



Published in final edited form as:

J Marriage Fam. 2007 November ; 69(4): 962–976.

Parental Childrearing Attitudes as Correlates of Father Involvement During Infancy

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Abstract

Using daily diary data to document involvement with infants at 6 – 8 months of age (n = 142) and 6 months later (n = 95), we examined relations between reported childrearing attitudes and resident fathers' relative (as compared to mothers') involvement with children. Fathers' authoritarian views related negatively to their relative involvement on weekdays, and this relation held over time for caregiving and playing activities. Mothers' protective attitudes had concurrent negative associations with fathers' relative weekend involvement. Findings suggest that fathers' authoritarian and mothers' protective attitudes relate to how parenting responsibilities are shared within families and may be detrimental to how much fathers become, or choose to become, directly involved in the care of their infants in comparison to mothers.

Keywords

father-child relations; fatherhood; fathers; infancy; parenting styles; time diary methods

The contemporary sociocultural climate has fueled an increasing interest in fatherhood and the role of fathers in families. Changing economic and employment patterns including the rise in employed mothers, as well as transformations in societal attitudes toward fatherhood and gendered family roles have resulted in a greater call for fathers to actively participate in child care and family life (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Marsiglio, 1991). The current study was designed to further our understanding of the factors that motivate or inhibit men's involvement with their children. Specifically, we examined the relations between parental childrearing attitudes and relative levels of fathers' direct involvement during infancy, documented with daily diary data.

In general, fathers are quite capable and proficient caregivers (Lamb, 1986), and their positive involvement in childrearing is associated with healthy outcomes in the social, emotional, and cognitive functioning of children from infancy onward (Lamb, 2004). Fathers' participation in childrearing and family work appears to have relevance for other domains as well and has been related to greater marital satisfaction in both partners (Levy-Shiff, 1994), improvements in the mother-child relationship (Feldman, Greenbaum, Mayes, & Erlich, 1997), and fathers' own psychosocial health and self-development (Palkovitz, 2002).

Despite significant increases in paternal involvement in recent decades, fathers still spend considerably less time in parenting activities than do mothers, with substantial variability across families (Pleck & Masciadrelli, 2004). Fathers' participation during infancy, the focus

of this study, may be especially important given the amount of direct care required at this age. Moreover, because father involvement is often stable over time (Aldous, Mulligan, & Bjarnason, 1998), the early development of the paternal role may be critical, particularly as families reorganize and redefine their roles following the birth of a child (Minuchin, 1974).

Dimensions of Father Involvement

Contemporary researchers have recognized the multidimensional nature of father involvement, reflecting the many ways that fathers can meet children's needs. Lamb, Pleck, Charnov, and Levine (1987) have emphasized the factors of *interaction* (direct engagement), *accessibility* (physical and psychological presence and availability), and *responsibility* (indirect childrearing tasks such as planning and scheduling), and a number of other aspects have been proposed that reflect the nature (e.g., cognitive, emotional) of father involvement (Palkovitz, 1997). Empirical efforts also have been made to distinguish between the quality and the quantity of involvement (National Institute of Child Health and Human Development [NICHD] Early Child Care Research Network, 2000).

Among these varying definitions, direct engagement is unquestionably a significant component. In work with older children and adolescents, aspects of fathers' direct involvement such as time spent with children, child-care participation, and supportive parenting behaviors have been linked with academic achievement, fewer problem behaviors, and healthy psychosocial adjustment (Amato & Rivera, 1999; Hoffman & Youngblade, 1999; Simons, Whitbeck, Beaman, & Conger, 1994), often even after controlling for maternal influences (Amato & Rivera). During the first years of life, direct interaction may be a particularly salient influence on the developing father-child relationship and, consequently, on child outcomes. Although there is little evidence to date that the *quantity* of father involvement has a direct effect on very young children, fathers who take part in more caregiving activities are more sensitive with their infants (Feldman, 2000; Roggman, Boyce, Cook, & Cook, 2002) and report secure attachment relationships with them (Caldera, 2004), and their infants are more receptive and engaged with them during play (Feldman). Further, fathers' participation in parenting activities may provide needed support for overall family functioning.

Influences on Father Involvement

Notable determinants of parenting may include child characteristics (e.g., age, gender, temperament), parent characteristics (e.g., beliefs, personality), stressors on and supports to parental relationships (e.g., marital relationships, coparenting processes), and contextual factors (e.g., social support systems, work patterns) (Belsky, 1984; Doherty, Kouneski, & Erickson, 1998), and it is likely that these are multiple, interacting domains of influence. Some theorists have suggested that fathering may be particularly sensitive to these effects because the role has traditionally been less clearly defined than the maternal role (Doherty et al.). A rather neglected area of fathering research is the influence of parental attitudes about childrearing, and the current study considers how parental attitudes of authoritarianism and protectiveness are related to fathers' relative levels of direct involvement with their infants across time.

Parental Childrearing Attitudes

A majority of the researchers addressing the influence of parental attitudes on father involvement have examined those regarding the fathering role, including thoughts about paternal competency (Beitel & Parke, 1998; Bonney, Kelley, & Levant, 1999), gender and domestic work (Aldous et al., 1998; Barnett & Baruch, 1987), and the value and function of paternal involvement (Beitel & Parke). More general approaches or styles of childrearing, although linked with qualitative differences in father-child interaction (NICHD Early Child Care Research Network, 2000; Pratt, Kerig, Cowan, & Cowan, 1988), have rarely been

examined in relation to patterns of involvement. Childrearing attitudes likely influence fathers' and mothers' parenting goals and thus may affect how they engage with their children.

Authoritative parenting, which reflects emotional support and responsiveness as well as moderate control, is consistently associated with positive child outcomes (Parke & Buriel, 1998), including academic achievement, fewer internalizing and externalizing problems, and greater social competence with peers (Amato & Gilbreth, 1999; Marsiglio, Amato, Day, & Lamb, 2000; McDowell, Kim, O'Neil, & Parke, 2002). In contrast, authoritarian attitudes toward childrearing reflect beliefs in strict discipline and obedience, and this style of parenting is characterized by a punitive orientation and the use of power assertion and control (Baumrind, 1968). Such practices are generally thought to have negative effects on children's development, including peer relations, motivation, and internalization of values (Grolnick, 2003; Grusec & Goodnow, 1994; Rubin, Bukowski, & Parker, 1998).

Authoritarian parents are considered more emotionally distant and unavailable to their children. Although relatively unexplored, it is possible that these parents—especially fathers, whose participation may be more optional—also spend less time directly engaged with their children. Additionally, authoritarian views about how to raise children may be coupled with more traditional, gendered attitudes toward domestic work, including child care. Fathers typically participate less than mothers in housework and child care when they or their partners espouse none-galitarian gender ideologies (Bulanda, 2004; Greenstein, 1996). Thus, if authoritarian attitudes stem from an overarching, traditional set of values—including how men's and women's family roles are defined—fathers' participation in child care may be diminished. Although the research is very limited, there are indications that fathers of infants and young children who hold more child-centered attitudes provide more caregiving (Cowan & Cowan, 1987), whereas those with more traditional, authoritarian attitudes are less involved in both care and play (Paquette, Bolte, Turcotte, Dubeau, & Bouchard, 2000).

Protective parenting attitudes also may be linked with differences in levels of father involvement. Protection is a primary parenting responsibility and a core factor in the development of the parent-child attachment relationship (Goldberg, Grusec, & Jenkins, 1999), and it is generally viewed as an important function of the paternal role (Summers, Raikes, Butler et al., 1999). Nonetheless, the links between protective tendencies and father involvement are relatively untested, particularly beyond consideration of families living in unsafe or violent environments. Even in typical contexts, fathers who are highly protective may feel particularly responsible for safeguarding their children and thus may have a keen interest in being a part of their daily care.

Maternal protective attitudes may relate to father involvement as well. On the one hand, some mothers are reluctant to allow fathers' active participation in childrearing and restrict or discourage it by engaging in “gatekeeping” behaviors (Allen & Hawkins, 1999). This pattern may reflect beliefs about the primacy of the maternal role, or mothers may view themselves as more competent parents than fathers. Highly protective mothers may be more likely to take charge of child care and family work, restricting fathers' opportunities. They also may be more inclined to criticize or supersede their partners' parenting, and fathers may be especially vulnerable to this lack of support and withdraw from active involvement. Consistent with this idea, Beitel and Parke (1998) reported that when mothers had low appraisals of fathers' parenting motivation and skills, these men were less involved in infant caregiving. In a study of fathers of older children, maternal gatekeeping attitudes partially mediated the positive relation between their perceptions of paternal competence and fathers' participation in child care (Fagan & Barnett, 2003).

On the other hand, considerable debate exists as to the role of maternal attitudes and behaviors in determining father involvement (Walker & McGraw, 2000). Some research has found no relation, whereas other work has indicated that men's involvement in fact predicts mothers' opinions about their fathering (Aldous et al., 1998; Bonney et al., 1999; Marsiglio, 1991). Further, although mothers are in a position to inhibit father involvement, they are poised to facilitate and support it as well (Walker & McGraw). Men's own attitudes toward fathering and perceptions of their skills are related to their level of parenting involvement (Beitel & Parke, 1998; Bonney et al.), and they themselves may exert substantial control over how and when they choose (or choose not) to be engaged with their children. Moreover, specific combinations of parenting attitudes (e.g., a very authoritarian father with a highly protective partner) may be particularly detrimental for fathers' involvement. Longitudinal work assessing both mothers' and fathers' attitudes, such as the present study, may help unravel these issues.

Child Gender

Children's characteristics, such as gender, also may influence father involvement. Fathers are typically more involved with their sons than with their daughters as early as infancy (Levy-Shiff, 1994; NICHD Early Child Care Research Network, 2000), although this trend is more evident with older children (Lamb, 2000; Pleck, 1997). Further, there is some evidence that the correlates of father involvement may differ for fathers of boys versus girls and, although not consistently found, that father-daughter relationships may be more strongly affected by these factors than those between fathers and sons (Manlove & Vernon-Feagans, 2002; McBride, Schoppe, & Rane, 2002; McHale, 1995). In this study, we explored how the relations between parental attitudes and father involvement might differ for families with infant boys versus infant girls.

Sociodemographic Factors

As elaborated by Marsiglio, Roy, and Fox (2005), fathering occurs within the contexts of the physical and sociocultural environments within which families exist. Social and economic resources and opportunities, community organization, cultural values, and family routines and lifestyles may play a role in defining parenting attitudes as well as the nature and quantity of fathers' involvement. A consistent predictor of father involvement is parental employment, as resulting time constraints may place unique demands on families and may shape how parental responsibilities are met and shared. Fathers who work longer hours spend less time with their children, particularly on weekdays (Bonney et al., 1999; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001), whereas those whose partners work are generally more involved (Beitel & Parke, 1998; NICHD Early Child Care Research Network, 2000), although this trend may reflect proportional, rather than absolute, time as working mothers' availability decreases (Pleck, 1997). Fathers in larger families also participate more in child care, particularly with younger children, but they spend less time with each child (Pleck; Yeung et al.). Finally, although socioeconomic status (SES) has not been consistently linked with father involvement, lower SES is likely a source of family stress or may be linked with broader environmental conditions that present challenges for active fathering (Marsiglio et al.; Pleck & Masciadrelli, 2004).

The Current Study

The present research was designed to explore parental authoritarian and protective attitudes as correlates of fathers' direct, relative involvement during infancy. Parental involvement was documented with diaries over the course of two weekdays and two weekend days, as differences are reported across the week (Yeung et al., 2001). Diary data are particularly suited for assessing fathers' direct involvement and have proven to be a valid and reliable measure (Pleck & Masciadrelli, 2004). This method allowed parents to document actual participation rates in

a variety of child-care activities rather than estimating global perceptions of fathers' relative involvement and enabled us to focus on infancy by examining involvement with a specific child. Similar to prior research (e.g., Bonney et al., 1999), we conceptualized direct involvement in terms of both time spent with infants and frequency of participation in discrete childrearing tasks. Moreover, because mothers and fathers may engage with their children in qualitatively different ways and because the needs of infants may change over time, we examined a range of parenting functions (basic caregiving, playing, teaching, and soothing).

Parents completed involvement diaries during both early and later infancy. Longitudinal work is particularly important at this age, as children's rapidly developing abilities present changing demands and opportunities for parental involvement. Further, by statistically controlling for prior levels of involvement, it is possible to determine whether parenting attitudes are related to changes in fathers' relative involvement across time beyond the expected stability.

On the one hand, it was hypothesized that parents' authoritarian attitudes about childrearing would be negatively associated with fathers' relative involvement and that when mothers were highly protective, father involvement would be diminished. On the other hand, fathers' own protective attitudes might be either unrelated or positively related to their involvement. We controlled for the influence of maternal and paternal work hours and the number of siblings in the family and explored whether the relations of parenting attitudes to father involvement might differ in families with daughters and those with sons, as well as how mothers' and fathers' attitudes might interact to predict father involvement.

Method

Participants and Procedures

Participants were families with infant children residing in a large, southwestern metropolitan area, who were part of a larger longitudinal study of infants' social and emotional development. The initial sample consisted of 276 families, of which 156 (57%) completed daily diary data (doing so was optional; $n = 142$ [81 boys, 61 girls] at 6 – 8 months [Time 1, T1]; $n = 95$ [47 boys, 48 girls] at 12 – 14 months [Time 2, T2], including 14 families who did not participate at T1, with 81 families providing data at both time points). The majority of the parents in this study ($n = 156$) were White, non-Hispanic (80% of mothers and 82% of fathers), or Hispanic (15% of mothers and 13% of fathers). Annual family income ranged from less than \$15,000 to over \$100,000, with the median income from \$45,000 to \$60,000. Parents' formal education ranged from eighth grade to the graduate level; median levels of education completed were a 4-year college degree for mothers and some years of college for fathers. Mothers were between the ages of 19 and 44 years ($M = 30.1$ years, $SD = 5.45$), and fathers were aged 19 – 53 years ($M = 32.1$ years, $SD = 5.72$) at time of their infants' birth. At T1, 49% of mothers did not work; weekly hours of work for employed mothers were fewer than 10 hours (3%), 10 – 20 hours/week (9%), 20 – 30 hours (11%), and over 30 hours (28%). Ninety-one percent of fathers worked more than 30 hours weekly, 6% worked 20 – 30 hours, and 2% worked fewer than 20 hours. Employment patterns were similar at T2, with 36% of mothers not working, 3% working less than 10 hours/week, 15% working 10 – 20 hours/week, 10% working 20 – 30 hours/week, and 35% working more than 30 hours/week. Eighty-eight percent of fathers worked more than 30 hours/week, 8% worked 20 – 30 hours/week, and 4% worked less than 20 hours/week. Approximately half (51%) of the infants were firstborn; total number of siblings ranged from none to seven ($M = 0.92$, $SD = 1.22$).

Families were recruited through three local hospitals following the birth of their infant. Infants were healthy, full term, with no birth complications, and born to adult mothers and fathers (i.e., at least 18 years of age). When infants were approximately 6 months of age, questionnaire packets were completed by both mothers and fathers and returned by mail. If parents were

either married or cohabiting ($n = 252$), approximately 1 – 2 months later (T1), they were asked if they wanted to participate in another aspect of the research, which involved completing daily diaries to assess mothers' and fathers' involvement in child-related activities (average age of infants = 7.2 months; range = 6.1 – 9.5 months). Diaries were mailed to families again when infants were approximately 14 months of age (T2; average age of infants = 13.9 months, range = 12.7 – 17.0 months). Of the eligible sample with resident fathers, 156 families (62%) completed diaries at either T1 or T2.

Analyses were conducted to examine potential differences between families who completed the involvement diaries ($n = 156$) and the eligible (i.e., married or cohabiting) families who were enrolled in the study but chose not to do so ($n = 96$). Parents who completed diaries were more likely to be married than those who did not, $\chi^2(1) = 6.75, p < .01$. Mothers were more educated ($M = 4.36$) than those who did not complete diaries ($M = 4.09$), $t(248) = 1.98, p < .05$, and fathers who completed diaries were more likely to be White, non-Hispanic, $\chi^2(1) = 6.42, p < .01$. No differences were found in parental childrearing attitudes. In addition, mothers in families who completed involvement diaries at T2 tended to have slightly higher levels of education ($M = 4.53$) than those who did not continue in the study ($M = 4.12$), $t(154) = -2.48, p = .01$, and fathers who remained in the study were more likely to be White, $\chi^2(4) = 12.17, p < .05$. There were no other significant differences in sociodemographic characteristics, parental attitudes, or parental involvement.

Measures

Childrearing attitudes

When infants were approximately 6 months of age, mothers and fathers each completed the Ideas about Parenting Questionnaire (Cowan et al., 1985). Items were rated on a 7-point Likert scale (1 = *very much disagree*; 7 = *very much agree*), reflecting their authoritarian attitudes (12 items; e.g., “A child should not talk back to a parent”) and protective attitudes (15 items; e.g., “I try to watch and anticipate situations that could cause my child pain or discomfort and help my child to avoid them if at all possible”). Two items were dropped from the authoritarian scale (“Taking care of a baby is much more work than pleasure” and “A child should be punished for breaking his or her own toys in a fit of anger”), and one item was dropped from the protective scale (“There are times in the lives of small children when they need to be with people other than their mothers and fathers [reversed]”) because of poor internal consistency with the rest of the items in the scales. Cronbach's α s for each of the parenting attitude measures were identical for mothers and fathers, for the authoritarian scale were .60, and for the protective scale were .61. These alphas are somewhat lower than desirable, which should be kept in mind when interpreting the study findings. In addition, 14 fathers did not complete parenting attitude questionnaires, although these fathers did not differ significantly in relative involvement from the remaining fathers in the sample.

Parental involvement diaries

At approximately 7 (T1) and 14 (T2) months of age, parents completed a daily diary (one diary per family) for 4 days of their choosing, including two weekdays (Monday to Friday) and two weekend days (Saturday to Sunday). Parents reported the frequency or the duration of their involvement in a variety of child-related activities, including basic caregiving (four frequency items), playing (one frequency and one duration item), teaching (three duration items), and daytime and nighttime soothing (one frequency item each). Frequency items were rated on a 7-point scale (1 = *times*; 7 = *7 or more times*) and included, for example, “How many times today did you change your baby's diaper?” Duration items were rated on a 10-point scale (1 = *no time*; 10 = *6 or more hours*) and included, for example, “How long today did you spend playing with your baby?” In response to each of the items, parents reported the frequency or

the duration of involvement for the mother alone, the father alone, the mother and father together, and other people (e.g., caregiver, grandparent). Parents were asked to complete each day's diary together; across the 4 days, 46% of the daily diaries were completed together, 51% by mothers alone, and fewer than 5% by fathers alone.

Although the individual dimensions of childrearing involvement (caregiving, playing, teaching, daytime and nighttime soothing) were generally correlated, $r_s(142) = .10 - .71$ ($M = 0.43$), and $r_s(94 - 95) = -.05$ to $.59$ ($M = 0.33$) at T1 and T2, respectively, the following analyses considered these unique parenting functions separately. We also aggregated the amounts of parental involvement in each category separately for weekdays and weekend days. Cronbach's α s for mothers' and fathers' raw amounts of weekday and weekend involvement in each of the childrearing dimensions were $.78 - .86$ ($M = 0.82$) at T1 and $.65 - .84$ ($M = 0.71$) at T2.

In order to examine the overall patterns of parental involvement within families and the sharing of childrearing responsibilities between partners, we created proportion scores to reflect the relative amount of fathers' as compared to mothers' involvement within each family. First, raw scores for paternal (or maternal) individual involvement were added over the two appropriate days to yield a total weekday or weekend raw score in each category for each parent, and these sums were used to create involvement proportion scores. For example, we divided fathers' raw involvement score in weekday caregiving by the total amount of mothers' and fathers' raw involvement scores in weekday caregiving to yield a proportion score for this category. This process was repeated at each age and time (weekdays and weekends) for caregiving, teaching, and daytime and nighttime soothing. Because involvement in playing was measured in terms of both frequency and duration, separate proportions were computed, as described above, for each type of involvement. These proportion scores were highly correlated ($r_s = .68 - .80$) and were subsequently averaged to create composite proportion scores for play.

It should be noted that because of the way the proportion scores were computed, families in which both parents had no involvement in a given activity across the entire period (weekday or weekend) received a missing score for that category. For each type of involvement, no more than four families at T1 and three families at T2 had missing scores, with the exception of the nighttime soothing scores (as discussed below).

Sociodemographics

At the time of the study, mothers provided information about each parent's race/ethnicity and highest level of education completed (1 = *grade school completion*; 7 = *Ph.D., J.D., or M.D.*). Mothers also reported the number of siblings in the home that was subsequently converted to a 4-point scale (0 = *no siblings*; 3 = *3 or more siblings*). At both 6 and 12 months of age, mothers provided information about annual family income (1 = *less than \$15,000*; 7 = *over \$100,000*) and each parents' employment (1 = *not working*; 5 = *working 30+ hours/week*). Because most fathers (91% at T1, 88% at T2) worked more than 30 hours/week, the remaining categories were collapsed to create a dichotomous measure of father work hours (0 = *less than 30 hours/week*; 1 = *30 or more hours/week*), whereas the original metric was retained for maternal work hours. Composites of SES were created by standardizing and averaging parents' initial education levels and current family income.

Results

Preliminary Analyses

Descriptive analyses—The means and standard deviations of fathers' proportional involvement scores in each of the childrearing activities are presented separately for boys and girls in Table 1. As noted previously, these scores reflect involvement data aggregated over 2

days (either week-day or weekend). Only some families reported any maternal or paternal involvement in nighttime soothing on weekdays or weekends at T1 ($n = 113$ and 112 ; 80% of the T1 sample) or T2 ($n = 56$ and 57 ; 59% of the T2 sample), presumably because many infants were sleeping through the night; given the low frequency of nighttime soothing at T2, this variable was not included in further analyses.

Several of the father involvement proportion scores were positively skewed ($\text{skew}/SE > 2.5$; Tabachnik & Fidell, 1996). Arcsine transformations, which are appropriate for proportion data, were applied to these scores (T1 weekday care-giving, teaching, and daytime soothing; T1 weekend caregiving; T2 weekday caregiving) to yield more normally distributed variables (final $\text{skew}/SE = -.66$ to 1.64 ; Cohen, Cohen, West, & Aiken, 2003). The T1 nighttime soothing scores were substantially positively skewed; thus, square root transformations were necessary, although slight skew remained for weekday scores (final $\text{skew}/SE = 2.78$ and 2.34).

Descriptive statistics and correlations among mothers' and fathers' attitudes toward childrearing are presented in Table 2. Fathers reported significantly higher levels of authoritarian attitudes than did mothers, $F(1, 141) = 13.51, p < .01$.

Mothers' authoritarian and protective attitudes were uncorrelated, as were fathers', but mothers' and fathers' scores were significantly correlated with one another for each type of attitude.

Gender differences in study variables—Multivariate analyses of variance were conducted to examine fathers' involvement with boys and girls. Contrary to expectations that fathers would be more involved with their sons than daughters, relative involvement did not differ for boys versus girls. Moreover, no gender-of-child differences in mothers' or fathers' authoritarian or protective attitudes were found.

Father-mother comparisons in involvement—To determine whether fathers were equally involved in child care compared to mothers, one-sample t tests were conducted on fathers' (untransformed) proportion scores when compared to .50 (which would reflect equal levels of parental involvement). As expected, fathers' proportion scores were significantly fewer than .50 in each aspect of childrearing at both ages, $ts(111 - 141) = -23.49$ to -7.01 and $ts(91 - 93) = -15.86$ to $-7.84, ps < .001$, at T1 and T2, respectively. To test within-spouse differences, paired-sample t tests were conducted on the transformed proportion scores. On weekends as compared to weekdays, fathers increased their relative involvement in all activities except nighttime soothing at T1, $ts(135 - 141) = -5.24$ to $-4.25, ps < .001$, and in playing and teaching at T2, $ts(93) = -3.28$ and $-2.93, ps < .01$, although weekend increases in caregiving and daytime soothing also were marginally significant at T2. With the exception of daytime soothing, fathers' levels of relative involvement were correlated over time, $rs(78 - 80) = .30 - .51, ps < .01$. Moreover, relative levels of involvement were generally similar from T1 to T2. In contrast, fathers increased their relative involvement in teaching on both weekdays and weekends as their infants grew older, $Fs(1,77) = 7.16$ and $5.80, ps < .02$.

Differences in proportion scores were examined in relation to the number of diaries the father completed (alone or jointly) across the two week-day or weekend days (i.e., zero, one, or two diaries). A significant multivariate difference was found only on T2 weekends, $F(8, 168) = 2.16, p < .05$, such that fathers who completed one diary had higher caregiving, playing, and teaching scores than those who completed none or two diaries across the weekend. Therefore, some caution is required in interpreting the findings for weekend involvement.

Relations Between Sociodemographic Variables and Father Involvement

In general, the sociodemographic variables correlated with several aspects of fathers' relative involvement in the expected directions, particularly at T1, with the exception of SES (see Table

3). On the one hand, fathers with more weekly hours of work were less involved in weekend playing and teaching at T1. On the other hand, fathers had more weekday involvement (except soothing) at T1 and weekday caregiving at T2 when their partners worked more hours. The most consistent correlate of fathers' relative involvement was the number of siblings in the home. Fathers with more children were less involved with their infants in most activities at T1 and in week-day caregiving and play at T2. SES was not significantly related to father involvement.

Relations Between Childrearing Attitudes and Fathers' Relative Involvement

Correlational analyses—Zero-order correlations between fathers' and mothers' childrearing attitudes and fathers' proportional involvement are presented in Table 3. Fathers with higher levels of authoritarian attitudes were relatively less involved in weekday caregiving, teaching, and nighttime soothing and weekend teaching at T1 and at T2 were relatively less involved in week-day caregiving, playing, and teaching. Mothers' protective attitudes were negatively related to fathers' relative weekend involvement in caregiving, playing, and teaching at T1. Fathers' protective attitudes and mothers' authoritarian attitudes were generally unrelated to father involvement at either age (with the exception of a negative relation between mothers' authoritarian attitudes and fathers' proportion of involvement in weekday playing at T2).

Regression analyses—Hierarchical regression analyses were conducted to assess whether the relations of childrearing attitudes to father involvement were significant after taking relevant sociodemographic variables (and at T2, prior levels of relative involvement) into account and to determine whether relations differed for fathers of boys versus girls. Given the general lack of relations found between fathers' relative involvement and their protective attitudes or mothers' authoritarian attitudes, these variables were not included in the regression analyses in order to maximize power. All variables were centered prior to analysis. In each regression, the sociodemographic variables (father and mother work hours and number of siblings) were entered in the first step; fathers' authoritarian attitudes, mothers' protective attitudes, and infant gender were entered in the second step; and the final step contained the interactions between gender and each of the childrearing attitudes. Because few interactions were found, we report findings from Step 2, unless otherwise noted. At T1, fathers' authoritarian attitudes negatively predicted their relative involvement in weekday caregiving, playing (marginally), teaching, and nighttime soothing and in weekend teaching (see Tables 4 and 5). Mothers' level of protective attitudes was a significant, negative predictor of fathers' relative involvement in weekend caregiving, playing, and teaching (see Table 5).

In the T2 analyses, T1 levels of relative involvement also were included in Step 1 of each of the regressions in order to predict change in levels of fathers' relative involvement across time. After controlling for prior involvement, only one main effect and one interaction (of eight regressions) were significant at T2. Similar to the findings at T1, fathers with greater authoritarian attitudes became relatively less involved in week-day caregiving with their infants, although this main effect was marginal. A significant Gender \times Authoritarian interaction was obtained, $\beta = .34, p < .01, F$ change (2, 70) = 4.35, $p < .02$, such that fathers' authoritarian attitudes predicted significant decreases in their relative involvement in weekday caregiving with girls by T2, $\beta = -.33, p < .02$, but not with boys, $\beta = .02, ns$. Finally, fathers' authoritarian attitudes also predicted significant decreases in their relative involvement in weekday playing across time, $\beta = -.26, p < .01, F$ change (3, 70) = 3.24, $p < .03$.

Post hoc analyses—Given our sample sizes, we conducted post hoc regression analyses to explore whether relations between parenting attitudes and father involvement would differ when examined separately within each infant gender. Findings for mothers' protective attitudes

were similar for both genders, but the pattern of prediction for fathers' authoritarian attitudes at T1 was stronger for girls than for boys. Additionally, we conducted regression analyses to examine whether mothers' protective attitudes and fathers' authoritarian attitudes interacted to predict father involvement; only 1 (of 18) interaction was found to be significant, however. Specifically, the negative relation between fathers' authoritarian attitudes at T1 and weekday teaching at T1 was significant only when mothers reported medium or high levels of protective attitudes, slopes = $-.23$ and $-.36$, $ps < .01$, but not when mothers were low in protective attitudes, slope = $-.09$, $p = ns$, $\beta = -.18$, $p < .05$, F change (1, 123) = 5.00, $p < .05$.

Discussion

The current study extends the fathering literature by demonstrating that parental attitudes about how to raise children may indeed influence parenting practices—namely, the extent to which fathers are actively involved with their infants in comparison to mothers—and further that it is important to consider both partners' attitudes.

Fathers who reported strong authoritarian views were involved relatively less in weekday caregiving, playing, teaching, and nighttime soothing and in weekend teaching during early infancy. This pattern extended into later infancy, even when controlling for stability in levels of father involvement, with significant decreases in authoritarian fathers' weekday playing and (for girls) caregiving across time. Similar to Bulanda's (2004) findings on the influence of traditional gender ideologies on father involvement, mother's attitudes of authoritarianism did not appear to have bearing on how parents shared childrearing responsibilities. Authoritarian parents are thought to be more emotionally detached and unresponsive to their children, and our findings indicate that fathers with this orientation spend relatively less time actively engaged with their children, even during infancy when direct care is a fundamental parenting responsibility. Attitudes consistent with authoritarian parenting, in which demands for obedience and behavioral control of children are prominent, appear to have lasting, negative effects on fathering even early in life, long before parent-child conflicts and matters of discipline become common.

These relations were primarily restricted to fathers' weekday involvement. Authoritarian childrearing values may be part of a broader constellation of traditional attitudes toward domestic work, and patterns of child care may fall along more gendered lines during the workweek when demands are higher and when fathers have limited time at their disposal. Moreover, family life also may differ on weekends because of additional activities or the presence of school-aged siblings. We can only speculate that most parents engaged in a standard (i.e., Monday to Friday) workweek, and researchers should be mindful of obtaining more comprehensive measures that differentiate the range of weekly hours among full-time workers. Nonetheless, fathers' authoritarian parenting attitudes appear to present greater challenges for their relative involvement on weekdays. Determining if these effects are related to or unique from those of other traditional ideas and family values will be an important consideration in future research.

Consistent with prior work linking maternal attitudes and father involvement, fathers engaged in relatively less caregiving, playing, and teaching on weekends during early infancy when their partners held highly protective attitudes. Mothers who are protective may be intensely involved with their children themselves, thus limiting fathers' opportunities, or their protectiveness may be related to views of paternal competence, and they may engage in gatekeeping (Allen & Hawkins, 1999) by actively discouraging fathers' involvement or by routinely monitoring or criticizing their partners' parenting. Because fathers' own sense of parental competency is related to their levels of involvement (Beitel & Parke, 1998), restricted experience as well as a lack of actual or perceived maternal support (McBride & Rane, 1998)

may promote or exacerbate feelings of paternal inadequacy and lead them to withdraw from the fathering role. Presuming that many fathers have more discretionary time on weekends, the negative effects of maternal attitudes on their involvement may be stronger during these periods, as our findings indicated. Moreover, the lack of relations between fathers' own protective attitudes—although substantially correlated with maternal protective attitudes—and their relative involvement suggests that mothers' ideas about childrearing play a unique role in fathers' involvement during infancy.

Although an initial lack of experience or support might be expected to diminish father involvement over time, relations between maternal protective attitudes and fathers' relative involvement did not hold longitudinally. On the one hand, given the enormous range of skills acquired across infancy, maternal protectiveness may be attenuated or perceptions of paternal aptitude may be more likely in light of older infants' greater competence. Moreover, infants in their second year of life have the linguistic and locomotive abilities to increasingly seek out engagement with others, which may encourage father involvement as well. On the other hand, the lack of longitudinal relations may suggest that father involvement is primarily self-determined and that mothers' attitudes are in part a consequence of how involved fathers actually are in childrearing. Fathers who resist active participation may indeed be less skilled, less comfortable, or less interested in the parenting role, and mothers' protective attitudes—particularly with respect to fathers' direct interaction with their children—may emerge as a result.

Contrary to our prediction, the relations between parenting attitudes and fathers' relative involvement generally did not differ in families with sons versus daughters. A negative relation was found at T2 between fathers' authoritarian attitudes and their relative involvement in weekday caregiving only for girls, but this finding should be treated with caution as no other significant interactions emerged. If fathers are indeed more dedicated to parenting and to spending time with their sons, this sense of responsibility may weigh more heavily later in childhood when socialization goals become prominent. Future work using larger samples is necessary to determine whether these correlates of fathering differ for fathers of sons versus daughters.

Finally, this study replicates earlier estimates of fathers' relative involvement with their infants, with fathers providing approximately 19% – 34% (weekdays) and 22% – 40% (weekends) of parental care, although substantial variability existed across families. Also paralleling prior work, fathers' relative involvement was greater in dual-earner families and lower in those with more children and (to a lesser extent) when fathers themselves worked more hours. Relations between parenting attitudes and fathers' relative involvement were evident even after taking these sociodemographic factors into account.

Limitations and Future Directions

The design of the present study cannot establish a direction of causality, and indeed, transactional relations likely exist in which fathers' direct interaction with their children helps shape their own and their partners' views about childrearing. Moreover, certain temperamental or physical characteristics of children (particularly, extreme dispositions or atypical development) may elicit specific patterns of parental attitudes as well as behaviors, such as involvement.

Although in the current study we conceptualized involvement as direct engagement, it is likely that childrearing attitudes may be linked differently to other measures of father involvement or that relations may not be stable across ages, activities, or contexts. For example, it is possible that authoritarian fathers may be *more* involved in monitoring their older children or that a highly protective, employed mother may encourage her spouse's participation as an alternative

to nonparental child care. Nevertheless, it seems likely that direct interaction is the most relevant dimension recognized by infants and particularly important to the developing father-child relationship. In this study, we also chose to examine father involvement in comparison to mothers. Both relative and absolute measures of father involvement are important constructs to understand (Pleck & Masciadrelli, 2004), as well as fathers' overall participation in childrearing within families, rather than just with one child. Identifying the antecedents and consequences of other conceptualizations of father involvement clearly merits further research.

Moreover, much of the literature linking active fathering with positive child outcomes has focused on authoritative parenting, and researchers have cautioned that the quantity of father involvement does not necessarily indicate its quality (Cabrera et al., 2000). Despite the fact that not all fathers provide favorable experiences for their children, greater levels of direct involvement are linked with more positive fathering behaviors (Feldman, 2000; Roggman et al., 2002) and may be a valuable way for fathers to gain experience and understanding of their infants' needs, interests, and routines so that they can provide sensitive and responsive care. Further, establishing early patterns of involved fathering may set the stage for active parenting throughout childhood and beyond.

We acknowledge the limited generalizability of these findings, as parenting attitudes may have different meanings and consequences in racially, ethnically, and socially diverse families. Moreover, socioeconomic factors likely influence parenting values as well as fathers' ability to be involved with their children. It will be important in future research to disentangle these effects by examining relations across families with different life experiences. Further, the relations between parental attitudes and father involvement may differ as children move from infancy to later developmental stages and as parents become settled in their roles. Continued longitudinal research may shed light on the stability of parental attitudes toward childrearing, as well as their relations with father involvement as their children age.

Finally, some caveats should be kept in mind concerning our measures of father involvement and parenting attitudes. Although parents were instructed to complete the daily diaries together, mothers were the sole reporters on approximately half of them. Although researchers have cautioned that mothers may underestimate fathers' involvement or overestimate their own, recent work employing measures such as frequency estimates, overall ratings, and time-use diaries has demonstrated high levels of agreement in mothers' and fathers' reports of men's direct involvement with infants and young children (Beitel & Parke, 1998; Bonney et al., 1999; Wical & Doherty, 2005), and we generally found few differences in levels of relative involvement with respect to fathers' input. Low levels of maternally reported father involvement may indeed be accurate, for fathers who lack the time or inclination to participate in family research may simply be fathers who are already less involved in their children's lives. Additionally, our measure of father involvement may be slightly overestimated for two reasons. First, we dropped nighttime soothing at T2 on the basis of low means. Given that mothers tended to be more involved in nighttime soothing than fathers, our estimates would have been lower had we included this variable. Second, a number of families in our study did not complete diary data at T2, and it is possible that fathers in those families would be less involved; our attrition analyses, however, suggested that there were no differences in father involvement for families who completed the diaries at T2 versus those who did not. Finally, our parental attitude measures had somewhat poor internal consistency. Nonetheless, the presence of measurement error would tend to underestimate the significant effects that we obtained in this investigation.

Despite these limitations, this study has numerous strengths that should be highlighted including the use of daily diary data to document fathers' relative involvement, the inclusion of both mothers' and fathers' parenting attitudes, and the longitudinal design. The relations between parental childrearing attitudes and father involvement have rarely been examined, and

the links between attitudes and behavior are often few and far between (see Holden & Buck, 2002, for a review). Our findings are consistent with the broader research on the determinants of father involvement and demonstrate that parental childrearing attitudes may indeed affect the extent to which mothers and fathers share parenting responsibilities during infancy. Moreover, it appears that the relations of parenting attitudes to fathers' relative involvement apply to a wide range of parenting activities, and these effects can be lasting. Given the increased demand for fathers' active involvement in childrearing and mounting evidence of the importance of fathers for children's outcomes, the significant differences between mothers' and fathers' involvement demonstrated in this study underscore the need to better understand the factors that influence active paternal involvement early in life.

Acknowledgements

Support for this study was provided in part by 5 R01 MH060838 to N.E. and T.L.S. We express our appreciation to the parents who participated in the study and to the many research assistants who contributed to this project.

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Table 1
Means and Standard Deviations of Fathers' Relative Involvement at Time 1 (T1) and Time 2 (T2)

	Weekday				Weekend			
	Boys (n = 81)		Girls (n = 61)		Boys (n = 81)		Girls (n = 61)	
	M	SD	M	SD	M	SD	M	SD
Care	0.17	0.14	0.21	0.18	0.25	0.18	0.26	0.20
Play	0.30	0.15	0.33	0.16	0.40	0.18	0.39	0.17
Teach	0.25	0.17	0.26	0.20	0.33	0.20	0.33	0.21
AM soothe	0.24	0.20	0.28	0.20	0.39	0.20	0.36	0.21
PM soothe	0.19	0.27	0.26	0.35	0.21	0.26	0.24	0.35
Weekday								
T1 (N = 142)								
Weekend								
T2 (N = 95)								
Boys (n = 47)		Girls (n = 48)		Boys (n = 47)		Girls (n = 48)		
M	SD	M	SD	M	SD	M	SD	SD
Care	0.21	0.15	0.24	0.18	0.27	0.18	0.26	0.17
Play	0.33	0.16	0.35	0.16	0.39	0.14	0.40	0.16
Teach	0.28	0.17	0.34	0.19	0.37	0.15	0.36	0.19
AM soothe	0.26	0.19	0.31	0.16	0.32	0.18	0.35	0.16
PM soothe	0.36	0.38	0.21	0.31	0.34	0.37	0.22	0.26

Note: The means and standard deviations presented are those prior to transformation.

Table 2*Mothers' (N = 156) and Fathers' (N = 142) Parenting Attitudes: Correlations and Descriptive Statistics*

Variables	1	2	3	4
1. Mother authoritarian	—			
2. Mother protective	.05	—		
3. Father authoritarian	.17*	.00	—	
4. Father protective	-.10	.47***	.13	—
<i>M</i>	3.45	4.39	3.71	4.43
<i>SD</i>	0.66	0.73	0.70	0.70

*
 $p < .05$.**
 $p < .01$.***
 $p < .001$.

Table 3
Correlations Between Fathers' Relative Involvement and Sociodemographic Variables and Parenting Attitudes at Time 1 (T1) and Time 2 (T2)

	Weekday					Weekend				
	Care	Play	Teach	AM Soothe	PM Soothe	Care	Play	Teach	AM Soothe	PM Soothe
T1 Father Involvement (N = 142)										
F work	-.07	-.15 [†]	-.11	-.14 [†]	-.10	-.05	-.17 [*]	-.20 [*]	-.02	.02
M work	.19 [*]	.17 [*]	.23 ^{**}	.12	.09	.08	-.02	.00	-.05	.00
Sibs	-.21 [*]	-.20 [*]	-.13	-.16 [†]	-.15	-.22 ^{**}	-.17 [*]	-.20 [*]	-.19 [*]	-.17 [†]
SES	-.03	-.13	-.01	.06	.17 [†]	.07	.12	.01	.12	.12
F auth	-.18 [*]	-.13	-.28 ^{**}	-.10	-.26 ^{**}	-.06	-.07	-.22 [*]	-.03	-.17 [†]
F prot	-.02	-.02	-.02	-.11	-.03	.02	-.11	-.04	.01	.09
M auth	-.08	-.05	-.06	-.10	-.04	-.04	-.04 ^{**}	-.08 [*]	.13	.00
M prot	-.15	-.03	-.07	-.06	.06	-.24 ^{**}	-.24 ^{**}	-.20 [*]	-.11	-.05
T2 Father Involvement (N = 95)										
F work	-.05	-.09	-.18 [†]	-.11	—	.11	.05	-.12	.01	—
M work	.21 [*]	.14 ^{**}	.04	.02	—	.11	-.02	-.01	.04	—
Sibs	-.23 [*]	-.31 ^{**}	-.12	-.12	—	-.05	.02	.00	.04	—
SES	.15	.06	.02	.05	—	.18	.04	.06	-.15	—
F auth	-.25 [*]	-.31 ^{**}	-.25 [*]	-.09	—	-.11	-.03	-.09	.02	—
F prot	-.19 [†]	-.16	-.10	-.13	—	.07	.07	.00	.09	—
M auth	-.04	-.21 [*]	-.12	.07	—	.09	.11	-.01	.17	—
M prot	-.17 [†]	-.18 [†]	-.16	-.13	—	-.07	-.06	-.10	-.02	—

Note: F = father, M = mother; work = weekly work hours; Sibs = number of children in family; SES = socioeconomic status; auth = authoritarian attitudes; prot = protective attitudes.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

Table 4
Hierarchical Regression Analysis for Sociodemographic Variables, Parenting Attitudes, and Infant Gender Predicting Fathers' Relative Involvement on Weekdays at Time 1 (N = 132)

	Caregiving			Playing			Teaching			AM Soothing			PM Soothing		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Step 1															
F work	.06	.15	.03	.06	.05	.11	.20	.16	.11	.22	.19	.11	.07	.12	.06
M work	.05	.02	.18*	.02	.01	.19*	.09	.03	.29**	.04	.03	.12	.03	.02	.15
Sibs	.09	.04	.19*	.03	.01	.18*	.04	.05	-.07	.09	.06	-.15	.05	.04	-.15
R ²	.08			.08			.08			.05			.04		
F for change in R ²	3.55*			3.56*			3.45*			2.31 [†]			1.22		
Step 2															
F auth	.15	.06	.21*	.03	.02	.16 [†]	.27	.07	.34**	.11	.08	-.13	.15	.05	.28**
M prot	.05	.06	-.07	.01	.02	.03	.03	.07	-.04	.01	.08	.02	.06	.05	.11
Infant gender ^a	.13	.08	-.13	.04	.03	-.12	.04	.09	-.03	.19	.11	.16 [†]	.10	.07	-.14
R ²	.14			.11			.18			.09			.13		
F for change in R ²	2.83*			1.60			3.07*			1.54			3.61*		

Note: All variables were centered at their means. F = father; M = mother; work = weekly work hours; Sibs = number of children in family; auth = authoritarian attitudes; prot = protective attitudes.

^a Infant gender: 0 = boys, 1 = girls.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 5
Hierarchical Regression Analysis for Sociodemographic Variables, Parenting Attitudes, and Infant Gender Predicting Fathers' Relative Involvement on Weekends at Time 1 (N = 132)

	Caregiving			Playing			Teaching			AM Soothing			PM Soothing		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Step 1															
F work	.07	.16	.04	.11	.05	.18*	.14	.06	.20*	.00	.06	.00	.06	.13	-.05
M work	.00	.03	.00	.01	.01	-.11	.01	.01	-.04	.01	.01	-.10	.00	.02	.00
Sibs	.10	.04	.19*	.02	.02	-.11	.03	.02	-.13	.04	.02	.18*	.06	.04	.18 [†]
R ²		.05			.05			.07			.04			.03	
F for change in R ²		2.29 [†]			2.22 [†]			3.08*			1.83			1.14	
Step 2															
F auth	.04	.06	-.05	.01	.02	-.05	.07	.03	-.23*	.00	.03	.00	.08	.05	-.16
M prot	.16	.06	.23*	.07	.02	.28***	.08	.03	.27***	.04	.03	-.13	.01	.05	-.02
Infant gender ^a	.04	.09	-.04	.01	.03	.03	.02	.04	-.04	.01	.04	.03	.05	.07	-.07
R ²		.10			.12			.17			.06			.06	
F for change in R ²		2.41 [†]			3.30*			2.91*			.63			.96	

Note: All variables were centered at their means. F = father; M = mother; work = weekly work hours; SibS = number of children in family; auth = authoritarian attitudes; prot = protective attitudes.

^a Infant gender: 0 = boys, 1 = girls.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.