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Comparisons of levels and predictors of mothers' and fathers' engagement with their preschool aged children

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Abstract

Self-report data from 112 two-parent families were used to compare levels and predictors of four types of mothers' and fathers' engagement with their preschool aged children: socialization, didactic, caregiving, and physical play. Mothers were more involved than fathers in socialization, didactic, and caregiving, whereas fathers were more involved than mothers in physical play. Mothers' greatest engagement was in caregiving, whereas fathers were about equally engaged in didactic, caregiving, and physical play. Mothers who contributed more to family income were less engaged in socialization and caregiving, whereas fathers with nontraditional beliefs about their roles were more engaged in didactic and caregiving. Children with greater temperamental effortful control received more didactic and physical play engagement from mothers. Fathers were more likely to engage in socialization activities with earlier-born children, whereas mothers were more likely to engage in socialization with girls high in effortful control. Mothers were more likely to engage in physical play with boys and with later-born children.

Keywords

father engagement; mother engagement; child temperament; child gender; birth order; caregiving; physical play

Developmentally appropriate engagement by mothers and fathers has been linked to positive outcomes for children (Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008). In the past 30–40 years fathers' engagement with their children has increased (Pleck & Masciadrelli, 2004); however, there is still significant variability in fathers' engagement with young children, even in families headed by married parents (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Fathers are no less capable than mothers at providing children with sensitive, responsive care (Lamb, 1997), yet mothers are most often the primary caregivers for children regardless of employment status (Bianchi, Robinson, & Milkie, 2006).

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This distinction has shaped the ways in which research has examined mothers' and fathers' parenting. Whereas research on mothers' parenting has primarily focused on the quality of maternal behavior, research on fathers' parenting has focused more on the quantity of involvement (Adamsons & Buehler, 2007). Relatively rare are quantitative comparisons of maternal and paternal engagement using parents from the same families (e.g., LaFlamme, Pomerleau, & Malcuit, 2002; McBride & Mills, 1993), even though fathers' and mothers' interactions with children are necessarily intertwined (Pleck & Hofferth, 2008).

The use of qualitatively distinct conceptualizations and measures of maternal and paternal parenting has made comparisons within and across studies difficult. As a result, we have a limited understanding of the ways in which mothers and fathers interact with their children, and the extent to which patterns and predictors of engagement are similar or different. Understanding the patterns and predictors of mothers' and fathers' engagement with their children is critical to informing the continued development of theoretical models about parenting and fathering, and important to the design of educational programs intended to promote positive parental engagement. Thus, the purpose of this study was to compare mothers' and fathers' involvement in four types of engagement with their preschool aged children: socialization, didactic, caregiving, and physical play, as well as to examine parent and child characteristics as predictors of mothers' and fathers' engagement in these domains.

Conceptualization of parental engagement

Lamb, Pleck, Charnov, and Levine (1985) identified three domains of involvement: engagement, responsibility, and accessibility. Engagement is most often a focus of research due to its strong associations with child outcomes (e.g., Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). In their research on non-resident father involvement, Cabrera et al. (2004) distinguished four subtypes of meaningful engagement activities: socialization (e.g., taking the child to family, community, or social events), didactic (e.g., reading or singing with the child), caregiving (e.g., assisting the child with eating or other physical care activities), and physical play (e.g., playing outside with the child).

The socialization aspect of engagement involves the roles of parents in linking children with the outside world (Parke & Ladd, 1992). Some have argued that fathers may play a special role in child socialization (Paquette, 2004). Fathers provide children with new experiences, companionship during these experiences, and knowledge and advice about them (Hewlett, 1992). In families with infants, however, Laflamme et al. (2002) found that mothers were more involved than fathers in taking children on "outings" in the neighborhood and community. Nonetheless, comparisons of parental participation in family and community activities with preschool children are unknown.

Didactic interactions are those in which parents encourage children to engage in and understand their environments, as well as providing the opportunity to observe, learn, and imitate behaviors (Bornstein, 2002). Although didactic interactions between father and child have shown the strongest links with positive child development (Bianchi et al., 2006; Yeung et al., 2001), most research has focused on didactic interactions between mother and child, and studies comparing parents' involvement in this domain are rare. In an exception, Yeung et al. (2001) compared mothers' and fathers' time with children in various activities and found that fathers spent 1/3 of the time that mothers did in didactic activities such as reading, educational play, and studying with children ages 0–9.

Engagement in childcare activities is somewhat different from the other types of engagement, because these interactions may be more task- and routine-oriented, and are arguably less "elective" than other forms of parent engagement. Yet, even routine childcare tasks performed by parents are important for children. When fathers are more involved in

caregiving activities such as feeding, bathing, and putting their child to bed, they have more opportunities to get to know their children and develop confidence in their parenting (Barry, Smith, Deutsch, & Perry-Jenkins, 2011), thereby promoting the formation and maintenance of the close relationships with children that facilitate their socioemotional development.

Whereas mothers are believed to specialize in caregiving, popular notions suggest that fathers spend the majority of their time in “play” activities with their children, and most findings indicate that fathers do spend a greater proportion of time in physical play with their children than mothers (Paquette, 2004; Yeung et al., 2001). Parent-child physical play peaks during the preschool years, a period during which most children rapidly develop perceptual, motor, cognitive, emotional, and social functioning (Paquette, Carbonneau, Dubeau, Bigras, & Tremblay, 2003), and provides important opportunities for children to build skills important for peer competence (Carson & Parke, 1996; MacDonald & Parke, 1984).

Predictors of parental engagement

Two frameworks were used to identify key potential predictors of mothers’ and fathers’ engagement with their children: the Lamb-Pleck model of the determinants of father involvement (Lamb, Pleck, Charnov, & Levine, 1987) and Belsky’s (1984) process model of parenting. The Lamb-Pleck model proposed four categories of influence on father involvement: (1) motivation (e.g., fathers’ desire for involvement), (2) skills and self-confidence (e.g., parenting self-efficacy), (3) social supports and stresses (e.g., marital relationships), and (4) institutional factors (e.g., workplace policies). Belsky’s (1984) process model described three categories of influence on parenting behaviors: (1) parent characteristics (e.g., personality), (2) child characteristics (e.g., temperament, age, gender), and (3) contextual sources of stress and support (e.g., marital relationships). In this study, we focused on parent and child characteristics – specifically, mothers’ contributions to family income, parents’ beliefs about fathers’ roles, couple relationship satisfaction, and child effortful control, gender, and birth order.

Parent characteristics

According to a set of perspectives described as the “relative resources hypothesis” (Coltrane, 2000, p. 1214), partners use resources that they bring to the relationship to negotiate lighter workloads at home. This hypothesis has been supported by research on household labor (Coltrane, 2000); when women contribute more to family income their divisions of household labor with their partners are more equal. Part of the move towards equality when mothers contribute greater resources is due to greater father involvement in childrearing (Pleck & Masciadrelli, 2004). But, it is not necessarily clear that mothers with greater relative earnings reduce their involvement in childrearing, as they may be unable or unwilling to do so (Craig & Mullan, 2011).

Parents’ beliefs about fathers’ roles, a key component of the motivation factor of the Lamb-Pleck (Lamb et al., 1987) model, have also been linked to levels of paternal involvement with children. Fathers with more nontraditional beliefs about their roles are more engaged with their children (Beitel & Parke, 1998; Freeman, Newland, & Coyl, 2008). Moreover, mothers’ nontraditional beliefs about fathers’ roles have been linked to greater paternal engagement as well (Fagan & Barnett, 2003), whereas mothers who view the paternal role as surrogate to the maternal role have partners who are less involved (Beitel & Parke, 1998).

Fathers’ parenting has been described as especially sensitive to the family context (Doherty, Kouneski, & Erickson, 1998), and in particular affected by the quality of the father’s relationship with the child’s mother. However, the quality of the marital relationship also

figures prominently in Belsky's (1984) model, which was developed primarily based on research with mothers. Indeed, greater marital satisfaction has been linked to mother as well as to father involvement (Carlson, Pilkauskas, McLanahan, & Brooks-Gunn, 2011; Mehall, Spinrad, Eisenberg, & Gaertner, 2009).

Child characteristics

Effortful control is the ability to voluntarily focus and shift attention and to initiate or inhibit behaviors that emerges in infancy, develops rapidly during the toddler years, and plays important roles in the regulation and control of early emotional reactions and behaviors (Rothbart & Bates, 2006). Children with higher levels of effortful control, who can better control their emotions and behavior, may make parental engagement more rewarding, thereby strengthening parents' motivation for further engagement. To our knowledge, studies of child effortful control and parental engagement are absent in the literature, but a few relevant studies have found prospective associations between poorer child attentional and behavioral regulation and poorer parenting quality (Bridgett et al., 2009; Eisenberg et al., 1999).

Research has also suggested associations of child birth order and child gender with parental involvement. When differences are found, parent involvement is greater with first-born than with later-born children (Bègue & Roché, 2005; Price, 2008). Differences by child gender are not always found, but when they are, child gender is associated more closely with father than with mother involvement, and fathers of sons are more involved than fathers of daughters (Lundberg, McLanahan, & Rose, 2007; Raley & Bianchi, 2006). Child gender and birth order may also interact. Yoshida (2011) reported that fathers were more involved in physical care when there was a young male child (< 5 years old) in the family, but that the presence of older, school-aged children reduced fathers' involvement.

The present study

The data used were drawn from a study of preschool aged children in 112 two-parent families. Our first goal was to examine mothers' and fathers' involvement in four types of engagement: socialization, didactic, caregiving, and physical play. Consistent with research reviewed above, we hypothesized that mothers would be more frequently engaged in didactic and caregiving activities with children than fathers, whereas fathers would be more frequently engaged in physical play activities with children than mothers. We did not advance a hypothesis with respect to parent gender differences in socialization. We further expected that relative to their engagement in other domains, mothers would be most frequently engaged in caregiving activities and least frequently engaged in physical play, whereas fathers would be more frequently engaged in physical play relative to other types of engagement.

Our second goal was to examine the contributions of parent and child characteristics to maternal and paternal engagement. Consistent with theory and prior research, we expected that when mothers made a greater contribution to family income they would be less frequently engaged in caregiving (but not necessarily other) activities but fathers would be more frequently engaged in caregiving. When mothers and fathers held more nontraditional beliefs about fathers' roles, we anticipated that fathers would be more frequently engaged in activities with their children – especially in caregiving, which has been traditionally associated with the maternal role. We also hypothesized that both fathers and mothers would be more engaged across domains when couples reported greater relationship satisfaction.

With respect to child characteristics, we anticipated that parents would be more frequently engaged in activities with their children – especially socialization, didactic, and physical

play, which are arguably more “elective” than caregiving – when children had higher temperamental effortful control. Consistent with the vast majority of the literature, we also expected that parents would be more frequently engaged in activities with first-born children than with later-born children, and that child gender would be associated with fathers’ but not mothers’ engagement, with differences in father engagement in favor of sons.

Finally, we also tested child gender as a moderator of associations of other parent and child characteristics with parental engagement. Consistent with the notion that father involvement is especially sensitive to contextual factors (Doherty et al., 1998), McBride, Schoppe, and Rane (2002) found that less sociable female children had less involved fathers, but sociability wasn’t associated with father involvement with sons. In contrast, mothers’ involvement was not associated with child temperament or gender. Thus, we expected that father engagement with sons would be more robust to contextual influences than father engagement with daughters, but that there would be no moderating effects of child gender for mothers.

Method

Participants

One-hundred twelve families consisting of mothers, fathers, and a preschool aged focal child ($M = 4.12$ years; $SD = .52$; 58 boys, 54 girls) were recruited to participate through local preschools, advertisements, and participant referrals in a large Midwestern metropolitan area. Mothers’ average age was 36.03 years ($SD = 5.26$), and fathers’ average age was 37.73 years ($SD = 5.74$). Eighty-three percent of mothers and 81% percent of fathers had obtained at least a college degree ($Range =$ some high school to Ph.D.). Family income ranged from less than \$10,000 to over \$100,000 per year ($Mdn =$ \$71,000 to \$80,000). Seventy-seven percent of children were White, non-Hispanic, 9% African American, 1% Hispanic, 1% Asian, and 13% multiracial/multiethnic. Sixty percent of focal children were first-born, 27% were second-born, and 14% were third- or later-born. Families had 2.23 children on average ($SD = 0.98$; $Range = 1$ to 7). Thirty-six percent of mothers were working full time (31+ hours per week), 23% were working part time (< 10 to 30 hours per week), and 42% were not employed outside the home. Eighty-seven percent of fathers were working full time, 8% part time, and 6% were not employed. On average, mothers contributed 25.51% of the family income ($SD = 27.71\%$).

Measures

Mothers and fathers each reported their own level of engagement with their preschool-age child using the Activities with Child Scale created for the Early Head Start Research and Evaluation Project and the Early Childhood Longitudinal Birth Cohort (Cabrera et al., 2004). Parents indicated the frequency of their involvement (1 = *not at all*; 6 = *more than once a day*) in 30 activities with their child within the last month. These items can be divided into 5 subscales (see Cabrera & Mitchell, 2009): socialization (9 items; e.g., “Visit friends with child”; $\alpha = .64$ for mothers and $\alpha = .65$ for fathers), management (3 items; e.g., “Take child to doctor”; $\alpha = .55$ for mothers and $\alpha = .38$ for fathers), didactic (5 items; e.g., “Play with building toys with child”; $\alpha = .71$ for both mothers and fathers), physical play (6 items; e.g., “Play chasing games with child”; $\alpha = .68$ for mothers and $\alpha = .71$ for fathers), and caregiving (7 items; e.g., “Put child to bed”; $\alpha = .63$ for mothers and $\alpha = .70$ for fathers). Because of very low reliability, the management component of parental engagement was not considered further.

Each parent completed the What Is a Father? (WIAF) questionnaire (Schoppe, 2001), a 15-item measure adapted from Palkovitz’s (1984) Role of the Father Questionnaire. Items on

the WIAF ask respondents to rate statements concerning fathers and fathering from 1 = *strongly disagree* to 5 = *strongly agree*. Five items tap nontraditional beliefs (e.g., “Fathers are just as sensitive in caring for children as mothers are”), and five items tap traditional beliefs (e.g., “The father’s role is to provide for his family, not babysit the children”). Ratings on the five traditional items were reverse-scored and averaged with ratings on the five nontraditional items. Thus, higher scores indicated the presence of more nontraditional beliefs about fathers and the absence of more traditional beliefs. Cronbach’s alpha for mothers was .66 and for fathers .60.

Mothers and fathers reported on their relationship satisfaction using the 32-item Dyadic Adjustment Scale (Spanier, 1976), a widely-used, reliable, and valid measure of relationship satisfaction. Summary scores were created for mothers ($\alpha = .92$) and fathers ($\alpha = .91$), and a couple-level score was created by averaging parents’ reports, which were strongly correlated, $r = .59$, $p < .01$.

Parents reported on their child’s temperament using the 36-item Very Short Form of the Children’s Behavior Questionnaire, appropriate for child children aged 3–8 (Putnam & Rothbart, 2006). The questionnaire contains statements about children that parents rate on a scale from 1 = *extremely untrue of my child* to 7 = *extremely true of my child*. Parents’ ratings of child effortful control (12 items; e.g., “When drawing or coloring in a book, shows strong concentration” “Is good at following instructions”) were the focus of this study ($\alpha = .73$ for mothers and $\alpha = .72$ for fathers). Parents’ ratings were significantly and moderately correlated, $r = .42$, $p < .01$, and thus averaged.

Mothers and fathers reported demographic information for themselves and their families on a questionnaire created for the study. We focused on mothers’ reports of their percent contribution to the family income, child gender (0 = boy; 1 = girl), and child birth order (higher scores indicated that the focal child was later-born).

Results

Comparisons of mothers’ vs. fathers’ engagement

Mean levels of the four aspects of engagement for mothers and fathers are reported in Table 1. Parents reported engaging in socialization activities approximately a few times per month, didactic activities a few times a week to about once a day, caregiving activities a few times a week to about once a day, and physical play a few times a month to a few times a week. Paired samples *t*-tests revealed that mothers and fathers differed significantly on all four aspects of engagement (Figure 1). Mothers engaged in greater socialization, $t(110) = 8.19$, $p < .01$, Cohen’s $d = 0.78$, didactic, $t(110) = 4.37$, $p < .01$, Cohen’s $d = 0.41$, and caregiving, $t(110) = 8.08$, $p < .01$, Cohen’s $d = 0.77$, than fathers. Fathers engaged in greater physical play than mothers, $t(110) = -4.64$, $p < .01$, Cohen’s $d = 0.44$.

No aspects of mothers’ or fathers’ engagement differed by child gender. Correlations among the four aspects of engagement for mothers and fathers (see Table 2) revealed that when parents were more involved in one aspect of engagement, they tended to be more involved in the other aspects as well. Within families, mothers’ and fathers’ engagement in socialization and physical play were significantly and positively correlated, but there were no significant correlations for didactic or caregiving.

A within-subjects ANOVA with parent gender and engagement type as within-subjects factors was used to further test whether the distributions of mothers’ and fathers’ involvement across the four types of engagement differed. There was a main effect of parent gender, $F(1,110) = 21.98$, $p < .01$, and of engagement type, $F(1,108) = 258.42$, $p < .01$.

These main effects were qualified by a significant parent gender X engagement type interaction, $F(1,108) = 53.81, p < .01$. Thus, the patterns of mothers' and fathers' involvement across engagement types differed, such that mothers were most frequently engaged in caregiving activities, with the least frequent engagement in physical play, whereas fathers were about equally involved in didactic, caregiving, and physical play.

Predictors of mothers' and fathers' engagement

Correlations among the predictor variables and between the predictors and the four aspects of engagement for mothers and fathers are shown in Table 2. Hierarchical regression analyses were used to further examine the relative contributions of parent and child predictors of mothers' and fathers' engagement in these four types of activities. Eight equations were computed – four predicting the types of engagement for mothers and four predicting the types of engagement for fathers. In each equation, mothers' contributions to the family income and the corresponding type of involvement by the other parent were entered together on the first step, followed by the three child predictors on the second step: child gender, birth order, and effortful control. Mothers' and fathers' progressive and traditional beliefs about fathers' roles and relationship satisfaction were entered together on the third step. On the fourth step, the birth order X child gender and effortful control X child gender interactions were entered. Finally, on the fifth step, the three remaining two-way interactions between child gender and each of the parent predictors (mothers' and fathers' nontraditional beliefs and relationship satisfaction) were entered. Continuous variables were mean-centered prior to the computation of product terms. Results for mothers and fathers are shown in Tables 3 and 4, respectively. Significant interactions were probed using an SPSS macro created by Hayes and Matthes (2009).

Mothers' engagement—The more mothers contributed to family income, the less involved they were in socialization activities with their children, $\beta = -.22, p < .05$. Mothers were more engaged in socialization when fathers were more engaged in socialization, $\beta = .36, p < .01$. None of the child or parent characteristics explained significant variance in mothers' engagement in socialization on steps 2 or 3. However, the interaction between effortful control and child gender ($\beta = .37, p < .01$) was significant on step 4. Post-hoc probing of this interaction revealed that greater effortful control was associated with greater maternal engagement in socialization for mothers of daughters, $b = 0.39, p < .01$, but not for mothers of sons, $b = -0.05, p = .57$. None of the interactions between parent characteristics and child gender entered on step 5 reached statistical significance.

Mothers were more involved in didactic activities when the focal child was higher on effortful control, $\beta = .36, p < .01$. None of the other predictors explained significant variance in mothers' engagement in didactic activities. Mothers reported greater engagement in caregiving activities when they made less of a contribution to family income, $\beta = -.22, p < .05$. There were no significant simple effects of child or parent characteristics, nor were interactions among child characteristics significant. However, on step 5, the interaction between fathers' nontraditional beliefs and child gender explained significant variance in mothers' engagement in caregiving, $\beta = .52, p < .01$. This interaction indicated that mothers of boys, $b = -0.64, p < .05$, but not mothers of girls, $b = 0.30, p = .14$, were less engaged in caregiving when their partners held more progressive beliefs about fathers' roles.

With respect to physical play, mothers were more involved in this aspect of engagement when their partners were more involved in physical play, $\beta = .22, p < .05$, and when they were the parents of boys, $\beta = -.20, p < .05$, later-born children, $\beta = .24, p < .05$, and/or children with high levels of effortful control, $\beta = .31, p < .01$. No parent characteristics or

interactions of child and parent characteristics with child gender explained significant variance in mothers' engagement in physical play.

Fathers' engagement—When predicting fathers' engagement in socialization activities, mothers' engagement was a significant predictor, $\beta = .37, p < .01$. On the second step, child birth order was a significant predictor, $\beta = -.20, p < .05$, indicating that fathers were more involved in socialization activities with earlier-born children. Fathers were also more involved in socialization activities when parents reported higher levels of relationship satisfaction, $\beta = .18, p < .05$ (although the F-change associated with this step was not statistically significant). None of the interactions between parent or child characteristics and child gender was associated with fathers' involvement in socialization.

The analysis of predictors of fathers' engagement in didactic and caregiving revealed only one significant predictor in both equations – fathers' nontraditional beliefs about fathers' roles, $\beta = .24, p < .05$ for didactic and $\beta = .25, p < .05$ for caregiving. In other words, fathers were more engaged in didactic and caregiving with their children when they held more nontraditional beliefs about fathers' roles. With the exception of mothers' involvement in physical play, $\beta = .22, p < .05$, no other predictors explained significant variance in fathers' engagement in physical play.

Discussion

Overall, the parents in this study were highly engaged with their children. But, even among a group of families with highly motivated fathers, mothers were still more involved than fathers in three out of the four aspects of engagement examined in this study: socialization, didactic, and caregiving. Differences for socialization and caregiving in favor of mothers were medium to large. Fathers only reported more frequent engagement than mothers in physical play. These differences are particularly striking given that mothers and fathers each reported on their own involvement, which reduced the bias toward finding differences in favor of mothers that may be problematic in studies that have relied solely on mothers' reports of parental involvement (Coley & Morris, 2004). The distributions of mothers' and fathers' engagement also differed, with mothers most frequently engaged in caregiving activities and least frequently engaged in physical play, and with fathers about equally engaged in didactic, caregiving, and physical play. These results were generally consistent with our expectations and with prior research (e.g., Laflamme et al., 2002; McBride & Mills, 1993; Yeung et al., 2001).

Next, we attempted to understand individual differences among mothers and fathers in the four types of engagement. Parent characteristics played an important role. When mothers contributed more to the family's income they were less frequently engaged in socialization and caregiving activities. This is consistent with the relative resources hypothesis that women who contribute more to family income have the power to "buy out" of family work (Coltrane, 2000). However, mothers' contributions to family income were not associated with their engagement in didactic or physical play, indicating that regardless of their resources, mothers did not use them to "buy out" of what they may have perceived as the most important aspects of their engagement (Craig & Mullan, 2011). Moreover, mothers' contributions to family income were not associated with any aspect of fathers' engagement. Thus, in this study, it does not appear that fathers compensated for lower levels of involvement in socialization and caregiving by mothers who made a greater contribution to family income. Perhaps others (e.g., child care providers, grandparents) compensated for lower frequency of engagement by mothers who contributed more to family income, and future research should investigate this possibility.

Fathers', but not mothers' nontraditional beliefs about fathers' roles were also related to several aspects of parental engagement. When fathers held more nontraditional beliefs they were more frequently engaged in didactic and caregiving activities with their children. This is consistent with the Lamb – Pleck model (Lamb et al., 1987) and with a number of other studies (Beitel & Parke, 1998; Freeman et al., 2008). In contrast, mothers' nontraditional beliefs about fathers were not associated with fathers' engagement, nor were mothers' beliefs about fathers associated with lower engagement on the part of mothers. Fathers' greater nontraditional beliefs were associated with less frequent maternal engagement in caregiving, but only in families with sons. Thus, in families in which fathers have nontraditional beliefs, fathers are more likely to engage in caregiving of boys and girls, whereas mothers of boys were less likely to engage in caregiving. Perhaps mothers are willing to reduce their involvement in caregiving for boys when their partner is more involved, but not willing to reduce their involvement in caregiving for girls. Or, caregiving of preschool aged girls may involve activities (e.g., bathing) that parents don't feel comfortable assigning to the male parent (Yoshida, 2011).

Child characteristics also proved to be important for individual differences in parental engagement – especially for mothers. Thus, our hypothesis that contextual factors would be more closely related to fathers' involvement with girls than with boys (and that child gender should not moderate associations between predictors and maternal involvement) was not supported. For mothers, greater child effortful control was associated with greater engagement in didactic and physical play, and also greater engagement in socialization if the focal child was female. Mothers may enjoy these types of activities more (and choose to engage in them more often) when their children are higher in effortful control, or better able to control their emotions and behavior. For socialization activities, which involve interactions in contexts outside of the home, mothers may have higher expectations for their daughters' regulatory abilities or anticipate that others in social settings may have higher expectations for girls. The maxim "boys will be boys" may excuse the behavior of preschool aged boys at church or at a museum, but girls' out of control behavior may not be so readily overlooked. Mothers' engagement in caregiving, however, was not associated with child effortful control. Thus, as expected, effortful control appeared to matter for parents' involvement in arguably more "elective" aspects of parenting.

Child birth order and child gender were also relevant for understanding parental engagement. Fathers were more likely to engage in socialization activities with earlier-born children. Some have argued that it is the father's role to introduce the child to the outside world (Paquette, 2004), and previous research has suggested higher levels of father involvement for first-born children (Bègue & Roché, 2005; Price, 2008); thus, fathers may be especially likely to provide opportunities for their earlier-born children to engage in social interactions in contexts outside of the home. Mothers were more likely to engage in physical play with boys and with later-born children. Mothers may show more frequent engagement with later-born children, because if they have more children, they may engage in play with children as a group. That mothers were also more likely to engage in physical play with boys may be due to gendered expectations for children.

Another important predictor of parent engagement was the engagement of the other parent, at least for socialization and physical play forms of engagement. These forms of engagement may be more likely to involve both parents simultaneously, or parents may model each other's involvement (Pleck & Hofferth, 2008), whereas parent engagement in caregiving and didactic activities may be complementary. Besides mothers' engagement in physical play, none of the other parent and child variables we considered predicted fathers' engagement in physical play. Although we recognize that conclusions drawn from null findings must be tentative, one possible interpretation of our lack of success in predicting this aspect of

engagement is that physical play is ingrained in the father role (Paquette, 2004), and thus is most robust to contextual influences. However, it is certainly possible that other factors that we did not examine in this study explain individual differences in engagement in physical play - for instance, father characteristics such as personality or subjective health and well-being. Future research considering these factors and others will be necessary to understand correlates of fathers' engagement in physical play.

Couple relationship satisfaction was less important than anticipated in explaining parents' engagement with their children –greater satisfaction was only associated with greater father involvement in socialization activities. These results may seem surprising, given that prior research has found associations between marital satisfaction and mother as well as father involvement (Carlson et al., 2011; Mehall et al., 2009). It is true that the couples in the present study were on average quite satisfied in their relationships. Thus, a lack of variability in marital satisfaction may explain these null findings. However, it is also possible that marital adjustment is a less important predictor of parental engagement for families headed by married parents with preschool age children, especially when compared with other factors such as children's own characteristics.

Limitations of this research should be acknowledged. This was a cross-sectional study, which makes it especially difficult to argue that certain parent and child factors caused individual differences in parental engagement. For instance, although we have argued that children's temperamental effortful control affects the extent of maternal engagement, it is equally possible that greater maternal engagement has helped children learn to better regulate their emotions and behavior. Longitudinal research is needed to uncover the likely reciprocal patterns of those associations. Our sample was mostly White, highly educated, relatively wealthy, and married, and thus our results may not apply to other populations of mothers and fathers. Moreover, self-report frequency measures may not be the best way to tap parental engagement. Time use measures such as time diaries may provide more objective and accurate information regarding parental engagement (Yeung et al., 2001). Finally, our focus in this study was on quantity of parental engagement in developmentally appropriate activities; however, the quality of parental engagement may be just as if not more important for child development. Future studies would do well to include observational measures of the quality of parental engagement in addition to quantitative measures.

As the benefits of involved parenting continue to mount, practitioners' and policymakers' interest in fostering parental engagement will endure, and as expectations for fathers' involvement in parenting increase, parents will keep on struggling to meet these expectations. Headway in encouraging and supporting parental engagement— especially that of fathers – can only be made with a thorough understanding of where we are at and where we need to go and the multiple factors that underlie individual differences in maternal and paternal engagement.

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Figure 1.
Comparisons of mothers' versus fathers' mean levels of engagement.

Table 1

Means and standard deviations of study variables.

	<i>M</i>	<i>SD</i>	<i>Range</i>
Parental Engagement			
M Socialization	3.20	0.42	2.00–4.44
F Socialization	2.81	0.42	1.25–3.78
M Didactic	4.25	0.75	2.60–5.80
F Didactic	3.83	0.76	1.80–5.60
M Caregiving	4.67	0.61	2.71–5.86
F Caregiving	4.04	0.64	2.14–5.57
M Physical Play	3.41	0.71	1.83–5.33
F Physical Play	3.79	0.69	2.33–5.50
Predictors			
M Income	25.51	27.71	0.00–100.00
Birth order	1.59	0.91	1.00–6.00
Effortful Control	5.39	0.57	3.25–6.55
M Nontraditional	3.56	0.48	2.00–4.90
F Nontraditional	3.50	0.43	2.20–4.70
Relationship Satisfaction	3.58	0.38	2.39–4.52

Note: M = mother; F = father.

Table 2

Correlations between parental engagement and parent and child characteristics.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. M Socialization	1.00	.32**	.46**	-.04	.10	-.06	.42**	.04	-.20*	.05	.16	-.13	-.06	.03
2. F Socialization		1.00	.11	.35**	-.04	.23*	.08	.29**	.07	-.25**	.21*	-.03	.07	.14
3. M Didactic			1.00	.09	.24**	.10	.54**	.23*	-.07	-.02	.31**	.02	-.02	.13
4. F Didactic				1.00	.01	.41**	-.02	.58**	.16	-.17	.14	.06	.23*	.09
5. M Caregiving					1.00	.12	.30**	.04	-.21*	-.01	.10	-.10	-.08	-.06
6. F Caregiving						1.00	.08	.33**	.06	-.19*	-.06	.17	.25**	.03
7. M Physical Play							1.00	.26**	-.05	.19*	.25**	-.14	-.07	.03
8. F Physical Play								1.00	.07	-.05	.07	-.08	.01	-.01
9. M income									1.00	-.15	.10	.32**	.16	-.12
10. Birth order										1.00	-.07	-.10	-.07	.09
11. Effortful Control											1.00	.02	.06	.15
12. M Nontraditional												1.00	.48**	.00
13. F Nontraditional													1.00	.03
14. Relationship Satisfaction														1.00

Note:

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

Table 3

Hierarchical regression predicting mothers' engagement.

Predictor	Mother Socialization			Mother Didactic			Mother Caregiving			Mother Physical Play		
	β	ΔR^2	ΔF	β	ΔR^2	ΔF	β	ΔR^2	ΔF	β	ΔR^2	ΔF
Step 1		0.17	10.35 ^{**}		0.01	0.63		0.06	3.15 [*]		0.05	2.87 ^t
% Income by M	-0.22 [*]			-0.08			-0.22 [*]			-0.07		
F Engagement	0.36 ^{**}			0.08			0.10			0.22 [*]		
Step 2		0.04	1.49		0.11	4.18 ^{**}		0.02	0.73		0.14	6.08 ^{**}
Child Gender	0.00			-0.13			-0.08			-0.20 [*]		
BirthOrd	0.09			0.01			-0.01			0.24 [*]		
Effortful	0.14			0.36 ^{**}			0.15			0.31 ^{**}		
Step 3		0.00	0.10		0.02	0.69		0.03	0.91		0.02	1.03
M NTrad	-0.02			0.13			-0.01			0.03		
F NTrad	-0.04			-0.09			-0.06			-0.16		
Satisf	-0.08			0.08			-0.15			-0.06		
Step 4		0.08	5.26 ^{**}		0.03	1.75		0.00	0.10		0.01	0.81
BirthOrd $\times$ Gen	0.15			0.20 ^t			-0.04			0.03		
Effortful $\times$ Gen	0.37 ^{**}			0.11			-0.04			0.16		
Step 5		0.03	1.07		0.03	1.35		0.08	3.12 [*]		0.02	0.68
Satisf $\times$ Gen	0.13			-0.22			0.04			0.19		
M NTrad $\times$ Gen	0.05			0.19			-0.27 ^t			0.01		
F NTrad $\times$ Gen	0.09			0.00			0.52 ^{**}			0.08		

Note: M = mother; F = father; BirthOrd = birth order; Effortful = child's effortful control; NTrad = Nontraditional beliefs regarding fathers; Satisf = couple relationship satisfaction; Gen = child gender.

^t $p < .10$

^{*} $p < .05$

$p < .01$
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Table 4

Hierarchical regression predicting fathers' engagement.

Predictor	Father Socialization			Father Didactic			Father Caregiving			Father Physical Play		
	β	ΔR^2	ΔF	β	ΔF	ΔR^2	β	ΔF	ΔR^2	β	ΔF	ΔR^2
Step 1		0.14	8.29**		0.03	1.63		0.02	0.79		0.05	2.96 ^f
% Income by M	0.15			0.16			0.08			0.08		
M Engagement	0.37**			0.08			0.11			0.22*		
Step 2		0.06	2.64 ^f		0.05	1.82		0.04	1.35		0.01	0.17
Child Gender	-0.12			0.13			-0.04			-0.03		
BirthOrd	-0.20*			-0.15			-0.16			-0.06		
Effortful	0.15			0.07			-0.10			0.00		
Step 3		0.04	1.64		0.05	1.92		0.08	2.97*		0.01	0.36
M NTrad	-0.06			-0.12			0.07			-0.11		
F NTrad	0.08			0.24*			0.25*			0.09		
Satisf	0.18*			0.08			0.01			0.00		
Step 4		0.02	1.35		0.03	1.49		0.01	0.36		0.02	0.81
BirthOrd $\times$ Gen	0.17			0.06			-0.05			-0.10		
Effortful $\times$ Gen	-0.05			-0.21			0.09			-0.14		
Step 5		0.01	0.52		0.01	0.29		0.02	0.72		0.03	0.87
Satisf $\times$ Gen	0.18			-0.02			-0.10			-0.24		
M NTrad $\times$ Gen	0.02			0.10			0.13			0.07		
F NTrad $\times$ Gen	-0.03			-0.15			-0.23			-0.07		

Note: M = mother; F = father; BirthOrd = birth order; Effortful = child's effortful control; NTrad = Nontraditional beliefs regarding fathers; Satisf = couple relationship satisfaction; Gen = child gender.

^f
 $p < .10$ *
 $p < .05$ **
 $p < .01$.