

**UNMARRIED AFRICAN AMERICAN  
FATHERS' INVOLVEMENT  
WITH THEIR INFANTS:  
THE ROLE OF COUPLE  
RELATIONSHIPS**

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Unmarried African American Fathers' Involvement with Their Infants:  
The Role of Couple Relationships<sup>1</sup>

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## Summary

Almost one-third of all children and 70% of African American children in the U.S. are born to parents who are not married. At the time of children's births, almost all unmarried fathers have contact with their infants, but this connection drops over time. This study presents a study of 55 unmarried low-income African American couples in the early months after the birth of a child. The study considers the implications of the quality of parents' couple relationship, as well as of parents' demographics, personal resources, and family structure for understanding variation in fathers' involvement with their infants. The present study is one of the first to collect in-depth observational and parent-reported data from both unmarried mothers and fathers about how their couple relationships are faring and about the fathers' involvement with their infants.

Neither mothers' nor fathers' age, education, or income were linked to father involvement. Fathers of sons and fathers of daughters had similar levels of involvement with their infants. And, although fathers who lived with their infants provided more financial support, they did not necessarily provide more hands-on care of their infants compared to fathers who lived separately.

The quality of the parents' relationship as a couple was linked to the father's involvement. Fathers were more involved with their children when the parents had more supportive, satisfying, and less negative relationships, both according to parents' own perceptions and as rated by independent observers who watched videotapes of the parents talking to each other. There was some indication that the link between better functioning couple relationships and greater father involvement may have held only for families with infant girls.

The findings linking the quality of couple relationships and father involvement extend the well-documented conclusion from the research on married families that better functioning couple relationships are linked to greater father involvement. The findings also suggest that parents' demographics, personal resources, and coresidence may not be as central to understanding unmarried fathers' involvement with their infants as has been assumed.

## Overview

Children being born to unmarried parents has become a common phenomenon in the United States in recent years. Almost one-third of all children in the U.S. are born to parents who are not married, and the percentage is higher among some minority populations—for example, 70% for African American children (Ventura, Anderson, Martin, & Smith, 1998). There is extensive public rhetoric about the need for unmarried fathers to be more involved in the lives of their children. The vast majority of unmarried fathers and mothers have, themselves, been found to want fathers to be actively involved with their children (McLanahan, 2000). And, research has found that when fathers spend more time with and provide more financial resources for their children, the children have generally shown more positive cognitive, social, and emotional development (Amato & Gilbreth, 1999; Black, Dubowitz, & Starr, 1999; Coley, 1998; Pleck, 1997; Zimmerman, Salem, & Notaro, 2000).

A range of public policies are currently encouraging unmarried fathers to be more involved with their children, including stepped-up efforts to establish paternity and enforce child support payments, limits on public cash support for single mothers, and attempts to promote marriage. Intervention programs also promote the involvement of unmarried fathers with their children, including those focused on employment and training (Pearson, Thoennes, Price, & Venohr, 2000) and/or strategies to improve father-child relationships, such as increasing parenting skills and providing support groups for fathers (Levine & Pitt, 1996).

The rhetoric, policies, and programs focused on father involvement assume that unmarried fathers are not involved with their children. Recent nationally-representative data, however, suggest that this is not the case when the children are young. At the time of children's

births, the vast majority of unmarried fathers were involved with the infants' mothers and the infants, viewed themselves as part of collaborative family units, and had high hopes for future involvement. The current study found that about 75% of unmarried fathers visited their infants and the infants' mothers in the hospital; about 80% provided financial support to their babies' mothers during pregnancy and planned to contribute financially to their children over time; and more than 90% of unmarried mothers said they wanted the fathers to be involved with their children (McLanahan, Garfinkel, Reichman, & Teitler, 2000).

Despite fathers' early participation with their children and mothers' early enthusiasm for fathers to be involved, longitudinal data suggest that the involvement of many fathers drops over time (Coley & Chase-Lansdale, 1999; Lerman, 1993). Further, the experience of current policy and program efforts to increase unmarried fathers' involvement with their children has been sobering: unmarried fathers are difficult to recruit and retain in programs; the few programs that have been systematically evaluated show minimal if any effects on father involvement (Knox & Redcross, 2000; Levine & Pitt, 1996; Nelson, Clampet-Lundquist, & Edin, 2002); and unmarried fathers' involvement is not consistently linked to benefits for children (Amato & Gilbreth, 1999; Coley, 2001b; Furstenberg & Harris, 1993; King, 1994; McLanahan, Seltzer, Hanson, & Thomson, 1994).

Unmarried fathers' involvement with their children is naturally at a unique high point when children are born, so a crucial question for understanding and perhaps effectively supporting unmarried fathers' involvement with their children is: What factors are associated with the variation in levels of fathers' involvement around the time of children's births? This study, part of a larger investigation (the Fragile Families and Child Wellbeing Study) gathered data from 55 unmarried low-income African American mothers and fathers to investigate the

role of parents' demographics, personal resources, family structure, and couple relationship quality in facilitating or hampering the involvement of fathers with their infants.

The study was distinctive in several ways. First, the data in this study are unusual in that they are part of a larger research project, the Fragile Families and Child Wellbeing Study. The Fragile Families study is developing an accurate portrait of unmarried parents with young children in the U.S. by identifying and following a nationally-representative sample of 3600 unmarried couples with newborns in 20 cities from the time the mothers give birth until the children are age five (McLanahan et al., 2000; Reichman, Teitler, Garfinkel, & McLanahan, 2001). That the 55 families in this study are part of the Fragile Families sample allowed consideration of the ways in which the parents in this small subsample are similar to and different than unmarried parents on average. Additionally, the 55 families in this study being part of the Fragile Families' longitudinal data collection will allow future consideration of whether the early couple relationships and father involvement reported in this study predict the status of couple relationships, father involvement, and children's development years later.

Second, most studies of unmarried families and father involvement have interviewed only the mothers (Coley, 2001b). Both mothers and fathers participated in this study, however, being interviewed individually and as a couple.

Third, most studies of unmarried fathers' involvement with their children work with samples of fathers of preschoolers or school-age children, although many biological fathers are no longer involved with their children at this point and are difficult to recruit to participate in research. This study focused on unmarried couples approximately seven weeks after the birth of a child, when large numbers of biological fathers are still involved with their children and a broader range of fathers could be recruited to participate in the sample.

Finally, the few studies that have inquired about unmarried couples' relationships at all have tended to ask just one or two close-ended questions (Coley, 2001b). And I am aware of just one study that has collected observational data from *un*married parents—videotaping parents talking to each other—and that study focused specifically on unmarried *adolescent* parents (Moore & Florsheim, 2001). In the present study, adult unmarried parents were interviewed extensively--about themselves and their experiences as a couple, with their families, and caring for their babies—as well as videotaped in their homes while they had discussions with each other.

Parke (1996) describes that fathers do not simply decide to be involved or uninvolved with their children, but rather their involvement evolves out of a system of factors. The rich data set for this study allowed inquiry into whether and how several areas of possible influence--the quality of couple relationships, family structure, and parents' demographics and personal resources--were linked to the involvement of unmarried fathers with their infants. It was the hope that the results of the study would identify appropriate individual, family, and interpersonal targets for clinical intervention programs for unmarried parents.

The next section reviews what is known about unmarried fathers, as well as some of the correlates of father involvement—parents' demographics, personal resources, family structure, and couple relationship quality. It identifies gaps in the literature, describes how the current study was designed to address these gaps, and includes the main hypotheses. The following section describes the findings of the study. The final section discusses the implications of the findings for research, clinical practice, and policy.

## Background

Fathers can be categorized by their marital status: married, separated, divorced, or unmarried (meaning that they were never married to the children's mothers). Fathers can also

be categorized by where they live: whether they reside with their children and the children's mothers, or live separately. Most studies have investigated either samples of married fathers who lived with their children or samples of nonresident fathers--who were separated, divorced, or unmarried. Relatively little research has been conducted on *un*married fathers, however, some of whom live with their children and the children's mothers and others of whom are nonresident. Consequently, the following description of unmarried fathers and their involvement with their children includes some findings about married and nonresident separated and divorced fathers, both to fill in gaps where there is minimal research on unmarried fathers and to compare and contrast unmarried fathers with their counterparts.

#### Who are unmarried fathers?

Until recently, little research has focused on unmarried fathers or their involvement with their children (Coley, 2001b; Garfinkel, McLanahan, & Hanson, 1998; McLanahan et al., 2000; Reichman et al., 2001). Emerging findings have shown that unmarried fathers are a uniquely disadvantaged group, many of whom are not well equipped to support themselves or their children financially. In the nationally-representative Fragile Families study of unmarried parents with newborns, about one-quarter of fathers (24%) did not have a high school degree, only 4% had a college degree, just under four in ten (38%) had been incarcerated, and during the week before their children were born almost three in ten were not working (McLanahan et al., 2000; Sigle-Rushton, 2001). Compared to married and divorced parents, unmarried parents have been found to be younger, less educated, and less likely to be employed, and to have lower incomes (Garfinkel, McLanahan, & Hanson, 1998).

Unmarried fathers' psychological adjustment may also make it difficult for them to support and be involved with their children. There has been little research on the psychological



characteristics of unmarried parents (Garfinkel, McLanahan, & Hanson, 1998), but indications have been found that unmarried parents suffer from more psychiatric problems than married parents. Boys who became adolescent fathers are more likely than their peers to have a history of antisocial behavior problems (Kessler et al., 1997). Young men with personal problems, such as conduct disorder and drug abuse, are less likely than their peers to live with their children (Jaffee, Caspi, Moffitt, Taylor, & Dickson, 2001). And divorced fathers suffer from higher rates of psychological distress than married fathers (Hughes & Page-Lieberman, 1989; Umberson & Williams, 1993). Nonresident fathers are about twice as likely as resident fathers to report problems with abusing alcohol or drugs (7 to 8% compared to 3%), and may also be somewhat more likely to be depressed (11 to 12% compared to 7%) (Garfinkel, McLanahan, & Hanson, 1998).

#### How are unmarried fathers involved with their children?

Fathers can be involved with infants in a variety of ways, including providing direct care—such as diapering and dressing; play and recreation, such as bouncing babies on their knees and talking to them; indirect care and responsibility, such as doing babies' laundry and arranging for babies' medical care; and financial support, including cash and in-kind contributions towards babies' food, diapers and clothing, shelter, and other needs (Beitel & Parke, 1998; Doherty, Kouneski, & Erickson, 1998; Lamb, Pleck, Charnov, & Levine, 1987; Levine & Pitt, 1996).

Despite limited financial resources and, in some cases, psychological difficulties, a very large majority of unmarried fathers appear to be involved with their children's mothers and their infants when their children are born. The Fragile Families study found that at the time of children's births, about half of unmarried couples were romantically involved and living

together, approximately 30% were romantically involved but not coresiding, and about 10% were “just friends;” only about 10% of couples had little or no contact at the time of children’s births (McLanahan et al., 2000). However, follow-up data reveal that the couples’ romantic relationships were fragile, as the name of the project implies. Many of the unmarried couples who were romantically involved when their children were born ended their relationships in the following year—including about 30% of the unmarried couples who were romantically involved and living together at the time of children’s births and about 50% of those who were romantically involved and living separately (Osborne, 2002). Other studies have found that, by the time the children of unmarried couples were preschoolers, the percentage of unmarried fathers who were regularly involved with their children was down to about half. When children were school-age and teenagers, father involvement had dropped further: only 20% to 35% were regularly involved with their children (Furstenberg & Harris, 1993; Lerman, 1993). Despite unmarried fathers’ relatively high initial rates of involvement with their babies and young children, their involvement overall tends to be lower than that of divorced father (King, 1994; Seltzer, 1991).

Many studies of father involvement and children’s adaptation have found that the *quality* of fathers’ involvement is associated with negative or positive outcomes for children (Florsheim, 2000). Fathers’ *positive* involvement with their children (Pleck, 1997) – relationships that are characterized by warmth, closeness, and responsiveness – has consistently been associated with children having fewer behavioral problems, less delinquency and substance abuse, more advanced cognitive skills and academic achievement, and better emotional adjustment, as indicated by fewer symptoms such as anxiety and depression (Amato & Gilbreth, 1999; Amato,

1998; Coley, 1998; Coley & Chase-Lansdale, 1998; Furstenberg & Harris, 1993; Harris, Furstenberg, & Marmer, 1998; Lamb, 1999; Zimmerman et al., 2000).

The links between father involvement and benefits for children appear somewhat more consistently in the research with married parents, perhaps because these studies tend to conceptualize father involvement as positive engagement with children rather than as performing any activity related to children or simply being present in the household (Lamb, 1997; Parke, 1996; Snarey, 1993). Research has less consistently found links between nonresident fathers' involvement and benefits for children (Amato & Gilbreth, 1999; Coley, 1998, 2001b; Furstenberg & Harris, 1993; King, 1994; McLanahan et al., 1994). When measures of nonresident fathers' involvement have incorporated the quality of family relationships (e.g., positive parenting or positive father-child relationships), however, there have been links between father involvement and a range of desirable outcomes for children (Amato & Gilbreth, 1999; Amato, 1998; Hetherington, Brdiges, & Insabella, 1998; Simons, Whitbeck, Beaman, & Conger, 1994).

As this review indicates, unmarried fathers are a group distinct from married and divorced fathers. They experience more demographic risk factors than their married or divorced counterparts, their romantic relationships are less stable, and their rates of involvement with their children start out relatively high but then drop off to lower rates than those of divorced fathers. Unmarried fathers seem to be different enough from their married and divorced counterparts that one cannot quickly generalize findings across groups. Research specific to unmarried fathers is necessary to understand the factors underlying their involvement with their children (Coley, 2001b). This study seeks a more detailed understanding of unmarried fathers and their relationships with their infants and their children's mothers.

## Correlates and predictors of father involvement

### Fathers' demographics and personal resources: The traditional correlates.

The literature has often focused on the links among fathers' demographics, personal resources, and involvement with their children.

Research has found inconsistent and contradictory associations between unmarried fathers' age and involvement with their children (Johnson, 2001; Lerman & Sorensen, 2000). A complicating factor when considering a possible link between fathers' age and involvement among unmarried fathers is that younger men are more likely to be unmarried and nonresident fathers (Jaffee et al., 2001; Terry-Human, Manlove, & Moore, 2001), and unmarried and nonresident fathers are less likely to be involved with their children. The confounding of age and marital and residential status may contribute to a perception that younger fathers have low levels of involvement with their children, when it may be their unmarried and nonresident status that is more closely linked to low involvement than their age. Given the ambiguous findings about fathers' age and involvement with their children, no predictions were made about whether there would be a link between parents' age and father involvement in this sample, and if so, the direction of the association.

The links between unmarried fathers' personal resources, such as education and income, and their involvement with their children are also not consistent. Some studies have found that low-income unmarried fathers with more income, and in some cases more education, were more involved with their children, particularly more financially involved (Carlson & McLanahan, 2002b; Coley & Chase-Lansdale, 1999; Danziger & Radin, 1990; Johnson, 2001; Lerman, 1993; Stier & Tienda, 1993). Other studies, however, have found no association between fathers'

education and/or income and their involvement (Carlson & McLanahan, 2002a; Coley, 2001b; Johnson, 2001), particularly once other background factors have been controlled.

This inconsistency may reflect the heterogeneity of unmarried fathers and the particular characteristics of the fathers in the sample under study. Perhaps, when unmarried fathers are romantically involved with children's mothers and living with their children, their personal resources tend *not* to be linked to their involvement with their children--as is generally the case in married families (Goldscheider & Waite, 1991; Roopnarine & Ahmeduzzaman, 1993; Volling & Belsky, 1991). In contrast, when unmarried fathers are no longer romantically involved with children's mothers and live separately from their children, their personal resources may be more closely linked to their involvement—as is generally the case in divorced families (Cooksey & Craig, 1998; Furstenberg, Morgan, & Allison, 1987; Seltzer, 1991; Seltzer, Schaeffer, & Charng, 1989).

Almost all of the unmarried couples in this were romantically involved with each other and about half were living together, so I hypothesized that the link between personal resources and father involvement would reflect what tends to be found in married families—that neither fathers' nor mothers' personal resources, operationalized as education and income, would be linked to fathers' involvement with their infants.

#### Family structure: Coresidence and sex of child.

Although less well studied than parents' demographics and personal resources, fixed aspects of family structure might also be expected to have implications for father involvement. This study considered whether two structural aspects of families—coresidence and the newborns' sex--had implications for unmarried fathers' involvement with their children.

It seems reasonable to assume that unmarried fathers who live with their children would be more involved with them than fathers who live separately. Coresident fathers ought to have easier access to children for hands-on involvement, they might live with their children because they want to be more involved with their children, their expenditures on their own household expenses would also benefit children, and they might be more willing to contribute towards children's expenses because they might be better able to monitor how their financial contributions are spent on children (Weiss & Willis, 1985). Additionally, non-coresiding fathers might have less satisfying and positive relationships with children's mothers, which could facilitate nonresident fathers being less involved with their children. Research comparing married and divorced fathers has generally supported these hypotheses: married fathers—who live with their children—have been found to be more involved with their children than are divorced fathers—who live separately from their children (Cooksey & Craig, 1998). But the evidence is more equivocal when considering unmarried fathers, comparing those who live with and those who live separately from their children. Many unmarried fathers who live separately from their children have been found to have high levels of involvement with their children, often close to the levels of unmarried fathers who live with their children, particularly when the children are young (Carlson & McLanahan, 2001; Carlson & McLanahan, 2002b; Chase-Lansdale, Gordon, Coley, Wakschlag, & Brooks-Gunn, 1999; Coley, 2001a; Johnson, 2001; Stack, 1974; Wilson, 1995). Further, several studies have found that coresidence no longer explains variance in father involvement after controlling for other factors such as the quality of mother-father relationships (Coley & Chase-Lansdale, 1999) or fathers' involvement with children around the time of birth (Carlson & McLanahan, 2002a). I hypothesized that couples living together would be associated with statistically significant higher levels of father

involvement with their infants, although I did not expect the differences between coresident and nonresident fathers to be large.

The research on the implications of children's sex for family dynamics, all of which is with married and primarily divorced nonresident families, has consistently found different dynamics in families based on whether the children in question are boys or girls. Both married and nonresident fathers have been found to be more involved with sons than with daughters (Harris et al., 1998; Marsiglio, 1991; Mott, 1990; NICHD et al., 2003; Seltzer, 1991). There is some evidence that the sex differential in involvement emerges as children enter middle childhood (Marsiglio, 1991; Palkovitz, 1984; Roopnarine & Ahmeduzzaman, 1993) and that this differential may be greater for involvement in play and recreation than for direct caretaking activities (Levy-Shiff & Israelashvili, 1988).

In general, having boys seems to be a protective factor for family relationships, whereas having girls may be a risk factor. Couples with girls have been found to be more likely to divorce than couples with boys (Block, Block, & Gjerde, 1986; Cowan, Cowan, & Kerig, 1993; Hetherington, Stanley-Hagan, & Anderson, 1989; Lundberg & Rose, 2002), and couples with first-born girls have been found to be more likely than couples with first-born boys to be dissatisfied with their couple relationships (Cox, Paley, Burchinal, & Payne, 1999). Additionally, when parents—fathers in particular—have been found to be unhappy in their marriages, they have tended to have more difficult parenting relationships (Kerig, Cowan, & Cowan, 1993; Lamb & Elster, 1985; Lindahl & Malik, 1999; Owen & Cox, 1997), particularly with their daughters (Belsky, Gilstrap, & Rovine, 1984; Brody, Pellegrini, & Sigel, 1986; Cowan et al., 1993; Cox et al., 1999; Krishnakumar & Buehler, 2000).

Given the young age of the children in this sample and the emphasis in the measurement of father involvement on caretaking activities, I did not expect that there would be a difference in father involvement with boys and girls. Nor did I expect children's sex to moderate the link between couple relationships and father involvement; I expected the link to be present for couples with an infant girl or boy.

Couple relationship quality: The new variable.

There is relatively little systematic research on the quality of couples' relationships and links to *unmarried* fathers' involvement with their children. Qualitative researchers and program staff working with unmarried families have frequently observed that the quality of mother-father relationships can be a key barrier to unmarried fathers being involved with their children (Bloom & Sherwood, 1994; Edin & Lein, 1997; Furstenberg, 1995; Nelson et al., 2002). The few quantitative studies of unmarried couples and father involvement have begun to document this link, which is similar to the pattern found in married and divorced families: closer, more harmonious, and more supportive couple relationships are associated with greater father involvement (Carlson & McLanahan, 2001; Carlson & McLanahan, 2002b; Coley & Chase-Lansdale, 1999; Danziger & Radin, 1990; Edin & Lein, 1997; Furstenberg, 1995; Lamb, Pleck, & Levine, 1985; Marsiglio & Cohan, 1997; McKenry, Price, Fine, & Serovich, 1992; Moore & Florsheim, submitted; Nelson et al., 2002). For example, Coley and Chase-Lansdale (1999) found that mothers' single-item report of the closeness of the couple relationships in a sample of primarily unmarried African American parents was a better predictor of father involvement over the first three years of children's lives than whether the father was employed, whether the couple lived together, or whether the couple eventually married. Florsheim and his colleagues (Moore & Florsheim, submitted) found in their observational study of an ethnically-diverse sample of



unmarried adolescent couples that when couples were observed to be more hostile with each other during pregnancy, they were less likely to be involved with each other two years post-birth, and consequently the fathers were less likely to remain involved with their young children. In my master's thesis with a different small sample of unmarried African American families with young children, I found that the quality of the couple relationship between unmarried African American parents was linked to their young children's adaptation (Cohen, 2000).

The link between married and divorced fathers' relationships with children's mothers and their involvement with their children is well documented. In multiple studies, including one with a large sample of married African American couples, married fathers who were more with their marriages and observed to interact less negatively and more positively with their wives were found to be more active in the day-to-day care of their children, and their interaction with children was more positive (Blair & Hardesty, 1994; Cowan & Cowan, 1987; NICHD et al., 2003; Orbach & Eyster, 1997; Volling & Belsky, 1991; Yogman, 1987). Divorced fathers with more supportive and less contentious relationships with children's mothers both before and after the divorce have been found to be more likely to be involved with their children after the divorce (Achatz & MacAllum, 1994; Bloom & Sherwood, 1994; Chase-Lansdale et al., 1999; King, 1994; Nord & Zill, 1996). Experimental intervention studies, as well as studies that measure the quality of mother-father relationships before the birth of children, have indicated that the direction of effects flows at least in part from the quality of mother-father relationships to father involvement (Cowan & Cowan, 2002; Heinicke, 1984).

Researchers have used observational techniques to document specific communication styles between partners that are linked to and predict unhappy relationships and divorce. How spouses have been *observed* to interact when they work to solve problems is a particularly good

predictor of marital unhappiness and divorce (Erel & Burman, 1995; Gottman, Coan, Carrere, & Swanson, 1998; Gottman & Levenson, 1992; Gottman & Notarius, 2000; Markman, 1981; Matthews, Wickrama, & Conger, 1996; Stanley, Markman, St. Peters, & Leber, 1995), parent-child relations including father involvement (Cowan & Cowan, 1987; Krishnakumar & Buehler, 2000; Volling & Belsky, 1991), and children's well-being or distress (Cowan & Cowan, 2000; Gottman, Katz, & Hooven, 1996; Katz & Gottman, 1993).

Despite the value of couple relationships for understanding father involvement in married and divorced families, and despite the promise of these data for understanding unmarried fathers' involvement with their children, couple relationships have not been the focus of the many recent studies looking at low-income families (Brooks-Gunn, Berlin, Leventhal, & Fuligni, 2000). Just one of these studies—Fragile Families--documents the quality of unmarried couples' relationships in any depth. I am aware of only one study that has or plans to collect observational data of unmarried couples interacting (the study on adolescent unmarried couples mentioned earlier), despite the findings that such observational data from married couples provide unique information about mother-father relationships (Fincham, 1998) and have stronger links to child adjustment than parent-reported data (Gottman, 1994). More study of unmarried couples' relationships, including observational data, seems to be a logical next step in learning more about unmarried fathers' involvement and its implications for children's development (Coley, 2001b).

The current study collected in-depth parent-reported and observational data from a sample of unmarried African American couples on the quality of their couple relationships, in order to investigate whether and how the quality of couple relationships is associated with concurrent father involvement with their seven-week-olds. I hypothesized that when mothers

and fathers reported more supportive and satisfying couple relationships, and when couples were observed to demonstrate more positive and fewer negative behaviors when discussing disagreements, the fathers would provide more of the hands-on care of their infants and pay more of the infant and household expenses. Further, I expected that the observed measures of the quality of couple relationships would predict variance in father involvement, over and above the parent-reported measures of father involvement.

The negative behaviors that parents display towards each other may not all be equally corrosive. Most negative affect, such as criticism, contempt, disgust, belligerence, defensiveness, and stonewalling have been found to be predictive of divorce, whereas anger may not be systematically linked to distressed marriages (Gottman, 1994; Jacobson & Gottman, 1996). The expression of anger has been hypothesized to have a long-term positive effect in marriage (Carrere & Gottman, 1999; Gottman & Krokoff, 1989) based on the assumption that it is inevitable that couples will have differences, and anger may be a relatively productive way to address them compared to other negative emotions such as contempt, disgust, and belligerence.

Based on this theory and earlier findings, I hypothesized that higher levels of three of the four negative behaviors being measured, verbal aggression, coerciveness, and attempts to control, would be linked to fathers being less involved with their infants. I expected that the behavior being measured that is closest to anger—negativity and conflict—would not be associated with father involvement.

This study begins to address gaps in the literature on unmarried fathers' involvement with their children by examining unmarried fathers' individual demographics and personal resources, family structure, couple relationship quality, and involvement with their infants. Because all of the analyses involve correlations of concurrent variables, it was not possible to determine the

direction of effects. When variables are significantly correlated it could be that: (a) better couple relationships increase father involvement; (b) higher levels of father involvement promote more positive couple relationships; (c) both are true; and/or (d) the association is due to correlation with a common third variable.

Although the direction of effects in this study cannot be determined, the quality of couple relationships is generally presented as the independent variable and level of father involvement as the dependent variable. The first reason for constructing the analyses this way is, as mentioned earlier, that there is evidence from experimental intervention studies and studies that have measured the quality of married couple relationships before children are born that positive couple relationships increase the likelihood of fathers' involvement with children (Cowan, Cowan, Schulz, & Heming, 1994; Heinicke, 1984). Second, well-evaluated interventions suggest that it may be more viable to increase father involvement indirectly by intervening to improve couple relationships (Cowan, Cowan, & Heming, in press), rather than intervening directly to increase low-income fathers' involvement with their children (Martinez & Miller, 2000; Nelson et al., 2002).

## Research Design and Methods

### Sample design and recruitment

The 55 couples in this study were of the Milwaukee, Wisconsin site of the Fragile Families study (Reichman et al., 2001). I limited the sample for this study to a single racial group based on the assumption that the way in which the phenomena being studied operate in families—demographics, personal resources, family structure, couple relationship quality, and fathers' involvement with children—may be culture-specific. A heterogeneous sample of 55 would be too small for subgroup analyses. The focus was on African American parents because

Black children are disproportionately likely to be born to unmarried parents and to include individuals with relatively high levels of personal resources and adaptation (education, coping abilities). There is some evidence that African American unmarried fathers include men with a relatively wide range of personal resources, whereas European American and Latino unmarried parenthood tends to be concentrated among men with more limited resources and risk factors (Lerman, 1993). Limiting the sample to a single race, however, means that findings may not be easily generalizable to unmarried couples from other backgrounds.

Sixty-seven couples from the Milwaukee Fragile Families sample were identified who were eligible to participate in this study (gave birth at the largest hospital in Milwaukee; both parents African American; both parents completed the birth interview; parents romantically involved or just friends). An additional 7 couples were eligible but did not agree to be contacted for additional research studies such as this one. Eighty-two percent ( $N = 55$ ) of the 67 couples participated in the study. In 6% ( $N = 4$ ) of the eligible cases, the couples did not participate because they had stopped speaking to each other between the birth and seven-week interviews. In 9% ( $N = 6$ ) of the cases, the couples were still involved with each other at the seven-week interview but did not participate because one or both of the parents were not available (2 fathers and 2 mothers had been recently incarcerated; one father lived in another state; and 1 couple had moved to another state). In 3% ( $N = 2$ ) of the cases, the fathers refused to participate.

### Participants

Table 1 presents the demographic characteristics of the parents, couples, and children in the study. The infants were an average of seven weeks of age at the time of the data collection for this study. About half the couples gave birth to boys (53%). The couples were evenly divided between those who were living together (51%) and separately (49%). In terms of level

of commitment, most of the couples, about two-thirds (67%), reported that they were “romantically involved on a *steady basis*;” about one-quarter (26%) said that they were “romantically involved on an *on-again off-again basis*;” and the remainder (7%) said that they were “just friends.”

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Insert Table 1 about here  
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The mothers were an average of 24 years old (range 18 to 39; mothers had to be at least 18 years of age to participate at the Milwaukee site of the Fragile Families study). The fathers were an average of 26 years old (range 16 to 43). For one-third of the mothers (33%), the seven-week-old child was their first biological child. For another 44%, the seven-week-old was a second or third child, and for the remaining one-quarter, the baby was their fourth or more child. For just over one-quarter of fathers (27%), the seven-week-old child was their first biological child. For another half of the fathers (49%), it was their second or third child, and for the remaining one-quarter, it was their fourth or more child.

Just over half of mothers (51%) and just under half of fathers (47%) had less than a high school education. Fifty-nine percent of mothers and 38% of fathers lived in households below the poverty line. About two-thirds of fathers worked for pay the week before their children’s births, although their incomes were quite low.

The 55 unmarried African American couples with newborns in this sample can be compared to the nationally representative sample of 1238 unmarried African American couples with newborns from the Fragile Families sample on some of the background demographics. The 55 Milwaukee couples were more likely to be living together than the unmarried African

American couples nationally (51% vs. 38%) and also more likely to be romantically involved on either a steady or on-again off-again basis (93% vs 82%). Unmarried Milwaukee couples who were no longer talking to each other were not eligible for this study, and this may have led to the final sample of couples being somewhat more likely to live together and be romantically involved than the national averages.

The 55 Milwaukee couples were about the same age as unmarried African American couples nationally (mothers: 24 years vs 24 years; fathers 26 years vs 27 years), and mothers in this sample were about as likely to be having a first child as unmarried African American mothers nationally (33% vs 35%). The mothers in this sample were somewhat more likely to live in households below the poverty line than unmarried African American mothers nationally (59% vs. 52%), and less likely to have graduated from high school 51% vs. 36%). The full random sample of unmarried African American mothers for the Fragile Families study in Milwaukee was also more poor and had lower levels of education than the nationally averages, however. Consequently, it may be that the relatively high level of poverty and low level of education of the sample of 55 for this study is part of a population variation in Milwaukee rather than selection bias.

### Procedures

Two interviews were conducted with each of the 55 couples in this sample: the Fragile Families staff conducted “birth interviews” around the time of the infants’ births, and I conducted “seven-week interviews” when the infants were in their second month of life. For the birth interviews, Fragile Family staff chose couples at random who had given birth the previous day and attempted to complete 30-minute interviews with the mothers at the hospital. They also attempted to complete separate 40-minute interviews with the fathers at the hospital when

possible, or when not, as soon as possible thereafter by telephone. More than 90% of mothers approached in the hospital completed the Fragile Families birth interview, and staff were also able to interview about 75% of fathers. Most of the information on parents' demographics and personal resources were collected during these birth interviews.

I initially contacted the group of Milwaukee couples who were eligible for my study by telephone, or in person if they did not have a telephone. I described the nature of the three-to-four hour interview and the \$50 payment to each parent for their participation. If both parents were interested in learning more, I scheduled a meeting to administer informed consent. If both parents were willing to participate and completed the informed consent, I conducted the interview in the home in which one or both parents or another family member lived. If young children in addition to the target seven-week-olds were present, the study paid for family members or friends to care for them during the interview.

For the first part of the three-to-four hour interviews, the mothers and fathers were interviewed together and videotaped using an adapted Oral History Interview (Buehlman, Gottman, & Katz, 1992) in which the couples told the story of their relationship and what they think makes relationships work. These data were not used in the analyses in this paper, but the interview is mentioned here because it provided an important period of rapport-building for collecting the other data. The couples were then videotaped discussing two disagreements, without me present. This was followed by my interviewing the mother and father individually, during which I orally administered parent-reported measures concerning how their couple relationships was going and the father's involvement with their seven-week-old baby. The order of the mother and father interviews was alternated in sequential cases. Additional data were



collected during the interviews, but are not described here because they are not used for the analyses in this paper.

## Measures

### Measurement development.

I identified and adapted the measures used in this study over seven months preceding data collection, in pilot interviews and focus groups with individual parents and couples with similar demographics, personal resources, and family structures as those in the sample. Existing measures of couple relationships and father involvement have been developed for, and primarily used with, married, middle-income, European American couples--not the unmarried, low-income, African American couples in this sample. I also had several years of experience developing and adapting couple relationship and child adaptation measures, as well as collecting and analyzing data, from another sample of unmarried African American parents and extended family members with young children (Cohen, 2000), which influenced the selection and adaptation of measures for this study. I selected the measures because they are commonly used in research on marriage and parenting, they have adequate psychometric properties, and participants in the pilot interviews and focus groups felt that the measures covered their thoughts and feelings on each topic and found the questions to be clearly worded, engaging, and not overly repetitive.

One example of how I adapted the measures to the sample is that I expanded the Who Does What? measure of parents' instrumental involvement with children and households (Cowan & Cowan, 1990) to include a segment called Who Pays for What? This part asks how parents divide financial responsibility for their children and the households in which the children live. Few studies of married parents consider how they *divide* financial support for their children

(Amato, 1998) and divorced fathers' financial support is usually conceptualized as formal child support payments. Unmarried couples divide financial responsibility for children in a range of ways, including payment of informal and formal support, and in-kind provision of goods and services (Edin & Lein, 1997; Garfinkel, McLanahan, Meyer, & Seltzer, 1998). The Who Pays for What measure covers all of these varied approaches to supporting children financially.

Another example of how I adapted the measures to the sample is that I added questions about the involvement of extended family members and friends to all the measures of parents' involvement with children and to the questions about mother-father styles of interaction, because it is common for extended family members and friends to be actively involved in the lives of African American parents (McAdoo, 1996; Orbuch, Veroff, & Hunter, 1999; Stack, 1974; Wilson, 1995), although see (Roschelle, 1997) for opposing viewpoint.

#### Child, couple, and individual demographics and personal resources.

Much of the child, couple, and individual demographic and personal resources information reported on Table 1 was collected at the birth interview conducted by Fragile Families staff. In these individual interviews, each mother and father was asked his/her age, number of biological children, highest level of education, and information about household income and residents (to enable calculation of household income), and fathers were asked whether they had worked for pay the previous week, the number of weeks they had worked in the last year, and their annual work income. I collected the remainder of the demographic data at the seven-week-after-birth interviews. I asked each mother and father whether they were living together and the status of their relationship (i.e., romantically involved on a steady basis, romantically involved on an on-again off-again basis, or just friends), and administered a standard measure of depression—the Center for Epidemiological Studies in Depression Scale

(CES-D) (Radloff, 1977). Mothers' and fathers' reports of whether they were living together or separately were not significantly different ( $\chi^2 = .16$ , df 1). Mothers' and fathers' reports of the status of their relationships (romantically involved on a steady basis, romantically involved on an on-again off-again basis, or just friends) were highly correlated using a Spearman rank order correlation ( $r = .73$ ). The analyses below using these variables required categorical responses and mothers' reports were used.

#### Father involvement.

In this study, I conceptualized fathers' *hands-on involvement* as their direct care of children and play and recreation activities. The index representing fathers' hands-on involvement was derived from mothers' and fathers' separate reports at the seven-week interview of fathers' contributions relative to mothers' contributions on a series of child-care activities (e.g., diapering and dressing the baby, playing with the baby, tending to the baby's middle-of-the-night needs). I collected these data using the Who Does What? questionnaire (Cowan et al., 1994), a 23-item scale describing each partners' overall experiences of the division of work related to taking care of their children and how child care is divided at different times of the day and night, during the week, and on weekends. Parents gave each item a rating on a 1 to 9 scale, with 1 representing "she does it all," 9 representing "he does it all," and 5 indicating that they share the activity equally (see Appendix for the complete measure). Higher scores indicate that fathers contributed a higher percentage of the work. Scores above 5 indicate that he contributes a higher percentage than she does.

Mothers' and fathers' reports of father involvement were highly correlated, ranging from .60 to .77, depending on the type of involvement (Table 2). Given the strength of these correlations and the desire to limit the number of analyses, the father involvement variables used

in this paper are the averages of mothers' and fathers' reports. The measures of father involvement used in this study are somewhat unusual in research on low-income fathers in that they incorporate data reported from both mothers and fathers (Coley, 2001b).

In this study, fathers' *financial support* of their children was derived from mothers' and fathers' separate reports of fathers' relative contribution compared to mothers' contribution in purchasing basic infant supplies (e.g., diapers, clothing) and in paying for five aspects of the household in which the children are living (e.g., rent/mortgage, utilities). Almost all the families were receiving WIC so neither parent paid for formula and this item was not included in the analyses. I collected the data on how the parents divided the expenses associated with the new infants and the households they lived in using the Who Pays for What? measure, which, as described above, was adapted from Cowan and Cowan's (1990) Who Does What? measure (see Appendix for the complete measure). Parents gave each item a rating on a 1 to 9 scale, with 1 representing "she pays for it all," 9 representing "he pays for it all," and 5 indicating that they share payment equally. Higher scores indicate that fathers paid a higher percentage of the costs. Scores above 5 indicate that he contributes a higher percentage than she does.

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Insert Table 2 about here  
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The mean item response for mothers'/fathers' perceptions of fathers' *hands-on involvement with children* was 3.2 (sd=.9) (Table 3). On the 9-point scale, with 1 indicating "she does it all" and 5 that mother and father share the activity equally, a mean score of 3.2 suggests that mothers were performing more of the hands-on care of their infants than fathers, but fathers were performing a significant proportion of the work. This scale had excellent item reliability in

this sample ( $\alpha = .95$ ). The mean item response for mothers'/fathers' perceptions of fathers' *financial involvement with children* was 4.8 ( $sd=1.6$ ), and of fathers' *financial involvement with households* was 4.6 ( $sd=1.8$ ), suggesting that mothers and fathers divided financial support of children and households roughly equally (Table 3). Both scales demonstrated high reliability in this sample (alphas of .82 and .87 respectively).

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Insert Table 3 about here  
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Parents' reports of their own couple relationships.

Mothers and fathers reported on the supportiveness of their relationships as couples at the seven-week interviews using four items from a measure that has been used in the National Survey of Families and Households. The items are: How often does (other parent) insult or criticize you or your ideas? How often does (other parent) encourage or help you to do things that are important to you? How often does (other parent) try to keep you from seeing or talking to your friends or family? How often does (other parent) prevent you from going to work or school? All items use a three-point response scale, and negative items were reversed such that high scores on all items indicate more supportive relationships. Mothers' and fathers' mean item scores for this measure were 2.7 ( $sd .3$ ) and 2.6 ( $sd .4$ ) respectively (Table 3). The scales demonstrated low but adequate reliability in this sample ( $\alpha = .67$  for mother reports and .70 for father reports). Mothers and fathers' reports of relationship supportiveness were moderately correlated ( $r = .35$ ) (Table 4).

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Insert Table 4 about here  
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Mothers and fathers were also asked at the seven-week interviews how satisfied they were with their relationships using the 16-item Locke-Wallace Brief Marital Adjustment Test (Locke & Wallace, 1959). The Locke-Wallace MAT asks questions about how much couples agree and disagree on various topics, how much couples share preferences, and how partners act towards each other (see Appendix for the complete measure). The items that are weighted most heavily in the total score, however, ask about overall satisfaction with the relationship, such as: Which best describes the degree of happiness, everything considered, of your relationship with (other parent)? (respondents reply by circling the point on a line with 9 points ranging from 1 = Very unhappy to 9 = Perfectly happy). Another heavily-weighted item from the Locke-Wallace MAT is: If you had your life to live over, do you think you would choose the same partner? Choose a different person? Not be involved in a long-term relationship at all? Mothers' and fathers' mean scores on the Locke-Wallace MAT were 104 (sd=29) and 106 (sd=31) respectively, with higher scores indicating more satisfying relationships (Table 3). The Locke-Wallace MAT demonstrated adequate reliability in this sample, ( $\alpha = .76$  for mother reports and  $.78$  for father reports). Mothers' and fathers' reports of relationship satisfaction were highly correlated ( $r = .58$ ) (Table 4). This is a similar level of correlation as found in samples of married couples (Spanier & Lewis, 1980).

There are mixed indications that the unmarried African American couples in this sample were less satisfied with their couple relationships than married European American couples who have recently given birth. In one sample of married, primarily European American families, the

mean mothers' MAT at three months post-partum was 123 (vs. 104 in this sample) (Shapiro, Gottman, & Carrere, 2000). In another sample of primarily European American married parents (Cowan et al., 1994), six months after the birth of their first child 18% of mothers and 16% of fathers reported marital relationships in the clinical distress range (scores under 85), compared to 35% and 24% in this sample. The couples in both these European American samples were all having their first children, however, and their younger ages and/or shorter length of couple relationship, rather than race, could explain the lower levels of dissatisfaction with their relationships.

#### Observed quality of mother-father relationships.

Observational measures of affect and communicative style in mother-father relationships were derived from videotapes of mothers and fathers discussing disagreements. The couple disagreement discussion is a commonly used paradigm in marital research to elicit married couples' affective and communication style (Cox et al., 1999; Fincham, 1998; Gottman, 1994). To prepare the couple to discuss disagreements, I used checklists to help the partners identify two or three topics of active disagreement, interviewed the partners in front of one another about their perspectives on each topic, and then, with the video camera running, left the couple for 15 minutes with the directions: "Please talk about and work towards solutions to the issues that you could both be happy with." This elaborate preparation for the couple to discuss disagreements seems to be important for invoking in couples what they think and feel when they are working out disagreements in their day-to-day lives, thereby approximating the couples' actual discussions and increasing the validity of the videotaped discussions (Gottman, 1994). Additionally, I conducted the interviews and couples' discussions for this study in naturalistic settings rather than university laboratories—in the homes in which the couples spend a lot of

time (the residence of one or both of the parents or of extended family members)--perhaps increasing the validity of the observational data in this study.

There is some indication that videotaped couple interactions in university laboratories are similar to how couples treat each other in their day-to-day interactions at home. The one study that I am aware of compared couples' interactions in the laboratory to tape recordings made in couples' homes (Gottman, 1979). The interactions were similar to, although tended to underestimate somewhat differences between distressed and nondistressed couples (Gottman & Notarius, 2000). However, all the couples in research studies, whether they are conducted in laboratories or at the couples' homes know they are being observed and this may influence their interactions. The validity of videotaped observations of couple interactions remains an open question.

Two female African American undergraduates coded the videotaped interactions. The two coders received more than 40 hours of training on the System for Coding Interactions in Dyads (SCID) (Malik & Lindahl, 2000), conducted mostly by Kristin Lindahl, one of the authors of the coding system. The SCID, which was originally modeled in large part on the widely-used Interactional Dyadic Coding System (Julien & Markman, 1989), assesses both theoretically and empirically derived aspects of couple functioning, such as communication skills and processes, as well as issues related to balance of power, dominance, and aggression in relationships. The SCID coding system has been used with European American, Latino, and African American married and unmarried couples (Malik & Lindahl, 2000).

The SCID generates individual scores for each mother and father on 10 aspects of affect and communicative functioning: verbal aggression, coerciveness, attempts to control, negativity and conflict, problem solving communication, support, positive affect, withdrawal, and



dysphoric affect, as well as the following five scores for each couple: negative escalation, cohesiveness, pursuit/withdrawal pattern, conflict management style, and balance of power. The first 12 of these are rated using a Likert-type scale of 1 (very low) to 5 (high), and the last three are categorical. Following is a description of the eight codes used in the current study.

- Verbal aggression: The partner insulted, demeaned, and/or otherwise put down the other partner. Disagreement or anger was *not* coded as verbal aggression unless it was expressed in a way that was insulting, demeaning, or a put down. For example: “You don’t know how to talk to a woman.”
- Coerciveness: The partner’s statements, tones, and/or body language attempted to threaten or manipulate the other partner. Disagreement and anger were *not* coded as coercive unless there was a threatening or manipulative element to how they were expressed. Example: “You don’t want to get me mad by talking to me like that..”
- Attempts to control: The partner made direct commands or demands meant to change the actions, thoughts, and/or feelings of the other partner. Example: “Don’t talk to me like that-- shut up.”
- Negativity and conflict: The partner disagreed with and was tense, frustrated, irritated, or angry with the other partner—in ways that did *not* qualify for the above three codes (i.e., devoid of insult/put-downs, threats/manipulation, or commands). Example: “I hate it when you talk to me like that.”
- Problem solving communication: The partner discussed her/his thoughts, feelings, and opinions in a constructive manner. To receive a high score, the partner or couple did *not* need to solve the problem under discussion or make progress on it. But during the discussion the partner stayed on topic, described the situation/problem or her/his experience in a non-

judgmental or non-defensive way, showed some responsibility for the situation/problem if appropriate, made suggestions, and/or compromised.

- Supportiveness: The partner was attuned and responsive to the other partner. To receive a high score, the partner could completely disagree with the other partner, but did things like listen to what the other partner said, showed interest in her/his ideas and goals, and/or acknowledged what the other partner was saying--even if disagreeing.
- Positive affect: There was a positive quality to the partner's tone of voice, facial expression, and/or body language. To receive a high score, the partner might be playful, joking, cheerful, warm, and/or caring.

Scores on the SCID are significantly associated with couples' own reports of the distress in their relationships, and the SCID's assessment of destructive forms of couple conflict, imbalance of power, and power struggle are associated with negative parenting behaviors--particularly for fathers (Lindahl & Malik, 1999).

The training and implementation of the SCID observational coding system incorporated a three-part effort to adapt the system to this sample of unmarried African American parents. The first stage of adaptation occurred during the training process, a collaboration among the two African American undergraduate women who carried out the coding, a female African American doctoral student in clinical psychology who consulted on adapting the system, Kristin Lindahl—one of the authors of the coding system who is a European American woman, and myself—a European American woman. The group discussed whether each of the SCID codes appeared to be present in the videotaped observations and seemed to be a relevant aspect of the interactions in terms of the process and/or outcome of the discussion. We adapted the system in several ways to reflect unique aspects of the interaction styles of the couples in the sample. For example, we

observed that a number of the couples demonstrated negative and positive behaviors simultaneously--such as verbal aggression or coerciveness on the one hand, along with positive affect such as smiling or joking. Lindahl had rarely seen this combination before and we expanded the coding system to reflect this distinction (e.g., verbal aggression, with or without positive affect present). The group also added one code that it felt might be important to the couples' discussions but was not reflected in the SCID, recording how much the mother and father talked during the interaction relative to one another. This was also a 5-point Likert-type scale from very low to high.

The second stage of adapting the coding system occurred during the process of coding. The two undergraduate African American coders and I added more detail to the rules for how to apply the codes to this particular sample, specifying the minimum behavioral requirements for each of the five levels of each code. For example, to receive a score for the lowest level of negativity and conflict (a "1" on the 1 to 5 scale) a partner needed to demonstrate up to one or two fleeting moments of low-level tension, frustration, irritation, or anger. To receive a score of 3, a partner needed to demonstrate either near constant low-intensity or sporadic medium- to high-intensity tension, frustration, irritation, or anger. To receive a score of 5, a partner needed to demonstrate near constant high-intensity tension, frustration, irritation, or anger. Partners in between these levels were scored 2 or 4.

The third stage of adapting the coding system to the sample was integrated into the process of coding itself. Despite efforts to specify behaviors corresponding with each level of each code, the coders were continually required to make judgments to apply the codes to observed behaviors. For example, when one parent told the other to "Get away," the coders had to decide whether this was mainly a literal directive and should be coded as a direct attempt to

control, whether it was mainly a joke and should be coded as positive affect, or whether it should be coded as both—verbal aggression and positive affect. The two coders made their decisions independently.

The following analyses used eight of the scores that the SCID generates—the codes for mothers’ and fathers’ individual positive and negative behaviors: verbal aggression, coerciveness, attempts to control, negativity and conflict, individual problem solving communication, support, and positive affect. Individual positive and negative behaviors are a common focus in studies of couples and an appropriate starting point, given that this is the first study of observational data from unmarried African American parents. Mothers’ and fathers’ withdrawal and dysphoric affect, as well as the five couple-based codes, should be the subject of future study.

Four composite scores were created for the analyses that follow: mothers’ positive behaviors, mothers’ negative behaviors, fathers’ positive behaviors, and fathers’ negative behaviors. The positive behavior composite score is the mean of the three positive codes (individual problem solving communication, support, and positive affect). The negative behavior composite score is the mean of the four negative codes (verbal aggression, coerciveness, attempts to control, and negativity and conflict).

Mothers’ mean item score for observed positive behaviors was 2.8 (sd=1.2) and fathers’ was 2.9 (sd=1.1), on a five-point scale, with higher scores indicating more frequent and intense positive behaviors (Table 3). Mothers’ mean item score for observed negative behaviors was 2.2 (sd=.9) and fathers’ was 1.9 (sd=.8), on a five-point scale, with higher scores indicating more frequent and intense negative behaviors (Table 3). Alphas for the composite measures were adequate to good, ranging from .71 to .89. The means for the specific behaviors that make up

these composite scores are shown on Table 3, and also show adequate variability. Interobserver agreement calculated as Cronbach's alpha was an average .87 for the positive behaviors and .88 for the negative behaviors.

## Results

### Data analytic strategy

I began by considering the intercorrelations among the variables within the two basic constructs in the study: father involvement and quality of couple relationship. Then I considered direct effects couple relationships and father involvement. I calculated correlations between the father involvement variables and the parents' demographic and personal resource variables. I performed t-tests comparing the father involvement variables by types of family structure -- in families in which the parents lived together and separately and in families with infant boys and girls. I calculated correlations between the father involvement variables and the quality of couple relationships variables. I also considered whether controlling for parents' demographics and personal resources influenced the correlations between father involvement and couple relationships.

Next I used multiple regression analyses to consider whether the observed measures of couple relationships explained variance in father involvement over and above the parent-reported measures of couple relationships. I also used multiple regression analyses to investigate whether the parent-reported measures of couple relationship mediated the link between observed measures of couple relationships and father involvement. Then I ran correlations to investigate whether specific aspects of parents' observed behaviors were linked to father involvement.

Finally, I conducted multiple regression analyses with interaction terms to investigate whether the link between the functioning of couple relationships and father involvement was

moderated by the sex of the infant. I also considered the possibility that the sex of child affected the correlations (moderation effects) by examining the Pearson correlations of couple relationships and father involvement in the subsamples of families with infant boys and families with infant girls.

### Basic descriptives

The three types of father involvement assessed in this study were significantly intercorrelated at low to moderate levels (Table 5). Fathers' hands-on care of infants was moderately correlated ( $r = .43$ ) with fathers' paying for infant expenses, but the correlation was lower with fathers' paying for household expenses in the home in which the infant lives ( $r = .28$ ). The highest correlation was between fathers' paying for infant expenses and household expenses ( $r = .69$ ). There was enough separate variance to allow for the various types of father involvement to have different patterns of correlations, which turned out to be the case, and is described below.

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Insert Table 5 about here  
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In most cases, the coders' assessments of the couple relationship from the videotapes were moderately correlated in the expected directions with parents' own reports of their relationship (Table 4). When either mothers or fathers were observed to behave in more positive ways with one another, both parents rated their relationships as more supportive and more satisfying. Also as expected, when fathers behaved in more negative ways during the couple discussion, both parents rated the relationships as less supportive and less satisfying. The correlates of mothers' negative behaviors were an exception to the expected pattern. When

mothers were observed to behave more negatively with fathers--displaying more verbal aggression, coerciveness, attempts to control, and negativity and conflict—as expected the fathers tended to rate the relationships as less supportive, but neither mothers nor fathers reported that they were less satisfied with the relationship. The fathers appeared to agree with the observers that the mothers were relatively negative and unsupportive, but the parents did not seem to find, or at least they did not describe, their relationships as less satisfying than parents in relationships in which the mothers behaved less negatively.

#### Parents' demographics and personal resources and fathers' involvement

I did not predict whether parents' ages would be linked to father involvement, and I hypothesized that parents' education and income would not be related to father involvement. Neither fathers' nor mothers' age, education, or income were related to any of the measures of father involvement (Table 6).

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Insert Table 6 about here  
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#### Family structure

I considered whether two aspects of family structure—the parents coresiding and the baby's sex—were linked to father involvement. I had hypothesized that fathers who lived with their infants would be more involved with them. This was the case for some aspects of father involvement but not others. Compared to fathers who lived separately, fathers who were living with their babies seven weeks after birth paid more of the household expenses and slightly more of the infant expenses, but did not provide significantly more hands-on care of them (Table 7).

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Insert Table 7 about here  
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As I expected, there was no difference in fathers' level of involvement with their infant boys and girls (Table 8).

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Insert Table 8 about here  
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#### Couple relationships and fathers' involvement

I expected that when couple relationships were more supportive, satisfying, and positive, fathers would be more involved with their seven-week-olds. There was some evidence supporting this hypothesis (Table 9). When mothers and fathers reported that their couple relationships were more supportive and satisfying, and independent observers rated fathers as demonstrating fewer negative behaviors in discussions with mothers, fathers provided more *financial* support for infants and for the households in which the infants lived. When mothers found their couple relationships more supportive, and when mothers and fathers found their relationships more satisfying, fathers provided more *hands-on* care of infants. Contrary to my expectations, however, independent observers' ratings of fathers' positive behaviors and of mothers' negative and positive behaviors were not directly related to fathers' involvement. Twelve of the 24 possible correlations between couple relationship quality and father involvement were significant, seven at the  $p < .05$  level and five at the  $p < .01$  level, more than would be expected by chance.



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Insert Table 9 about here  
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The variance in father involvement explained by couple relationship quality appears to be independent of parents' age and personal resources. Mothers' age, and fathers' age, education, and household income were not significantly correlated with any measures of the quality of couple relationships (Table 6). Mothers' education and income were linked to couple relationships (Table 6). But controlling for mothers' education and income did not change any of the 12 significant correlations between better functioning couple relationships and greater father involvement (analyses not shown).

#### Observed vs. parent-reported measures

I hypothesized that the observer ratings of the quality of couple relationships would predict variance in father involvement, over and above the parent-reported measures of father involvement. This was not the case. In a separate series of hierarchical regressions for the two types of father involvement linked to the observed measures of couple relationships, I entered on the first step the parent-reported measures of their couple relationships that were significantly correlated with the type of father involvement (see Table 9), and then on the second step I entered fathers' observed negative behaviors (the only observed measure of couple relationships that was significantly correlated with any type of father involvement). In no case did the observed measure explain variance in father involvement over and above the parents' perceptions of their own relationships (analyses not shown).

Then I ran the models the other way, testing whether parent-reported measures of the couple relationship mediated the link between the observed measures and father involvement. I

conducted tests of mediation through a series of regressions (Baron & Kenny, 1986). Prior to testing for mediation, a relationship must be demonstrated among all three variables (Baron & Kenny, 1986), so testing was restricted to cases in which all three variables were correlated (Tables 4 and 9).

For the dependent variable fathers' financial support for households and the independent variable fathers' observed negative behaviors, I ran three separate models testing for mediation, with mothers' report of supportive couple relationships, fathers' report of supportive couple relationships, and fathers' report of relationship satisfaction tested as mediators. For the dependent variable fathers' financial support for infants and the independent variable fathers' observed negative behaviors, I ran four separate models testing for mediation, with mothers' report of supportive couple relationships, fathers' report of supportive couple relationships, mothers' report of relationship satisfaction, and fathers' report of relationship satisfaction tested as mediators.

In each of the seven regressions, in the first step the independent variable [A] (fathers' observed negative behaviors variable), was regressed on the dependent variable [C] (father involvement), and then in the second step the potential mediating variable [B] (a parent-reported measure of the quality of the couple relationship) was added. Full mediation is demonstrated when the variance explained in the dependent variable [A] by the observed independent variable [C] is reduced to non-significance when the parent-reported variable [B] is added to the equation.

In all seven of the equations, the various parent-reported measures mediated the observed measures in explaining variance in fathers' financial support of children's households and infant expenses (Tables 10a and 10b). For example, looking at the first model in Table 10a, the fathers' observed negative behaviors variable explains a significant amount of variance in the level of

fathers' financial support for households when entered in the first step, but this variable's contribution is reduced to nonsignificance when the mothers' report of supportive couple relationships variable is added in the second step. The ways in which parents were observed to behave toward each other appear to be linked to how parents perceived of their relationships, which in turn was linked to fathers' involvement with their infants.

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Insert Tables 10a and 10b about here  
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Specific couple interaction behaviors

The observed couple relationship variables discussed above are composites of the specific behaviors described in the methods section. I hypothesized about whether and how those specific behaviors would be linked to fathers' involvement with their children. I expected that fathers would be more involved with their infants when mothers and fathers demonstrated relatively high levels of all three positive behaviors--problem solving communication, supportiveness, and positive affect--and low levels of three of the four negative behaviors--verbal aggression, coerciveness, and attempts to control. There was mixed evidence for these hypotheses (Table 11). One of mothers' specific positive behaviors was linked to father involvement, but in the opposite direction expected. When mothers of baby girls were more verbally aggressive with fathers, the fathers paid more of the household expenses (Table 11).

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Insert Table 11 about here  
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Several of fathers' specific negative behaviors were linked to fathers' involvement with their children. Fathers who were more verbally aggressive with mothers and who expressed more negativity and conflict paid less of infant and household expenses for their sons and daughters and provided less hands-on care for their daughters. Contrary to my hypotheses, fathers who demonstrated more coerciveness and attempts to control their partner were *not* less involved with their children.

### Infant girls vs. boys

Contrary to my prediction, the data suggest that the link between couple relationship quality and father involvement may be present only for families with girl babies. To examine the possibility that children's sex moderated the link between the quality of couple relationships and level of father involvement, I conducted a series of hierarchical regressions (Baron & Kenny, 1986). Testing was limited to the measures of qualities of couple relationship that were in fact significantly correlated with measures of father involvement (Table 9). In each model, a single measure of couple relationships (predictor) was entered in the equation first, followed by children's sex (moderator) on the second step, and a 2-way interaction term between the predictor and moderator on the third step.

For the dependent variable fathers' financial support for households, four models were run with mothers' and fathers' report of supportive couple relationships, fathers' report of relationship satisfaction, and fathers' observed negative behaviors as the predictors. For the dependent variable fathers' financial support for infants, five models were run with mothers' and fathers' reports of supportive couple relationships, mothers' and father's reports of relationship satisfaction, and fathers' observed negative behaviors as the predictors. For the dependent variable fathers' hands-on care of infants, three models were run with mothers' report of supportive couple relationships, mothers' and fathers' report of relationship satisfaction, and fathers' observed negative behaviors as the predictors. One of the twelve equations

demonstrated significant interactions between the babies' sex and measures of the quality of couple relationship in explaining variance in father involvement (Table 12). The link between fathers' observed negative behaviors and fathers' financial support of households is moderated by children's sex. Graphing the data illustrated that for couples with girl babies, when fathers are observed to behave in more negative ways they contribute less of household expenses, but this is not the case for couples with boy babies.

Interaction tests have low power in hierarchical regression analyses (McClelland & Judd, 1993), however, so I also looked at the correlations within each subsample (Table 13). There were no significant correlations in the subsample of couples with baby boys (N=29). By contrast, in the subsample of couples with baby girls (N=26), ten of the 24 possible correlations between couple relationships and father involvement were statistically significant at the  $p < .05$  level.

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Insert Tables 12 and 13 about here  
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## Discussion

### Personal resources not central

In this study, fathers' and mother' personal resources, education and income, were not central to understanding low-income, unmarried African American fathers' involvement with their young children. That parents' education and household income were not linked directly or indirectly to father involvement in this sample is contrary to much of the existing research, which has tended to find that fathers with more education and income are more involved with their children—particularly financially (Carlson & McLanahan, 2002b; Coley & Chase-Lansdale, 1999; Cooksey & Craig, 1998; Johnson, 2001; Lerman, 1993; Seltzer, 1991). Although there

was some variation in parents' education and income in this sample (Table 1), it was a primarily low-income sample. It may be that a wider range of education and income are necessary to demonstrate links between fathers' personal resources and involvement with children. Several other recent studies of primarily low-income, unmarried, and racially- and ethnically-diverse couples with young children, however, have also failed to find a correlation between fathers' personal resources and involvement with their children (Carlson & McLanahan, 2002a; Coley, 2001a; Johnson, 2001). Why have some studies found a link between fathers' personal resources and involvement with children, whereas others have not?

Many survey samples of nonresident fathers that have found such a link included a preponderance of divorced fathers and some unmarried fathers who did not live with their children and who were likely no longer romantically involved with the children's mothers. By contrast, the sample in this study and the other recent studies that have not found such links included primarily unmarried fathers, many of whom were still romantically involved with children's mothers and some of whom lived with their children and the children's mothers. It may be that when unmarried parents are romantically involved with each other, even if they are not married and not living together, fathers' education and income may be less relevant to their involvement with the children--as is the case with married families. Fathers' personal resources may become more important for father involvement as the men become disengaged from mothers and children--when they break up or divorce and live separately.

Studies that have found a link between father involvement and fathers' personal resources tend to study fathers with a wide age range of children—infants through adolescents. This study and those that have not found a link have tended to include fathers with young children. It is possible that among low-income unmarried populations, the expectations and norms for fathers'

involvement with young children are modest, and fathers with limited education and employment can contribute at these levels by earning money informally or borrowing from family or friends. Unemployed and sporadically-employed fathers may actually find it easier than employed fathers to provide hands-on care of children. The expectations for fathers' financial support for older children may be more financial and substantial, however, so fathers with more employment, income, and education may be better able to meet these expectations.

How studies measure father involvement could also explain why surveys of nonresident fathers have found links between fathers' personal resources and involvement with their children, while some recent studies of unmarried fathers have not. Surveys of nonresident fathers typically measure just one or two types of father involvement--usually an estimate of the frequency of visitation and the payment of formal child support. In contrast, the recent studies of unmarried fathers collected more detailed data on father involvement, including a range of activities in which fathers might engage with children, and documented a wider range of financial contributions that fathers make to support children and children's households, including formal child support, informally giving money to mothers, and contributing actual supplies to the mothers—such as diapers. It is possible that when surveys find that fathers with more resources are more involved with their children, this really means that fathers with more resources pay more *formal* child support. Measures that include informal and in-kind forms of financial support and a wide range of activities that fathers can do with children may capture less-educated and lower-income fathers' involvement with their children more accurately, and consequently reduce or eliminate the links between fathers' personal resources and involvement with the children.

Fathers' races and ethnicities, and their resulting cultural expectations, are yet another possible explanation of why surveys of primarily European American nonresident fathers have found links between fathers' personal resources and involvement with their children, while the recent studies of primarily African American and Hispanic unmarried fathers have not. Unmarried and nonresident fathers being actively involved with their children may be a more salient value for African Americans and Hispanics than for European Americans. Perhaps when remaining involved with children is a strong cultural value for men, variations in education and income are not closely linked to father involvement.

Whatever the reason—the lack of variance in the low-income sample, the status of the fathers' relationship with the mother, the age of the children, how father involvement is operationalized, or fathers' cultural backgrounds—in this sample parents' personal resources such as education and income were less closely linked to the involvement of unmarried fathers with their young children than has been reported in past studies. Fathers with more and less income and more and less education managed to be highly involved with their infants in the first two months after birth.

#### Coresidence sometimes central

Coresidence was linked to some types of unmarried fathers' involvement with their children but not others. When partners in this sample lived together, fathers provided more financial support for the infant's households and provided somewhat more of the infant's supplies. But coresiding fathers did not provide significantly more hands-on care of their infants than did fathers who lived separately from their infants.

The big difference in father involvement between coresiding and non-coresiding fathers was fathers' contributions to the household expenses in which the infants lived. Fathers who



lived with their children paid more of the expenses in the households in which the children lived, such as rent and utilities. A possible explanation is that coresiding fathers are paying for themselves to live in these households—contributing toward rent and utilities. Qualitative research finds that low-income men are often obligated to contribute toward their room and board when they live with their girlfriends, and men who are not making such contributions may be asked to leave (Edin & Lein, 1997). Additionally, men who live separately from their infants and the infants' mothers may be less able to contribute toward the household expenses at their infants' households because they may be contributing toward the expenses in the households in which they are residing.

Several other recent studies of unmarried parents with young children have also not found large differences between the hands-on involvement of unmarried fathers who live with and separately from their young children, although the small differences have sometimes been significant in these large samples (Carlson & McLanahan, 2002a, 2002b; Coley, 2001a; Johnson, 2001). Further, in one large study of young unmarried fathers, in regressions controlling for a host of both mothers' and fathers' background variables including demographics, personal resources, and fathers' level of involvement around the time of children's births, coresidence no longer predicted father involvement when the children were one year of age (Carlson & McLanahan, 2002a).

These findings suggest that coresidence may not be necessary for active father involvement, at least in the early transition to parenthood. Both fathers who live with and live separately from their children can be highly involved with them. Coresidence may not always be a useful way to differentiate families when trying to understand variations in fathers' involvement with their children, particularly fathers' hands-on care of their children.

### Couple relationships central

The main purpose of this study was to consider the links between how the relationships are faring between unmarried, low-income African American men and women and the level of the fathers' involvement with their infants during the first few months of the children's lives. When the couples reported that their relationships were more supportive and satisfying, and independent observers rated the fathers as behaving less negatively, the fathers were more involved with their infants: they provided more of the hands-on care, and paid for more of the infant expenses like diapers and clothing and more of the household expenses like rent and utilities. The direction of effects may also be reversed, so that when fathers were more involved with their infants, unmarried parents' relationships functioned better.

This finding from this study of unmarried, low-income, African American couples extends the literature on primarily middle-income European American married and divorced families, which has consistently revealed links between the quality of couple relationships and fathers' involvement with their children (Belsky, 1984; Cowan et al., 1994). This study adds to a small but growing body of research that finds that couple relationship quality and father involvement appear to be linked in families with more diverse structures, incomes, and ethnicities (Chase-Lansdale et al., 1999; Danziger & Radin, 1990; Furstenberg, 1995; Moore & Florsheim, submitted; Nelson et al., 2002; Orbuch & Eyster, 1997).

### Parents' perceptions of relationships important at birth

In this study, parents' *perceptions* of the quality of their couple relationships were better correlates of father involvement than I expected them to be (Table 9). Perceptions were reasonably good simple correlates of father involvement, and they mediated the link between fathers' observed negative behaviors and father involvement. How parents behaved was linked

to how parents perceived their couple relationships to be going, which, in turn, was linked to fathers' involvement with their infants.

It is possible that shared methods bias underlies the relatively close associations between parents' perceptions of their couple relationships and father involvement. Both measures were reported by parents, and variables reported by the same people may be associated with each other because people who tend to view one aspect of their lives optimistically or pessimistically can view other aspects of their lives similarly.

It is also possible, however, that parents' perceptions of the quality of their couple relationships were particularly relevant to father involvement with their infants in this sample *at that point in their family development*. Qualitative researchers have observed that some unmarried couples experience "honeymoons" in their relationships around the time their children are born (Edin & Lein, 1997; Nelson et al., 2002), spending more time together, reuniting if they had ended their relationships during the mother's pregnancy, and feeling particularly hopeful and positive about their future as a couple and a family -- perhaps unrealistically. Recent nationally-representative quantitative data have validated this impression that couples can be unrealistically optimistic about their relationships around the time of the birth of a child.

The parents in the sample for this study may have had unrealistically positive perceptions of the quality of their couple relationships, and may have their ratings of the quality of their couple relationships and their ratings of fathers' involvement. The observations of parents' behaviors toward each other were made by independent raters watching videotapes of the parents, however, and would be more insulated from parents' high hopes. The ways in which romantic partners behave toward each other--particularly the nonverbal behavior, emotion, and affect that are central to observational codes--have been found to be difficult to pretend or fake

(Vincent, Friedman, Nugent, & Messerly, 1979). For this reason, I expect the observed couple relationship measures to become more important in predicting the status of couple relationships and father involvement over time. Around the time of children's births, however, parents' perceptions of their couple relationships appear to be closely linked to their perceptions of fathers' involvement with their infants.

#### Value of observational data

This is one of the first studies of which I am aware to collect observational data from unmarried couples. Although gathering observational data has become a relatively common and accepted method for studying married couples, these data are expensive to collect, code, and analyze. It is important to compare and contrast parent-reported and observational data, and ultimately, to consider the value added from observational data in understanding unmarried couples' experience.

The way that fathers were observed to behave in discussions with their partners was linked to the fathers' level of involvement with their infants, mediated by parents' perceptions of their relationship quality. I would expect all these early observed behaviors—mothers and fathers, positive and negative—to become more important predictors of father over time, as discussed above, once the initial “honeymoon” after having a child dissipates.

Another valuable aspect of the observational data on couple relationships in this study was that they specified concrete behaviors that might be linked to parents' perceptions of their relationships and to father involvement, which could be useful for guiding clinical intervention and theory. Parents' perceptions of their relationships were generally consistent with the observers' ratings of the videotaped discussions (Table 4). But, if we are limited to just parents' perceptions of their relationships we are left wondering what more “supportive” and “satisfying”

relationships look like in terms of couples' day-to-day interactions. The observational data point to specific behaviors that were linked to more supportive and satisfying relationships and to greater father involvement.

For example, fathers' verbal aggression—insulting, demeaning, and/or otherwise putting-down mothers, as well as fathers' negativity and conflict—disagreeing with and being tense, frustrated, irritated, or angry with mothers--were associated with lower levels of father involvement with their infants. Perhaps this is part of a process by which fathers distance themselves from their partners and children. In contrast, fathers' coerciveness—statements, tones, or body language that threaten or manipulate the mothers--and attempts to control—making direct commands or demands meant to change the mothers actions, thoughts, or feelings--were not associated with fathers distancing themselves from their infants. These specific examples of the types of behaviors that are and are not linked to father involvement may provide the type of guidance needed for the development of theory and clinical interventions.

#### Families with girls vs. boys

Fathers of infant girls and boys in this study had similar levels of involvement with their seven-week-olds. There was some indication, however, that family dynamics were different for families with infant boys and girls, even at this very early phase of family development. There was some suggestion in the data that the link between couple relationship quality and father involvement held only for families with infant daughters. In other words, for couples with infant daughters, how couple relationships were going may have spilled over into fathers' involvement with their infants (or the level of fathers' involvement may have spilled over into how the couple relationships were going). By contrast, for couples with infant sons couple relationships and father involvement may have been functioning independently.

If children's sex moderated the link between couple relationships and father involvement in this study, it would replicate the consistent finding from the literature on married families, that fathers' parenting of daughters is particularly vulnerable to distressed couple relationships (Belsky et al., 1984; Brody et al., 1986; Cowan et al., 1993; Cox et al., 1999; Kerig et al., 1993; Krishnakumar & Buehler, 2000; Lamb & Elster, 1985; Lindahl & Malik, 1999; Owen & Cox, 1997). The mechanisms linking children's sex to family dynamics are not well documented or understood. Marital dissatisfaction may be linked to fathers' parenting of daughters and not sons because fathers may not make distinctions in how they interact with their female family members--wives and daughters (Cowan et al., 1993). In contrast, fathers' relationships with their sons may be relatively protected from difficulties in couples' relationships, perhaps because parents view fathers' involvement as particularly important for sons' development, and/or perhaps because fathers' identify with their sons and make extra efforts to be active in their lives and shape their development.

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#### Clinical and social policy implications

The population in this study—unmarried African American couples with young children—has rarely been the subject of systematic research, although it has recently become the focus of considerable programmatic and policy attention. The 1996 welfare reform law that established

the Temporary Assistance to Needy Families (TANF) program set out “encouraging the formation and maintenance of two-parent families” as a goal. The upcoming reauthorization of TANF is likely to include historically extensive expenditures to this end, and the federal government has begun to use child support enforcement funds to promote marriage.

Accordingly, states are pursuing a variety of approaches to support and promote marriage (Parke & Ooms, 2002).

Despite this recent interest and activity, interventions to assist low-income unmarried fathers and mothers over the last several decades have consistently encountered challenges. Efforts to increase low-income unmarried fathers’ involvement with their children have often had difficulty recruiting participants or changing their behavior, resulting in small if any intervention effects (Knox & Redcross, 2000; Levine, Johnson, & Doolittle, 1999; Martinez & Miller, 2000; Nelson et al., 2002). Efforts to change the parenting styles of low-income unmarried mothers also highlight the challenges of intervention (St. Pierre & Layzer, 1998).

Given the proven challenges of intervening with unmarried fathers, the findings from this study offer research-based guidance for efforts to promote father involvement. The nationally representative study sample features a group of unmarried low-income African American couples with newborns, who are likely similar to unmarried couples who could be recruited to participate in preventive couple interventions around the time their children are born. The study considers individual, family, and communication factors that are and are not associated with fathers being relatively actively involved with their seven-week olds. Correlation does not establish causation. Helping the low-father-involvement couples in this study interact with each other in the same way that the high-father-involvement couples interact would not *guarantee* that the former group of fathers would increase their involvement, but it could be an important result.

Four specific implications for intervention emerge from this study:

First, recruiting the couples to participate in this research was relatively easy, compared to my other experiences of recruiting low-income mothers, and particularly, low-income fathers with somewhat older children. This is promising for interventions for unmarried couples with young children. Almost all of the couples who were eligible and available participated in this study, despite the fairly heavy research burden of a three-to-four hour home interview that included videotaping. Although the data collection for the study was not an intervention for couples, it shared key components of such interventions: both mothers and fathers were present and they were willing to talk with a professional they did not know about personal details of their family relationships. Based on their comments, it seemed clear that most of the participants, particularly the fathers, appreciated and enjoyed the opportunity to talk about their relationships. The willingness of the 55 couples to participate in the extended interview process bodes well for the recruitment of similar unmarried couples for interventions for couples around the birth of children. Couples-based intervention might be offered to those couples who are willing to attend together during pregnancy and/or in the weeks and months following children's births.

Second, a variety of factors were not linked, or not closely linked, with father involvement in this sample. Null findings do not provide conclusive support for hypotheses of no difference, but the findings here suggest that some characteristics of fathers and families may be not be critical to fathers' involvement with their children. The lack of connection between fathers' and mothers' education and income and father involvement in this and some other studies of unmarried families suggests that low levels of education and income are not, in and of themselves, insurmountable obstacles to fathers' involvement. Additionally, in this study and others, it appears that many fathers who live separately from their young children and the



children's mothers are highly involved with their children. Living separately from children is also not an insurmountable obstacle to fathers caring and providing for their children. That some fathers are highly involved with their children despite living separately also suggests that it makes sense to use relationships and involvement to define "family" rather than definitions based on where people live.

Third, results from this study suggest that how mothers and fathers get along with each other has implications for fathers' involvement with their children. Intervening to improve couples' relationships might be a reasonable approach to also increasing father involvement. As in married families, unmarried mother-father relationships appear to be linked to father-child relationships, even when the parents live in different households. It would be helpful for father-involvement interventions to focus on helping unmarried couples make their relationships more supportive and satisfying and reduce fathers' negative behaviors with mothers. Such efforts could pave the way to increase fathers' involvement with their young children. And, if fathers can be helped to increase their involvement with their children, this could pave the way to couples experiencing their relationships as more supportive and satisfying, and to fathers behaving toward mothers in less negative ways.

More specifically, the study suggests somewhat different intervention approaches for different aspects of parents' behavior. When fathers insult or demean mothers or demonstrate high levels of tension, frustration, irritation, or anger with them, the fathers may be distancing themselves from their children as well. Some couples in this situation may be interested in assistance with reversing that process and staying together as a family. Other couples may choose to end their romantic relationships, but need assistance establishing non-romantic co-parenting relationships that curtail these negative styles of communication. In contrast, fathers'

directly and indirectly controlling behaviors with children's mothers may be somewhat more complex for clinicians to interpret and address. When fathers try to control or coerce mothers, it may *not* be an indication that fathers are exiting from the family or involvement with the children, or that the families are breaking apart. But these types of mother-father interactions can have negative implications for children (Cummings & Davies, 1994) and clinicians are in an ideal position to help couples find more positive ways to influence one another.

Fourth, this research signals to clinicians that father involvement may involve different family processes and potentially have different implications for sons and daughters. When couples are getting along well, fathers may be equally involved with young sons and daughters. But when couples are struggling in their relationships, fathers may withdraw from their involvement with their daughters. In keeping with this finding, when couples have strained relationships, interventionists can focus extra attention on improving and stabilizing fathers' involvement with their daughters. Interventionists can help fathers identify ways of interacting and activities that they enjoy engaging in with their daughters, and perhaps encourage parents to consider how their frustrations with one another may be spilling over into their parenting.

### Limitations

I have tried to identify the limitations of this study throughout the text. Four limitations, in particular, need to be addressed in future research. First, the data suggest some conclusions about subgroups—such as couples with infant daughters—but the small sample limits the power to detect subgroup differences. Additionally, the number of analyses run with the small number of subjects could mean that some findings are spurious.

Second, attempts were made to identify a coding system that was relevant to the sample, and to adapt and implement it by working with culturally knowledgeable individuals. But the

coding system may still have misinterpreted or missed some important aspects of the couples' interactions. In particular, mothers' observed negative behaviors did not correlate significantly in the expected direction with all of parents' reports of their couple relationships (Tables 4) and father involvement (Table 11). This calls into some question whether the mothers' behaviors that the coders considered to be negative were in fact experienced as negative by the couples, and whether the codes in fact captured what the parents experienced as negative about the mothers' behaviors.

Third, the study is limited to data from a single point in time. It will be necessary to consider the role of early couple relationships and father involvement in predicting the future of couple relationships and father involvement, and ultimately, in predicting children's outcomes.

Fourth, the sample was limited to unmarried African American couples in one mid-western city. It is important that these findings be generalized to other unmarried couples with care. Additional study of unmarried couples of various racial and ethnic backgrounds in a variety of locations will be necessary to identify how culture and public policies, such as welfare rules and benefits and local variations in child support enforcement, are relevant to the link between couple relationships and father involvement.

#### Summary and final conclusions

This study extends the work of family psychologists and sociologists, applying in-depth techniques for studying couples and family functioning to an unmarried, low-income, African American sample. The study addressed the question: What factors are associated with the high levels of unmarried African American fathers' involvement around the time of children's births? How couples perceived themselves and were observed to get along with each other was useful for understanding the fathers' involvement with their seven-week-olds. Parents' education and

income and whether the couples were living together was of less use in understanding fathers' involvement with their newborns.

The low-income, unmarried, African American couples in this study are doing what public rhetoric and policy asks them to do: they are committed to raising their children together. Yet many were experiencing a great deal of stress—low levels of education, high levels of poverty and depression, and in some cases, not very effective ways of working out their relationships with each other. We have an obligation to support these parents in pursuing goals that they and the larger society values. The time of children's births may be a good time to offer such interventions to unmarried couples. And it may be profitable to work with couples—not just mothers or fathers separately.

A next step will be to consider how and why is it that some unmarried fathers stay involved over their children's first year, while others become uninvolved. It will also be important to understand under what circumstances unmarried fathers' involvement is beneficial to their children's development.

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## Appendix: Selected Measures

### Who Does What?

A. Now I'm going to ask you some detailed questions about who does what to take care of CHILD--things like feeding, changing diapers and bathing, and doing CHILD's laundry.

Let's start with how you and OTHER PARENT divide feeding CHILD. Let's use the numbers on this line to show how you two divide feeding CHILD.

1	2	3	4	5	6	7	8	9
<b>SHE</b>				<b>WE BOTH</b>				<b>HE</b>
<b>DOES</b>				<b>DO THIS</b>				<b>DOES</b>
<b>IT ALL</b>				<b>ABOUT EQUALLY</b>				<b>IT ALL</b>

For example, if MOTHER always feeds CHILD and FATHER never does, you'd answer 1. If each of you feeds CHILD about half the time, you'd answer 5. And if FATHER always feeds CHILD and MOTHER never does, you'd answer 9. And you can use any other numbers on the line. Does this system make sense to you?

So how do you divide feeding CHILD?

TALK WITH PARENT TO HELP HER/HIM FIND THE RIGHT NUMBER ON THE LINE.

REPEAT FOR EACH ITEM 1-11.

1. Feeding the baby
2. Keeping track of when baby needs to be fed
3. Changing the baby's diapers; dressing the baby
4. Bathing the baby
5. Deciding whether to respond to the baby's cries
6. Responding to the baby's crying in the middle of the night
7. Taking the baby out: walking, driving, visiting, etc.
8. Choosing toys for the baby
9. Playing with the baby
10. Doing the baby's laundry
11. Dealing with the doctor regarding the baby's health

B. Now I'd like to find out who takes care of CHILD during different *times* of the day. First I'll ask you about during the week—Monday through Friday. Then I'll ask you about weekends. On a typical weekday, Monday through Friday, how do you and OTHER PARENT divide taking care of CHILD first thing in the morning--getting CHILD up, feeding her/him, and dressing her/him? We'll use that same line with numbers.

TALK WITH PARENT TO HELP HER/HIM FIND THE RIGHT NUMBER ON THE LINE.

REPEAT FOR EACH ITEM 12-23.

**Weekdays—Monday through Friday**

- 12. Getting up/feeding/dressing baby
- 13. Mornings: 9 a.m. to 1 p.m.
- 14. Afternoons: 1 p.m. to 5 p.m.
- 15. Dinner/playtime/bedtime
- 16. Evenings to midnight
- 17. Middle of the night needs

**Weekends—Saturdays & Sundays**

- 18. Getting up/feeding/dressing baby
- 19. Mornings: 9 a.m. to 1 p.m.
- 20. Afternoons: 1 p.m. to 5 p.m.
- 21. Dinner/playtime/bedtime
- 22. Evenings to midnight
- 23. Middle of the night needs

Who Pays for What?

C. Now we want find out who pays for which things for CHILD. Let's start with how you and OTHER PARENT divide paying for things for CHILD. The scale for these questions is like the one we used before, but focused on who pays for what.

1	2	3	4	5	6	7	8	9
<b>SHE</b>			<b>WE SPLIT</b>			<b>HE</b>		
PAYS FOR			THE COST			PAYS FOR		
IT ALL			ABOUT EQUALLY			IT ALL		

So for example, if MOTHER has paid for all of the diapers so far and FATHER has paid for none of them, you'd answer 1. If each of you has paid for about half of the diapers so far, you'd answer 5. And if FATHER has paid for all of the diapers so far and MOTHER has paid for none of them, you'd answer 9. You can use any of the numbers in between. Does this make sense?

So think about paying for diapers for CHILD--who has paid for most of them?

TALK WITH PARENT TO HELP HER/HIM FIND THE RIGHT NUMBER ON THE LINE.

REPEAT FOR EACH ITEM 1-10.



1. Baby's diapers
2. Baby's formula (write N/A if baby is breast feeding)
3. Baby's clothing
4. Baby's equipment, like car seat, crib
5. Baby's toys
6. Rent (entire apartment/house where baby lives)
7. Groceries for the household (where baby lives)
8. Utilities: phone, gas/electric, cable (where baby lives)
9. Car: gas, repairs, insurance
10. Entertainment (eating out, movies, videos)

Locke-Wallace Brief Marital Adjustment Test

How much do you and OTHER PARENT agree or disagree about the following things: (always agree, almost always agree, occasionally disagree frequently disagree, almost always disagree, always disagree)

1. Handling family finances
2. Recreation—what you two do for fun or to relax
3. Demonstrating affection
4. Friends
5. Sex relations
6. Conventionality—what is right, good , or proper behavior
7. Philosophy of life
8. Ways of dealing with your families

9. Which best describes the degree of happiness, everything considered, of your relationship with OTHER PARENT? The middle point, "happy," represents how happy most couples are. So the scale ranges on one side to those few who are very unhappy in their relationship, and on the other, to those few couples who experience extreme joy. Where does your relationship with OTHER PARENT fall?

1	2	3	4	5	6	7	8	9
VERY UNHAPPY			HAPPY			PERFECTLY HAPPY		

10. When disagreements between you and OTHER PARENT arise, do they usually result in:

- FATHER giving in
- MOTHER giving in
- Agreement by mutual give and take

11. Do you and OTHER PARENT engage in outside interests together?

- All of them
- Some of them
- Very few of them
- None of them

12. In leisure time, do *you* generally prefer:  
to be on the go  
to stay at home
13. In leisure time, does OTHER PARENT generally prefer:  
to be on the go  
to stay at home
14. Do you ever wish that you had not gotten together with OTHER PARENT?  
Frequently  
Occasionally  
Rarely  
Never
15. If you had your life to live over, do you think you would:  
Choose the same partner  
Choose a different person  
Not be involved in a long-term relationship at all
16. Do you confide in OTHER PARENT:  
Almost never  
Rarely  
In most things  
In everything

Table 1  
Mean and Frequency of Infant, Couple, and Parent Demographics

	<u>Infants</u>	
Age	M = 6.5 weeks	SD = 2.7 weeks Range = 3-14 weeks
Sex	53% boys	47% girls
<hr/>		
	<u>Couples</u>	
Coresiding	51% yes	49% no
Status of Relationship	67% romantically involved on a steady basis 26% romantically involved on an on-again off-again basis 7% just friends	
<hr/>		
	<u>Mothers</u>	<u>Fathers</u>
Age	M = 24 yrs, SD = 5, Range: 18-39	M = 26 yrs, SD = 7, Range: 16-43
Number Biological Children (including 7-week-old in study)	1 child: 33%    5: 4% 2 children: 18%    6: 7% 3 children: 26%    13: 2% 4 children: 11%	1 child: 27%    5: 7% 2 children: 36%    6: 4% 3 children: 13%    7: 2% 4 children: 9%    8: 2%
Education	some HS: 51% HS diploma/GED: 33% ed. beyond HS: 16%	some HS: 47% HS dip/GED: 31% ed. beyond HS: 22%
Household Income (factoring in number of people living in the household)	<50% poverty level: 35% 50-100%: 24% 100-200%: 22% 200-300%: 15% >300%: 6%	<50% of poverty level: 22% 50-100%: 16% 100-200%: 26% 200-300%: 15% >300%: 22%
Worked for pay last week	(Not asked)	67% yes 35% no
Weeks at job last year	(Not asked)	M = 34 weeks, SD = 18, Range: 4-52
Annual income from job(s)	(Not asked)	<\$5K: 33%    \$15-25K: 11% \$5-10K: 15%    \$25-35K: 7% \$10-15K: 16%    >\$35K: 9% DK/NA: 9%

Table 2

Intercorrelations of Mothers' and Fathers' Reports of Fathers' Involvement with Infants

		Fathers' Financial Support for Households <sup>1</sup>		Fathers' Financial Support for Infants <sup>1</sup>		Fathers' Hands-on Care of Infants <sup>1</sup>	
		Mothers' Reports	Fathers' Reports	Mothers' Reports	Fathers' Reports	Mothers' Reports	Fathers' Reports
Fathers' Financial Support for Households <sup>1</sup>	Mothers' Report						
	Fathers' Reports	<b>.77**</b>					
		.62**	.41**				
Fathers' Financial Support for Infants <sup>1</sup>	Mothers' Report						
	Fathers' Reports	.61**	.69**	<b>.60**</b>			
		.29*	.14	.32*	.40**		
Fathers' Hands-on Care of Infants <sup>1</sup>	Mothers' Report						
	Fathers' Reports	.27	.21	.28*	.38*	<b>.61**</b>	

\* = p<.05    \*\* = p<.01

Table 3

Mean of Fathers' Involvement and Couple Relationships

	<u>Mothers'/Fathers' Reports</u>			
	M	SD		
Fathers' Financial Support for Households <sup>1</sup>	4.6	1.8		
Fathers' Financial Support for Infants <sup>1</sup>	4.8	1.6		
Fathers' Hands-On Care of Infants <sup>1</sup>	3.2	.9		
	<u>Mothers' Reports</u>		<u>Fathers' Reports</u>	
	M	SD	M	SD
Supportive Couple Relationship <sup>2</sup>	2.7	.3	2.6	.4
Relationship Satisfaction <sup>3</sup>	104	29	106	31
	< 85 = clinical distress range: 35%		< 85 = clinical distress range: 24%	
<u>Mean Independent Observers' Ratings</u>				
	<u>Mothers' Behaviors</u>		<u>Fathers' Behaviors</u>	
	M	SD	M	SD
Observed Positive Behaviors <sup>4</sup> ( <u>mean of following 3 behaviors</u> )	<u>2.8</u>	<u>1.2</u>	<u>2.9</u>	<u>1.1</u>
Problem Solving Communication	3.2	1.3	3.2	1.2
Support	2.9	1.4	2.9	1.2
Positive Affect	2.4	1.4	2.6	1.3
Observed Negative Behaviors <sup>4</sup> ( <u>mean of following 4 behaviors</u> )	<u>2.2</u>	<u>.9</u>	<u>1.9</u>	<u>.8</u>
Verbal Aggression	1.6	.8	1.6	1.1
Coerciveness	1.8	1.1	1.4	.8
Attempts to Control	3.3	1.6	2.8	1.5
Negativity and Conflict	2.1	1.1	1.6	.9

Table 4

Intercorrelations between Self-Reported and Observed Measures of Couple Relationships

	MR: Supp. Rel.	FR: Supp. Rel.	MR: Rel. Sat.	FR: Rel. Sat.	M's Obs. Neg. Beh.	F's Obs. Neg. Beh.	M's Obs. Pos. Beh.	F's Obs. Pos. Beh.
Mother's Report: Supportive Couple Relationship <sup>2</sup>	--							
Father's Report: Supportive Couple Rel. <sup>2</sup>	<b>.35**</b>	--						
Mother's Report: Relationship Satisfaction <sup>3</sup>	<b>.41**</b>	<b>.51**</b>	--					
Father's Report: Relationship Satisfaction <sup>3</sup>	<b>.47**</b>	<b>.77**</b>	<b>.58**</b>	--				
Mother's Observed Negative Behaviors <sup>4</sup>	.02	<b>-.29*</b>	-.17	-.23	--			
Father's Observed Negative Behaviors <sup>4</sup>	<b>-.38**</b>	<b>-.42**</b>	<b>-.30*</b>	<b>-.45**</b>	.15	--		
Mother's Observed Positive Behaviors <sup>4</sup>	<b>.35**</b>	<b>.56**</b>	<b>.37**</b>	<b>.47**</b>	<b>-.47**</b>	<b>-.46**</b>	--	
Father's Observed Positive Behaviors <sup>4</sup>	<b>.49**</b>	<b>.41**</b>	<b>.40**</b>	<b>.39**</b>	-.24	<b>-.58**</b>	<b>.73**</b>	--

\* = p&lt;.05    \*\* = p&lt;.01

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Table 5

Intercorrelations of Types of Father Involvement

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	Fathers' Financial Support for Households <sup>#</sup>	Fathers' Financial Support for Infants <sup>#</sup>	Fathers' Hands-on Care of Infants <sup>#</sup>
Fathers' Financial Support for Households	--		
Fathers' Financial Support for Infants	<b>.69**</b>	--	
Fathers' Hands-on Care of Infants	<b>.28**</b>	<b>.43**</b>	--

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\*\* = p<.01

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Table 6

Intercorrelations Between Parents' Demographics, Father Involvement, and Couple Relationships (N=55)

	Mothers' Age	Fathers' Age	Mothers' Education	Fathers' Education	Mothers' Household Income	Fathers' Household Income
Fathers' Financial Support for Households <sup>1</sup>	-.05	.05	.06	.08	.05	-.04
Fathers' Financial Support for Infants <sup>1</sup>	.00	.11	.17	.18	.22	.12
Fathers' Hands-on Care of Infants <sup>1</sup>	.18	.07	.08	.06	.09	-.15
Mothers' Report: Supportive Couple Rel <sup>2</sup>	.04	-.16	.19	.06	-.03	-.19
Fathers' Report: Supportive Couple Rel <sup>2</sup>	.03	.09	<b>.31*</b>	.04	.18	-.03
Mothers' Report: Relationship Satisfaction <sup>3</sup>	.05	.06	.22	.15	.25	-.10
Fathers' Report: Relationship Satisfaction <sup>3</sup>	.13	-.02	<b>.40**</b>	-.01	<b>.28*</b>	-.12
Mothers' Observed Positive Behaviors <sup>4</sup>	.13	.08	<b>.56**</b>	.10	<b>.43**</b>	.01
Fathers' Observed Positive Behaviors <sup>4</sup>	.12	.05	<b>.44**</b>	.16	.23	.09
Mothers' Observed Negative Behaviors <sup>4</sup>	-.24	-.14	<b>-.36**</b>	-.11	-.13	-.13
Fathers' Observed Negative Behaviors <sup>4</sup>	-.02	.03	<b>-.38**</b>	-.08	-.20	.03

\* = p&lt;.05 \*\* = p&lt;.01



Table 7

Father Involvement and Couple Relationships in Coresiding and Non-Coresiding Couples

	df	Sum of Squares	F	<u>Co-residing</u> N=28	Non Co-residing N=27
Father's Financial Support for Household <sup>1</sup>	1	43.5	<b>17.4***</b>	M=5.5 SD=1.6	M=3.7 SD=1.6
Father's Financial Support for Infant <sup>1</sup>	1	9.5	<b>4.1*</b>	M=5.2 SD=1.2	M=4.3 SD=1.8
Father's Hands-On Care of Infant <sup>1</sup>	1	3.4	4.0+	M=3.5 SD=.8	M=3.0 SD=1.0
Mothers' Report: Supportive Couple Rel. <sup>2</sup>	1	.9	<b>9.3**</b>	M=2.9 SD=.2	M=2.6 SD=.4
Fathers' Report: Supportive Couple Rel. <sup>2</sup>	1	1.4	<b>9.1**</b>	M=2.8 SD=.3	M=2.4 SD=.5
Mothers' Report: Relationship Satisfaction <sup>3</sup>	1	2214.1	2.7	M=110 SD=27	M=98 SD=30
Fathers' Report: Rel. Satisfaction <sup>3</sup>	1	7922.6	<b>9.7**</b>	M=118 SD=24	M=94 SD=33
Mothers' Observed Positive Behaviors <sup>4</sup>	1	6.0	<b>4.4*</b>	M=3.1 SD=1.1	M=2.5 SD=1.2
Fathers' Observed Positive Behaviors <sup>4</sup>	1	.9	.8	M=3.0 SD=1.0	M=2.7 SD=1.1
Mothers' Observed Negative Behaviors <sup>4</sup>	1	0	0	M=2.2 SD=.8	M=2.2 SD=1.0
Fathers' Observed Negative Behaviors <sup>4</sup>	1	.7	1.1	M=1.8 SD=.6	M=2.0 SD=.9

+ = p<.10 \* = p<.05 \*\* = p<.01 \*\*\* = p>.001

Table 8

Father Involvement and Couple Relationships in Couples with Infant Sons and Daughters

	df	Sum of Squares	F	Sons N=29	Daughters N=26
Father's Financial Support for Household <sup>1</sup>	1	0	0	M=4.6 SD=1.8	M=4.6 SD=1.8
Father's Financial Support for Infant <sup>1</sup>	1	.7	.3	M=4.7 SD=1.5	M=4.9 SD=1.6
Father's Hands-On Care of Infant <sup>1</sup>	1	0	.1	M=3.3 SD=.9	M=3.2 SD=1.0
Mothers' Report: Supportive Couple Rel. <sup>2</sup>	1	0	0	M=2.5 SD=.2	M=2.6 SD=.3
Fathers' Report: Supportive Couple Rel. <sup>2</sup>	1	0	0	M=2.5 SD=.3	M=2.5 SD=.4
Mothers' Report: Relationship Satisfaction <sup>3</sup>	1	498.1	.8	M=101 SD=31	M=107 SD=28
Fathers' Report: Rel. Satisfaction <sup>3</sup>	1	79.4	.1	M=107 SD=31	M=105 SD=32
Mothers' Observed Positive Behaviors <sup>4</sup>	1	.3	.2	M=2.9 SD=1.3	M=2.7 SD=1.2
Fathers' Observed Positive Behaviors <sup>4</sup>	1	0	0	M=2.9 SD=1.2	M=2.9 SD=1.0
Mothers' Observed Negative Behaviors <sup>4</sup>	1	.1	.1	M=2.2 SD=.9	M=2.2 SD=1.0
Fathers' Observed Negative Behaviors <sup>4</sup>	1	0	.1	M=1.8 SD=.9	M=1.8 SD=.7

\* = p&lt;.05   \*\* = p&lt;.01   \*\*\* = p&gt;.001

Table 9

Intercorrelations Between Couple Relationships and Fathers' Involvement with Infants

	Fathers' Financial Support for Households (rent, utilities) <sup>1</sup>	Fathers' Financial Support for Infants (diapers, clothing) <sup>1</sup>	Fathers' Hands-on Care of Infants <sup>1</sup>
Mothers' Report: Supportive Couple Rel. <sup>2</sup>	<b>.37**</b>	<b>.35**</b>	<b>.27*</b>
Fathers' Rep: Supportive Cpl. Rel. <sup>2</sup>	<b>.28*</b>	<b>.30*</b>	-.01
Mothers' Report: Relationship Satisfaction <sup>3</sup>	.18	<b>.32*</b>	<b>.34*</b>
Fathers' Report: Relationship Satisfaction <sup>3</sup>	<b>.37**</b>	<b>.38**</b>	<b>.36**</b>
Mothers' Observed Positive Behaviors <sup>4</sup>	-.01	.08	.07
Fathers' Observed Positive Behaviors	.07	.15	.09
Mothers' Observed Negative Behaviors <sup>4</sup>	.03	.06	.10
Fathers' Observed Negative Behaviors <sup>4</sup>	<b>-.30*</b>	<b>-.33*</b>	-.10

\* = p<.05    \*\* = p<.01

Table 10b

Significant Hierarchical Regressions of Self-Reported Measures of Couple Relationships  
Mediating Observed Measures of Couple Relationships in Predicting Fathers' Financial  
Support for Infants

Variable	T	Model Change R <sup>2</sup>
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.52*	.12*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.68ns	
Mothers' Reports: Supportive Couple Relationship <sup>2</sup>	1.98ns	.06 <sup>+</sup>
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.52*	.12*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.61ns	
Fathers' Reports: Supportive Couple Relationship <sup>2</sup>	1.26ns	.03ns
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.52*	.12*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	1.92ns	
Mothers' Reports: Relationship Satisfaction <sup>3</sup>	1.83ns	.05 <sup>+</sup>
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.52*	.12*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.34ns	
Fathers' Reports: Relationship Satisfaction <sup>3</sup>	2.02*	.07*

<sup>+</sup> = p < .10   \* = p < .05   \*\* = p < .01

Table 10a

Significant Hierarchical Regressions of Self-Reported Measures of Couple Relationships  
Mediating Observed Measures of Couple Relationships in Predicting Fathers' Financial  
Support for Households

Variable	T	Model Change R <sup>2</sup>
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.23*	.09*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.38ns	
Mothers' Reports: Supportive Couple Relationship <sup>2</sup>	2.18*	.08*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.23*	.09*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.43ns	
Fathers' Reports: Supportive Couple Relationship <sup>2</sup>	1.17ns	.02ns
Fathers' Observed Negative Behaviors <sup>4</sup> Model 1	-2.23*	.09*
Fathers' Observed Negative Behaviors <sup>4</sup> Model 2	-1.15ns	
Fathers' Reports: Relationship Satisfaction <sup>3</sup>	2.07*	.07*

\* = p<.05    \*\* = p<.01

Table 11  
Intercorrelations Between Specific Observed Behaviors and Father Involvement

	Fathers' Financial Support for Households (rent, utilities) <sup>1</sup>	Fathers' Financial Support for Infants (diapers, clothing) <sup>1</sup>	Fathers' Hands-on Care of Infants <sup>1</sup>	Mothers' Report: Supportive Couple Rel. <sup>2</sup>	Fathers' Report: Supportive Cpl. Rel. <sup>2</sup>	Mothers' Report: Relationship Satisfaction <sup>3</sup>	Fathers' Report: Relationship Satisfaction <sup>3</sup>
Mothers' Observed Verbal Aggression	<b>.44*</b>	.24 <sup>+</sup>	.14	-.06	-.19	-.13	-.22
Mothers' Observed Coerciveness	.21	.04	.07	<b>-.10</b>	<b>-.14</b>	<b>.01</b>	<b>-.08</b>
Mothers' Observed Attempts to Control	.23	-.08	.07	<b>.13</b>	<b>-.09</b>	<b>-.14</b>	<b>-.13</b>
Mothers' Observed Negativity and Conflict	.31	.09	-.07	<b>-.04</b>	<b>-.22</b>	<b>-.29*</b>	<b>-.33*</b>
Fathers' Observed Verbal Aggression	<b>-.35**</b>	<b>-.27*</b>	<b>-.41*</b>	<b>-.42**</b>	<b>-.38**</b>	-.29*	-.42**
<i>Fathers' Observed Coerciveness</i>	-.20	-.11	-.26	<b>-.15</b>	<b>-.42**</b>	<b>-.15</b>	-.26 <sup>+</sup>
Fathers' Observed Attempts to Control	-.09	-.21	-.27	<b>-.15</b>	-.28*	<b>-.17</b>	-.29*
Fathers' Observed Negativity and Conflict	<b>-.32*</b>	<b>-.39**</b>	<b>-.40*</b>	<b>-.45**</b>	<b>-.45**</b>	-.28*	-.41**

<sup>+</sup> = p < .10    \* = p < .05

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Table 12

Significant Hierarchical Regressions of Couple Relationships Predicting Father

Involvement Indicating Moderation by Infants' Sex

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Dependent Variable: Fathers' Hands-On Care of Infants

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Variable	R <sup>2</sup>	Change R <sup>2</sup>
1. Newborns' Sex	.00	.00
2. Fathers' Observed Negative Behaviors <sup>4</sup>	.00	.00
3. Newborns' Sex X Fathers' Observed Negative Behaviors	.11	<b>.11*</b>

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\* = p<.05

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Table 13

Intercorrelations Between Couple Relationships and Father Involvement in Families with Infant Sons (N=29),  
Daughters (N=26), and Whole Sample (N=55)

		Fathers' Financial Support for Households <sup>1</sup>	Fathers' Financial Support for Infants <sup>1</sup>	Fathers' Hands-on Care of Infants <sup>1</sup>
Mothers' Reports: Supportive Couple Relationship <sup>1</sup>	Boys	.27	.32 <sup>+</sup>	.29
	<i>Girls</i>	<b>.49*</b>	<b>.43*</b>	<b>.40*</b>
	All	.36**	.37**	.35**
Fathers' Reports: Supportive Couple Relationship <sup>1</sup>	<i>Boys</i>	<b>.26</b>	<b>.22</b>	<b>-.03</b>
	Girls	.22	.39*	.11
	<i>All</i>	<b>.24</b>	<b>.30*</b>	<b>.04</b>
Mothers' Reports Relationship Satisfaction <sup>3</sup>	Boys	.11	.28	.32 <sup>+</sup>
	<i>Girls</i>	<b>.28</b>	<b>.35<sup>+</sup></b>	<b>.37<sup>+</sup></b>
	All	.18	.32*	.34*
Fathers' Reports: Relationship Satisfaction <sup>3</sup>	<i>Boys</i>	<b>.28</b>	<b>.29</b>	<b>.29</b>
	Girls	.47*	.46*	.43*
	<i>All</i>	<b>.37**</b>	<b>.38**</b>	<b>.36**</b>
Mothers' Observed Positive Behaviors <sup>4</sup>	Boys	.02	.02	-.09
	<i>Girls</i>	<b>-.05</b>	<b>.15</b>	<b>.22</b>
	All	-.01	.06	.07
Fathers' Observed Positive Behaviors <sup>4</sup>	<i>Boys</i>	<b>.15</b>	<b>.17</b>	<b>-.02</b>
	Girls	-.03	.12	.21
	<i>All</i>	<b>.07</b>	<b>.15</b>	<b>.07</b>
Mothers' Observed Negative Behaviors <sup>4</sup>	Boys	-.30	-.08	.11
	<i>Girls</i>	<b>.35<sup>+</sup></b>	<b>.17</b>	<b>.10</b>
	All	.03	.06	.10
Fathers' Observed Negative Behaviors <sup>4</sup>	<i>Boys</i>	<b>-.18</b>	<b>-.18</b>	<b>.20</b>
	Girls	-.45*	-.50*	-.42*
	<i>All</i>	<b>-.30*</b>	<b>-.33*</b>	<b>-.10</b>

<sup>+</sup> = p<.10   \* = p<.05   \*\* = p<.01



## Endnotes for Tables

<sup>1</sup>Who Pays for What? and Who Does What? questionnaires. Item response scales range from 1 to 9, with 1 meaning “She pays for it all” or “She does it all”; 9 meaning “He pays for it all,” or “He does it all”; and 5 meaning that mothers and fathers share payment or the work equally. Higher scores indicate more father involvement. Scores here are means of mothers’ and fathers’ ratings of fathers’ involvement. See Appendix for items. See Table 2 for correlations between mothers’ and fathers’ ratings.

<sup>2</sup>Fragile Families questionnaire on supportiveness of couple relationships. Score is average of 4 items with 3-point response scale, with higher scores indicating more supportive couple relationships. See Appendix for items.

<sup>3</sup>Locke-Wallace Marital Adjustment Test. Score is weighted total of 16 items, with higher scores indicating that parents are more satisfied with their couple relationships. Scores under 85 indicate clinical distress range. See Appendix for items.

<sup>4</sup>Ratings of observed behaviors during videotaped couple discussion of disagreements. Negative Behaviors is the mean of four specific behaviors: verbal aggression, attempts to control, coerciveness, and negativity and conflict. Each item is rated on a 5-point scale with higher scores indicating more negative behaviors. Positive Behaviors is the mean of three specific behaviors: problem solving communication, support, and positive affect. Each item is rated on a 5-point scale with higher scores indicating more positive behaviors. See Appendix # for how behaviors were rated.