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Abstract

Data from the Fragile Families and Child Wellbeing Study (N = 2,753) are used to examine family structure transitions and maternal parenting stress. Using multilevel modeling techniques, we find that mothers who exit coresidential relationships with a biological father or enter coresidential relationships with a nonbiological father experience higher levels of parenting stress than mothers in stable coresidential relationships. Mothers’ pretransition resources account for very little of these associations, whereas posttransition resources appear to mediate the associations. Significant interactions between maternal education and family structure transitions suggest that divorcing a biological father or moving in with a nonbiological father increases parenting stress for less educated mothers. In contrast, moving in with a biological father decreases stress for highly educated mothers.
Family Structure Transitions and Maternal Parenting Stress

The past fifty years have witnessed dramatic changes in the structure and stability of American families. Increased rates of divorce, cohabitation, and nonmarital fertility have contributed to a variety of new family forms and greater instability in children’s living arrangements, especially among low-income and racial/ethnic minority families (Ventura & Bachrach, 2000). The increasingly diverse and fluid nature of American families has raised concerns about children’s well-being and made understanding family structure transitions and their effects on parenting and child development a primary goal for social scientists. These changes have also led to policy initiatives designed to reduce nonmarital childbearing, increase marriage among unmarried parents, and reduce marital instability.

Although a substantial literature exists on divorce and remarriage, little is known about the consequences of marriage (with a biological or nonbiological, social father) for women who have children outside marriage. Even less clear are the effects of entrances and exits from other types of unions (e.g., cohabitation) on mothers and their children. In this study, therefore, we explore the linkages between family structure transitions and mothers’ parenting stress during the first five years of a child’s life, paying special attention to transitions involving alternative family forms. Specifically, we ask: (1) Are family structure transitions associated with changes in maternal parenting stress? (2) To what extent do pretransition and posttransition maternal resources account for these associations? (3) Do the associations between family structure transitions and parenting stress vary by maternal education?

We pursue these three objectives using a valuable data set for research on family structure transitions: the Fragile Families and Child Wellbeing Study. The Fragile Families study is a national, longitudinal survey that follows approximately 5,000 parents and their children from birth until age five. Maternal reports of family composition were collected when
the child was born and again at ages one, three, and five. The longitudinal nature of the Fragile Families study as well as its over sample of nonmarital births make these data ideal for studying different types of unmarried mothers (e.g., mothers who live alone versus those who cohabit with a biological or social father), different types of union transitions (e.g., into marriage and out of cohabitation), and the extent to which the associations between these transitions and parenting stress can be explained by pretransition and posttransition factors.

Background

Parenting Stress

Within any family, parenting is a challenging process. For a variety of reasons, however, parents may be more or less reactive to the challenges of raising children. The extent to which parents experience stress in their parenting roles, in particular, has important implications for parent, child, and family functioning. Parenting stress generally refers to a condition or feeling experienced when a parent perceives that the demands associated with parenting exceed the personal and social resources available to meet those demands. Not surprisingly, mothers who experience high levels of parenting-related stress report greater psychological distress and lower life satisfaction than mothers with low levels of stress (Crnic & Greenberg, 1990; Thompson, Merritt, Keith, Bennett, & Johndrow, 1993). Parenting stress is also associated with less optimal parenting, lower levels of developmental competence in children, and disrupted family systems (Anthony et al., 2005; Crnic & Acevedo, 1995; Crnic, Gaze, & Hoffman, 2005). Thus, gaining a better understanding of parenting stress and its determinants may help to improve the well-being of individual family members and the functioning of the family as a whole.

Models of the determinants of parenting stress suggest that individual characteristics of children and parents, relationships between couples, parent-child relationships, characteristics of the environment, and interactions among these factors all play a role in the experience of parental
stress (Abidin, 1990; Crnic & Acevedo, 1995). Although more work is needed to understand the
development of parenting stress, research has begun to provide support for these dynamic,
multivariate models. For example, parents’ expectations prior to the birth of the child,
personality attributes, and aspects of family history (e.g., vulnerability to stress) affect the extent
to which parents experience parenting-related stress (Cain & Combs-Orme, 2005; Mulsow,
such as temperament and behavior also influence levels of parenting stress (Jackson, 2000;
McBride, Schoppe, & Rane, 2002; Mulsow et al., 2002). Although examined less often, family-
level factors including intimacy between parents and coparenting processes have also been
linked to parenting stress (Kalil, Ziol-Guest, & Coley, 2005; Mulsow et al., 2002). In this study,
we extend previous work on the ways in which the family context can contribute to parenting
stress by focusing on the union transitions of mothers as their children progress through early
childhood, a time when parenting stress appears to be highest (Kuczynski & Kochanska, 1990).

Linkages between Family Structure Transitions and Parenting Stress

Union dissolution and parenting stress. Divorce brings about changes in the lives of
mothers that can induce stress and diminish the capacity for warm, involved, and consistent
parenting. Foremost among these changes is the loss of socioeconomic, social, and health
resources. Following a divorce, mothers and children experience a substantial drop in their
standard of living (Duncan & Hoffman, 1985), in part because of the loss of economies of scale
and in part because many nonresidential fathers fail to pay adequate child support (Garfinkel &
McLanahan, 1986). A loss of economic resources, regardless of a mother’s prior financial
situation, may generate parenting stress if she is less able to purchase valued material and social
goods for her children (whether that means buying food or paying private school tuition;
McLoyd, 1990). Divorce or separation is also associated with changes in maternal employment
such as entering the workforce or increasing employment hours (Peterson, 1989). To the extent that these changes result in difficulty obtaining high-quality or consistent child care, they may contribute to mothers’ parenting-related stress (Teitler, Reichman, & Nepomnyaschy, 2004).

Research also suggests that union dissolution is associated with a loss of social resources. After a divorce or separation, mothers take on the wide range of parenting responsibilities they once shared with their husbands. For some mothers, the challenges associated with single parenthood (e.g., difficulty supervising or disciplining children) may lead to parental stress. Because many divorced mothers are forced to move, and because their new neighborhoods often have fewer community resources (Hogan & Kitagawa, 1985), they may also experience a loss of social resources through reduced connections to family, friends, and contexts of support in the community (Astone & McLanahan, 1994; McLanahan & Sandefur, 1994). Lowered access to these various forms of physical and emotional support is a likely source of parenting stress for divorced mothers.

In addition to losing economic and social resources, mothers who divorce may experience increases in physical and mental health problems. Specifically, divorced individuals report worse mental health (Marks & Lambert, 1998), lower functional and self-rated health (Wu & Hart, 2002), and more poor health behaviors (Lee et al., 2005) than their married counterparts. The onset of a health problem or the exacerbation of a preexisting condition may negatively impact mothers’ perceptions of parenting demands (Mulso et al., 2002).

To what extent does the loss of resources that often accompanies divorce apply to the dissolution of cohabiting relationships? The effects of exiting a cohabiting relationship on maternal stress have yet to be examined, but research on the nature of these relationships may provide clues to the potential consequences of separation among cohabiting parents. For example, if mothers who cohabit are less invested in the relationship than married mothers
(Nock, 1995) or even anticipate that the relationship will end (Rindfuss & VandenHeuvel, 1990), then they may experience lower levels of parenting stress after separation than their married counterparts. At the same time, if cohabiting mothers have fewer resources for supporting their children after a separation (e.g., less earnings and lower levels of education; Manning & Lichter, 1996), then union dissolution may be more stressful for them than for married mothers.

*Union formation and parenting stress.* Like divorce, marriage brings about changes in the lives of mothers that can impact parenting-related stress. Unlike union dissolution, however, the changes associated with entering a marital or cohabiting relationship are typically expected to increase the economic resources of mothers and their children. Mothers who are single at the birth of their child are more likely to be poor than married mothers (Garfinkel & McLanahan, 1986). When single mothers enter into a residential relationship, however, they increase their chances of moving out of poverty (McLanahan & Sandefur, 1994). If marriage or cohabitation leads to the pooling of resources and the sharing of expenses, and if mothers are better able to provide for their children as a result, then entering into these relationships may decrease parenting stress.

In addition to economic resources, mothers who enter into a marriage or cohabiting relationship may acquire additional social resources. When two parents live in the same household, they can assist one another in their roles as parents by sharing childrearing responsibilities and providing emotional support. Because monitoring children and maintaining parental control, in particular, are easier in two-parent families (Coleman, 1988; McLanahan & Sandefur, 1994), mothers who marry or cohabit may have lower levels of parenting stress than those who remain single. Increases in social resources related to the addition of a parental figure, however, may be offset by decreases in resources following a residential move, which often accompanies union formation. As discussed, residential moves can exacerbate parenting stress.
by breaking ties with family, friends, and sources of support in the community (McLanahan & Sandefur, 1994).

Finally, marriage appears to have a protective effect on health, in part because couples monitor health behaviors and provide emotional support to one another (Peters & Liefbroer, 1997; Umberson, 1987; Mathematica Policy Research, 2007). If union formation results in fewer physical or mental health problems, then mothers who enter into coresidential relationships may also experience declines in parenting stress. The degree to which a single mother benefits from marriage or cohabitation, however, likely depends on whether she enters a relationship with the child’s biological father or a nonbiological, social father. Social fathers are less likely to be committed to a nonbiological child’s well-being and may therefore bring fewer resources to the relationship than biological fathers (Hofferth & Anderson, 2003). Furthermore, when conflict exists between social fathers and children (e.g., when children reject their stepfathers), then entering into these relationships may result in increased rather than decreased levels of stress.

*Pretransition Maternal Resources*

A key weakness of early studies of family structure transitions, namely divorce, was failure to account for predivorce factors that potentially influence both divorce and the outcome of interest. Researchers argue that the characteristics of parents who ultimately break up differ substantially from those who remain intact, and these differences, rather than divorce, may be the source of poor child and parent outcomes (Amato, 2006; Sigle-Rushton & McLanahan, 2002). For example, because parents with mental health problems are more likely to divorce than healthy parents (Gotlib & McCabe, 1990), differences in child well-being following a divorce may be the result of mental health problems that predate the divorce. Investigations of the effects of family structure transitions on parenting stress, therefore, need to include all
preexisting parental resources that are associated with both union transitions and parenting stress. In the present study, we distinguish among three types of resources that are expected to predict union transitions as well as maternal parenting stress.

**Socioeconomic resources.** The link between socioeconomic resources (e.g., household income, material hardship, educational attainment, and employment) and family instability is well documented. For example, couples with lower levels of household income, lower educational attainment, and high levels of unemployment are more likely to experience union dissolution than their more advantaged counterparts (Burstein, 2007). Socioeconomic disadvantage also affects the extent to which parents experience stress in their roles as parents. Raising children in the context of poverty and/or material hardship is highly stressful if parents are unable to provide their children with food, clothing, adequate medical care, and a safe and stable place to live (Gershoff, Aber, Raver, & Lennon, 2007). Poor occupational conditions (e.g., low wages, poor benefits, and long hours) may also negatively impact parenting-related stress (Joshi & Bogen, 2007).

**Social resources.** Social resources, such as intimacy and mutual support between partners and support from extended family members and friends, are also related to both subsequent family structure transitions and parenting stress. Whereas the presence of social resources eases parental stress, improves parental functioning, and promotes positive marital relationships (Bradbury, Fincham, & Beach, 2000; Crnic & Greenberg, 1990; Melson, Windecker-Nelson, & Schwarz, 1998), the absence of these resources can exacerbate parenting stress and increase the likelihood of union dissolution (Kurdek, 2005; Mulsow et al., 2002).

**Health resources.** Finally, the mental and physical health of parents prior to family structure transitions is important because health has been linked to union formation and dissolution. Although family structure changes are negatively associated with mental health
(Barrett, 2000; Meadows, McLanahan, & Brooks-Gunn, 2007), research suggests that this association is likely bidirectional. For example, healthy individuals are more likely to marry and remain married while individuals with health problems are more likely to divorce (Goldman, 1993). Maternal health also affects how parents perceive stresses related to parenting. Although the relationship between health, especially mental health, and parenting stress is complex and reciprocal, researchers have suggested that mental health problems can contribute to the experience of parenting stress through biased perceptions of daily hassles and child behavior (Crnic & Acevedo, 1995).

Variations by Maternal Education

As discussed, mothers who undergo union dissolutions (and possibly union formations) may experience higher levels of parenting stress than mothers who remain in stable relationships. The link between family structure transitions and parenting stress, however, cannot be understood independent of the characteristics of mothers and the resources available to them at the time of the transition. For example, divorce may be less harmful to families when parents are able to maintain positive co-parenting relationships despite the stressors associated with union dissolution (Wang & Amato, 2000). Similarly, single mothers may perceive parenting to be less stressful if they have sufficient economic resources to help them cope with the loss of household income that often coincides with divorce (Wang & Amato, 2000).

Extant research suggests that maternal education may also serve to buffer the deleterious effects of family structure transitions on maternal parenting stress. In their investigation of vulnerability to undesirable life events, McLeod and Kessler (1990) reported that individuals holding high socioeconomic status positions were less affected emotionally by stressful life experiences, including family structure transitions. The protective nature of maternal education may occur for a variety of reasons. For example, mothers of young children who experience a
divorce (or a split from a cohabiting relationship) may be forced to increase their work hours, and highly educated mothers should be better able to negotiate this change in terms of finding adequate employment and quality children care than mothers with less education. Another reason for expecting more educated mothers to respond better to union transitions is that these women may have more control over the timing and circumstances under which a transition occurs, including the end of a marriage and the beginning of a new partnership. Previous research on stressful life events indicates that events are less stressful when they are more voluntary or expected (McLanahan & Sorensen, 1984), and educated mothers are more likely to have such control given their greater bargaining power vis-à-vis past and future partners.

The Present Study

The purpose of the present study is three fold. First, we follow mothers who were living alone or coresiding with the biological father at the birth of their child for five years and examine the impact of their first family structure transition on maternal parenting stress. Constructing a time-varying measure of family structure transitions (i.e., a measure that indicates if and when a transition occurred over the five-year period), allows us to determine whether these transitions are associated with changes in parenting stress. Second, we investigate the extent to which pretransition and posttransition maternal resources account for the associations between family structure transitions and parenting stress. Third, we examine whether these associations are moderated by maternal education.

This study extends previous research in multiple ways. First, whereas research has begun to investigate the effects of marital status and aspects of marital relationships (e.g., emotional support) on maternal parenting stress (Cain & Combs-Orme, 2005; Mulsow et al., 2002; Warfield, 2005), we know little about the effects of divorce and marriage on parenting-related stress. Moreover, despite the growing number of mothers who transition in and out of alternative
family structures (Teachman, 2003), research has yet to examine whether these transitions place women at risk for experiencing stress in their roles as parents. Second, we go beyond investigating whether family structure transitions are associated with parenting stress by examining mechanisms through which transitions may impact mothers’ perceptions of parenting demands. Understanding mediating processes is important for identifying policy-amenable factors to counter the negative effects of family instability. Third, although researchers have begun to recognize the importance of controlling for family characteristics prior to changes in family structure, pretransition factors are often narrowly defined or limited to the inclusion of marital conflict (for notable exceptions, see Fomby & Cherlin, 2007; Strohschein, 2005). In this study, we extend past research by investigating the role of a comprehensive set of pretransition maternal resources in understanding the linkages between various family structure transitions and parenting stress. And finally, by investigating whether education helps mothers maintain low levels of parenting stress despite the risks associated with family structure transitions, this study informs efforts to learn more about the role of context in protecting mothers from stress and promoting mental health, positive parenting, and child well-being.

Method

Sample

The Fragile Families and Child Wellbeing Study is a longitudinal, birth cohort survey that follows 4,898 children, including 3,712 born to unmarried parents and 1,186 born to married parents (for a complete description of the sample and design, see Reichman, Teitler, Garfinkel, & McLanahan, 2001). Maternal baseline interviews were conducted between 1998 and 2000 in 20 American cities with populations of 200,000 or more. Mothers were interviewed in the hospital within 48 hours of their child’s birth. Follow-up phone interviews were conducted when the child was one, three, and five years old.
The analytical sample of this study uses data from all four waves and includes mothers who lived with the child at least half of the time and who had valid information on all study measures. Listwise deletion resulted in a final sample of 2,753 mothers, including 1,709 who lived with the biological father at their child’s birth and 1,044 mothers who lived alone. Attrition analyses indicate that mothers not in the final sample were less likely to be White, more likely to be Latino/a, less likely to be married to the biological father at Wave 1, more likely to be living alone at Wave 1, less likely to have socioeconomic, social, or health resources, and more likely to experience parenting stress than mothers in the analytic sample. These differences suggest that mothers in our sample may be more advantaged than mothers in the targeted population and should be considered when interpreting the results.

Measures

Family structure transitions. We created three sets of mutually exclusive time-varying dummy variables to examine the impact of family structure transitions on maternal parenting stress. The first set of dummy variables indicated whether a mother experienced a family structure transition with the child’s biological father or with a nonbiological, social father between Waves 1 and 2. Mothers in residential relationships with biological fathers at Wave 1 could exit a marriage, exit a cohabiting relationship, experience two transitions (exit a residential relationship with the biological father and enter a residential relationship with a social father), or remain in a residential relationship. Mothers who were in nonresidential relationships at Wave 1 could enter a residential relationship with the biological father, enter a residential relationship with a social father, or remain nonresidential. Among nonresidential mothers, we were unable to account for those who experienced two transitions. In addition, cell sizes were not large enough to distinguish between mothers who entered cohabiting versus marital relationships with social fathers. These two groups, therefore, were also collapsed for mothers entering relationships with
biological fathers. We then created the same set of dummy variables to measure transitions between Waves 2 and 3 and between Waves 3 and 4. It is important to note that once a mother experienced one or two transitions between Waves 1 and 2 or between Waves 2 and 3, she could not be categorized as experiencing transitions at a later time. Thus, an “Other” variable was created to capture mothers who experienced transitions in previous observation periods. Descriptive statistics for these transitions and all other study variables are presented in Table 1.

Maternal parenting stress. Maternal parenting stress was measured at Waves 2, 3, and 4. At each wave, mothers indicated agreement (0 = strongly disagree to 3 = strongly agree) with the following four statements: “Being a parent is harder than I thought it would be,” “I feel trapped by my responsibilities as a parent,” “I find that taking care of my child(ren) is much more work than pleasure,” and “I often feel tired, worn out, or exhausted from raising a family.” The sum of the four items served as the final scale (Wave 2, $\alpha = .62$; Wave 3, $\alpha = .63$; Wave 4, $\alpha = .66$).

Maternal socioeconomic resources. At each wave, socioeconomic status was assessed by combining mother-reported household size and annual family income in an income to needs ratio. This ratio was then compared to the federal poverty line to create three markers of family economic status: dummy variables for at or below 100 percent of the federal poverty line, 100 - 200 percent of the federal poverty line, and above 200 percent of the federal poverty line. Material hardship was measured at Wave 1 by asking mothers how much money (0 = some, 1 = just enough, 2 = not enough) they typically have leftover at the end of the month. At Waves 2, 3, and 4, a more comprehensive set of questions was used to assess hardship. A dummy variable was created such that mothers received a one if any of the following occurred during the previous observation period: they received free food; they were unable to pay full amount of rent or mortgage; they had gas or electricity shut off; someone in their home needed medical care.
but could not afford it. At Wave 1, mothers reported their level of education (1 = less than high school, 2 = high school or GED, 3 = some college, 4 = college or post-graduate degree). Mothers reported their weekly hours of employment at current or most recent job in Wave 1. At follow-up waves, hours of employment was based on current employment only.

**Maternal social resources.** At each wave, mothers were asked how often they attended religious services (0 = never, 1 = hardly ever, 2 = several times a year, 3 = several times a month, 4 = once a week). Family support was measured at each wave by asking mothers whether (0 = no, 1 = yes) they could count on a family member to loan them $200, provide a place to live, and help with babysitting. Items were summed to create the final scale (Wave 1, $\alpha = .76$; Wave 2, $\alpha = .55$; Wave 3, $\alpha = .60$; Wave 4, $\alpha = .58$). At Wave 1, quality of relationship with biological father was assessed by asking mothers how often (0 = never, 1 = sometimes, 2 = often) they disagreed with the biological father about money, spending time together, sex, pregnancy, alcohol or drug use, and being faithful while they were romantically involved. The sum of the six items served as the final scale ($\alpha = .63$). At Waves 2, 3, and 4, mothers rated the overall quality of their current relationship with the biological father (0 = poor to 4 = excellent).

**Maternal health resources.** Because a measure of depression was not available at Wave 1, we used mothers’ reports of their parents’ psychological problems to indicate a family history of mental health problems. Mothers were asked whether either biological parent suffered from depression or anxiety (0 = no, 1 = yes). In Waves 2, 3, and 4, depression was measured using the Composite International Diagnostic Interview Short Form (Kessler et al., 1998). Self-reported physical health was measured at each wave (0 = poor to 4 = great). Problems with drinking or drugs was measured at each wave by asking mothers whether they were treated for alcohol or drug abuse or if drinking or drugs interfered with work or relationships (0 = no, 1 = yes).
Controls. This study also controlled for maternal age in years at baseline, race/ethnicity (dummy variables for African American, Latino/a, White, and Other), immigrant status, number of biological children at each wave, child gender, and child low birth weight.

Analyses

The data analysis for the parenting stress models proceeded in three general steps. First, maternal parenting stress was regressed on the time-varying family structure transition variables and the control variables to gauge the effects of various family structure transitions on parenting stress net of the demographic characteristics. Second, the pretransition resources were added to this base model followed by the posttransition resources to assess the extent to which these resources accounted for the transition effects. Third, maternal parenting stress was regressed on family structure transitions, pretransition resources, and the demographic controls for mothers with low and high levels of education to examine whether the associations between the family structure transitions and parenting stress varied by maternal education. We then regressed parenting stress on family structure transitions, pretransition resources, demographic controls, and interactions terms between transitions and maternal education. Any significant interaction term would indicate that education moderated the association between that family structure transition and maternal parenting stress.

The parenting stress models were estimated using HLM, Version 6 (Raudenbush & Bryk, 2002). This modeling strategy was appropriate for the analysis because parenting stress was measured at multiple time points and the observations were not independent. HLM compensates for the clustering of observations by estimating a single model that describes data at two levels: within individual (Level 1) and between individual (Level 2). The Level-1 model, which summarizes the observed pattern of maternal parenting stress across measurement occasions into a functional relationship with time, can be specified as follows:
\[ Y_{ti} = \pi_{0i} + \pi_{1i}a_{ti} + e_{ti} \]

where \( Y_{ti} \) represents parenting stress for the \( i \)th mother at time \( t \), \( a_{ti} \) is time at each measurement occasion for the \( i \)th mother, \( \pi_{0i} \) is the intercept of the underlying trajectory for the \( i \)th mother, \( \pi_{1i} \) is the slope of the underlying trajectory for the \( i \)th mother, and \( e_{ti} \) represents error for the \( i \)th mother at time \( t \). HLM assumes that initial levels of parenting stress (i.e., intercepts) and changes in parenting stress over time (i.e., slopes) vary across mothers. With only three available observations of parenting stress, we assumed a linear pattern, which is appropriate even if change over time is more complex (Singer & Willett, 2003).

To examine the effect of covariates that vary temporally (in this case, family structure transitions and posttransition maternal resources), time-varying variables can be added to the Level-1 model.

\[ Y_{ti} = \pi_{0i} + \pi_{1i}a_{1ti} + \pi_{2i}a_{2ti} + e_{ti} \]

The addition of the ”\( \pi_{2i}a_{2ti} \)” term represents the effect of the time-varying variable on parenting stress at time \( t \) for the \( i \)th mother.

The Level-2 model, which allows the random intercepts (\( \pi_{0i} \)) and slopes (\( \pi_{1i} \)) to be a function of variables that change across individuals but not across time, can be specified as follows:

\[ \pi_{0i} = \beta_{00} + \beta_{01}X_{1i} + r_{0i} \]
\[ \pi_{1i} = \beta_{10} + \beta_{11}X_{1i} + r_{1i} \]

In this study, the \( X \)s represent the demographic characteristics and pretransition maternal resources.
Results

Family Structure Transitions

Before turning to the multilevel analyses that address the three research questions, we describe the family structure transitions that mothers undergo during the first five years of their children’s lives. Half the mothers experienced no family structure transition between Waves 1 and 4. Thirty-six percent remained in stably coresiding relationships and fourteen percent lived alone over the five-year period. Among mothers who coresided with their child’s biological father at birth, four percent of mothers divorced at some point during their child’s first five years of life, seventeen percent exited a cohabiting relationship, and four percent both exited a coresidential relationship with the biological father and then entered a coresidential relationship with a social father during a two-year period. Among mothers who were not coresident at their child’s birth, thirteen percent entered a coresidential relationship with the biological father and eleven percent entered a coresidential relationship with a social father. Overall, these patterns demonstrate that a substantial number of mothers experienced a family structure transition during their child’s first five years of life. The following sets of analyses explored the linkages between these transitions and maternal parenting stress.

Family Structure Transitions and Maternal Parenting Stress

The first goal of the study was to investigate the association between family structure transitions and maternal parenting stress. Table 2 presents the results of multilevel models predicting parenting stress. In the base model (Column 1), mothers who divorced their child’s biological father reported marginally higher levels of parenting stress than mothers who remained in stable coresidential relationships after accounting for the demographic characteristics \( b = .32, p < .10 \). In addition, mothers who exited a cohabiting relationship with the biological father \( b = .29, p < .01 \) or made two transitions during an observation period (i.e.,
exited a coresidential relationship with a biological father and then entered a coresidential relationship with a social father; $b = .56$, $p < .01$) reported higher levels of parenting stress than mothers in stable coresidential relationships net of the control variables. Entering a coresidential relationship with a social father is also related to parenting stress ($b = .55$, $p < .001$), whereas entering a coresidential relationship with a biological father is not.

**Pretransition and Posttransition Maternal Resources**

Our second goal was to examine the extent to which pretransition and posttransition resources account for the associations between the family structure transitions and parenting stress. Adding the pretransition socioeconomic, social, and health resources (see Column 2 in Table 2) reduces the coefficients for exit marriage, exit cohabitation, and two transitions by eighteen percent, thirty-four percent, and sixteen percent respectively. The coefficients for exit cohabitation and two transitions, however, remain statistically significant. Although the coefficient for exit marriage is not significant, this is likely due to small sample size given that the exit marriage coefficient is larger than that of exit cohabitation. Adding the pretransition resources to the model also reduces the coefficient for entering coresidence with a social father (by thirty-three percent). But again, the coefficient continues to be statistically significant.

In Column 3, we add the posttransition resources to examine whether posttransition socioeconomic, social, and health resources explain the linkages between the family structure transitions and maternal parenting stress, controlling for pretransition resources. After adding the posttransition resources, the effect of each family structure transition is nonsignificant. The coefficients for exit marriage and exit cohabitation are reduced by 100 percent, two transitions is reduced by 51 percent, and entering coresidence with a social father is reduced by 62 percent.

We also examined the socioeconomic, social, and health resources separately to determine the explanatory power of each set of resources (results not shown). Among the
posttransition maternal resources, social resources, especially mothers’ current relationship with the biological father, account for most (about 85%) of the reduction in the family structure transition coefficients, and there was little overlap among the three sets of resources.

Posttransition socioeconomic and health resources each explain a small portion of the association between the family structure transitions and parenting stress. The same pattern is revealed when examining the explanatory power of pretransition socioeconomic, social, and health resources. In other words, social resources account for most of the reduction in the family structure coefficients when pretransition resources are included in the model.

**Family Structure Transitions and Parenting Stress by Level of Education**

The third goal was to investigate whether the linkages between family structure transitions and parenting stress depend on maternal education. In Table 3, we present the multilevel models predicting parenting stress for mothers with low (i.e., high school degree or less) and high (i.e., at least some college) levels of education. Among less educated mothers, exiting a marriage \((b = .54, p < .05)\), exiting a cohabitation \((b = .29, p < .05)\), and making two transitions \((b = .56, p < .05)\) are all associated with higher levels of parenting stress after accounting for the demographic controls and the pretransition resources. In contrast, these transitions are not associated with parenting stress for highly educated mothers.

Less educated mothers who enter a coresidential relationship with a social father, but not a biological father, also report higher levels of parenting stress as compared with mothers who remain in stable coresidential relationships \((b = .64, p < .001)\). Again, mothers with at least some college show a very different response. These mothers experience a marginal decrease in parenting stress when they move in with the biological father \((b = -.34, p < .10)\). Entering a coresidential relationship with a social father is also negatively associated with parenting stress, but the association is not statistically significant.
Interacting maternal education with the family structure transitions reveals that education moderates the association between exiting a marriage and parenting stress ($b = -.55, p < .10$). The interactions between maternal education and entering a coresidential relationship with the biological father ($b = -.62, p < .01$) and between maternal education and entering a coresidential relationship with a social father are also statistically significant ($b = -.91, p < .01$).

Discussion

A large body of literature has investigated the impact of various marital statuses on parent and child well-being. We are only beginning to understand, however, the effects of transitions and trajectories of family structures, especially those involving alternative family forms. Given the growing rate of family instability and nonmarital childbearing, gaining a better understanding of these various transitions and their effects on families is an important objective. This paper attempts to address the gap in the literature by investigating the associations between various family structure transitions and maternal parenting stress, the role of pretransition and posttransition resources in explaining these associations, and variation by maternal education.

First, we examined whether the family structure transitions of mothers who were single or coresiding with the biological father at the birth of their child influenced mothers’ reports of parenting stress. As expected, mothers who divorced or ended a cohabiting relationship with a biological father during the first five years of their child’s life experienced an increase in parenting stress. Interestingly, our findings indicate that these two forms of union dissolution have similar effects on parenting stress, suggesting that mothers’ perceptions of parenting-related stress following a separation were not contingent on the couples’ initial level of commitment. For mothers who were single at the birth of their child, entering into a coresidential relationship with a social father, but not a biological father, is associated with higher levels of parenting stress. This finding is consistent with research suggesting that women acquire fewer resources
related to parenting when they move in with a social father compared to a biological father (Hofferth & Anderson, 2003).

Finally, we find that not only the type of family structure transition matters but also the number of transitions. Mothers who make two transitions in a one- or two-year period report about twice as much parenting stress as those who make one transition out of a coresidential relationship. (Although entering coresidence with a social father and making two transitions have comparable effects on parenting stress, this is likely because mothers who repartnered with a social father have recently ended their nonresident relationship with the biological father.) The recent work of Cavanagh and colleagues (2006, 2006) as well as Osborne and McLanahan (in press) demonstrates that the number of changes in a resident parent’s marital trajectory is an important predictor of child and adolescent development. The results of the present study suggest that multiple family structure transitions may also disrupt the well-being of parents.

Second, we examined the extent to which pretransition and posttransition maternal resources account for the associations between family structure transitions and parenting stress. We find that the socioeconomic, social, and health resources that mothers have prior to making a transition explain very little of the negative impact of family structure transitions on parenting stress. Instead, posttransition resources (especially mothers’ relationship with the biological father) appear to account for the higher levels of parenting stress reported by mothers in unstable living arrangements. When mothers separate from biological fathers, repartner with social fathers, or make both of these transitions within a short period of time, decreases in the quality of their relationship with the biological father negatively influences mothers’ perceptions of the demands associated with parenting.

As discussed, research has found that pretransition characteristics and resources are key factors in explaining the effects of union transitions (Gotlib & McCabe, 1990). The results of
this study, however, suggest that differences in levels of parenting stress between mothers who have stable versus unstable coresidential relationships are likely due to posttransition changes in resources and not preexisting maternal resources. These findings contribute to our understanding of how trajectories of family structure impact the well-being of parents and the role of selection and causation in accounting for the negative effects of instability on families.

Finally, we examined whether maternal education moderates the associations between family structure transitions and parenting stress. We find that the effects of transitions on parenting stress depend on mothers’ levels of education and that changes in family structure are not automatically associated with parental stress. Union dissolution with a biological father and union formation with a social father increases parenting stress for less educated mothers. In contrast, educated mothers who undergo family structure transitions never perceive increases in parenting-related stress. In fact, mothers with higher levels of education report decreases in parenting stress when they move in with their child’s biological father. These findings suggest that highly educated mothers are better able to cope with a union disruption and are more likely to gain from the formation of a new union. The education difference could be due to a greater access to resources or greater control over the timing of transitions and the conditions under which they occur. For example, educated mothers may be in a better position to pursue child support from nonresident fathers, and they may be better able to delay forming new partnerships until they find a suitable mate.

Despite its contributions to our understanding of parenting stress in the context of family instability, the study is not without limitations. First, because we are not able to control for all possible pretransition resources (e.g., mothers’ mental health) that may affect transitions as well as parenting stress, we cannot rule out the possibility that selection is responsible for increases in maternal parenting stress. Our interaction findings, however, are inconsistent with a strict
selection argument, which would predict negative effects for all education groups. Future research investigating a wider range of preexisting maternal characteristics and resources that may be related to both transitions and parenting stress is needed to provide support for our findings. Second, by following mothers over time, we lose some of the original sample. But because mothers who left the study were less advantaged and reported higher levels of stress than mothers in the analytic sample, our findings likely underestimate the effects of family structure transitions on parenting stress. Third, our parenting stress measure may not adequately capture all the ways in which mothers experience stress in their roles as parents. For example, the research of Crnic and colleagues (1995, 2005), in particular, has demonstrated that daily hassles related to parenting have strong effects on parenting practices and child development. Thus, it will be important for future research to replicate the findings in this study with a more comprehensive set of parenting stress items.

This study took an important first step in examining the impact of various forms of family instability on maternal parenting stress, a key predictor of parent and child outcomes. When mothers with low levels of education separate from their young child’s biological father or repartner with a social father, they experience losses in social resources that place them at risk for perceiving high levels of stress as parents. Finding ways to minimize this risk, perhaps by improving parent relationships following separation as is suggested here, should be of utmost importance to both researchers and policy makers.
References


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<th>Variables</th>
<th>Wave 1</th>
<th>Wave 2</th>
<th>Wave 3</th>
<th>Wave 4</th>
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</table>

\(^a\)Ranges from 0 to 12 with high scores indicating high levels of parenting stress.  \(^b\)Mothers who exit a coresidential relationship with the biological father and then enter a coresidential relationship with a social father within an observation period.  \(^c\)Mothers who experienced transitions in previous observation periods.  \(^d\)Ranges from 0 (less than a high school degree) to 3 (college degree or more).  \(^e\)At Wave 1, amount of money typically leftover at the end of the month (0 = some, 1 = just enough, 2 = not enough).  At Waves 2, 3, and 4, 1 = Mother received free food, did not pay full amount of rent or mortgage, had gas or electricity shut off, or had someone in their home who needed medical care but could not afford it.  \(^f\)At Wave 1, weekly hours of employment at current or most recent job.  At Waves 2, 3, and 4, weekly hours of employment at current job.  \(^g\)Ranges from 0 to 3 with high scores indicating high levels of support.  \(^h\)At Wave 1, ranges from 0 to 12 with high scores indicating high levels of conflict between mother and biological father while they were romantically involved.  At Waves 2, 3, and 4, mothers reported quality of current relationship with biological father (0 = poor to 4 = excellent).  \(^i\)0 = never to 4 = once a week or more.  \(^j\)At Wave 1, mothers reported whether one or both of her biological parents had a problem with depression or anxiety (0 = no, 1 = yes).  At Waves 2, 3, and 4, 1 = Mother met diagnostic criteria for Major Depressive Episode.  \(^k\)Self-rated overall health: 0 = poor health to 4 = great health.  \(^l\)0 = no, 1 = yes.
Table 2
*Time-Varying Relationship Transitions, Maternal Resources, and Parenting Stress (N = 2,753)*

<table>
<thead>
<tr>
<th>Coresident at birth</th>
<th>Base Model</th>
<th>Pretransition Resources</th>
<th>All Resources</th>
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<td>Exit marriage</td>
<td>.32†</td>
<td>.26</td>
<td>-.02</td>
</tr>
<tr>
<td>Exit cohabitation</td>
<td>.29**</td>
<td>.19†</td>
<td>.00</td>
</tr>
<tr>
<td>Two transitions§</td>
<td>.56**</td>
<td>.47*</td>
<td>.23</td>
</tr>
<tr>
<td>Nonresident at birth</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Enter coresidence with biological father</td>
<td>.06</td>
<td>-.07</td>
<td>-.14</td>
</tr>
<tr>
<td>Enter coresidence with social father</td>
<td>.55***</td>
<td>.37**</td>
<td>.14</td>
</tr>
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</table>

Note: All models control for stably single mothers and mothers who make transitions in more than one observation period. Models also control for maternal age, race/ethnicity, immigrant status, number of other biological children at each wave, child gender, and low birth weight (omitted from table). Stably coresiding with the biological father is the reference category. Mothers who exit a coresidential relationship with the biological father and then enter a coresidential relationship with a social father. ḩp < .10. *p < .05. **p < .01. ***p < .001.
<table>
<thead>
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<th></th>
<th>High Education (^a)</th>
<th>Low Education (^b)</th>
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<tr>
<td>Coresident at birth</td>
<td></td>
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</tr>
<tr>
<td>Exit marriage</td>
<td>.02</td>
<td>.54*</td>
</tr>
<tr>
<td>Exit cohabitation</td>
<td>.11</td>
<td>.29*</td>
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<tr>
<td>Two transitions(^c)</td>
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Note: Models control for stably single mothers, mothers who make transitions in more than one observation period, demographic characteristics, and pretransition maternal resources (omitted from table). Stably coresiding with the biological father is the reference category. 
\(^a\)Mothers with high levels of education have at least some college education. \(^b\)Mothers with low levels of education have a high school degree only or less education. \(^c\)Mothers who exit a coresidential relationship with the biological father and then enter a coresidential relationship with a social father. 
\(^\dagger\)\(p < .10\). \(^*\)\(p < .05\). \(^**\)\(p < .01\). \(^***\)\(p < .001\).