

A Model of Fathers' Behavioral Involvement in Child Care in Dual-Earner Families

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Fathers and mothers ($n = 120$) of preschool-aged children completed 2 measures assessing fathers' behavioral involvement in child care (i.e., the amount of time that the father was the child's primary caregiver and the number of child-care tasks performed). The results reaffirm the findings from previous studies that father's long work hours can be a barrier to greater participation in child care but that mothers' extended work hours serve to increase father participation in child care. Women's perception of their husbands' competence as parents and marital satisfaction also explain fathers' involvement. Fathers' gender role ideology and attitudes about the fathers' role appear important for fathers' involvement in child care, and findings indicate that men's involvement may be more self-determined than previously believed.

In the past 30 years, women have increasingly moved into the paid labor force resulting in dual-earner families replacing traditional father-provider families. As a result of work and family changes, increasingly men are expected to be more actively involved and nurturing of their children. At the same time, for many men, their greater involvement with children may reflect an internal value shift (see Levant, 1992; Marsiglio, 1991, 1995; Pleck, 1997).

In recent reviews, both Parke (1996) and Lamb (1997) suggested that many factors influence men's involvement in child care. A number of theoretical foundations have been proposed to account for fathers' behavior involvement with children. Role theory suggests

that social roles are shared norms and expectations about how an individual should behave in certain situations (Coltrane, 1996; Heiss, 1981; LaRossa & Reitzes, 1993). According to role theory, the father's role is based on a father's internalized concept of appropriate paternal behavior (LaRossa & Reitzes, 1993). This internal concept is influenced both by culturally defined norms or behavior and by individual beliefs. Moreover, it is reasonable to assume that the way in which fathers define their roles influences the quality and quantity of their behavior with their children (Ihinger-Tallman, Pasley, & Buehler, 1993).

As predicted by role theory, some research has demonstrated that one determinant of fathers' participation in child care is men's beliefs about appropriate roles for men and women. Russell (1978) found that fathers with less rigid sex role orientations were more involved in the day-to-day care of their children than were the more traditionally "masculine" fathers.

Fathers' gender role ideology should be related to men's beliefs about appropriate fathering behaviors. Role theory would forecast that beliefs about their competence with children should predict fathers' involvement with children. Previous research has demonstrated that beliefs that the fathers' role is important to child development (Palkovitz, 1984), beliefs

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about men's competence with children (Crouter, Perry-Jenkins, Huston, & McHale, 1987; Russell, 1983, 1986), viewing fatherhood as positive (Levy-Shiff & Israelashvili, 1988), investment in the fathering role (Minton & Pasley, 1996), and more equalitarian attitudes about fathering (Aldous, Mulligan, & Bjarnason, 1998) are related to paternal involvement in child care. Beitel and Parke (1998) found that men who valued the father's role more, rejected the biological basis of gender differences, and perceived their caregiving skills as adequate, were more involved with their infants. In a study of nontraditional families (in which fathers were responsible for 45% of all child-care activities on average), Russell (1983) found that 80% of the fathers and 90% of the mothers believed that fathers could be capable caregivers in contrast to 49% of fathers and 65% of mothers in traditional families (fathers were responsible for 22% of all child-care activities on average). Although researchers have generally predicted unidirectional relations (i.e., the father's beliefs about fathering predict his involvement with children), it is reasonable to assume that the amount of child care the father performs influences his beliefs about his competence in the parenting role.

Although men's involvement in child care appears to be somewhat self-determined, fathers' participation in child care may also be determined in part by how their wives define their own identities, as well as what their partners believe is reasonable or appropriate fathering behavior. Some women for whom motherhood is highly salient may be reluctant to relinquish aspects of child care. Many women associate motherhood with caregiving. Anything less than superlative maternal behavior, even on the part of a working mother, may result in a loss of self-esteem. At the same time, some women, many of whom were raised in families with more traditional sex role behaviors, may not have the expectation that men share parental responsibilities. As a result, some have argued that men's involvement in child care is unlikely to occur unless there is approval and support for this behavior from spouses. Barnett and Baruch (1987) found that in dual-earner families, the mother's attitude toward the male role predicted fathers' participation in child care. When her attitude was liberal, he did more; when it was traditional, he did less. Similarly, Beitel and

Parke (1998) found that women's estimate of their husbands' child-care skills, of their husbands' interest in participating in child-care activities, and of the value of fathers' involvement all influenced paternal involvement in child care. Moreover, maternal attitudes predicted levels of fathers' involvement even after controlling for a range of other factors (e.g., amount of maternal employment, bottle vs. breast feeding, father involvement in childbirth classes, and parents' recollection of their relationship with their own parents). Furthermore, Berardo, Shehan, and Leslie (1987) argued that in the area of child care, men still rely on their wives to assign tasks rather than taking responsibility on their own.

Although aspects of men's and women's personality may influence fathering behavior, at the same time, the degree to which the father adheres to the traditional father-provider role may influence his involvement with children. Indirect attempts to examine the fathering role in terms of family provision has examined aspects of career involvement, income, and education. Some researchers have argued that higher education and social economic status are associated with men's involvement in family work (Berk & Berk, 1979; Gerson, 1993); however, other research has not supported these relationships (Ericksen, Yancey, & Ericksen, 1979). Erickson and Gecas (1991) argued that men with high incomes tend to have careers that leave fewer hours to spend with their families. Similarly, Russell (1983) found that paternal involvement in child care increases when fathers are employed in less demanding jobs, and Feldman, Nash, and Aschenbrenner (1983) found that low job saliency was predictive of high paternal involvement in child care. Thus, it appears that education and socioeconomic status may be proxies for characteristics of men's jobs (i.e., job demandingness and the number of hours worked per week) that are the underlying factors influencing fathers' involvement in child care.

Characteristics of maternal employment also may impact the quantity of time men spend in child care. In their studies of employed mothers, Barnett and Baruch (1987) found that the number of hours the wife worked per week, as well as nontraditional attitudes on the part of women toward the male role, were the most consistent predictors of fathers' participation in

child care. Although some research indicates that in middle-class and upper-middle-class, mostly European American families, men with working wives do more family work than husbands of nonemployed wives (Bailey, 1994; Darling-Fisher & Tiedje, 1990), a study of low- and working-income two-parent African American families found that maternal employment outside the home was not related to paternal involvement in child care (Kelley, 1997). Thompson and Walker (1989) found that employed wives reported pushing their husbands to increase participation, especially if the wives wanted to work outside the home. In fact, some have inferred that time constraints and demands of a household with two working parents may allow fathers less "option" of being involved in child care (e.g., Crouter et al., 1987; Volling & Belsky, 1991).

Marital satisfaction has been found to be a consequence (e.g., Russell, 1983, 1986) and a source of fathers' participation in child care (e.g., Feldman et al., 1983; Levy-Shiff & Israelashvili, 1988; Volling & Belsky, 1991). In general, both men and women report greater marital satisfaction in couples in which the fathers were more involved in child care than in couples in which fathers were less involved in child care (Blair, Wenk, & Hardesty, 1994; Jump & Haas, 1987; Lamb, 1987; McBride & Mills, 1993). Research examining maternal employment has indicated that a husband's willingness to share housework and child care is the single most important factor in decreasing stress for working mothers (Hoffman, 1989).

Lamb and his colleagues (Lamb, 1987; Lamb, Pleck, Charnov, & Levine, 1987) proposed a three-part model of paternal involvement (i.e., interaction or engagement, accessibility, and responsibility) that recognizes different forms of father participation in child rearing. According to Lamb (1987), interaction or engagement involves time spent in actual one-on-one interaction with the child (whether feeding her or him or playing outside). Interaction does not include time spent engaged in child-related housework. In the second category (accessibility) the father may or may not be directly engaged in interaction with the child; however, he is still available (physically and psychologically) to his child (e.g., cooking while the child is playing in the next room). The final category, responsibility,

has to do with who takes ultimate responsibility for the child's welfare and care (i.e., knowing when the child needs to go to the pediatrician, making babysitting arrangements, and so forth).

Previous research has suggested that a number of variables may interact in complicated ways to influence paternal involvement (Parke, 1996). In the present study, we made a decision to examine multiple influences on fathers' involvement in child care using two methods of assessing fathers' behavioral involvement in child care: (a) the amount of time that mothers and fathers' reported that the father was the child's primary caregiver and (b) the number of child-care tasks performed by the father. These two methods of assessing fathers' behavioral involvement in child care were selected for several reasons. Time spent as the child's primary caregiver appears to be an accepted measure of assessing Lamb's dimension of "interaction" (e.g., Volling & Belsky, 1991). So too, the number of child-care tasks performed by fathers appears to be an accepted method of examining responsibility for children (e.g., Ahmeduzzaman & Roopnarine, 1992; Bailey, 1994; Crouter et al., 1987; Minton & Pasley, 1996; Volling & Belsky, 1991). Also, because previous research has used these methods of examining fathers' behavioral involvement, it is possible to make comparisons across studies. A final reason for examining behavioral involvement with children as described above is that it made it possible to compare the relative amount of time fathers versus mothers spend as the child's primary caregiver, as well as to compare what fathers do relative to their wives.

We expected men who reported greater job demandingness and longer working hours to be less involved in child care. In contrast, we expected men whose wives reported greater job demandingness and longer working hours to be more involved in child care. Additionally, we expected mothers' and fathers' beliefs about the father's role to have an indirect relationship on paternal involvement in child care. Specifically, we hypothesized that more liberal gender role attitudes and less traditional beliefs about the father's role would explain greater paternal involvement. Additionally, we expected mothers' perceptions of their husband's competence in providing child care to positively influence marital satisfaction. In turn, we expected marital satisfaction to explain father's involvement in

child care, with fathers reporting greater involvement in child care in couples with higher marital satisfaction.

Method

Participants

We surveyed 120 couples with children between the ages of 1 and 4. The mean age of fathers was 33.0 years ($SD = 6.2$ years; range = 20 to 50 years). We recruited families from 1 of 12 day-care centers in southeastern Virginia that serve predominantly middle-income families. Centers served a total of 757 children in the age range targeted (between 32 and 99 children were in the age range at each of the participating centers at the time of the survey; on average 63 children were in the age range surveyed at each of the participating centers).

Recruitment was identical at each of the 12 area day-care centers. That is, a description of the study was placed next to where parents signed in their children each day. Parents interested in the study took an envelope containing two packets of questionnaires; one for each parent. Parents were instructed to complete the questionnaire independently, seal the questionnaires in separate envelopes, and return the packets to the child's day-care center within 1 week. Parents returned their packet to a return box or gave the packet to a day-care administrator.

Parents with more than one child in the age range surveyed were asked to report on their youngest child. The rationale for choosing the youngest child was that caring for younger, less self-sufficient children may be especially challenging. To meet the study criteria, both mothers and fathers had to be residing with the target child. It is not known how many families met the study criteria or how many families had more than one child in the target range, thus, an accurate rate of return is not available. The survey took approximately 30 min to complete.

At the time of data collection, 1 father (<.1%) had completed some high school; 23 (19.2%) were high school graduates; 43 (35.8%) had completed 1 to 3 years of college; 23 (19.2%) were college graduates; 20 (16.7%) had attended graduate school; and 7 (5.8%) held doctorates or professional degrees. The average number of hours worked per week was 45.6 ($SD = 12.1$ hr; range = 0 to 90 hr per week). Ninety-four (78.3%) fathers were European American; 20 (16.7%) were African American; 4 (3.3%) were Hispanic American; and 2 (1.7%) were Asian American. Average family income was \$55,471 per year ($SD = \$29,574$; range = \$7,050 to \$200,000).

Mean age of the mothers was 31.08 years ($SD = 5.81$ years; range = 18 to 46 years). One mother (<.1%) had completed some high school; 16 (13.3%) were high school graduates; 44 (36.7%) had

completed 1 to 3 years of college; 39 (32.5%) were college graduates; 16 (13.3%) had attended graduate school; and 4 (3.3%) held doctorates or professional degrees. The average number of hours worked per week was 33.2 ($SD = 15.0$ hr; range = 0 to 60 hr). Ninety-eight mothers (81.7%) were European American; 19 (15.8%) were African American; 2 (1.7%) were Asian American; and 1 (<.1%) was Hispanic American.

Of the 120 children, 65 (54.2%) were boys and 55 (45.8%) were girls. Mean age of the children was 31.7 months; range = 12 to 48 months). Total family size ranged from one to six children (87% of the families had one or two children).

Measures

Identical to research by Radin (1982), the following method of assessing the percentage of time the father was the child's primary caregiver was used. Both mothers and fathers independently answered the following question, "Given 100%, what percentage of the time are you the child's prime caregiver ___% and your partner (spouse) ___%? (Must add up to 100%). (By prime caregiver is meant the person who must be available to attend to the child's needs.)"

On average, mothers reported that fathers served as the child's primary caregiver 33% of the time, whereas fathers' reported that they were the child's primary caregiver 39% of the time. Although this difference was statistically significant, $t(120) = 5.8$, $p < .001$, there also was considerable agreement among couples. Specifically, one third of the couples (39 of 120) agreed perfectly on the father's involvement as the child's primary caregiver. Additionally, less than 6% of couples (7 of 120) reported significant discrepancies as to the father's involvement as the child's primary caregiver (defined as more than a 25 percentage-point discrepancy between partners). Moreover, only one couple agreed that the father served as the child's primary caregiver the majority of the time, 61% (73 of 120) of couples agreed that the wife served as the child's primary caregiver, and 15% (18 of 120) agreed that child care was split evenly between the couple. Mothers' and fathers' responses were highly correlated, $r = .58$, $p < .001$. Some information may be lost by not examining mothers' and fathers' responses independently. However, (a) because couples' reports were highly correlated and (b) so that findings could be compared to previous research, we decided to average scores together to obtain the overall percentage of paternal primary caregiving score that served as the endogenous variables in the path analytic models that follow.

A second method of assessing fathers' involvement in child care was the following. Mothers and fathers independently completed a questionnaire assessing parental involvement in common child-care activities. For each of the items, mothers and fathers

answered the following question: "Who usually does the following activities?" Responses were coded on a 5-point scale from: 1 (*mother always does*) to 5 (*father always does*). Similar to previous research (Bailey, 1994; Hossain & Roopnarine, 1993; Kelley, 1997), individual child-care items were combined to form a single score that reflected the father's involvement in child care. We summed the following items to form the child-care score: feeding, bathing, changing diaper-toileting, putting the child to bed, getting up with the child at night, dressing, supervising morning routine, staying home when child is ill, taking the child to medical doctor, disciplining the child (e.g., time-out), and setting limits for child behavior. Previous studies have found high agreement between fathers' reports of their involvement and wives' assessments of men's involvement in child care (e.g., Hossain & Roopnarine, 1993; Kelley, 1997; Levant, Slattery, & Loiselle, 1987; Smith & Morgan, 1994). The average correlation between mothers and fathers was .63 for the child-care tasks. Additionally, couples agreed that the wives were more likely to perform *all* of the above tasks with two exceptions. Both parents reported that fathers were more likely to play actively with children than mothers (M for fathers = 3.24, $SD = 0.55$; M for mothers = 3.21, $SD = 0.61$). Also, couples disagreed slightly with respect to who typically disciplined the child. Fathers reported that they were more likely to discipline the child ($M = 3.15$, $SD = 0.59$), whereas mothers were more likely to say that they were most responsible for discipline ($M = 2.8$, $SD = 0.66$). Because there was high agreement among couples, we averaged together mothers' and fathers' replies to form a single paternal involvement in child care score. Internal consistency of the child-care scale was .74 for both mothers and fathers.

Mothers and fathers completed a modified version of the Male Role Norms Inventory (MRNI; Levant & Fischer, 1998; Levant et al., 1992). The revised 57-item MRNI Scale is composed of seven subscales that assess both normative and nontraditional statements about the male role. We believed that two subscales, Homophobia and Attitudes Toward Sex, were unrelated to the current study and so did not administer them. Mothers and fathers were instructed to complete the resulting 40-item scale independently. Alphas for the modified MRNI were .87 for fathers and .83 for mothers.

Mothers and fathers also completed the Beliefs Concerning the Parental Role Scale (BCPR; Bonney & Kelley, 1996). The BCPR is a 28-item scale assessing beliefs about the father's role (e.g., "It is important for fathers to spend quality time [one to one] with their child[ren] every day") and the mother's role (e.g., "It is more important for a mother rather than a father to stay home with an ill child") in child care. The BCPR was piloted with college

students and yielded an alpha of .83. Alphas for the present study were .87 for fathers and .80 for mothers.

Both mothers and fathers completed the Kansas Marital Satisfaction Scale (KMS; Schumm et al., 1986). The KMS is a 3-item self-administered questionnaire that assesses satisfaction with spouse, marriage, and relationship with spouse. Items are scored from *extremely dissatisfied* to *extremely satisfied*, using a 7-point scale. Alphas for the present study were .95 for fathers and .96 for mothers. Because mothers' and fathers' marital satisfaction scores were highly correlated ($r = .67$, $p < .001$), we combined scores for marital satisfaction in the analyses that follow.

Mothers and fathers independently completed a questionnaire in which they were asked to rate how demanding their job was (i.e., "In general, how demanding is your job? [e.g., hours, schedule, responsibilities]"), using a 5-point scale from 1 (*not at all demanding*) to 5 (*very demanding*). Mothers' mean job demandingness was 3.4 ($SD = 1.6$); fathers' mean job demandingness score was 4.0 ($SD = 1.1$). To assess mothers' perceptions of their husband's competence as a parent, mothers rated the following question, "I consider my husband to be a competent parent," using a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The questionnaire also measured how many hours they worked per week and demographic information (e.g., age, education, and so forth).

Results

Hypothesized Model of the Percentage of Time Fathers Served as the Child's Primary Caregiver

The correlation matrix used for the analyses is presented in Table 1.¹ In all cases, the coefficients presented in the figures are the standardized path coefficients obtained using LISREL VIII (Jöreskog & Sörbom, 1993). We averaged the percentage of time mothers and fathers reported that the father was the child's primary caregiver to form a single score that served as the endogenous variable in Model 1 (see Figure

¹ To determine whether father age and child age affected time spent as the child's primary caregiver and the number of child-care tasks the father performed, we performed two multiple regressions. In both cases, the results were nonsignificant. Thus, paternal and child age and the degree to which fathers were involved in child care did not appear to be related in our data set and were not included in the path analytic models.

Table 1
Pearson Correlation Matrix for Model Analysis

	PCOMP	PDEMAND	PHRS	MDEMAND	MHRS	MMASC	PMASC	MBELIEF	PBELIEF	KIDCR	PINVOLVE	TOTSAT
PCOMP	—											
PDEMAND	.10	—										
PHRS	-.06	.55	—									
MDEMAND	.06	-.05	-.21	—								
MHRS	-.02	-.05	-.16	.81	—							
MMASC	.16	-.07	-.09	.04	.05	—						
PMASC	.14	-.16	-.15	.13	.11	.42	—					
MBELIEF	.07	-.17	-.13	.18	.23	.54	.34	—				
PBELIEF	.21	-.16	-.18	.19	.16	.35	.65	.36	—			
KIDCR	.25	-.24	-.28	.00	.08	.17	.27	.25	.36	—		
PINVOLVE	.19	-.09	-.40	.29	.39	.04	.15	.23	.27	.34	—	
TOTSAT	.46	.03	-.02	-.01	-.08	.04	.06	-.04	.26	.28	.12	—

Note. PCOMP = paternal competence; PDEMAND = paternal demanding job; PHRS = paternal hours worked per week; MDEMAND = maternal demanding job; MHRS = maternal hours worked per week; MMASC = maternal masculinity ideology; PMASC = paternal masculinity ideology; MBELIEF = maternal beliefs concerning the parental role; PBELIEF = paternal beliefs concerning the parental role; KIDCR = paternal involvement in child care; PINVOLVE = percentage of paternal primary caregiving; TOTSAT = total couple marital satisfaction.

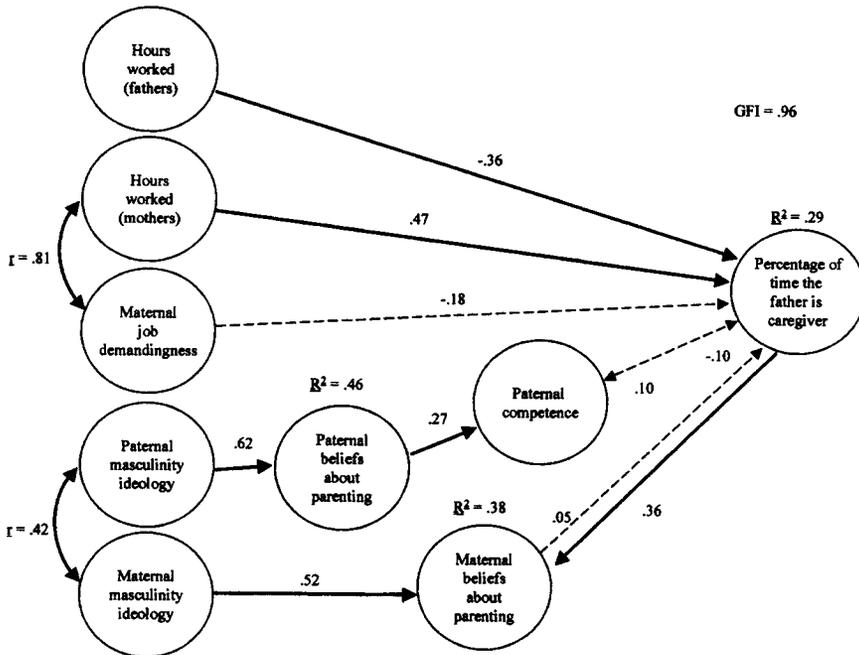


Figure 1. Hypothesized model of the percentage of time fathers served as the child's primary caregiver. Solid lines are significant; $t_s > 2.00$. GFI = Goodness-of-Fit Index.

1).² Because we found little variability in fathers' ratings of their job demandingness (i.e., over 70% of the men sampled rated their jobs as a 4 or 5 on the 5-point job demandingness scale, $M = 4.0$; $SD = 1.1$), we decided to eliminate this variable from the hypothesized models.

All paths were significant, with the exception of four paths: maternal job demandingness to the percentage of time men were the child's primary caregiver, the path from paternal competence to the percentage of time the father was the child's primary caregiver, the path from maternal beliefs about parenting to the percentage of time the father was the caregiver, and the path from the percentage of time the father was the caregiver to paternal competence.

As expected, the more hours men worked per week, the smaller the percentage of time men and women reported that the father served as the child's primary caregiver ($\beta = -.36$). Also, the number of hours wives reported working per week directly affected the amount of time men were reported as the child's primary caregiver ($\beta = .47$). Specifically, the more hours women worked per week, the more time the couple reported that the father was the child's caregiver.

As hypothesized, men's masculinity ideology scores affected their beliefs concerning parental roles ($\beta = .62$). In turn, men with more liberal

² We reanalyzed the data using mothers' and fathers' reports separately. Results indicated that the path analytic model specified in Figure 2 captured mothers' and fathers' separate reports of the time that fathers spent as the child's primary caregiver (i.e., all paths specified in the final model remained significant when mothers' and fathers' data were analyzed separately). Also, results indicated that the path analytic model specified in Figure 4 captured mothers' separate reports of the number of child-care tasks performed by fathers (all paths were significant in the model that assessed mothers' data only). Also, all paths were significant in the model analyzing fathers' data only, except that the paths from fathers' reports of the number of child-care tasks performed (although in the predicted direction) did not significantly predict men's beliefs about fathering or their wives' beliefs about the father's role in child care. The path models, however, appear to reproduce the observed correlations and suggest acceptable model fit for mothers' and fathers' separate reports of father involvement in child care.

perceptions of parental roles resulted in women having more confidence in their husbands' parenting abilities ($\gamma = .27$); however, women's beliefs about their husband's competence in the parenting role *did not* lead to greater time as the child's primary caregiver ($\gamma = -.10$). Conversely, the percentage of time the father was the child's caregiver did not lead to women having greater confidence in their husbands as parents ($\gamma = .10$).

As expected, women's masculinity ideology directly affected women's beliefs about the parenting role ($\gamma = .52$). Specifically, less traditional masculinity ideology predicted more liberal beliefs about parenting. Less traditional masculinity ideology scores on the part of mothers, however, *did not* affect the percentage of time men and women reported that the father was the child's primary caregiver ($\gamma = .05$). However, the more time fathers assumed the primary caregiver role, the more liberal women's beliefs were regarding parental roles ($\beta = .36$).

The overall fit of the model resulted in a nonsignificant chi square, $\chi^2(16, N = 120) =$

20.8, $p > .05$, with a Goodness-of-Fit Index (GFI) of .96. Both the chi-square index and GFI (i.e., a nonsignificant chi square) suggest that the hypothesized model resulted in good model fit (for a discussion of indexes of model fit, see Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993).

Final Model of the Percentage of Time Fathers Served as the Child's Primary Caregiver

Although the hypothesized model predicting the percentage of time fathers served as the child's primary caregiver resulted in acceptable fit, four parameter estimates within the beta and gamma matrices were nonsignificant. Thus, we followed Duncan's (1975) procedure for refining the overall model (i.e., theory trimming). Additionally, we hypothesized one additional path (a path from the percentage of time the father was the child's caregiver to paternal beliefs about parenting). As can be seen in Figure 2, the final model resulted in a GFI of .97 and a nonsignificant chi-square index $\chi^2(11,$

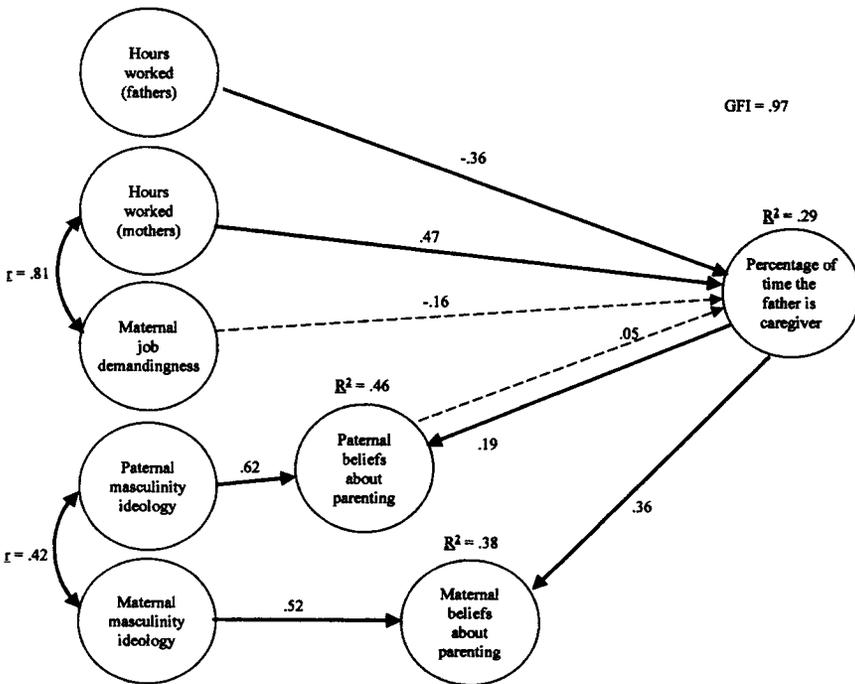


Figure 2. Final model of the percentage of time fathers served as the child's primary caregiver. Solid lines are significant; $ts > 2.00$.

$N = 120$) = 13.94, $p > .001$. Both the GFI and chi-square index suggest good model fit.

Hypothesized Model of Paternal Involvement in Child Care

For the purpose of statistical analysis, we averaged together men's and women's reports of men's involvement in 11 common child-care tasks, and this average served as the endogenous variable. The correlation matrix used to evaluate the path analytic model is presented in Table 1.

Because women who have greater confidence in their husbands as parents may lead to greater marital satisfaction and men being more involved in child-care activities, we included a path in Model 2 from paternal competence to marital satisfaction and from marital satisfaction to involvement in child care. All but two of the hypothesized parameters predicted fathers' involvement in child care (see Figure 3). Specifically, as hypothesized, women who were more confident in their husbands' abilities in the fathering role reported higher marital satisfaction ($\beta = .49$). Also, higher marital satisfaction resulted in men and women reporting that men

were more involved in child care ($\gamma = .42$). Masculinity ideology directly influenced beliefs about the father's parental role ($\beta = .57$) and indirectly influenced men's participation in child care ($\gamma = .32$) through its effect on the fathering role. That is, men with more liberal masculinity ideology held more liberal beliefs about the father's role and reported greater involvement in child care. At the same time, fathers' reported involvement in child care influenced men's beliefs about the paternal role ($\beta = .32$).

The number of hours that both fathers and mothers reported working per week influenced men's involvement in child care. The more hours fathers worked per week, the less involved they were in the care of minor children ($\beta = -.24$). As expected, the more hours per week that women worked, the more involved men were in child care ($\beta = .31$). Although mothers' reports of job demandingness influenced paternal involvement in child care, the structural coefficient was negative ($\beta = -.37$), rather than positive, suggesting that increased maternal job demandingness resulted in less involvement by fathers in child care. Examina-

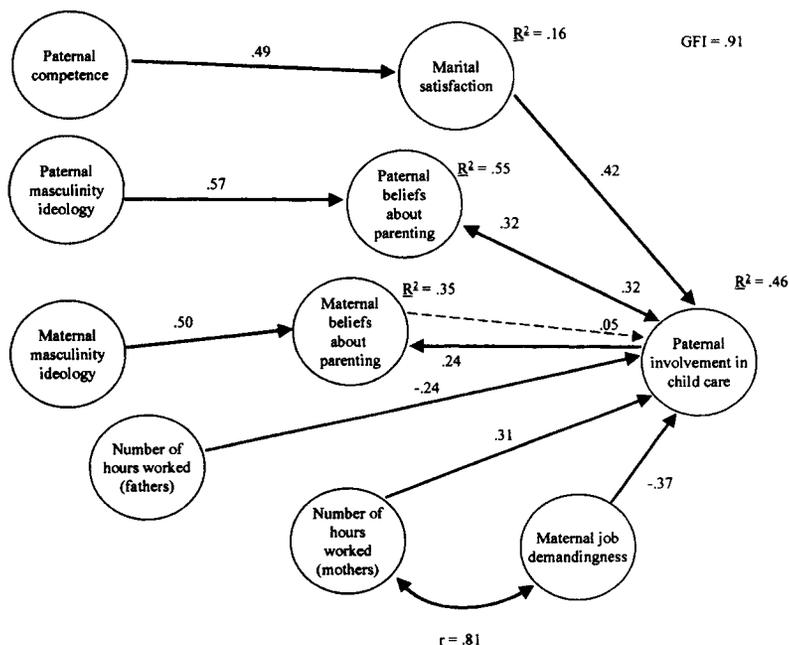


Figure 3. Hypothesized model of paternal involvement in child care. Solid lines are significant; $ts > 2.00$.

tion of the correlation matrix indicated that maternal job demandingness was positively related to paternal involvement in child care ($r = .29$) and highly related to the number of hours mothers reported working per week ($r = .81$). Thus, it appears that maternal job demandingness acted as a suppressor variable in the present model (see Blum & Naylor, 1969, for a discussion of suppressor variables).

Maternal masculinity ideology had a direct effect on maternal beliefs concerning the parental role ($\beta = .50$). However, mothers' beliefs about masculinity ideology *did not* affect fathers' involvement in child care as expected ($\gamma = .05$). Fathers' involvement in child care had a direct effect on maternal beliefs concerning the parenting role ($\beta = .24$). Thus, as fathers' involvement in child care increased, the mothers' beliefs concerning the fathers' role in parenting became more liberal.

The overall model of paternal involvement in child care resulted in $\chi^2(18, N = 120) = 56.62$, $p < .001$. The GFI for the model was .91. Although the model was reasonably parsimonious, the indicators of model fit suggest that another model may capture the data better.

Final Model of Paternal Involvement in Child Care

Because some of the parameter estimates within the beta and gamma matrices were nonsignificant, we followed Duncan's (1975) procedure for refining the overall model (i.e., theory trimming). The revised model of paternal involvement in child care is presented in Figure 4. The final model resulted in the removal of one nonsignificant path (the path from maternal beliefs concerning the father's role to paternal involvement in child care). The resulting parameters were all significant (all of the t values for each of the individual paths were significant).

Examination of the model shows that men who reported greater competence in child rearing reported greater marital satisfaction. Higher marital satisfaction, in turn, resulted in greater involvement in child care. Men's masculinity ideology also affected men's involvement in child care. Specifically, more liberal beliefs about masculinity resulted in more liberal attitudes about the father's role in child care, which resulted in more involvement in child

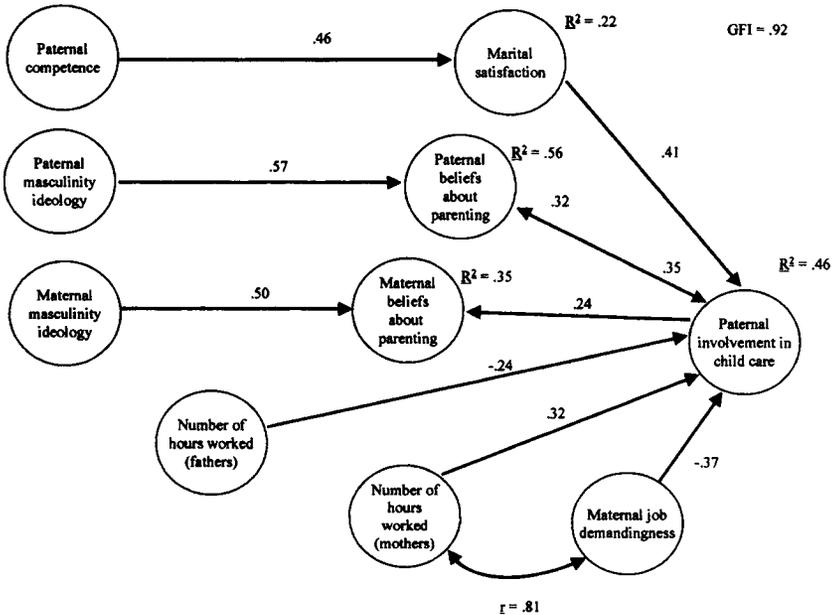


Figure 4. Final model of paternal involvement in child care. Solid lines are significant; $t_s > 2.00$.

care. As expected, men who reported working more hours per week reported less involvement in child care. Also, men who had wives who worked more hours per week were more involved in child care. As in the original model of paternal involvement in child care, mothers' reports of job demandingness acted as a suppressor variable.

Both women's masculinity ideology scores and men's involvement in child care influenced wives' beliefs regarding the fathers' role in child care. Specifically, more liberal beliefs about masculinity and more involvement by their husbands in child care resulted in less traditional perceptions of parental roles by women. The revised model resulted in $\chi^2(20, N = 120) = 62.49, p < .001$, with a GFI of .92. Although the chi-square index was significant (suggesting that another model may capture the data better), we decided to accept the revised model for several reasons. First, the model appeared to replicate previous research (e.g., Barnett & Baruch, 1987). Additionally, the number of significant paths estimated was high (all but one path predicted paternal involvement in child care), and the GFI was slightly higher in the final model. Finally, recent research has demonstrated that while the chi-square statistic is a commonly used estimate of model fit, it may not be the best indicator of model parsimony (e.g., Berndt, 1998).

Discussion

The purpose of the present research was to develop and test a model of fathers' behavioral involvement with young children. As expected, several variables collectively accounted for paternal involvement with children.

Although previous research has suggested that men's involvement in child care may be determined by social expectations or their partners, findings from the present study suggest that men's involvement in child care may be more self-determined than often believed. Specifically, fathers who reported more liberal gender role ideology held more progressive views of the father's role. In turn, progressive views of fathering were related to mothers' and fathers' reports of fathers' involvement in caregiving activities. Importantly, not only are beliefs about masculinity related to attitudes about fathering, but these beliefs help explain the fathers' involvement in child care. Similar to

previous research (e.g., Aldous et al., 1998; Beitel & Parke, 1998; Crouter & Manke, 1997; Crouter et al., 1987; Palkovitz, 1984; see Pleck, 1983, 1997; Russell, 1978, 1983, 1986), these findings indicate that men who have a more liberal gender role ideology and who view fathers as critical for child development and as capable of performing child care as mothers are more involved in the day-to-day care of children than men with more traditional beliefs. Moreover, these findings support the centrality of father's gender role ideology and aspects of personality as important for involvement in caregiving.

The relationship between beliefs about fathering and involvement in child care held for the number of child-care tasks mothers and fathers reported that the father performed but *not* the percentage of time mothers and fathers reported that the father was the child's primary caregiver. Other factors, such as the number of hours mothers and fathers worked per week had more influence on the percentage of time fathers were the child's primary caregiver. Thus, it appears that liberal beliefs about the father's role may go only so far. That is, job schedule may be a structural barrier, and, perhaps more important, it may determine the amount of time men spend as the child's primary caregiver.

As expected, greater involvement in child-care activities and more time as the child's primary caregiver resulted in men reporting more liberal views of the father's role. As hypothesized by others (e.g., Minton & Pasley, 1996), active participation in child care appears to reinforce fathers' belief that they are as well-suited and as important for child care as their wives.

In contrast to previous research (Barnett & Baruch, 1987; Beitel & Parke, 1998), in the present study, mother's attitudes about the degree to which fathers should be involved in child care were unrelated to couples' reports of the husband's participation in child-care tasks or the percentage of time he was the child's primary caregiver. Instead, fathers' participation in child care appears to influence mothers' beliefs about the father's role. Although the direction of effect appears to flow from father behavior to maternal beliefs, caution needs to be taken when inferring causality from the present cross-sectional data. We do not know how this pattern developed and whether fathers who were

permitted more access, in turn developed more competence, which, in turn, strengthened mothers' beliefs. There was a wide range of children (ages 1 to 4), and especially among the older children, the direction of effects may be best characterized as transactional. Clearly, longitudinal, experimental, or both kinds of intervention studies are needed to better elucidate the direction of effects. More globally, this finding reflects a departure from earlier research and suggests that perhaps previous research has over-emphasized the role of mothers as gatekeepers of men's involvement in child care.

At the same time, these findings suggest that external factors, namely characteristics of both fathers' and mothers' jobs, also influence paternal involvement with children. Specifically, fathers who worked more hours spent less time as the child's primary caregiver and were less likely to engage in child-care tasks. These results parallel previous research that has demonstrated that husbands' high involvement in work resulted in more sex-typed division of labor at home (e.g., Aldous et al., 1998; Crouter & Manke, 1997; Van Duk & Siegers, 1996). It is important to realize, however, that some fathers may exhibit paternal involvement via career investment and family provision, which may leave less time for child-care activities. That is, a father who is less involved in day-to-day care may nevertheless be high on Lamb's concept of family responsibility. Moreover, couples undoubtedly negotiate trade-offs with respect to child-care involvement and job demands. Examining how dual-earner couples negotiate these competing demands is important for future research.

Similar to previous research (e.g., Aldous et al., 1998; Barnett & Baruch, 1987), the number of hours mothers reported that they worked per week explained fathers' participation in child care. It is possible that men whose wives work full time chose to be more involved with children, because their partners have less time and energy for child-care responsibilities. Alternatively, these fathers may not have the option of being less involved in child care than men whose wives work fewer hours. Regardless, it appears that when their partners are employed full time, fathers accommodate by performing more child-care tasks, as well as assuming greater responsibility as the child's primary caregiver.

Mothers' confidence in their husbands' ability to care for children was related to greater marital satisfaction as reported by both partners. There are a number of possible explanations for this finding. Undoubtedly, the burden of caring for young children who are not self-sufficient is great. Moreover, considerable research has documented the amount of stress for working women (see Hughes & Galinsky, 1988). Clearly, believing that your partner is able to competently care for children is likely to reduce stress and correlate with higher marital satisfaction. In turn, in couples with higher marital satisfaction, men performed more child-care tasks. These results support the growing literature suggesting a relationship between marital satisfaction and husbands' involvement in child care (Blair et al., 1994; Jump & Haas, 1987; Lamb, 1987; McBride & Mills, 1993).

One limitation of the present research was the measurement of paternal and maternal job demandingness. Regardless of the number of hours fathers worked per week, fathers reported little variability in job demandingness. Moreover, mothers' reported job demandingness was not related to the percentage of time fathers spent as the child's primary caregiver. Also, job demandingness as reported by mothers was inversely related to the number of child-care tasks mothers and fathers reported that fathers performed. It is difficult to explain this finding. Mothers' reports of job demandingness were highly correlated with the number of hours mothers reported working per week. The number of hours mothers reported working per week predicted paternal involvement. Thus, mothers' reports of job demandingness acted as a suppresser variable in the model controlling variance in other factors that were not related to paternal involvement in child care (see Blum & Naylor, 1969). In retrospect, the single-item measure of job demandingness used in the present study may not have distinguished between job "demandingness" and the number of hours parents worked outside the home per week. An alternative explanation for the lack of variability in fathers' job demandingness scores is that job demandingness may have been a proxy for the centrality of the provider role. If this is the case, clearly, fathers feel more responsible than mothers for family provision.

Another limitation of the present research is the measurement of specific aspects of father

involvement, which Lamb and colleagues would categorize as "interaction" (i.e., one-on-one forms of activities) and a single aspect of responsibility (i.e., child-care tasks performed). Clearly, the present study fails to examine other dimensions of fathering and activities that some men may associate with fatherhood (e.g., providing spiritual leadership, psychological support). Father involvement undoubtedly includes behavioral, cognitive, and affective components. Importantly, Roggman and Peery (1988) demonstrated that for fathers, caregiving was positively correlated with emotional involvement with their infants. Clearly, research is needed that examines relationships among various forms of father involvement and how these types of involvement are related to child well-being. Moreover, researchers have focused on the quantity of father involvement as opposed to the quality of involvement. As particularly noted by LaRossa (1988) in his description of the technically present but functionally absent father, the quantity of time fathers spend with their children does not always imply quality time. Additionally, the present study identified important links between gender role ideology and caregiving that should be examined in future research. At the same time, the relationships varied as a function of the way in which behavioral involvement was measured. That is, liberal general role ideology accounted for the number of child-care tasks fathers performed but *not* the percentage of time men spent as the child's primary caregiver. Additional research should consider the different methods of assessing fathers' behavioral involvement with children.

Other limitations of the present study include a predominately European American, middle-class sample. Future research should examine more diverse populations. Although controversy exists as to what is a reasonable size for using structural modeling (see Tanaka, 1987), replication of the models in a larger sample is needed.

Implications for Application and Public Policy

This study also has bearing on the public policy debate regarding achieving a better balance between maternal and paternal provision of child care as mothers increasingly work outside of the home. The results reaffirm findings from previous studies that fathers' long

work hours can be a barrier to greater participation in child care but that mothers' long work hours serve to increase father participation in child care. The study also suggests that factors thought to be very important may be less important than previously believed—namely mothers' role as gatekeepers of fathers' involvement in child care. It also suggests that other factors such as fathers' gender role ideology and attitudes about the fathers' role may be quite important. Advocates for gender equity in child care have long targeted workplace policies that affect paternal involvement; they might consider developing educational programs designed to changing traditional attitudes about the male gender role, using techniques such as O'Neil's (1996) "gender role journey" exercise.

This study also has bearing on clinical work with couples, suggesting that husbands' gender role ideology might be an important factor in marital conflicts regarding the provision of child care. Clinicians who work with dual-career couples who are in marital difficulty because of such conflicts might consider exploring the couple's views of the male gender roles, using the MRNI (Levant & Fischer, 1998; cf. Levant & Silverstein, in press). In summary, the present findings suggest that when both spouses work, men's involvement in child care is determined by a combination of both pragmatic and personality variables.

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