Studies on the relationship between fathers’ marital satisfaction and involvement with their children have yielded conflicting results. As a partial test of a theoretical model of responsible fathering (Doherty, Kouneski, & Erickson, 1998), this study re-examined this relationship by using measures of both quantity and quality of father involvement and by exploring moderator effects and linear versus curvilinear relationships between the variables. Data were from a longitudinal study of 165 couples collected during the second trimester of pregnancy, and 6 and 12 months postpartum. Bivariate correlations, hierarchical multiple regression, and curve estimation were used to analyze the data. Results showed that fathers’ marital satisfaction and involvement are positively related, that mothers’ employment status and fathers’ attitudes toward father involvement are important moderators, and that the statistical relationships are linear.

Keywords: father involvement, fathering attitudes, marital satisfaction, moderator effects, mothers’ employment, curvilinearity

Research on fathers’ involvement with children has exploded over the past two decades. Many factors determine fathers’ involvement, including child’s, mother’s, and father’s individual characteristics, couples’ marital quality, and contextual factors. These factors have been considered in theoretical models (Belsky, 1984; Doherty, Kouneski, & Erickson, 1998) and also examined in empirical studies (McBride & Mills, 1993; Vølling & Belsky, 1991).
Based on theoretical models of contextual influences on father-child relationships (e.g., Belsky, 1984; Doherty et al., 1998), many studies have examined how marital satisfaction is related to father involvement. Mixed findings have been reported. While some studies have found the relationship between marital satisfaction and father involvement to be positive (Belsky, Rovine, & Fish, 1989; Blair, Wenk, & Hardesty, 1994; King, 2003; NICHD Early Child Care Research Network, 2000), others have found it to be negative (Goth-Owens, Stollak, Messe, Peshkess, & Watts, 1982; Nagle, Kelley, Fals-Stewart, & Levant, 2003). Still others have found no relationship between marital satisfaction and father involvement (Aldous, Mulligan, & Bjarnason, 1998; McBride & Mills, 1993; NICHD Early Child Care Research Network). Furthermore, one study (i.e., NICHD Early Child Care Research Network) measured different aspects of father involvement and reported mixed findings in terms of how each aspect related to marital satisfaction. Such inconsistent findings have left the research community puzzled.

The transition to parenthood has long been viewed as an important period of life transition. It results in systemic changes within the family and generates unique challenges to new parents. The majority of studies on changes over this period of time report a modest decline in couples’ overall marital satisfaction (Belsky, Lang, & Rovine, 1985; Belsky & Pensky, 1988; Cowan et al., 1985; Cox, Paley, Burchinal, & Payne, 1999; Levy-Shiff, 1994). Furthermore, the transition to parenthood is associated with the traditionalizing of sex roles for many couples (La Rossa & La Rossa, 1981; McHale & Huston, 1985). From a family systems perspective, one may anticipate that for many expectant parents, changes in marital quality and household division of labor during the transition to parenthood would influence how fathers are involved with children.

The purpose of this study is to better understand the relationship between marital satisfaction and father involvement during the transition to parenthood by adding two new pieces to the puzzle, specifically, potential moderators of the relationship between marital satisfaction and paternal involvement, and the possibility that the relationship between marital satisfaction and father involvement is curvilinear.

**Marital Satisfaction and Father Involvement**

This study is based on the conceptual model of influences on responsible fathering developed by Doherty et al. (1998). Their model applies to fathering inside or outside of marriage, regardless of coresidence with the child, and also attempts to transcend the traditional dyadic focus through emphasizing first the child-father-mother triad and then the influences of larger systems. Doherty et al. propose five major types of factors influencing fathering: child, mother, father, coparental relationship, and contextual factors. Their model proposes that “the three individual factors are embedded in a broader social context that affects them as individuals and affects the quality of their relationships” (p. 285). A systemic, ecological approach (Bronfenbrenner, 1979) is also emphasized in their model. Thus, not only is the welfare of children, fathers, and mothers viewed to be interdependent, but also their behaviors and beliefs are intertwined within
a web of personal, relational, and community influences. Doherty et al. offer a theoretical basis for the idea that the amount of time fathers are involved with children is related to coparental relationship factors such as marital satisfaction. As stated by Furstenberg and Cherlin (1991), marriage and parenting are a “package deal” for many men.

Unlike many areas of family science, most research on marital satisfaction and father involvement has used longitudinal designs. An example of a longitudinal study with positive findings is Belsky et al. (1989), who studied 173 couples pre-birth and when their infants were 3 and 9 months old. They found that fathers with higher prenatal marital satisfaction were more involved in fathering behaviors, both in quantity of time and quality of interaction. Some other longitudinal studies that have replicated this finding are Cowan and Cowan (1987), Feldman, Nash, and Aschenbenner (1983), Levy-Shiff and Israelashvili (1988), NICHD Early Child Care Research Network (2000), Nugent (1991), and Vølling and Belsky (1991).

Three cross-sectional studies also have replicated this positive relationship between marital satisfaction and father involvement. Bonney, Kelley, and Levant (1999), in a study of 120 couples with children ages 1-4, found that for fathers, higher marital satisfaction was associated with more participation in common childcare activities. King (2003) found that men reporting good marital quality were more involved with their children in ways such as relationship quality, future relationship, relationship effort, and so forth. Similar findings were reported by Blair et al. (1994).

On the other hand, two studies have found marital satisfaction negatively related to paternal involvement (Goth-Owens et al., 1982; Nangle et al., 2003); both were cross-sectional in design. Nangle et al. studied 75 couples with preschool-aged children, finding that fathers’ marital satisfaction was negatively associated with their day-to-day responsibility for children’ needs and activities; that is, the more satisfied fathers were, the less they were involved with their children. Similar results were reported by Goth-Owens et al., who studied 25 families with infants and reported negative correlations between fathers’ marital satisfaction and behaviors, such as tender holding and positive affect.

To further complicate the research picture, we located an additional nine studies reporting that marital satisfaction was not related to paternal involvement; most of these were longitudinal in design. For example, in a longitudinal study of 66 couples with infants, Deutsch, Lussier, and Servis (1993) found that fathers’ prenatal marital satisfaction was not associated with their participation in childcare tasks 3-8 months after childbirth. McBride and Mills (1993) conducted a cross-sectional study of 100 couples of pre-schooled children ages 3-5. They also found no significant correlations between fathers’ marital satisfaction and father involvement on measures of interaction and accessibility. Other studies with the same findings were Aldous et al. (1998); Grossman, Pollack, and Golding (1988); Grych and Clark (1999); Harris and Morgan (1991); NICHD Early Child Care Research Network (2000); Robson and Mandel (1985); and Woodworth, Belsky, and Crnic (1996).
One problem in this literature is a shortage of theories or conceptual frameworks guiding empirical studies; this can lead to scattershot findings. In addition, the discrepant findings might be explained by methodological issues, including different characteristics of the participants and the focal child, differing measures of marital satisfaction and father involvement, and variability in sample sizes. Further, the notion that paternal involvement is multifaceted (NICHD Early Child Care Research Network, 2000; Schoppe-Sullivan, McBride, & Ho, 2004) raises the possibility that different aspects of fathering, such as time involvement and quality of interaction, might be related differentially to marital satisfaction, thus leading to disparate findings in the literature (Flouri & Buchanan, 2003; NICHD Early Child Care Research Network).

An additional possibility for explaining the contradictory research in this area is that father involvement may be voluntary or necessitated by circumstances. In the Doherty et al. (1998) model, mothers’ influence on fathering comes from two primary sources: her employment status and her attitudes toward fathering. Prior research has found that mothers’ employment status influences the relationship between marital satisfaction and father involvement. As their wives work outside the home, men may feel that they should be more involved with their children. Yet, the increased involvement from fathers, if it is not a result of their personal choice, may relate to more negative feelings toward their wives (Crouter, Perry-Jenkins, Huston, & McHale, 1987). In contrast, in single-earner families, since fathers have more flexibility in whether to be involved with their children as they feel capable and willing, the relationship between marital satisfaction and father involvement may not be as strong as in dual-earner families.

Attitudes about Fathering

Attitudes are influential in determining behaviors, although attitudes alone are insufficient (Fox & Bruce, 2001; Holden & Edwards, 1989; Palkovitz & Copes, 1988). From a family systems perspective, mothers’ attitudes as well as fathers’ attitudes toward father involvement may impact father involvement (Parke, 2002). Evidence for these effects has been found in related literature (e.g., Beitel & Parke, 1998; De Luccie, 1995; Fagan & Barnett, 2003; Hoffman & Moon, 1999). In their study of father involvement during infancy, for example, Beitel and Parke reported that both paternal and maternal attitudes were associated with levels of father involvement with their infants, although the associations may differ by the types of father involvement, such as father-infant play. Similar findings were reported in Nangle et al. (2003). Specifically, mothers’ attitudes about father involvement were positively related to fathers’ accessibility to children and the percentage of time the father served as the child’s primary caregiver. Fathers’ attitudes about their involvement were associated with their accessibility to children.

Mothers’ and fathers’ attitudes toward father involvement can also be seen as individual factors interacting with marital satisfaction in influencing father involvement. When fathers have positive attitudes toward father involvement, for example, one may expect that they are more likely to be involved with children, regardless of their mari-
tal satisfaction. When their attitudes are less positive, although such attitudes may lead to less involvement with children, it is also possible that a third factor, such as marital satisfaction, may play a role in changing the relationship. For instance, men with less positive attitudes toward father involvement may involve themselves more with children if they are highly satisfied in their marriages in the hope of pleasing their wives by sharing parenting tasks, particularly when coparenting is encouraged by the wives. Nevertheless, a combination of less positive attitudes toward father involvement and unsatisfying marriages would easily discourage fathers from their involvement with children.

If mothers’ attitudes toward father involvement are positive, one may expect a positive relationship between fathers’ marital satisfaction and their involvement with children because a satisfying marital relationship may motivate fathers to get more involved with children in order to please their wives. On the other hand, a maritaly unsatisfied father may avoid being involved with children so as not to be together with his wife or even to upset his wife emotionally as a response to his discontented feelings in marriage. However, if mothers have less positive attitudes toward father involvement, fathers’ marital satisfaction may be negatively related to their involvement because in such cases, a maritally satisfied father may choose not to get involved with children in order to validate her mothering identity (Hawkins & Roberts, 1992; Lamb, 1997) or to preserve his wife’s parenting territory (Allen & Hawkins, 1999; Cowan & Cowan, 1988; De Luccie, 1995).

Influence of Mother’s Employment on Marital Satisfaction and Fathering

In addition to issues raised earlier, mixed findings for how marital satisfaction is related to father involvement may result from the existence of unmeasured moderator variables. Erel and Burman (1995) have underscored the importance and necessity of identifying moderator effects in the association between the marital and the parent-child relationship. Three studies investigated mothers’ employment status as an influence on the relationship between marital satisfaction and paternal involvement (i.e., Crouter et al., 1987; Grych & Clark, 1999; Volling & Belsky, 1991). Crouter et al. found that in dual-earner families, there was a negative correlation between husbands’ reports of love for their wives and their participation in childcare activities. In single-earner families, however, no significant correlation was reported. Similar results were found in the other two studies, which found that in dual-earner families, fathers’ marital satisfaction was negatively related to involvement, whereas in single-earner families, the relationship was positive (Grych & Clark; Volling & Belsky).

Curvilinearity between Marital Satisfaction and Father Involvement

The discrepant findings regarding marital satisfaction and father involvement also suggest the possibility that the relationship between marital satisfaction and father involvement is curvilinear, which could lead to confusion in interpreting research find-
ings that assume linear relationships between variables. In recent years, increasing attention has been given to examining curvilinear relationships in the area of fatherhood studies after a long history of researchers’ investigating only linear relationships (e.g., Beaton, Doherty, & Rueter, 2003; Floyd & Morman, 2000). In a recent study, Beaton et al. examined whether the relationship is linear and/or curvilinear between expectant fathers’ family of origin processes and their attitudes about father involvement. They found that expectant fathers’ closeness to family of origin was curvilinearly related to their attitudes toward father involvement; that is, when expectant fathers were either very close or very distant to their families, their attitudes toward father involvement were more positive. Therefore, a curvilinear relationship between marital satisfaction and paternal involvement (e.g., fathers are more involved with children when they are either very satisfied or very unsatisfied with their marital relationships) may help explain discrepancies in the literature.

Prepartum Marital Satisfaction

Finally, given the challenges that new expectant fathers face during the transition to parenthood, their role changes may affect how they feel about their marriage and their fathering (Cowan & Cowan, 1988). Cowan and Cowan suggested that individual and family development are best examined as patterns of changes in the connections among key variables during key transitions. Therefore, it seems important to examine how fathers’ marital satisfaction during pregnancy is related to their subsequent involvement once the child is born.

There is some evidence that changes in marital satisfaction across the transition to parenthood may be related to father involvement. Levy-Shiff (1994) studied 102 first-time parents from the third trimester of the mother’s pregnancy to 8-9 months postpartum, finding that while there was the expected overall decline in marital satisfaction, the decline was less when paternal involvement was greater, specifically on the dimensions of the father’s play and affiliative behaviors and caregiving behaviors.

In sum, given the discrepancies in the existing literature on the relationship between marital satisfaction and father involvement and the possible reasons for those mixed findings discussed above, research is needed that is theory based, uses data from multiple sources, and measures both quantity and quality of father involvement. This study is a partial test of a theoretical model of responsible fathering offered by Doherty et al. (1998), uses a longitudinal design beginning at pre-birth and extending to 1 year postpartum, and uses both father involvement and father skills as outcome variables.

We will examine whether moderator effects exist in the relationship between marital satisfaction and father involvement. There is prior evidence of the importance of maternal employment as a moderator. No studies have examined maternal and paternal attitudes toward father involvement as moderators, but our theoretical model suggests that these variables be included in the study. These analyses of attitudes as moderators, as well as tests for the curvilinear hypothesis, are viewed as exploratory.
MARITAL SATISFACTION AND FATHER INVOLVEMENT

Predictions

1. Marital satisfaction will be related to current father involvement, both in quantity and quality.
2. Fathers’ prenatal marital satisfaction will be positively related to their involvement with children, both in quantity and quality, six and 12 months postpartum.
3. Changes in fathers’ marital satisfaction from the second trimester of pregnancy to six months after childbirth will be associated with their involvement in quantity and quality six months postpartum.
4. In families where mothers work fewer hours per week, fathers’ marital satisfaction will be positively related to involvement, whereas in families where mothers work more hours, the relationship will be negative.

In addition to these predictions, the exploratory analyses will be conducted on the following three questions:

1. Do fathers’ attitudes toward father involvement influence the relationship between their marital satisfaction and involvement?
2. Do mothers’ attitudes toward father involvement influence how fathers’ marital satisfaction relates to involvement?
3. Is the relationship between fathers’ marital satisfaction and their involvement linear or curvilinear?

Method

Procedure

The data used for this current study were from the Parenting Together Project (PTP), a 3-year longitudinal intervention study consisting of couples who were expecting the birth of their first child. Couples participating in the PTP were recruited from a local Health Maintenance Organization’s (HMO’s) obstetrical clinics and through local radio and television advertisements. The following criteria were established by the PTP for recruiting couples: age over 18, married or cohabiting, in the second trimester of pregnancy, and expecting the first child for both partners. After recruitment, the couples were then randomly assigned to the educational intervention or a non-intervention control group during the second trimester of pregnancy.

The data were collected at three time points: during the second trimester of pregnancy (Time 1), 6 months postpartum (Time 2), and 12 months postpartum (Time 3). Assessments included self-reports of parents, time diaries, and in-home observations of parent-child interaction. Specifically, data at Time 1 were collected at the expectant parents’ homes by asking them to complete questionnaires consisting of sets of scales, including those measuring marital satisfaction and fathering attitudes.

At Times 2 and 3, couples were asked to fill out the questionnaires as they did at Time 1 and were instructed to each complete a time diary that was mailed 2 weeks prior to the assessment. The time diary elicited information about involvement with
the child on the most recent workday and at-home day (midnight to midnight—a 24-
hour period each) prior to the assessment. Home observations of parent-child play in-
teractions were also made at Times 2 and 3. The research assistant brought a variety of
age-appropriate toys to the parents’ house and asked each parent to engage in 5 min-
utes of play with the child. During the observation of the play exercise, each parent
was alone with the child and the observer. The interactions were videotaped and later
rated by two graduate research assistants. Couples were given $50 as a couple upon
their completion of each assessment.

Participants

A total of 165 couples were recruited from obstetrical clinics and participated at
Time 1, during the second trimester of the pregnancy. They were randomly assigned to
an eight session educational intervention (group sessions focusing on parental attitudes
and skills) or an assessment-only control group. The attrition rate was 15% (n = 24
couples) by the final assessment, which left a sample size of 141 couples. Analyses
were conducted to detect selective attrition, and no differences in age, education, in-
come, the marital satisfaction scale, and the fathering attitudes scale were found be-
tween the remaining participants and dropouts. Since this was an experimental study
with intervention and control group, analyses were conducted to determine if there
were groups effects on the variables used in the current study. There were no signifi-
cant interaction effects by group—that is, the intervention did not have a statistically
significant effect on the variables in the present study thereby justifying combining the
two groups for data analysis.

Regarding the demographics for the sample, the median age for mothers was 30
years and for fathers 31. Ninety percent of mothers were white, 2.4% Asian American,
1.8% African American, and 5.8% Hispanic or other non-white. For fathers, 84% were
white, 2.4% Asian American, 6.1% African American, and 7.5% Hispanic, Native
American, or other non-white. Twenty-seven (16%) of the participating couples were
interracial. The sample was well-educated, with 77% of mothers and 70% of fathers
having college degrees. The median income for mothers was in the range of $30,000
to $39,999, for fathers $40,000 to $49,999, and for couples combined $75,000 to
$99,999. The majority of the participants were married (95%) and the rest (5%) were
cohabiting. On average, the length of marital relationships for the couples in this study
was 36.5 months.

Measures

Fathers’ marital satisfaction was measured with the Dyadic Adjustment Scale
(DAS). The 32-item DAS, developed by Spanier (1976), has been one of the most used
scales to measure couples’ marital satisfaction. Cronbach’s alpha values for the total
scale for the fathers in this study at Times 1, 2, and 3 were .86, .89, and .94, respectively.

Father involvement was measured in two ways: quantity or time with the child, and
quality or skills in interacting with the child. An adaptation of McBride’s time diary as-
sessment (McBride, 1990, 1991; McBride & Mills, 1993), which provides a detailed profile of father involvement, was used to measure four quantity variables at Times 2 and 3. The diary consisted of three pages divided into 15-minute blocks of time for a 24-hour period. Each page contained three columns, labeled “Baby’s Activity,” “Your Activity,” and “Partner’s Activity.” In filling out the diaries, fathers were asked to use a forced-recall technique to elicit detailed information regarding their involvement with the child on the most recent workday and at-home day prior to the assessments. Information recorded was then categorized as engaged interaction time, parallel interaction time, and accessibility time. Engaged interaction time was defined as the amount of time on both the workday and at-home day when the father is actively interacting and/or in direct contact with the child. Parallel interaction time is when any of the following three situations happens on both the workday and at-home day: the father and infant are involved together in adult-centered activities; the father and infant are involved in activities together, but the father is not giving full attention to the infant; and the father and infant are doing unrelated activities in close proximity, and interaction can be assumed. Accessibility time indicates the amount of time on both the workday and at-home day when the father is physically available but not interacting with the infant. Total quantity of involvement was the sum of engaged interaction time, parallel interaction time, and accessibility time. Two independent raters who rated a random 25% of the time diaries reached agreement levels of 95%; in other words, the 15-minute time intervals were coded identically 95% of the time.

Quality of father involvement was measured by six indicators: warmth and emotional support, intrusiveness in child’s activity, engagement with child, positive affect, negative affect, and father-child dyadic synchrony. Home observations of father-child interactions were videotaped at Times 2 and 3. As described earlier, fathers were observed at home during a 5-minute play exercise alone with their baby and the observer during the interaction. The videotaped interactions were later rated by two graduate research assistants using the Parent Behavior Rating Scale, adapted from the work of Mahoney and Powell (1986), Thomas, Anderson, Getahun, and Cooke (1992), and Egeland, Erickson, and associates for their longitudinal Mother-Child Project (Erickson, Sroufe, & Egeland, 1985; Pianta, Erickson, Wagner, Kreutzer, & Egeland, 1990).

The six quality indicators were coded on a scale from 1-7, based on the degree of frequency that each indicator was observed during the father-child play (1 = almost never and 7 = very often). Intrusiveness and negative affect were reverse coded so that all higher scores indicate better quality on all six variables. To test inter-rater reliability, two raters independently coded 20% of the videotapes. Inter-rater correlations for father variables ranged from .70 to .94, indicating good reliability. When summed to measure overall quality, the scale had Cronbach’s alpha values of .85 at Time 2 and .83 at Time 3 for the six indicators. Since these quality indicators are often examined separately in the research literature (Erickson et al., 1985), we analyzed them individually as well as summed them into an overall quality variable (at the recommendation of the instrument’s developer, Martha Farrell Erickson) because of the high alpha and because we were less interested in individual behaviors than in overall quality of the interaction.
Moderators

Mothers’ employment was measured via self-report of the number of hours per week the mother worked.

Mothers’ and fathers’ attitudes toward father involvement were measured by the 13 items of the Father Attitude Scale (FAS), adapted by Pleck (1997) from Palkovitz’s Role of the Father Questionnaire (Palkovitz, 1984). Fathers and mothers were asked separately to express their opinions about each item on a 5-point Likert scale ranging from (1) disagree a lot to (5) agree a lot. Examples of the items are, “It is essential for the child’s well-being that fathers spend time interacting and playing with their children.” “A father should be as heavily involved in the care of his child as the mother.” Cronbach’s alpha was .77 for fathers’ scores at Times 2 and 3, and for mothers’ scores, .73 at Time 2 and .74 at Time 3.

Results

Statistical Analyses

Statistical analyses included bivariate correlations, hierarchical multiple regression, and curve estimation. Predictions 1 and 2 were examined by bivariate correlations. Prediction 3 was investigated through hierarchical multiple regression. Marital satisfaction at Time 1 was entered first, followed by marital satisfaction at Time 2. Hierarchical multiple regression was also used to test moderator or interaction effects (i.e., prediction 4 and exploratory questions 1 and 2). In the analyses, the predictors (i.e., marital satisfaction and the moderator variable) were entered first, followed by the interaction term representing the product of the two predictors. Moderator effects are found when the interaction term accounts for significant unique variance, indicating that the magnitude or the direction of a given relationship between an independent variable and a dependent variable is changed significantly by the moderator (Baron & Kenny, 1986). Exploratory question 3 was examined by employing the curve estimation program in SPSS. To conserve space, Table 1 presents the intercorrelations and descriptive statistics only for the summed study variables in this study. Note that only significant results are presented in the remainder of this section.

Concurrent Relations between Marital Satisfaction and Father Involvement

Fathers’ marital satisfaction at Time 2 was positively associated with quantity of involvement, particularly their total quantity of involvement, $r(90) = .18, p < .05, d = .37$ and their amount of time in engaged interaction with the child, $r(90) = .25, p < .01, d = .50$. Fathers’ marital satisfaction was found to be positively related to quality of involvement, specifically the overall quality of father involvement, $r(131) = .18, p < .05, d = .36$, warmth and emotional support, $r(131) = .17, p < .05, d = .34$, and father-child dyadic synchrony, $r(131) = .17, p < .05, d = .34$. At Time 3, while no association was
Table 1

*Intercorrelations, Means, and Standard Deviations for Summed Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
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<th>4.</th>
<th>5.</th>
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<th>7.</th>
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<tbody>
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<td>1. Marital satisfaction, T1</td>
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<td>2. Marital satisfaction, T2</td>
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<td>3. Marital satisfaction, T3</td>
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<td>4. Total quantity of father involvement, T2</td>
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<td>5. Overall quality of father involvement, T2</td>
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<td>6. Total quantity of father involvement, T3</td>
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<td>7. Overall quality of father involvement, T3</td>
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</tbody>
</table>

|                  | 116.99 | 115.92 | 114.28 | 21.40 | 28.59 | 20.52 | 29.08 |
| M                |        |        |        |       |       |       |       |
| SD               | 11.37  | 10.56  | 13.78  | 3.34  | 6.83  | 3.54  | 6.54  |

* $p < .05$
** $p < .001$
found between fathers’ marital satisfaction and current quantity of involvement, fathers’ marital satisfaction was found to be significantly and positively related to quality of involvement, particularly warmth and emotional support, \( r(130) = .17, p < .05, d = .34 \), and intrusiveness, \( r(130) = .18, p < .05, d = .36 \).

**Prenatal Marital Satisfaction and Subsequent Involvement**

The findings were consistent with the prediction that marital satisfaction was positively related to quantity of father involvement. Specifically, marital satisfaction at Time 1 was found to be significantly and positively related to the total quantity of paternal involvement at Time 2, \( r(91) = .26, p < .01, d = .54 \), and Time 3, \( r(92) = .23, p < .05, d = .47 \), indicating that fathers’ prenatal marital satisfaction was positively related to how much time they spent on total involvement 6 and 12 months postpartum. Fathers’ prenatal marital satisfaction was positively associated with the amount of time in engaged interaction with the child at Time 2, \( r(91) = .25, p < .01, d = .52 \), but was not related to parallel interaction and accessibility at Times 2 and 3.

The results did not support the prediction for quality of father involvement. No significant relationships were found between fathers’ prenatal marital satisfaction and overall quality or any of the six quality variables of paternal involvement at both times.

**Involvement Related to Change in Marital Satisfaction during the Transition to Parenthood**

Changes in marital satisfaction from Time 1 to Time 2 were not related to any quantity of involvement variables. However, they were found to be significantly and positively related to 3 of the 6 quality indices of paternal involvement at Time 2: fathers’ overall quality of involvement, \( \beta = .27, \Delta R^2 = .04, F(1, 126) = 5.33, p < .05 \), warmth and emotional support, \( \beta = .26, \Delta R^2 = .04, F(1, 126) = 4.63, p < .05 \), and father-child dyadic synchrony, \( \beta = .28, \Delta R^2 = .04, F(1, 126) = 5.62, p < .05 \), indicating that marital satisfaction at Time 2 accounted for 4% of the variance of each of the three quality variables when marital satisfaction at Time 1 was controlled for.

** Moderator Effects**

Table 2 presents the findings for mothers’ working hours as a moderator of the relationship between fathers’ marital satisfaction and their involvement. Mothers’ working hours at Time 2 influenced the relationship between fathers’ prenatal marital satisfaction and the total quantity of paternal involvement, \( \Delta R^2 = .05, F(1, 85) = 4.43, p < .05 \), as well as parallel interaction with child at Time 2, \( \Delta R^2 = .06, F(1, 85) = 5.44, p < .05 \). Mothers’ working hours at Time 3 were also found to influence the relationship between fathers’ marital satisfaction and total quantity of paternal involvement at Time 3, \( \Delta R^2 = .04, F(1, 82) = 3.93, p = .05 \). However, mothers’ working hours as a moderator did not change the direction of the relationship in the ways predicted.
ically, for fathers whose wives worked more hours per week, marital satisfaction was a positive influence on total quantity of involvement 6 months postpartum ($\beta = .46$). But for fathers whose wives worked fewer hours, marital satisfaction was negatively associated with parallel interaction ($\beta = -.37$) and was a positive influence on total quantity of involvement 12 months after childbirth ($\beta = .42$). Further, mothers’ working hours were not found to be a moderator of the relationships between marital satisfaction and overall quality of paternal involvement or any of its constituent indicators.

Table 2

Hierarchical Regression Analysis Summary for the Moderator Effects of Mothers’ Working Hours on Fathers’ Marital Satisfaction (MS) and Involvement

<table>
<thead>
<tr>
<th>Step and Variable Entered</th>
<th>$B$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total quantity, T2</td>
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<td>.07</td>
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<tr>
<td>Step 1</td>
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</tr>
<tr>
<td>MS, T1</td>
<td>.08</td>
<td>.03</td>
<td>.26*</td>
<td></td>
<td></td>
</tr>
<tr>
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Note: Only significant results are listed.

$\dagger p = .05$

$\ast p < .05$

Results of tests of fathers’ attitudes toward father involvement as a moderator of the relationship between marital satisfaction and father involvement are presented in Table 3. Fathers’ attitudes toward father involvement were found to influence the relationship between the father’s prenatal marital satisfaction and his amount of time in engaged interaction with the child at Time 2, $\Delta R^2 = .05$, $F(1, 84) = 4.42$, $p < .05$. Fathers’ attitudes toward father involvement at Time 3 were also found to influence the
relationship between their prenatal marital satisfaction and each of the following three variables at Time 3: the father’s total quantity of involvement, $\Delta R^2 = .04, F(1, 88) = 4.20, p < .05$, the father’s warmth and emotional support toward the child, $\Delta R^2 = .03, F(1, 132) = 3.77, p = .05$, and father-child dyadic synchrony, $\Delta R^2 = .03, F(1, 132) = 3.98, p < .05$.

Table 3
Hierarchical Regression Analysis Summary for the Moderator Effects of Fathers’ Fathering Attitudes on Marital Satisfaction (MS) and Involvement

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<th>$R^2$</th>
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*Note.* Only significant results are listed.

† $p = .05$

* $p < .05$
These findings indicated that for fathers with positive attitudes toward father involvement, prenatal marital satisfaction was positively related to father-child dyadic synchrony ($\beta = .36$). But for fathers with less positive attitudes toward father involvement, the relationship was negative ($\beta = -.42$) (i.e., lower marital satisfaction relating to more father-child dyadic synchrony during play interactions). For fathers with positive attitudes toward father involvement, marital satisfaction was found to be a positive influence on total quantity of involvement ($\beta = .37$), the amount of time in engaged interaction with the child ($\beta = .39$), and warmth and emotional support during father-child play interactions ($\beta = .24$). Results showed no significant interaction effects by mothers’ attitudes toward father involvement on the relationship between fathers’ marital satisfaction and their involvement with children.

**Curvilinearity**

The curve estimation program in the SPSS statistical software was used to explore possible curvilinear relationships between fathers’ marital satisfaction and their involvement with children. For all the linear relationships examined in the study, we further tested the possibility of curvilinear (or quadratic) relationships between them by entering marital satisfaction as the independent variable and father involvement as the dependent variable in the program. The results did not support the hypothesis of curvilinearity. All of the significant relationships were linear.

**Discussion**

Although the association between marital satisfaction and father involvement has proven inconsistent in prior research, this study lends more evidence that the relationship is both real and positive. The findings indicate that the more satisfied the father feels in his marriage before childbirth, the more time he will spend with his child, particularly in face to face interactions during the first year of his child’s life. The rationale behind this association is consistent with prior theory (Doherty et al., 1998). In their conceptual framework of responsible fathering, Doherty et al. indicated that the family environment most supportive of fathering is a caring, committed, and collaborative marriage and that the quality of marital process is a strong influence on fathering. When the father is more satisfied with his marriage, he tends to spend more time being involved and/or actively interacting with his child, not only to fulfill his own parenting role but also to show love and partnership with his wife. On the contrary, if the father does not feel satisfied with his marriage, he may be more prone to withdraw from the family and spend less time with his child.

While we did not find that the father’s prenatal marital satisfaction is related to his subsequent quality of involvement, cross-sectional analyses did reveal significant relationships. Specifically, when the father was more satisfied with his marriage, he showed higher overall quality of involvement, more warmth and emotional support, more father-child dyadic synchrony, and less intrusiveness. The findings suggest that
it is only fathers’ current feelings about the marriage that spill over to their level of emotional sensitivity to their children.

In analyses not reported here (the results can be obtained directly from the authors), we examined how fathers’ marital satisfaction changed during the transition to parenthood. The findings replicated the modest overall decline in marital satisfaction for our sample during the transition to parenthood. In terms of our analysis of the relationship between changes in marital satisfaction and father involvement, findings suggest that a decrease in the father’s marital satisfaction from the second trimester to 6 months postpartum led to decreasing quality of his involvement. Perhaps when the father feels dissatisfied with his marriage over time, he is reluctant to coparent his child with his wife, which decreases opportunities to practice parenting and eventually lowers the quality of his interactions with the infant.

However, since the relationship between marital satisfaction and father involvement was linear, it is also plausible that an increase in the father’s marital satisfaction during the early transition to parenthood may lead to better quality of his involvement. Perhaps when the father feels more satisfied in his marriage over time, he becomes more willing to work together with his wife in parenting the infant, which helps build his confidence in parenting skills and ultimately enhances the quality of father-infant interactions.

Moderator Effects on the Relationship between Fathers’ Marital Satisfaction and Involvement

In light of the discrepancies in prior research regarding how marital satisfaction is related to father involvement, this study aimed to examine whether there are moderator effects in the relationship. Given that Doherty et al.’s model (1998) suggested that mother factors, such as the extent of her involvement in the labor force and her attitudes about fathering, may interact with marital satisfaction to influence father involvement with children, these moderators were investigated. The findings for mothers’ employment were consistent with the literature (Crouter et al., 1987; Völling & Belsky, 1991). The mother’s working hours per week influenced the relationship between the father’s prenatal marital satisfaction and his subsequent quantity of involvement. This suggests that when mothers work more hours per week, fathers’ marital satisfaction is a positive influence on total quantity of fathers’ involvement.

The relationship between the father’s prenatal marital satisfaction and his parallel interaction with the infant also varied as a function of the mother’s working hours. The finding indicates that for a father whose wife worked fewer hours per week, the relationship was negative (i.e., when he was less satisfied with his marriage prenatally, the father would spend more hours having parallel interaction with the infant). Perhaps as mothers’ working hours decrease, fathers who are not satisfied with marriage prenatally tend to be more involved with children to avoid the tension or conflicts with their wives.

While mothers’ working hours, as expected, altered the relationship between fathers’ marital satisfaction and parallel interaction, they did not change the direction of
the relationship in the way we predicted based on the literature. Prior research suggests that in single-earner families, marital satisfaction promotes father involvement, and marital discord may spill over and adversely influence father involvement. But in dual-earner families, high marital satisfaction is associated with less father involvement (Grych & Clark, 1999; Völling & Belsky, 1991). However, this was not found in the current study.

One possible reason for the unexpected finding may be related to methodological issues, particularly the different facets of father involvement that were measured when comparing prior research and the current study. Specifically, both Crouter et al. (1987) and Völling and Belsky (1991) measured quantity of involvement (child care tasks), whereas Grych and Clark (1999) assessed quality of involvement (positive affect, sensitivity, and responsiveness). Therefore, while this study has provided evidence again that mothers’ employment is a consistent moderator of the relationship between fathers’ marital satisfaction and involvement, it appears that how the moderator affects the relationship in terms of its strength and direction may depend in part on what aspects of father involvement are being measured in a given study. More research is needed to determine whether such moderator effects may vary depending on what facets of father involvement are considered as dependent variables.

Following Doherty et al.’s theoretical model (1998), the current study also explored fathers’ and mothers’ attitudes toward father involvement as moderators of father involvement. We found that fathers’ attitudes toward father involvement influenced the relationship between marital satisfaction and paternal involvement. The finding suggests that when fathers have more positive attitudes toward father involvement, prenatal marital satisfaction is a positive influence on their total quantity of involvement, the amount of time in engaged interaction, and warmth and emotional support toward the child during play interactions. It also suggests that when fathers have high marital satisfaction before childbirth, they tend to have less father-child dyadic synchrony if their attitudes toward father involvement are less positive, but more father-child dyadic synchrony if their attitudes are positive. Perhaps when his attitudes toward father involvement are positive, a father’s satisfying marriage encourages or strengthens his involvement with the child, leading to more father-child dyadic synchrony. When his attitudes are less positive, his happy marriage alone may not be an effective drive in motivating his involvement, which may eventually affect the quality of his interaction with the child, particularly in dyadic synchrony.

Considering the findings for the moderator effects together (i.e., mother’s employment and paternal attitudes), it appears that for fathers whose wives work more hours per week or who hold more positive attitudes toward fathering, their marital satisfaction tends to be a positive influence on or positively related to their involvement with children, both in quantity and in quality. In contrast, for fathers with wives working fewer hours each week or with less positive attitudes about fathering, their satisfaction in marriage is negatively associated with or does not have as positive an impact on involvement with children. We offer the following speculation to explain these findings: Perhaps there were two "types" of families represented here, more progressive
(high father expectations and wife expecting more) vs. more traditional (lower father expectations and wife working fewer hours). In the more progressive families, when fathers feel more satisfied with their marriage, they behave as expected and thus are more involved with their children, whereas in the more traditional families, when fathers are more satisfied, they behave as expected and are less involved with their children. Future research should begin to explore whether this kind of family typology might help explain the complex relationship between marital satisfaction and father involvement.

One reason why we did not find maternal attitudes to be a moderator may be related to the variability of the maternal attitudes variable in our sample. Variables with restricted ranges result in smaller effect sizes, which in turn makes it difficult to detect interaction effects, particularly when sample sizes are not large (Cohen, 1988; Whisman & McClelland, 2005). Therefore, the low variability in the mothers’ attitudes toward father involvement in our sample, along with sample size considerations, may have contributed to the finding of no moderator effect of maternal attitudes on marital satisfaction and father involvement. Clearly, further research is needed before any firm conclusions can be drawn.

A few study limitations should be noted. Given that those participating in this study were couples expecting their first child for both partners and that the majority were white, well-educated, and from the middle-class, the findings may not apply to families with more than one child or those with older children, nor be generalized to other populations, such as non-whites or people with less education. Further, the dependent variables were derived from the data of time diaries and videotaped home observations and were measured at just two time points. Thus, the results can simply show us the differences in father involvement with children between the two time points. The process of change cannot be shown in the way it might if we have three or more data points. Finally, given considerable missing data on the measure of quantity of father involvement at Times 2 and 3, additional analyses were conducted to examine whether there were significant differences in age, education, income, marital satisfaction and fathering attitudes between families with and without missing quantity of father involvement data. One difference was found: fathers with missing data Time 2 (but not Time 3) had more positive attitudes toward father involvement than those without missing data. Given just this one anomalous difference, we do not believe that missing data seriously compromised the study’s findings.

Given the complexity of the association between marital satisfaction and father involvement, instead of simply investigating whether marital satisfaction is one of the factors that determine the level of father involvement with children, we believe that future research should do the following. First, researchers should use common scales to measure dimensions of father involvement and use large sample sizes to detect small but meaningful effect sizes. Second, researchers should collect longitudinal data with at least three time points to allow sophisticated statistical methods such as growth curve analysis. Finally, other possible moderator effects should be explored thoroughly.

The current study suggests that there is a positive and linear relationship between marital satisfaction and father involvement and that mothers’ working hours as well as
fathers’ attitudes toward father involvement influence how marital satisfaction is associated with father involvement. We conclude that the relationship between marital satisfaction and father involvement is positive, and that discrepancies in the literature may stem from lack of examination of moderator effects.

References

Lee and Doherty


