjustment. Moreover, in contrast to other studies in which mothers' reports have been used to measure father involvement, fathers' positive engagement was reported by fathers themselves, which may yield more accurate results (see Hernandez & Coley, 2007) and avoided single-reporter bias when examining the association between fathers' positive engagement and maternal coparenting attitudes. Finally, the longitudinal data allowed us to control for important covariates (i.e., infant temperament and fathers' positive engagement at an earlier time point), thereby increasing our confidence in the findings.

However, the findings of the current study also need to be interpreted in light of its limitations. First, the sample was not representative of all families in which mothers and fathers coparent together. Although it is important to study fathers' positive engagement in dual-earner couples given the particular utility of fathers' positive engagement in these families, our findings may not generalize to single-

earner families, families with more than one child, or families with non-resident fathers, or to populations other than the recruited sample (Bornstein, Jager, & Putnick, 2013). Future studies are encouraged to investigate associations between maternal endorsement of fathers' parenting competence, fathers' positive engagement, and toddler externalizing behaviors with more representative samples. Second, although fathers' reports of the frequency of their positive engagement were considered more accurate than mothers' reports, they might not be as objective as daily diary or observational measures. Third, the correlational nature of the study limited our ability to draw causal conclusions. The current study could not definitively determine the causal direction of associations between maternal endorsement of fathers' parenting competence, fathers' positive engagement, and child externalizing behaviors. Fourth, we only examined the frequency of fathers' positive engagement, one of many dimensions of fathers' parenting. It is important to study the observed quality as well as quantity of fathers' positive engagement in future research; ultimately, frequent, developmentally appropriate, and high-quality father-child interactions are likely most beneficial for children's development. Overall, this study highlights the importance of considering the roles of each parent's characteristics when studying predictors of fathers' positive engagement and child social adjustment. Researchers should continue to develop and test complex models of fathers' parenting that allow for multiple predictors and interactions among those predictors.

### **IMPLICATIONS FOR PRACTICE, APPLICATION, THEORY, AND POLICY**

By identifying antecedents of fathers' positive engagement, the current study informs practitioner efforts to increase resident fathers' involvement with their children. Expectant and new parents might be a therapist's most motivated clients (Fivaz-Depeursinge & Favez, 2006). Therefore, the transition to parenthood may be an excellent opportunity to educate parents about the importance of fathers' positive engagement and the important roles of fathers and mothers both in fostering it. Our findings suggest that practitioners should consider the importance of fathers' motivation and preparation for parenthood in conjunction with mothers' attitudes about fathers' competence as parents. On the one hand, practitioners are advised to work with new mothers to ensure that they understand their acknowledgement and endorsement of fathers' involvement and fathers' parenting competence may result in self-fulfilling prophecies. On the other hand, practitioners should consider working with new fathers to promote their knowledge, confidence, and motivation for parenthood in order for mothers' support to be effective.

### **ADDRESSES AND AFFILIATIONS**

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## ARTICLE INFORMATION

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