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Partnership Transitions and Maternal Parenting

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Abstract

We use data from the Fragile Families and Child Wellbeing Study ($N = 1,975$) to examine the association between mothers' partnership changes and parenting behavior during the first five years of their children's lives. We compare coresidential with dating transitions, and recent with more distal transitions. We also examine interactions between transitions and race/ethnicity, maternal education and family structure at birth. Findings indicate that both coresidential and dating transitions were associated with higher levels of maternal stress and harsh parenting; recent transitions had stronger associations than distal transitions. Maternal education significantly moderates these associations, with less educated mothers responding more negatively to instability in terms of maternal stress, and more educated mothers responding more negatively in terms of literacy activities.

Keywords

family structure; Fragile Families; parenting; single-parent families; stability

Partnership Transitions and Maternal Parenting

Increases in cohabitation and non-marital childbearing during the past few decades have led to increases in children's exposure to the instability that arises when a mother ends a relationship with her child's biological father and searches for a new partner (Fomby & Cherlin, 2007; Osborne & McLanahan, 2007). Theory suggests that these partnership transitions should be considered not as discrete events but rather as cumulative stressors, with prior instability shaping the context of adaptation for new relationships (Holmes & Rahe, 1967). To date, however, most research on partnership instability has focused on discrete events such as divorce and remarriage rather than multiple transitions. Furthermore, the few studies that have examined multiple transitions have primarily focused on older children and adolescents (Cavanagh & Huston, 2008; Fomby & Cherlin, 2007; Wu & Martinson, 1993; Wu & Thompson, 2001). We build upon this literature by focusing on the association between multiple partnership transitions and a broad range of mothers' parenting behaviors during early childhood. Early maternal parenting is strongly associated with children's emotional, social and cognitive well-being (Bornstein, 2002; Brooks-Gunn & Markman, 2005; Collins et al., 2000). Thus, understanding the ways in which partnership

instability shapes mothers' care-taking behavior and children's home learning environments can add clarity to our models of family dynamics and enhance the efficacy of family oriented policies and interventions.

This paper addresses three research questions: 1) Are multiple partnership transitions during early childhood associated with maternal parenting quality? 2) Do the type and proximity of partnership transitions matter? And 3) are the associations between transitions and parenting quality moderated by race/ethnicity, maternal education or mothers' union status at birth? We extend previous research by documenting the prevalence of partnership instability spanning the first five years of a child's life, focusing on a broad set of parenting measures (including maternal stress, literacy activities, and discipline practices), comparing different types of instability (coresidential versus dating), and examining the timing of mothers' exposure to instability. We also test for interactions between partnership instability and mothers' race/ethnicity, education, and union status at birth. We utilize data from the *Fragile Families and Child Wellbeing Study* which follows a sample of children from birth to age five. These data contain a large oversample of non-marital births and are ideal for examining partnership changes and parenting during early childhood.

Maternal Parenting during Early Childhood

A large literature links positive parent affect and behavior on the one hand and healthy child development on the other. Maternal stress and the quality of mother-child interactions during early childhood, in particular, are thought to have strong influences on children's developmental trajectories (Crnic, Gaze & Hoffman, 2005; Landry, Smith, & Swank, 2003; Scaramella & Leve, 2004). In the present study, we focus on mothers' parenting-related stress and two parenting behaviors that are key predictors of early child well-being: harsh discipline and literacy-promoting behaviors.

First, 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 surprising, then, mothers who experience high levels of parenting stress report greater psychological distress and their young children score lower on measures of socioemotional and cognitive well-being (Crnic, Gaze & Hoffman, 2005). Second, the use of harsh discipline, in the form of physical or psychological punishment, is a strong predictor of behavioral problems during childhood and adolescence (Caples & Barrera, 2006; Gershoff, 2002). Finally, the extent to which mothers engage their young children in literacy-promoting activities in the home (e.g., book reading) is especially important for early language and school readiness outcomes (Raikes et al., 2006; Sénéchal & LeFevre, 2002).

Partnership Transitions and Parenting

Partnership transitions, such as marriage, divorce and remarriage, are viewed as stressful life events for the adults involved as well as the children who live with and are cared for by these adults (Holmes & Rahe, 1967). Stress, in turn, is thought to "spillover" into the parent-child relationship, altering the quality, quantity, and consistency of mothers' parenting (Engfer, 1988). Indeed, prior research indicates that coresidential transitions increase psychological distress, including parenting-related stress (Cooper, McLanahan, Meadows, & Brooks-Gunn, 2009; Meadows, McLanahan, & Brooks-Gunn, 2008), and reduce mothers' capacity for positive parenting (Amato & Booth, 1996; Hetherington, Cox, & Cox, 1982; but see Gibson-Davis & Gassman-Pines, forthcoming). Similarly, dating is expected to reduce the time mothers spend with their children, although to our knowledge no research directly tests this thesis (Gibson-Davis, 2008). Finally, partnership changes are expected to disrupt family rules and routines, increasing uncertainty in parenting (Hetherington, 1989).

In addition to the direct effects described above, family process or stress models (see for example, Conger et al., 1992) suggest that partnership changes set off a series of secondary changes that may ultimately impact maternal parenting. For example, research shows that divorce, remarriage, and, more recently, cohabitation exits are associated with changes in economic resources and residential moves, which can break neighborhood ties and reduce social support from local friends (Avellar & Smock, 2005; Holden & Smock, 1991; McLanahan & Sandefur, 1994). Whereas previous research indicates that family routines, including parenting, return to baseline levels after a period of time, recovery can only occur in the absence of additional changes, including subsequent partnership transitions (Hetherington, 1989). Drawing on theory and prior research, we hypothesize that:

- (1) Multiple partnership transitions are negatively associated with the quality of mothers' parenting.

Type and Proximity of Instability

Whereas all partnership transitions are likely to be stressful for mothers, coresidential transitions are expected to be substantially more difficult than dating transitions. To begin with, mothers may experience greater emotional upheaval during coresidential transitions due to the higher level of commitment typically associated with living together. Further, coresidential transitions are more likely to involve a change in daily routine, an income change or a residential move. Although research suggests that dating transitions contribute to a family's overall experience of instability (Osborne & McLanahan, 2007), only one study to date has compared these two types of transitions (Cooper, Osborne, Beck, & McLanahan, 2008). We improve on previous research by including dating transitions as part of the overall experience of family instability and by comparing the strength of the associations between types of transitions and mothers' parenting behaviors. We hypothesize that:

- (2) *Transitions in coresidential unions (marriage and cohabitation) are more negatively associated with mothering quality than transitions in dating unions.*

We also examine the importance of proximity for understanding the association between family instability and parenting. Family stress theory (McCubbin & Patterson, 1983) implies that proximate stressors are likely to be more salient than distal stressors. Indeed, Hetherington (1989) argues that families return to baseline levels approximately two years after a divorce in the absence of additional stressors. Yet, few studies have focused on timing in a multiple transition framework (Cavanagh & Huston, 2008). Taking into account multiple rather than discrete transitions, we hypothesize that:

- (3) Recent instability will be more strongly associated with poor mothering quality than more distal instability.

Moderating Effects: Race/Ethnicity, Maternal Education, and Family Structure at Birth

Understanding the association between family instability and maternal parenting requires an examination of the context in which instability occurs. In this study, we examine three factors that have been shown to moderate the association between instability and outcomes: mothers' race/ethnicity, mothers' education, and mothers' marital status at birth. At least two studies have found that the association between instability and child well-being is stronger for Whites than for Blacks (Fomby & Cherlin, 2007; Wu & Thompson, 2001), suggesting that groups with higher exposure to instability may be less affected than groups with lower exposure, possibly because of greater access to extended kin networks and more cultural acceptance of single motherhood (Hogan, Eggenbeen, & Clogg, 1993; Oropesa & Landale, 2004). In contrast, a recent study finds that relationship transitions may be more detrimental for Hispanic mothers' parenting (Gibson-Davis & Gassman-Pines,

forthcoming), which is inconsistent with the argument that higher prevalence or the presence of extended kin lead to weaker effects but consistent with the argument that cultural norms may affect mothers' response to instability. Research indicates that unmarried Hispanic mothers place a higher value on marriage than unmarried White or Black mothers, and that marriage and long-term cohabitations are more normative for Hispanics than for Blacks (Cherlin, 2005; Tucker, 2000).

In addition to race/ethnicity, research suggests that mothers' education and marital status at birth also moderate the effects of partnership instability. With respect to education, Cooper and colleagues (2009) find that mothers with high levels of education are less likely to experience parenting stress following a partnership change than mothers with low levels of education. With respect to marital status, the negative impact of partnership instability on children's disruptive behavior may be greater for children born to unmarried mothers than children born to married mothers (Cavanagh & Huston, 2006; but see Osborne & McLanahan, 2007). In both cases, these findings suggest that mothers with more material and socioemotional resources are better able to cope with the uncertainty associated with partnership change than mothers with fewer resources (Carlson & McLanahan, 2006). Based on these findings, we hypothesize that:

- (4) The association between family instability and parenting is more negative for Hispanics and Whites than for Blacks,
- 5) The association between family instability and parenting is more negative for mothers with only a high school degree (or less) than for mothers with at least some college, and
- (6) The association between family instability and parenting is more negative for mothers who have children outside marriage than for married mothers.

Selection Bias and Controls

Thus far we have presented arguments for why family instability would have a causal effect on mothers' parenting. An alternative explanation is that mothers who experience high levels of partnership instability may have other characteristics that cause both union instability *and* parenting difficulties. Recent research suggests that selection may explain a part of the observed effects of family instability on maternal stress and child well-being (Cooper et al., 2009; Fomby & Cherlin, 2007), although no research has focused on parenting practices. To deal with the problem of omitted variable bias, we control for a host of characteristics of mothers and children that are expected to be associated with both partnership instability and maternal parenting, including mothers' race/ethnicity, socioeconomic status, and prenatal health and health behaviors (e.g., smoking, drinking, and mental health problems) which are known to be associated with partnership instability and parenting quality (Carlson, McLanahan, & England, 2004; McLoyd, 1990). We also control for a number of other characteristics that are not commonly available in other data sources, including mothers' own exposure to family instability during childhood, fertility intentionality, pre-birth partnership instability, and cognitive ability, all of which may affect mothers' ability to maintain stable relationships and engage in positive parenting. Finally, we control for child sex and birth weight, both of which have been shown to be associated with partnership instability and difficult parenting (Reichman, Corman, & Noonan, 2004; Straus & Stewart, 1999).

Method

Data

We use data from the Fragile Families and Child Wellbeing Study which uses a longitudinal birth-cohort design (see Reichman et al. 2001 for detailed sampling information). The Fragile Families data follows children born between 1998 and 2000 ($N = 4,898$), of which approximately 75% were born to unmarried women (by design). Data was collected from both mothers and fathers at birth, and at one, three and five years following birth. Additionally, we utilize a special In-Home module added during the three and five year data collections designed to assess the physical environment and parenting through direct observation. Approximately 72% of mothers in the core survey took part in the In-Home survey, with approximately 69% of mothers in the latter group completing both the survey and observational component.

The analytic sample for this paper is limited to respondents who participated in the observational component of the In-Home survey in Wave 4 ($n = 2,061$). We followed this strategy to compare results based on self-reported mothering with results based on observational data. We also estimated models using the larger sample and mothers' self-reported parenting, and these models yielded similar results to those presented here with the smaller sample. Finally, we excluded a small number of mothers who had lived apart from their child ($n = 65$), and mothers with missing information on one of the dependent variables, yielding a sample of 1,975 mothers. Multiple imputation was used to supplement missing information on the predictor variables but not the dependent variables. Allowing for some missingness (no more than half of any scale) on the dependent variables to be imputed did not substantially alter our findings. Additional analyses indicated that our analytic sample was not systematically more or less advantaged than the original sample (available upon request).

Measures

Literacy-promoting activities are measured as the mean number of days per week mothers report engaging in activities including: reading stories, telling stories and singing songs ($M = 4.5$, $\alpha = .67$).

Harsh discipline is based on mothers' reports of how often they engage in various forms of discipline in the preceding year. The items for this measure are taken from the Conflict Tactics Scale (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Five items tap into psychologically harsh parenting, including: shouting/yelling/screaming at child, cursing/swearing at child, calling child a name, threatening to spank, or threatening to kick child out of the home. Five additional questions measure different types of corporal punishment such as shaking, hitting, spanking, slapping and pinching child. The response categories indicate the frequency of the act, including: never, once, twice, three to five times, six to ten times, eleven to twenty times and more than twenty times. These responses are recoded to the midpoint (0, 1, 2, 4, 8, 15, and 25), summed, and divided by the number of items such that the scale represents the average frequency of harsh parenting practices ($M = 4.1$, $\alpha = .74$).

Parenting Stress is based on mothers' 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 serves as the final scale ($M = 4.7$, $\alpha = .65$).

Observed Parenting: Harshness and Literacy Investments

As a robustness check, we utilize interviewer reports of mothers' behavior in the home. These assessments are used to create two conceptually driven subscales capturing punitive punishment and high language/literacy (Bradley & Caldwell, 1977). The punitive subscale includes the following items: mother shouts, expresses annoyance, spansks, scolds or criticizes ($\alpha = .72$). Given the rarity of harsh behavior during the interview, we dichotomize the outcome to indicate that any harsh behavior was observed (21.1%). The language/literacy subscale captures the types of toys the child has in the house. Items are first dichotomized in the following way: mothers are given a value of "1" if 3 or more toys with 8 different development encouraging properties were observed during the visit. These dichotomized items are summed to create a total scale ($M = 5.7, \alpha = .83$).

Partnership Transitions

At each wave, mothers were asked whether they were involved in a romantic relationship, whether they were living with the partner (married or cohabiting), and whether, if applicable, the current partner was the same partner identified in the previous wave. From these pieces of information, we generate counts of both dating and coresidential transitions between Waves 1 and 3. Following Osborne and McLanahan (2007), we also use an indirect method to ascertain additional dating relationships between Waves 1 and 3. Mothers who reported a pregnancy between two interviews are coded as having entered and exited a dating relationship if they reported not having a partner at either time point; this results in few additional transitions, but maintains consistency with previous work utilizing Fragile Families. At Wave 4, mothers were asked directly how many romantic relationships lasting at least one month they had since the last interview and whether they lived with any of these partners. From these responses and current status information, we determine counts of dating and coresidential transitions between Waves 3 and 4. Because mothers were not directly asked about the number of romantic relationships at earlier waves, we are likely undercounting transitions between Waves 1 and 3. Note also that our measure of coresidential transitions does not examine whether mothers are changing places of residence, only whether they are transitioning into or out of a marriage or cohabitation. Finally, we measure the total number of transitions between Waves 1 and 4 by summing the counts of coresidential and dating transitions. To illustrate these measures, if a mother reported cohabiting with the biological father at baseline and Wave 2, single status at Waves 3 and 4, and two additional dating relationships between Waves 3 and 4; she would have one coresidential transition (an exit), four dating transitions (two entrances and two exits), and five total transitions over the period. For all types of transitions, squared terms were also used to test for nonlinearity, but these squared terms were never significant and thus were excluded from our final models.

To examine the importance of transition proximity, we distinguish between coresidential transitions that occurred between Waves 1 and 3 (birth and age 3) and those that occurred between Waves 3 and 4 (ages 3 and 5). We choose to focus on coresidential changes because our indirect method of computing transitions between Waves 1 and 3 is more accurate for coresidential transitions than for dating transitions. Mothers report, on average, a large number of dating partners between Waves 3 and 4, whereas our approximation method yields a substantially lower average (and smaller range) for dating transitions between Waves 1 and 3. In contrast, our measures of early and recent coresidential transitions are much more similar.

Controls

All models control for the following demographic characteristics: maternal age in years at baseline, age in years at birth of first child, race/ethnicity (dummy variables for Black,

Hispanic, White, and Other), immigrant status (1 = *not born in United States*), education (dummy variables for less than high school, high school, some college, college), parity (1 = *first born*), self-rated health at Wave 1 (1 = *great* to 5 = *poor*), child gender (1 = *male*), and child low birth weight (1 = *below 2500 grams*). Following the work of Fomby and Cherlin (2007), all models also control for Wave 1 and Wave 4 marital status, measured as “not married to the biological father” (0 = *married*, 1 = *not married*). Preliminary analyses suggested no significant differences among those not married to the biological father (i.e., married to social father, cohabiting with social father, cohabiting with biological father, single); thus these groups were collapsed. Mothers’ intelligence is measured using the Wechsler Adult Intelligence Scale-Revised similarities subtest score (Wechsler, 1981). Prior instability is the number of romantic relationships ending with the biological father. We also measure whether mothers lived with both parents at age 15, considered an abortion during pregnancy with the focal child, smoked at least part of a pack each day while pregnant, and used alcohol at least several times a month while pregnant.

Analyses

Our first models include the total number of transitions (Models 1a and 1b). In Models 2a and 2b, we distinguish between coresidential and dating transitions. Models 3a and 3b distinguish between distal (first three years of child’s life) and recent coresidential transitions. Models with the subscript *a* include a standard set of demographic controls, whereas those noted *b* include additional controls to further ameliorate selection bias. Interactions between total transitions and maternal education, race/ethnicity, and family structure at baseline are introduced in Models 4, 5, and 6 respectively. Standard OLS models are used for the maternal stress, literacy time investments, and harsh parenting subscales.

We attempt to mitigate selection bias by including a rich set of controls that we expect to be related both to parenting practices and instability. We also conduct a series of robustness checks for measurement error, model specification and selection, which are discussed in more detail below. We compare self-reported literacy and harsh punishment with observed literacy and harsh parenting. We also examine models with alternative specifications of family structure. Finally, we examine whether there is evidence that parenting at age 3 is predicted by transitions between ages 3 and 5. Although none of these solutions is perfect, taken in combination, they suggest the robustness of our estimates to various sources of bias.

Results

Before turning to the regression results, we briefly describe the prevalence of instability in our sample. We found that the pattern documented in previous work by Osborne and McLanahan (2007) continued between ages three and five, with married mothers (at birth) showing much lower instability. Among mothers who were married at the child’s birth, 23.6% experienced one or more partnership changes and 13.1% experienced three or more changes. In contrast, among mothers who were unmarried at birth, 83% experienced at least one partnership change in the first five years of their child’s life, with approximately 50% experiencing three or more transitions during this time period. Nearly all (98%) of the unmarried mothers who did not experience a change during the five year period were living with the biological fathers of their children at birth and remained in cohabiting relationships (or transitioned into marriage with the biological father). Only two percent of unmarried mothers who were single at birth experienced no relationship changes, suggesting that researchers may need to reconsider the definition of stably single.

These disparities in instability were also present in patterns of both coresidential and dating transitions. For mothers who were married at baseline, 20.8% experienced one or two coresidential changes, whereas less than two percent experienced three or more total

transitions. The proportions were similar for dating transitions, highlighting a common instability pattern for this group: divorce followed by a small number of dating transitions. For mothers who were unmarried at birth, approximately 50% experienced one or two coresidential changes, and 10% experienced three or more. On average, unmarried mothers experienced more dating than coresidential transitions; 33% of unmarried mothers experienced one or two dating transitions, and 24% experienced three or more.

The first aim of this paper was to examine whether partnership transitions during a child's first five years were negatively associated with parenting quality at age 5. Table 2 presents the results of OLS models predicting maternal parenting stress, harsh parenting practices and literacy-promoting behaviors.

In Models 1a and 1b, we introduced a measure of total partnership instability from birth to age 5. In Model 1a, we found that each additional partnership transition was associated with a higher level of self-reported maternal stress ($\beta = 0.204, p < .001$). The estimate was slightly reduced ($\beta = 0.183, p < .001$) once more extensive controls were introduced (Model 1b). Instability was also associated with a higher frequency of reported harsh parenting ($\beta = 0.133, p < .01$); this association remained after the introduction of more extensive controls ($\beta = 0.107, p < .05$). We did not find a significant association between instability and literacy behaviors, although the estimate was in the expected negative direction.

Our second aim was to investigate whether the type or proximity of instability was associated with maternal parenting. We expected the associations to be stronger for coresidential transitions and recent transitions as compared to dating and distal transitions, respectively. Beginning with the *type* of transitions, Models 2a and 2b included separate measures of the total number of coresidential and dating transitions. In Model 2a, we found that both coresidential and dating transitions were positively associated with increases in reported maternal stress, ($\beta = 0.176, p < 0.01$) and ($\beta = 0.213, p < 0.001$) respectively. Although the coefficient for dating transitions was larger than the coefficient for coresidential transitions, a Wald test indicated that the difference between the two estimates was not significant. As before, the point estimates were reduced but remained statistically significant (Model 2b) after introducing the more extensive set of controls. Coresidential and dating instability were also positively associated with a higher frequency of self-reported harsh parenting practices, ($\beta = 0.244, p < 0.01$) and ($\beta = 0.099, p < 0.10$) respectively, with coresidential transitions showing a significantly stronger effect. Although the estimate for dating transitions lost statistical significance after the more extensive controls were introduced, the coefficient remained in the expected direction. Additionally, in Model 2b, the difference between the two coefficients became non-significant. As before, we found no significant association between dating or coresidential transitions and literacy-promoting behaviors.

Turning to the *proximity* of relationship transitions, Models 3a and 3b introduced measures of distal coresidential transitions measured from birth to age 3 and recent coresidential transitions measured from ages 3 to 5. Distal coresidential transitions had a negative but non-significant association with parenting stress, whereas recent transitions were significantly associated with maternal stress ($\beta = 0.275, p < 0.05$); this pattern held after including additional controls (Model 3b). Recent coresidential transitions also significantly increased the reported frequency of harsh parenting ($\beta = 0.302, p < 0.05$). Although not significant, distal coresidential changes also ran in the expected positive direction. For both maternal stress and harsh parenting, Wald tests indicated that the estimates for distal and recent coresidential transitions were significantly different. Finally, recent coresidential transitions were negatively associated with literacy-promoting behaviors, but these associations did not reach statistical significance. Contrary to expectations, distal

coresidential transitions were significantly associated with modest *increases* in literacy behaviors. Separate analyses (not presented but available upon request) suggested that this association was positive for Black mothers only. For White and Hispanic mothers, distal coresidential transitions were negatively associated with literacy behaviors, although neither association reached statistical significance.

In summary, we found that total transitions were negatively associated with maternal parenting stress and harsh parenting practices but not literacy-promoting behaviors. Coresidential and dating transitions were independently associated with both maternal stress and harsh parenting, and the coefficients were not significantly different from one another. Finally, we found that distal, but not recent, coresidential transitions were associated with small increases in literacy-promoting behaviors.

Control Variables

The controls included in our final models largely ran in the expected direction (not presented but available upon request). To provide a basis of comparison, the point estimates for family structure at birth, education, race/ethnicity and immigrant status were generally twice (or more) as large as the point estimate for each transition. Instability tended to be similar in magnitude to child characteristics such as first born and gender.

Moderating Effects

Our third aim was to determine whether the associations between partnership transitions and parenting quality varied by maternal education, family structure at birth, and by race/ethnicity. We hypothesized that the negative associations between instability and high quality parenting would be weaker for mothers who were Black, college educated and married at birth.

For maternal parenting stress, we found that the positive associations with partnership transitions were significantly larger for mothers with a high school degree or less as compared with mothers with more education. In contrast, for literacy-promoting activities, we found that the negative associations with partnership transitions were larger for mothers at the high end of the educational distribution. Indeed, with additional partnership transitions, more educated mothers quickly lose the large literacy advantage they hold over less educated mothers. We found no significant interactions for harsh parenting.

The interactions effects are depicted in Figures 1 and 2 for maternal parenting stress and literacy activities, respectively. As shown, mothers with less than a high school degree, when stable, reported the highest levels of maternal stress, and each transition further increased stress by 0.146 (0.274-0.128). Although high school graduates reported the lowest levels of maternal stress at zero transitions, they also reported the greatest increases in stress with additional transition ($\beta = 0.274, p < .001$), indicating a convergence of the least educated groups at higher counts of transitions. Figure 1 also shows that both high school graduates and mothers with some college quickly surpassed the level of stress reported by college graduates with two transitions (65% and 57% of high school graduates and some college mothers experienced at least two, respectively). All partnership transitions decreased total literacy among mothers with some college experience and college degrees, but exerted no change in literacy behaviors among less educated mothers. As shown in Figure 2, with only one transition, college educated mothers fell below the level of mothers with some college. With two transitions, their literacy activity levels were similar to those of mothers with only a high school degree (24% of college educated mothers experienced at least one transition and 20% experienced two or more transitions).

Robustness Checks

We carried out a number of robustness checks for both our measures and our models. As observed measures are thought to be more objective than mother-reported measures, we replicated the literacy and harsh parenting models discussed in the previous section, substituting the observed measures of home literacy investments and harsh parenting for the self-reported ones. Our observed literacy measure showed substantial concordance with the self-reported measure (results available upon request). In a few cases, the coefficients were not statistically significant, but the signs were always in the same direction. The similarity of the results was particularly striking given that self-reported time investments and observed literacy-promoting materials represent two separate, though related, dimensions of literacy promotion. For observed harsh parenting, the instability estimates were similar in sign, but none were statistically significant. The observed harsh parenting should be interpreted with some caution, however. Differences between the self-reported and observed harsh parenting measures may reflect a social desirability bias (mothers avoiding harsh parenting in front of the interviewer), or a power problem with the observed measure (a dichotomous rather than a continuous measure) rather than reflecting a lack of support for our self-reported harsh parenting findings.

With respect to our models, we conducted two additional tests. Whereas the inclusion of controls for family structure at both birth and year 5 was modeled after previous research (Fomby & Cherlin, 2007), we also examined whether our transition estimates were sensitive to the exclusion of either baseline or year 5 family structure controls. Dropping the baseline family structure control did not change the results; excluding the control for marriage to biological father at year 5, however, resulted in slightly reduced estimates. This finding suggests that not accounting for the benefit associated with a transition into marriage with the biological father leads to an underestimate of the negative impact of instability overall. Second, to test for whether a third unobserved variable was causing both partnership transitions as well as mothers' parenting behavior, we conducted analyses in which transitions between Waves 3 and 4 were regressed on parenting variables measured at Wave 3, controlling for instability between birth and Wave 3. If future transitions were associated with current parenting, this would be consistent with a third variable argument. Only in the case of maternal stress was instability between Waves 3 and 4 a significant predictor of parenting at Wave 3. Note that these results could also have occurred if mothers' stress was due to anticipation of a partnership change. Our data did not allow us to adjudicate between these two explanations.

Discussion

To understand the association between partnership instability and early maternal parenting, this paper investigated six hypotheses. First, we expected that multiple partnership transitions would be negatively associated with the quality of mothers' parenting. We also expected that coresidential transitions would have a stronger negative impact on parenting than dating transitions, and that proximate changes would prove more detrimental to mothers' parenting than distal changes. Finally, we hypothesized that the negative association between instability and parenting would be stronger for Whites and Hispanics, relative to Blacks, for unmarried-at-birth mothers relative to married mothers, and for mothers with less education relative to more educated mothers.

Beginning with our first hypothesis, we found that the impact of total partnership instability was in the expected direction, increasing maternal stress and harsh parenting, and decreasing literacy-promoting behaviors. The association reached statistical significance for both maternal stress and harsh parenting, and the consistent pattern across outcomes suggests that instability is associated with a broad range of maternal parenting behaviors. Importantly, we

also found that results using interviewer-reported HOME measures mirrored results using mother-reported harsh parenting and literacy-promoting measures in terms of direction, although neither association was statistically significant.

Second, with regard to type of transition, we found that both coresidential and dating transitions had a significant negative impact on parenting stress and harsh parenting, with coresidential estimates appearing larger in magnitude for harsh parenting only. Statistical tests, however, indicated that we could not reject the equivalence of these estimates. Our findings in this respect suggest that dating transitions represent an important dimension of partnership instability for mothers' parenting and that future work should continue to document and examine the nature and impact of dating in the lives of women with children.

Third, in line with expectations, we found that recent coresidential transitions had a larger impact on both maternal stress and harsh parenting than more distal changes. Contrary to expectations, however, we found that distal coresidential changes were associated with increases in literacy-promoting behaviors. Supplementary investigations (not reported here) suggested that this finding was limited to Black mothers, including mothers who were coresiding as well as those single at birth. Although future research is necessary to gain a better understanding of why instability is positively associated with literacy activities, at least one other study has found similar evidence. Using ECLS-B data, Gibson-Davis and Gassman-Pines (forthcoming) reported that a change in family structure in early childhood was positively related to maternal cognitive stimulation.

Finally, with regard to the interactions, we found mixed evidence for our hypothesis that highly educated mothers are less affected by partnership transitions than mothers with lower levels of education. Whereas the pattern for maternal stress was in the expected direction, the pattern for literacy activities was in the opposite direction (i.e., the negative association between instability and literacy was stronger for college educated mothers). The latter finding may relate to the amount of time highly educated mothers spend with their children on literacy-promoting activities. If these mothers devote more time to activities like reading and storytelling than other mothers (Suizzo & Stapleton, 2007), then time distractions may have a greater negative effect on this group.

Limitations

Despite its contributions to the growing body of research on partnership instability, the present study has a number of limitations. First, the study is limited by our measurement of partnership instability. For example, Fragile Families data contain no direct measure of the number of coresidential and dating relationships that occur before the child is age 3, and thus we likely underestimate these transitions, especially dating transitions. The data also preclude us from capturing cohabitations or dating relationships that last less than a month. Although short-term dating and cohabitating relationships are likely to entail some degree of maternal stress, we suspect that these shorter term relationships are less disruptive to parenting behaviors and family organization than longer term relationships. Future study, with alternative data, should examine the ways in which the more tenuous, short-term dimensions of the mate search process may impact a mother's time, energy and ability to parent. An additional limitation inherent in virtually all data measuring cohabitation is the substantial heterogeneity in mothers' definitions of what constitutes cohabiting (Brown & Manning, 2009). The fuzzy line between cohabiting and dating may explain why we do not detect a significant difference between these two types of transitions. Data limitations also preclude us from determining whether differences between distal and recent transitions are due to a 'recency effect' (as we imply) or to a developmental effect (child age). Ideally, to parse out the influences of both age and timing, we would employ sibling comparisons or utilize multiple cohorts of children; neither option is available with these data.

Second, this study is somewhat limited by our measures of early maternal parenting. Fragile Families data do not assess maternal parenting between waves, making it difficult to link the timing of transitions to parenting. Our measure of literacy-promoting behaviors is also limited in terms of the dimensions it covers. For example, we lack information on the amount of time spent on literacy activities each day as well as the quality of the activities.

Third, in our review of the literature, we highlighted the potential for further disadvantage stemming from residential moves and resource changes that often accompany partnership transitions. Unfortunately, the data does not measure the timing of residential and resource changes between survey waves, and thus we cannot examine these potential co-occurring changes as mediating processes. Also, the impact of an exit or entrance may vary by the quality of the mother-father relationship. As before, we are unable to test this hypothesis because information on the quality of couples' relationships between survey waves is not available.

Finally, in a limitation inherent to non-experimental data, we cannot be sure that associations observed in the data are causal in nature. Although our attempts to address this issue are not perfect, we move closer towards a causal story with a rich set of controls and a series of robustness checks. All of our outcomes were robust to the inclusion of an extensive set of controls, and in the case of literacy and harsh parenting, a sensitivity test for omitted variable bias.

Summing Up

Changes in family formation during the past few decades have dramatically increased children's exposure to changes in mothers' union formation and dissolution, with low income and minority children experiencing the greatest risk of exposure. This paper is the first to directly examine the implications of these changes for the quality of maternal parenting during a specific time frame (birth to age five) and across a variety of parenting domains. The findings indicate that partnership changes influence maternal investments; each partnership change, including changes in dating relationships as well as changes in coresidential unions, is associated with a decrease in the quality of mothers' parenting. Further, the 'effects' of instability on parenting depend on mothers' education, with more educated mothers experiencing greater declines in literacy activities (relative to their peers) and less educated mothers experiencing greater increases in stress (relative to their peers). Whereas earlier studies have shown that mothers are able to adjust to a single partnership change after a period of time, our research highlights the fact that multiple partnership transitions may have long term negative consequences for children.

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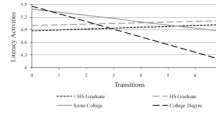


Figure 1.
Literacy Activities and Instability, Interactions by Maternal Education

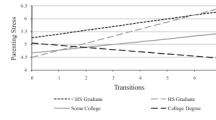


Figure 2. Parenting Stress and Instability, Interactions by Maternal Education

Table 1

Descriptive Statistics by Relationship Status at Birth

	Total N = 1,975			Married n = 426			Unmarried n = 1,549		
	M	SD	Range	M	SD	M	SD	M	SD
Parenting outcomes									
Maternal parenting stress	4.72	2.71	0–12	4.52	2.57	4.77	2.75	4.77	2.75
Harsh parenting practices	4.06	3.41	0–18.4	3.58	3.10	4.20	3.48	4.20	3.48
Literacy-promoting behaviors	4.49	1.75	0–7	4.62	1.81	4.46	1.73	4.46	1.73
Relationship transitions									
All relationship transitions	2.14	1.95	0–16	.67	1.34	2.55	1.90	2.55	1.90
Coresidential transitions	.93	1.06	0–7	.32	.67	1.09	1.08	1.09	1.08
Dating transitions	1.22	1.66	0–14	.35	.86	1.46	1.74	1.46	1.74
Early coresidential transitions	.56	.76	0–4	.19	.50	.66	.79	.66	.79
Recent coresidential transitions	.37	.59	0–7	.13	.38	.43	.62	.43	.62
Maternal controls									
Less than high school (%)	33.14		0–1	13.62		38.52		38.52	
High school degree (%)	32.40		0–1	21.59		35.34		35.34	
Some college experience (%)	24.61		0–1	29.11		23.38		23.38	
College degree or higher (%)	9.85		0–1	35.68		2.76		2.76	
Age at baseline	24.91	5.93	14–44	29.51	5.59	23.64	5.37	23.64	5.37
Black (%)	54.04		0–1	29.81		60.70		60.70	
Hispanic (%)	24.25		0–1	22.77		24.66		24.66	
Other (%)	2.60		0–1	5.16		1.90		1.90	
White (%)	19.11		0–1	42.26		12.74		12.74	
Immigration status (%)	11.36		0–1	19.53		9.12		9.12	
Cognitive ability	6.76	2.63	0–14	7.90	2.73	6.44	2.51	6.44	2.51
Parents' mental health (%)	36.26		0–1	39.30		35.43		35.43	
Self-rated health	2.90	.95	0–4	3.05	.88	2.85	.97	2.85	.97
Lived with both parents ^a (%)	38.95		0–1	59.72		33.23		33.23	
Received prenatal care (%)	98.48		0–1	99.06		98.32		98.32	

	Total N = 1,975			Married n = 426		Unmarried n = 1,549	
	M	SD	Range	M	SD	M	SD
Drank during pregnancy (%)	1.77		0 – 1	1.41		1.87	
Smoked during pregnancy (%)	18.93		0 – 1	9.39		21.55	
Considered an abortion (%)	29.30		0 – 1	12.21		34.00	
Relationship history	2.10	2.32	0 – 20	2.69	2.89	1.94	2.10
Married to BF ^b , Wave 4 (%)	28.35		0 – 1	79.81		14.20	
Not married to BF ^b , Wave 4 (%)	71.65		0 – 1	20.19		85.80	
Child controls							
Male (%)	51.70		0 – 1	52.11		51.58	
First born (%)	38.56		0 – 1	34.03		39.81	
Low birth weight (%)	10.18		0 – 1	7.28		10.97	

Note: Source: Fragile Families and Child Wellbeing Study.

^a Age 15.

^b BF = biological father.

Table 2

Results of OLS Models Predicting Parenting Outcomes at Age Five (N = 1,975)

	Maternal Parenting Stress	Harsh Parenting Practices	Literacy-Promoting Behaviors
1a. All relationship transitions	.204*** (.041)	.133** (.049)	-.007 (.026)
1b. All relationship transitions	.183*** (.041)	.107* (.049)	-.004 (.026)
2a. Coresidential transitions	.176** (.066)	.244** (.082)	.038 (.043)
Dating transitions	.213*** (.045)	.099+ (.053)	-.021 (.028)
2b. Coresidential transitions	.134* (.066)	.185* (.082)	.045 (.043)
Dating transitions	.197*** (.043)	.084 (.052)	-.019 (.028)
3a. Early coresidential transitions	-.058 (.087)	.096 (.107)	.096+ (.055)
Recent coresidential transitions	.333** (.110)	.380** (.136)	-.032 (.071)
3b. Early coresidential transitions	-.079 (.086)	.059 (.106)	.102+ (.055)
Recent coresidential transitions	.275* (.110)	.302* (.135)	-.026 (.071)

Note: Unstandardized β coefficients presented.

Models 1a, 2a, and 3a include standard demographic controls and child characteristics.

Models 1b, 2b, and 3b include additional controls for WAIS score, parents' psychological problems, prenatal health behaviors, previous relationships, considered abortion, and lived with both parents at age 15.

† $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

Results of OLS Models Predicting Parenting Outcomes at Age Five by Relationship Transitions and Interactions with Maternal Education, Race/Ethnicity and Family Structure at Birth (N = 1,975)

Model	Variable	Maternal Parenting Stress	Harsh Parenting Practices	Literacy-Promoting Behaviors
4	All transitions	.274***	.097	.016
	Less than high school	.760**	-.189	-.131
	Some college experience	.174	-.157	.390*
	College graduate or higher	.545 ⁺	-.634	.463*
	Less than h.s. x all transitions	-.128 ⁺	-.003	.006
	Some college x all transitions	-.166*	.063	-.092 ⁺
	College graduate x all transitions	-.357*	-.243	-.199 ⁺
5	All transitions	.177**	.123	-.079
	Black	.016	.794**	-.485**
	Hispanic	-.291	.145	-.372*
	Other	.752	.966	.436
	Black x all transitions	-.010	-.031	.090
	Hispanic x all transitions	.055	.001	.093
	Other x all transitions	-.201	.196	-.145
6	Total transitions	.098	.006	-.050
	Unmarried at birth	-.335	-.355	.124
	Unmarried at birth x all transitions	.090	-.107	.049

Note: Unstandardized β coefficients presented. All models include the full set of controls.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.