

NIH Public Access

Author Manuscript

Parent Sci Pract. Author manuscript; available in PMC 2010 March 22.

Published in final edited form as:

Parent Sci Pract. 2009 January 1; 9(1-2): 160-177. doi:10.1080/15295190802656844.

Relationship Trajectories, Parenting Stress, and Unwed Mothers' Transition to a New Baby

Rebecca M. Ryan,

University of Chicago, Harris School of Public Policy Studies, 1155 E. 60th Street, Chicago IL 60637. rmryan@uchicago.edu

Nitika Tolani, and American Institutes for Research

Jeanne Brooks-Gunn

Columbia University

SYNOPSIS

Objective—The present study examined associations between unwed mothers' residency and romantic relationships with the biological father during the transition to a new baby and mothers' later parenting stress. It also examined whether fathers' financial and caregiving support accounted for variation in parenting stress across relationship trajectories.

Design—Data were drawn from first two waves of the Fragile Families and Child Wellbeing Study (FFCWS) (N = 2,736 in 18 cities), with relationship status measured at the focal child's birth and one year later, and parenting stress measured one year after birth.

Results—Parenting stress was highest among mothers who broke up with the father during the first year and lowest among those in consistent romantic relationships regardless of parents' coresidence status. Both fathers' financial and caregiving support mediated the association between relationship dissolution and higher maternal parenting stress, although caregiving support accounted for a larger proportion of the variation.

Conclusions—Programs to support low-income, unwed mothers should understand the hardships of a breakup may spill over into other socioemotional domains, such as parenting, when experienced during the transition to a new baby and that mothers who have experienced a breakup may require additional caregiving support services during this vulnerable time.

INTRODUCTION

Parenting stress has been defined as a perceived discrepancy between the situational demands of parenting and one's personal resources (Abidin, 1990; Sepa, Frodi, & Ludvigsson, 2004). Previous research has established that single mothers experience higher levels of parenting stress than their married counterparts (Child Trends, 2004; Compas & Williams, 1990; Copeland & Harbaugh, 2005; Hetherington, Cox, & Cox, 1982; Vosler & Proctor, 1991;

Publisher's Disclaimer: Full terms and conditions of use: http://www.informaworld.com/terms-and-conditions-of-access.pdf This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

Copyright © Taylor & Francis Group, LLC

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Weinraub & Wolf, 1983), most likely because without a coparent to share the burdens of breadwinning and caregiving, this discrepancy, both real and perceived, can substantially increase. Prior studies on single mothers' parenting stress typically examine divorced rather than never-married mothers or combine the two groups. However, unlike divorced parents, over half of never-married parents cohabit or are romantically involved at the time of their child's birth (Carlson, McLanahan, & England, 2004; Sigle-Rushton & McLanahan, 2002), suggesting that many unwed fathers may share in breadwinning and caregiving duties in ways their divorced counterparts do not. The extent to which unwed fathers provide support may have important implications for unwed mothers' parenting stress.

Moreover, the implications of unwed fathers' support may be particularly important during the first year of a child's life. During this time, sometimes called the transition to a new baby, parents' risk for stress is elevated as they devote already limited time and money resources to the infant's care and substantially alter or augment previous roles and responsibilities (Rossi, 1968; Thoits, 1995). Ideally, parents weather the transition with minimal emotional strain because they can draw on a "well buffered system" (Belsky, 2006, p. 64) offering multiple sources of financial and caregiving support. For unwed mothers in stable cohabiting or romantic relationships, fathers may serve as effective buffers in that system, lowering mothers' risk for parenting stress as a result. However, relationships between unwed parents are quite vulnerable to dissolution, especially in the first years after a child's birth (Bumpass & Lu, 2000; Carlson et al., 2004), and recent research on unwed father involvement suggests their level of financial and caregiving support often declines when romantic relationships end (Cabrera et al., 2004; Ryan, Kalil, & Ziol-Guest, 2008). If dissolution occurs in the first year of a child's life, unwed mothers may be far more likely to believe the situational demands of caring for an infant outmatch their personal resources, suffering high levels of parenting stress in response (Abidin, 1990; Sepa et al., 2004).

To our knowledge, no previous study has examined unwed mothers' relationship trajectories during the transition to a new baby in relation to later parenting stress or the role fathers' financial and caregiving support may play in mediating these associations. In the present study, we address this gap by investigating how unwed mothers' parenting stress and fathers' support vary by their residency status, romantic status, and changes in both during the child's first year of life. In so doing, we address three related research questions: (1) How does mothers' parenting stress vary by relationship trajectory during the child's first year? (2) How does fathers' financial and caregiving support vary by relationship trajectory during this time? (3) To what extent does fathers' financial and caregiving support account for differences in mothers' parenting stress by relationship trajectory? By answering these questions, we aim to identify groups of unwed mothers most at risk for elevated parenting stress during the transition to a new baby and possible targets for programmatic support to alleviate their stress.

Financial Support and Unwed Mothers' Parenting Stress

Economic strain is positively associated with mothers' level of parenting stress (Cain & Combs-Orme, 2005; Compas & Williams, 1990; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; Pianta & Egeland, 1990; Webster-Stratton, 1990; Weinraub & Wolf, 1983). This association may be particularly strong during the first year of a child's life, as mothers' expenses increase to accommodate a new baby. Unwed mothers may experience greater economic strain during this transition than married mothers because with lower average household incomes, they are less likely to have financial reserves to offset increased expenses (Jackson, Tienda, & Huang, 2001). Moreover, they are more likely to hold low-paying jobs without benefits such as paid maternity leave (Edin & Lein, 1997; Presser, 2003), thus any time they take off to care for an infant may reduce household income at a time when income maintenance is particularly important. In this context, financial support from the father could

increase mothers' household income, substantially reducing their economic strain and parenting stress as a result.

According to some studies, families' experience of material hardship is even more strongly linked to levels of maternal parenting stress than their incomes per se, perhaps because material hardship, measured as a family's ability to acquire basic needs, reflects the impact of economic deprivation on families' daily lives (Gershoff, Aber, Raver, & Lennon, 2007). For unwed mothers, material hardship may increase during the first year of a child's life as they struggle to purchase essential items for the new baby. Qualitative studies have documented how fathers' in-kind contributions of items such diapers, clothes, and toys are often crucial to unwed mothers' real and perceived preparedness for new motherhood (Edin & Lein, 1997; Edin & Kefalas, 2005). This sense of preparedness could in turn alleviate mothers' parenting stress during the transition to a new baby.

Caregiving Support and Unwed Mothers' Parenting Stress

During the first year of a child's life, parents must devote a great deal of time and energy to the infant's care and monitoring, particularly in the early months when sleeping and eating schedules are still forming. Without a reliable coparent, the sole burden of these duties may fall on an unwed mother. If she must also work to survive financially, she may experience severe role strain in shouldering both caregiving and breadwinning responsibilities (Crnic & Booth, 1991; Goode, 1960; Ostberg & Hagekull, 2000; Rogers & White, 1998; South & Spitze, 1994; Weinraub & Wolf, 1983). Fathers who regularly assume child-rearing responsibilities may substantially relieve this tension, thus alleviating mothers' parenting stress.

A related aspect of fathers' caregiving support is the quality of parents' coparenting relationship. Coparenting is defined as the extent to which parents agree about child-rearing beliefs, cooperate in shared child-rearing tasks, and support each other in their roles as parents (McHale, 1995). Although the coparenting relationship is distinct from fathers' actual involvement in that it reflects parents' perception of and satisfaction with each others' parenting (Carlson, McLanahan, & Brooks-Gunn, 2008), a strong coparenting relationship is positively associated with unwed fathers' involvement in children's lives among both divorced (Maccoby & Mnookin, 1992) and never-married fathers (Carlson et al., 2008). Thus, the coparenting relationship could be indirectly related to unwed mothers' parenting stress through its impact on fathers' level of caregiving. In addition, feeling one has a trusted and reliable coparent, irrespective of fathers' actual involvement, could protect mothers from feeling overwhelmed by their parenting responsibilities, thereby directly lowering parenting stress levels.

Relationship Trajectories, Parenting Stress, and Fathers' Financial and Caregiving Support

Both theory and research suggest fathers' provision of financial and caregiving support may hinge strongly on parents' relationship trajectories. Theoretically, fathers who cohabit with the mother should contribute more money to the child's care than nonresident fathers because they do not divide their income across two households (Becker, 1991). The fact that mothers who cohabit with fathers tend to have higher household incomes and experience less material hardship than those who do not supports this proposition (Jackson et al., 2001). Cohabiting fathers also engage in more caregiving and play activities with their children than do nonresident fathers (Cabrera et al., 2004; Carlson, McLanahan, & Brooks-Gunn, 2005; Lerman & Sorensen, 2000), most likely because coresidence affords them more opportunities to do so. Although to our knowledge no one has compared unwed parents' coparenting relationships across residency status, parents who cohabit may agree more about child-rearing beliefs and cooperate more in child-rearing tasks either because couples with more harmonious relationships select into cohabitation or because living together allows for more communication. Taken together, these theories and findings suggest mothers who cohabit with

the father at the time of the child's birth should experience less parenting stress than those living apart because they receive more financial and caregiving support from the child's father.

However, because unwed parents' relationships are vulnerable to dissolution, many cohabiting couples break up during the first year (Carlson et al., 2004). Others move out of (or into) cohabitation while maintaining a romantic relationship (Edin & Kefalas, 2005), fluctuations that could certainly occur during this time. Either permanent residential separation or inconsistent coresidence could weaken fathers' ability and motivation to provide financial and caregiving support, thus elevating the risk for parenting stress among mothers who separate from the child's father or live only intermittently with him relative to their counterparts in stable cohabiting relationships.

Among mothers who live apart from the father, consistently or inconsistently, those who maintain romantic relationships with him may receive more financial and caregiving support than those in unstable or nonromantic relationships. Recent research on unwed father involvement finds that fathers provide more financial assistance, particularly informal cash and in-kind contributions, as well as more caregiving support, when they are still romantically involved with the mother (Cabrera et al., 2004; Coley & Chase-Lansdale, 1999; Kalil, Ziol-Guest, & Coley, 2005; Ryan et al., 2008), perhaps because romantic involvement is partially conditional on fathers' financial and caregiving support, or perhaps because fathers simply have more opportunities to purchase child-related goods or interact with the child when they are involved in mothers' daily lives. However, as with cohabiting relationships, when couples break up fathers' financial and caregiving support often declines concomitantly (Edin & Kefalas, 2005; Ryan et al., 2008). These patterns suggest mothers in stable romantic relationships with the father may experience less parenting stress than those who are never involved with the father and those who break up during the first year.

Hypotheses

We expect mothers in stable coresident relationships with fathers during the first year to report lower parenting stress than all other unwed mothers, and mothers in nonresident but stable romantic relationships to report lower parenting stress than those who are not romantically involved with the father. Moreover, we expect mothers experiencing all types of unstable relationship trajectories, except perhaps those who move in together in the first year, to report higher levels of parenting stress than mothers in stable coresident or romantic relationships because they likely receive less financial and caregiving support from the father over time. However, existing research does not indicate whether ending a cohabiting relationship, a romantic relationship, or both will be more strongly associated with fathers' support and mothers' parenting stress. We address this issue by comparing parents across all possible relationship trajectories, an approach which may reveal the relative importance of coresidence versus romantic involvement to mothers' parenting support systems.

It is also unclear how mothers who are never romantically involved with the father during the first year will compare to mothers who experience dissolution either from a coresident or nonresident relationship. Perhaps having received some higher levels of support from the father —either financial or caregiving—during the first year is better for mothers than having none at all (or just consistently less). Alternatively, it is possible the loss and disruption associated with a breakup may spill over to the parenting domain, thus those who experience a break up may report higher—or similar—levels of stress than those never involved with the father. This comparison will help illuminate the implications of relationship instability among unwed parents during the first year of life for mothers and infants.

Finally, neither existing theory nor prior research indicates which will have a stronger association with mothers' parenting stress: fathers' financial or caregiving support. It is

possible one type of support is more important to mothers' sense of well-being and will thus mediate associations between relationship trajectories and stress levels more strongly. We allow for their effects to vary by testing them independently as mediators.

METHODS

Participants

Data are drawn from the first two waves of the Fragile Families and Child Wellbeing Study (FFCWS), a birth cohort study designed to provide longitudinal information about married and unmarried parents and their children. The study follows 4,898 children born between 1998 and 2000 in 20 large cities across the United States with an oversample of unmarried parents. Data from only 18 of the 20 cities are included in this paper because mothers were not asked the full range of father caregiving support questions in two cities. Baseline interviews were conducted with mothers in the hospital at the time of the focal child's birth. Follow-up interviews were conducted with mothers when the child was approximately 12 months old (see Reichman, Teitler, Garfinkel, & McLanahan, 2001, for a detailed overview of the research design).

Our analytic sample is comprised of the 2,736 mothers who were not married to the father at the time of the child's birth, provided responses to items related to parenting stress and fathers' support at the 12-month follow-up survey, and had full information on all demographic covariates (see below). This represents 85% of the baseline sample of unwed mothers from the 18 cities (N = 3,212). Mothers in our sample were slightly more likely to be teenage mothers (23% versus 16%; $\chi^2 = 12.96$, p < .001), more likely to have a high school degree (62% versus 55%; $\chi^2 = 6.57$, p < .05), and less likely to have ingested alcohol (13% versus 20%; $\chi^2 = 16.32$, p < .001) or smoked (23% versus 29%; $\chi^2 = 8.79$, p < .01) while pregnant, but were similar in terms of race and immigration status.

Although mothers in our sample had more education than those who had attrited by one year, they were socioeconomically disadvantaged nonetheless, as would be expected of an exclusively unwed sample. Half of the sample lived below the federal poverty line at one year (51%), and the average household income-to-poverty ratio at one year was 1.34 (SD = 1.32). Almost 40% had not graduated from high school. Over one-fifth of mothers were teenagers at the child's birth, and less than 90% of mothers were born in the United States. About one-fifth lived with their own mothers at the 12-month follow-up. In addition, over half of the sample was African American (57%), with only 16% European American and about a quarter Latin American. Means, standard deviations, and percentages of other covariates are reported below.

Measures

Mothers' parenting stress—To assess mothers' parenting stress, the FFCWS used questions derived from the Child Development Supplement of the Panel Study of Income Dynamics (PDIS-CDS; Mainieri & Grodsky, 2006). Two of the four items used in the Primary Caregiver/Household Interview of the PSID-CDS were drawn from the Parent Domain of the Parenting Stress Index (PSI; Abidin, 1995), which is a widely used self-report measure requiring parents to rate their agreement with statements about stress related to child rearing. Several studies have demonstrated the reliability and validity of this questionnaire in measuring parenting stress within samples of low-income, vulnerable mothers (Bigras, LaFreniere, & Dumas, 1996; Ethier, Lacharite, & Couture, 1995; Hutcheson & Black, 1996). A scale was created based on four items that all address parents' negative thoughts and feelings about their role as parents: (1) Being a parent is harder than I thought; (2) I feel trapped by my parental responsibilities; (3) Taking care of my children is more work than pleasure; and (4) I feel tired/exhausted from raising a family. Responses ranged from one (1) to four (4), where a score of 1 indicates the respondent *strongly disagrees* with the statement and a score of 4 indicates a

respondent *strongly agrees* with the statement. Responses for each item were averaged to form a composite score wherein higher scores indicate greater maternal parenting stress (M = 2.19, SD = .69, range = 1 to 4). The alpha coefficient for this abbreviated scale suggests that it was an adequately reliable measure of stress for mothers in this sample ($\alpha = .63$; calculated using the analytic sample).

Parents' relationship trajectories—Mothers were asked to identify the status of their relationship with the focal child's biological father at birth and one year. Unwed mothers' descriptions at each wave (at baseline, they chose from five options ranging from *cohabiting* to *never talk*; at one year, they chose from six options ranging from *cohabiting* to *not in any relationship*) were recoded into the three categories relevant to our hypotheses about fathers' provision of support: (1) Coresident (coresident and romantically involved); (2) Nonresident-Romantic (nonresident and romantically involved); and (3) Nonresident-Nonromantic (nonresident and not romantically involved). Note, couples who were coresident were assumed to be romantically involved, thus no Coresident-Nonromantic group exists.

We then cross-classified parents by birth and one-year relationship status to determine relationship trajectories. Although nine categories should emerge from a full crossclassification of the three relationship groups over time, we examine only seven trajectories because two groups were combined and one group had so few cases (n = 20) they were recoded into another. Table 1 displays the trajectories, their size, and their proportion within the total analytic sample. Three groups maintained the same relationship status throughout the first year: Consistently Coresident (33%), Consistently Nonresident-Romantic (9%), and Consistently Nonresident-Nonromantic (14%). Two groups ended their romantic relationships between time points, those who went from Coresident to Nonresident-Nonromantic (10%) and those who went from Nonresident-Romantic to Nonresident-Nonromantic (17%). One group went from coresident to nonresident but maintained their romantic relationship: Coresident to Nonresident-Romantic (4%). Finally, the two groups who were nonresident at baseline but coresident at one year-either romantic or nonromantic initially-were combined into Nonresident to Coresident (12%). The 20 mothers who were consistently nonresident but reported moving into a romantic relationship by one year were included in the Consistently Nonresident-Romantic group because it was assumed they were romantically involved, or moving into a romantic relationship, for much of the year.

Fathers' financial support/mothers' material hardship—To measure fathers' financial support, we considered both mothers' total household income (M = \$25,024.70, SD = \$23,296.43, range = \$0 to \$176,000) and the amount of formal and informal child support the father had paid since the child's birth (M = \$515.20, SD = \$1,449.63, range = \$0 to \$16,000). We examined both sources of income to take into account fathers' contributions among coresident couples, for whom household income likely reflects their contribution, and among nonresident parents, for whom child support payments reflect fathers' contribution. We then summed household income and yearly child support payments (which equaled zero for coresident couples) to create a single measure of fathers' financial support that was comparable across coresident and nonresident parents. The natural log of this measure was used in multivariate analyses to reduce its substantial positive skew.

Because fathers' financial support, both in terms of cash and in-kind gifts, could impact mothers' experience of maternal hardship in ways her household income does not reveal, and because maternal hardship is strongly associated with parenting stress (Gershoff et al., 2007), we also examined a measure of mothers' hardship. To assess this construct, we used mothers' reports on 12 dichotomous items asking if she had been evicted, had her gas cut off, had her electricity suspended, received a free meal, or could not pay rent in the past month, among other hardships. Because the summed scale was highly skewed (skew = 1.70; kurtosis = 3.18),

Ryan et al.

we recoded it into a dichotomous variable indicating whether the mother reported two or more hardships (31%).

Fathers' caregiving support—Two measures were used to assess the level of caregiving support fathers provided at one year. One assessed fathers' practical assistance in performing child-related tasks, and another assessed parents' coparenting relationship, defined as mothers' perception of their agreement about and cooperation in parenting. The former, fathers' activities with the child, was the average of 10 items asking mothers how many days a week the father engaged in various caregiving and play activities with the child, such as giving the baby a bottle, putting the baby to bed, changing the baby's diaper, and playing with the baby (M = 3.20, SD = 2.15, $\alpha = .93$).

The latter, fathers' coparenting with the mother, was derived from five questions asking mothers how often: (1) When father is with child he acts like the father you want him to be? (2) You can trust father to take good care of child? (3) Does father respect rules/schedule you make for child? (4) Does father support you in way you want to raise child? and (5) Do you and father talk about problems the come up in raising child? Responses ranged from 1 = Never to 4 = Always; items were summed and averaged to create the scale (M = 3.43, SD = . 86, $\alpha = .94$). Although the activities and coparenting scales were positively correlated (r = .67, p < .001), they were examined separately because they tap different aspects of fathers' caregiving support and because the reliability of the combined scale was considerably lower than the reliability of the scales separately.

Covariates—The selection of mothers who are more demographically and emotionally at risk into less stable relationships substantially threatens our ability to make causal inferences about the association between relationship trajectories and parenting stress. To reduce the influence of this bias, we control for baseline covariates in all multivariate models that are exogenous to family structure but may influence mothers' parenting stress. Demographic controls were mothers' education level (1 = less than high school; 0 = high school/GED orhigher), age at child's birth (< 20 years old), and race (three indicator variables for mother is African American, mother is Latin American, mother is other race, with European American omitted). An indicator variable was included for mothers' immigrant status as well (1 = born in the United States; 0 = born elsewhere), but it was excluded from final models because of nonsignificance. We also entered controls for whether mothers lived with both biological parents at age 15, as a proxy for having a socioeconomically disadvantaged background, and attended religious services a few times a month, as a proxy for having strong community ties that could alleviate stress. To account for socioemotional risks, we controlled for whether mothers used substances (drugs or alcohol) or smoked during the pregnancy. An indicator for whether mothers had experienced a major depressive episode during the first year of the child's life was included in sensitivity analyses (using criteria from the Composite International Diagnostic Interview-Short Form; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998). However, because mothers' depression could be endogenous to relationship trajectories it was not included in main models.

Finally, because aspects of mothers' household structure other than father coresidence might impact stress levels, an indicator variable for grandmother coresidence at 1 year and number of children in the household (M = 2.36, SD = 1.38) were included. An indicator for coresidence with a new romantic partner at one year (who is not the biological father) was also included because a coresident partner could provide caregiving or financial support in lieu of the father. For child covariates, we entered child sex (1 = boy; 0 = girl) and child age in months (M = 15.06, SD = 3.55), and, because poor child health may predict higher levels of parenting stress, we controlled for whether the mother reported the child not in either "excellent" or "very good" health at one year.

RESULTS

Descriptive Results

First, intercorrelations among all father support variables and mothers' parenting stress were examined. All measures of father support were significantly correlated with parenting stress in expected directions: mothers' household income including child support payments (r = -. 11, p < .001), fathers' activities with child (r = -.14, p < .001), and fathers' coparenting (r = -.10, p < .001) were all negatively correlated with parenting stress, whereas material hardship was positively correlated with stress levels (r = .14, p < .001).

Second, a one-way analysis of variance (ANOVA) was conducted to test mean differences in parenting stress across the seven relationship trajectories (see Table 2). As expected, unwed mothers' parenting stress differed across the groups overall, F(6, 2729) = 9.14, p < .001. Pairwise contrasts computed via Bonferroni multiple comparison tests also revealed significant differences between groups. Specifically, parenting stress was highest among mothers who ended their romantic relationships with fathers during the first year, both for mothers who were coresiding with the father at the birth and mothers who were not coresiding. Parenting stress was also high among mothers who were not involved with the father at birth or one year, although their stress levels were slightly lower than those who had experienced a breakup. The least-stressed mothers were all those in consistent romantic relationships with the father regardless of parents' coresidence at either time point. Thus, mothers in consistent coresident relationships reported levels of stress similar to those of mothers in consistent romantic but nonresident relationships, and similar to those who moved apart but remained involved. Another way to interpret these patterns is that parenting stress was lowest for mothers who were romantically involved with the father at one year irrespective of parents' relationship status at the child's birth and highest for mothers who experienced a breakup irrespective of parents' residency status at the birth.

Third, one-way ANOVA and chi-square tests (for dichotomous variables) were conducted to compare fathers' support levels across the seven relationships trajectories (see Table 2). Mothers in Consistently Coresident relationships with the father and those who moved in together were better off financially than all other mothers, whereas mothers who experienced a breakup, involving a residential separation or not, and those who moved apart from the father but remained romantically involved, had lower incomes than all one-year coresident groups. Mothers in Consistently Coresident relationships also had lower rates of material hardship than those who experienced a breakup and those who moved apart. Another way to interpret these patterns is that financial support was highest for mothers who were coresiding with the father at 1 year irrespective of parents' relationship status at the child's birth. The only exception to this pattern was that rates of material hardship were similar for mothers in Consistently Coresident-Romantic relationships even though household incomes were lower in the latter group.

Whereas mothers' parenting stress covaried with parents' romantic involvement, and fathers' financial support covaried with their coresidency, fathers' caregiving support varied by both romantic and residency status and, in some contrasts, depended on parents' status at the birth. Consistently Coresident and Nonresident to Coresident fathers engaged in caregiving activities most often, probably because they had greater access to their children than nonresident fathers. However, fathers who were in consistent romantic relationships with mothers but not living with them at one year (Consistently Nonresident-Romantic and Coresident to Nonresident-Romantic) engaged in activities with children more times a week than those who broke up or were never involved with mothers. Those who broke up, in turn, engaged in activities more often than those who had never been involved. Coparenting relationships were even more closely aligned with parents' romantic involvement: Fathers in consistent romantic

relationships with mothers over the first year, whether Consistently Coresident, Coresident to Nonresident-Romantic, or Consistently Nonresident-Romantic, all had similar coparenting scores, whereas those in both breakup groups had far lower coparenting scores. In turn, those in both breakup groups had higher coparenting scores than those who had never been involved with the mother. Taken together, these findings suggest romantic involvement at the child's birth predicts higher father caregiving support irrespective of relationship trajectory.

Multivariate Results

To assess the robustness of differences in parenting stress across relationships trajectories, we regressed mothers' parenting stress at one year on six indicator variables distinguishing each relationship trajectory with Consistently Coresident as the omitted category, holding constant all mother and child covariates. Results of this OLS model are displayed in Table 3, Model 1. Mothers who experienced a breakup, involving a residential separation or not, and mothers who were never involved with fathers in the first year had significantly higher parenting stress scores than those who were Consistently Coresident. The differences between the reference group and those who broke up (Coresident to Nonresident-Nonromantic and Nonresident-Romantic to Nonresident-Nonromantic) equaled approximately one quarter and one third of a standard deviation, respectively. The difference between the reference group and those never involved with fathers was smaller, only 13% of a standard deviation. The latter difference was significantly smaller than the difference between Consistently Coresident mothers and Nonresident-Romantic to Nonresident-Nonromantic according to post hoc Wald tests comparing coefficients, F(1, 2714) = 5.64, p < .05, indicating that experiencing a breakup elevated parenting stress levels more than consistent noninvolvement relative to Consistent Coresidence. As the bivariate results indicated, mothers who maintained a romantic relationship with the father, whether they moved apart, moved in together, or never cohabited in the first year, reported stress levels similar to those in Consistently Coresident relationships.

Next, we estimated the extent to which fathers' financial and caregiving support accounted for these differences by comparing relationship status coefficients in Model 1 to those with all fathers' support variables entered in Model 2 (Table 3). In Model 2, we entered the natural log of mothers' household income plus child support and whether they experienced material hardship (along with all covariates) to estimate the extent to which financial support accounted for variation in parenting stress by relationship status. We also entered the two caregiving variables to determine the extent to which these supports independently accounted for differences in mothers' stress across groups.

We then conducted formal tests to determine if each support variable, and each set of variables, mediated associations between relationship trajectories and mothers' parenting stress. To test whether each support variable mediated associations independently, we computed Sobel tests with the relationship trajectory variables significant in Model 1 as independent variables and each support variable as the mediator (Preacher & Leonardelli, 2006; Shrout & Bolger, 2002). When each variable was tested, the other variable in its set was included in the model as a covariate (e.g., material hardship was controlled when income plus child support was tested as a mediator). To test whether sets of variables–financial and caregiving–mediated associations, we ran post hoc Wald tests to determine whether relationship trajectory variables significant in Model 1 were reduced significantly with the entry of each variable set (Statacorp, 2007).

When financial and caregiving support variables were entered in Model 2, all the three significant relationship trajectory coefficients were reduced by between 40% and >100%, all significant reductions at p < .001 in post hoc Wald tests. Not only were all coefficients reduced to nonsignificance in this model, but the coefficient for Consistently Nonresident-Nonromantic reversed in sign from positive to negative, indicating that, once caregiving support was held

constant, mothers who were never involved with fathers were somewhat less stressed than those in stable coresident relationships. Only material hardship and fathers' activities were significantly associated with parenting stress, not household income plus child support or coparenting relationship quality. However, in additional models in which income and hardship, and in which activities and coparenting, were entered separately (not shown), income and coparenting were negatively associated with parenting stress at p < .05 (b = -.02, se = .001) and p < .01 (b = -.06, se = .02), respectively. Moreover, entering coparenting alone significantly reduced relationship status coefficients according to post hoc tests, although not by as much as activities alone, suggesting that activities had a stronger independent association with mothers' parenting stress than coparenting. Finally, when each set of father support variables was entered (not shown), all three significant relationship trajectory coefficients were reduced at p < .01 according to post hoc Wald tests.

Separate Sobel tests of mediation revealed that material hardship had a larger mediating effect than household income plus child support. With Coresident to Nonresident-Nonromantic as the independent variable, the Sobel statistics for income and material hardship were 1.99 (p < .05) and 2.57 (p < .01), respectively. Similarly, with Nonresident-Romantic to Nonresident-Nonromantic as the independent variable, the Sobel statistics for income and material hardship were 1.95 (p = .05) and 2.57 (p < .01), respectively. Neither income nor material hardship were 1.95 (p = .05) and 2.57 (p < .01), respectively. Neither income nor material hardship yielded significant Sobel statistics at the p < .05 level with Consistently Nonresident-Nonromantic as the independent variable. These findings suggest breaking up increases maternal parenting stress by reducing fathers' financial support, whereas consistent noninvolvement increases maternal stress for other reasons.

Sobel tests of each caregiving variable revealed that only fathers' activities significantly mediated the associations between relationship trajectories and mothers' parenting stress. With Coresident to Nonresident-Nonromantic as the independent variable, the Sobel statistic for activities was 3.67 (p < .001), whereas the corollary statistic for coparenting did not reach statistical significance. With Nonresident-Romantic to Nonresident-Nonromantic as the independent variable, the Sobel statistic for activities was 3.70 (p < .001), with the statistic for coparenting again nonsignificant. Finally, fathers' activities was the only variable to mediate independently the association between mothers' being in Consistently Nonresident-Nonromantic relationships with the father and higher parenting stress (Sobel = 3.69, p < .001). These findings suggest the absence of a romantic relationship with the father at 1 year, resulting from either a breakup or consistent noninvolvement, increased maternal parenting stress by reducing the frequency of fathers' activities with the child relative to those in consistent romantic relationships. A comparison of Sobel test results for material hardship and fathers' activities also revealed that fathers' caregiving support mediated the association between relationship trajectories and maternal parenting stress more strongly than their financial support.

Although father support variables accounted jointly for all significant variation in maternal parenting stress by relationship trajectory, neither these variables nor any demographic controls explained much of the total variation in parenting stress. The full set of covariates explained only 8% of the variance as assessed by Model 2's R^2 statistic. Moreover, of the significant father support variables, only economic hardship had even a small direct effect on parenting stress in terms of its effect-size *r* statistic (*r* = .10). A 1 standard deviation increase in fathers' level of activities was associated with only a 6% of a standard deviation decrease in parenting stress, as the modest -.02 coefficient indicates. The weakness of these effects suggests, even though fathers' support may explain variation in parenting stress by relationship trajectory, parenting stress levels are driven largely by maternal and environmental characteristics not adequately captured in this model.

DISCUSSION

The present study compared unwed mothers' parenting stress across parents' residency status, romantic status, and changes in both during the first year of a child's life and examined the extent to which fathers' provision of financial and caregiving support accounted for parenting stress differences across relationship trajectories. We found that mothers in stable romantic relationships with the child's father had significantly lower levels of parenting stress than those in unstable or nonromantic relationships irrespective of parents' coresidence and that relationship dissolution put unwed mothers at risk for high levels of parenting stress whether the breakup involved a residential separation or not. Relatedly, we found that although fathers who coresided with the mother provided the highest levels of financial and caregiving support, those in romantic relationships provided higher levels of caregiving support than those who were not. These findings suggest it is romantic involvement between unwed parents that strengthens mothers' parenting support systems during the transition to a new baby rather than cohabitation per se because romantic involvement encourages or facilitates fathers' caregiving and financial support.

Although both financial and caregiving support were associated with maternal parenting stress, and both mediated the association between relationship trajectories and maternal stress, fathers' caregiving support explained more of the variation in parenting stress across groups. Specifically, it was fathers' caregiving activities, rather than the coparenting relationship, that emerged as the strongest mediator between relationship dissolution, and consistent noninvolvement between parents, and maternal parenting stress. In a sample of mothers who are mostly living at the economic margins irrespective of their relationship status, perhaps losing (or simply lacking) an active coparent to share in the exhausting job of caring for an infant is more detrimental to their parenting stress literature, perhaps it is the behavioral rather than economic demands of parenting an infant that are most likely to outmatch unwed mothers' perceptions of their personal resources.

These interpretations imply a unidirectional relationship from unwed mothers' relationship trajectories to fathers' financial and caregiving support to mothers' parenting stress; however, we acknowledge that fathers' financial contributions, or their capacity to contribute, and their caregiving support could also determine whether couples cohabit, are romantically involved, or break up. Mothers may not want to cohabit or be involved with fathers who are poor sources of support, and lower levels of support during a relationship could cause dissolution. Because we wanted to examine parenting stress during the first year of a child's life, we have only one time point with which to measure financial and caregiving support in our data. Therefore, we cannot examine how changes in fathers' support covary with changes in relationship status, a strategy which would isolate the loss of support resulting from relationship dissolution relative to remaining coresident and/or romantic, nor can we address substantive issues of directionality. However, it is the variation in parenting stress across relationship trajectories, and the stressors and supports that covary with it, that we aimed to identify as a first step toward understanding the implications of unwed parenthood for mothers' parenting well-being in the crucial first year of children's lives.

Although our interpretations imply causal associations among relationship status, fathers' support, and mothers' parenting stress, we recognize that the threats of omitted variable bias and shared method variance undermine our ability to make causal claims. Regarding the former, it is entirely possible that parents' unmeasured socioemotional or economic characteristics simultaneously undermine their ability to form stable relationships, provide substantial financial or caregiving support, and parent an infant without significant stress. Encouragingly, our findings obtained in additional models that controlled for maternal

depression at one year (not shown but available on request), an indicator that should capture mothers' socioemotional tendency toward both relationship disruption and high stress levels. Maternal depression was not controlled in the main analyses because, as a measure of emotional well-being contemporaneous with parenting stress, it could result from relationship change and enhance parenting stress, or it could result from high parenting stress itself. In either case, it is not an appropriate control variable, for it represents either an additional mediator (along with fathers' support) or an additional outcome (along with parenting stress).

Shared method variance among mothers' reports of parenting stress, relationship status (particularly romantic involvement), and fathers' support is also a threat to validity. It is possible, for example, that a depressed mother would perceive more limited support from her baby's father and perceive parenting more stressfully than a nondepressed mother, rendering the association between fathers' support and parenting stress merely an artifact of her perceptions. Again, the robustness of our findings to the inclusion of maternal depression tempers this concern. Nonetheless, ideally we would use fathers' reports of his financial and caregiving support in addition to or in lieu of mothers'. However, roughly a quarter of unwed fathers were not interviewed at baseline in the FFCWS, and attrition at the one-year follow-up was particularly high among nonresident, unwed fathers (49% of nonresident versus 28% of resident fathers at one year). By contrast, retention of unwed mothers in the study was relatively high, thus using mother report likely provides a less biased sample of unwed parents than father report. Nonetheless, we acknowledge that mothers tend to underreport father involvement when compared to fathers, particularly if their relationships with the fathers are poor (Coley & Morris, 2002).

Despite these interpretive limitations, our classification of relationship trajectories provided unique insight into the origins of unwed mothers' parenting stress. Although previous research has documented that single mothers experience higher levels of parenting stress than married mothers (Child Trends, 2004; Compas & Williams, 1990; Copeland & Harbaugh, 2005; Hetherington et al., 1982; Vosler & Proctor, 1991; Weinraub & Wolf, 1983), it has not addressed whether this elevation stems from unwed mothers' greater economic hardship, caregiver burden, or exposure to other individual and environmental stressors. By restricting our analyses to unwed mothers, we were able to identify both economic strain and caregiver burden as unique sources of stress among unwed mothers, and fathers' financial investments and caregiving as unique sources of support. More important, by examining relationship trajectories, we discovered that romantic dissolution was associated with higher parenting stress levels than consistent noninvolvement relative to consistent coresidence, a pattern that would not have emerged had we examined relationship status at birth and one year as separate variables.

Our findings suggest directions for future research examining unwed mothers' early parenting stress. Because we focused on maternal parenting stress during the first year of life, we examined only one time point of parenting stress and fathers' support. By estimating whether changes in relationship status predict changes in parenting stress, future studies could more soundly identify a causal link between relationship trajectories and maternal parenting than was possible with our data. Because we found parents' romantic involvement covaried more closely with mothers' well-being than their cohabitation, future longitudinal analyses should distinguish the impact of changes in romantic status from changes in residency status to replicate this finding in a more conservative analytic framework. Future studies should also determine whether changes in relationship status are associated with changes in fathers' support and, in turn, if those changes account for reductions or elevations in maternal parenting stress.

Findings from the present study also have substantive policy and programmatic implications. The current high rate of nonmarital childbirth among socioeconomically disadvantaged

populations has inspired many public policy and programmatic efforts to strengthen father involvement following an unwed birth. One approach, exemplified by programs that comprise the federal Healthy Marriage initiatives, seeks to foster stable union formation among unwed parents (Dion, 2005; Ooms, Bouchet, & Parke, 2004), reasoning correctly that fathers who coreside with their children are more involved in their daily lives than those who do not. However, our study suggests that parents' romantic involvement, rather than coresidence per se, is related to higher levels of father involvement, and that father involvement is in turn related to lower levels of maternal parenting stress, suggesting that programs might work to enhance parents' relationship stability irrespective of their coresidence. To the extent that programs to improve couples' relationship skills help to prevent their breaking up, our results indicate that these efforts may also enhance father involvement and unwed mothers' parenting support systems.

Still, it is important for practitioners and policy makers to acknowledge that many unwed couples will end their romantic relationships regardless of attempts by programs or parents to form stable unions. For these parents, programs should acknowledge this reality by treating parents as separate individuals rather than a committed family unit (Garfinkel & McLanahan, 2002). Accordingly, programs and practitioners should investigate routes other than relationship stability to encourage fathers to provide financial and caregiving support to mothers and children. Programs to support low-income, unwed mothers should also understand that the hardships of a breakup may spill over into other socioemotional domains, such as parenting stress and perhaps, parenting behaviors, and that mothers who have experienced a breakup may require additional counseling and support services. It is our hope that by better understanding and combating the causes of parenting stress among unwed mothers, we can help prevent negative parenting behaviors associated with the high levels of stress that often accompany an unwed birth. Programs that effectively target the source of this stress could, by extension, also benefit children's developmental outcomes.

Acknowledgments

The present study was supported by a training grant from the National Institute of Child Health and Human Development (NICHD) (#1F32HD54044). In addition, the Fragile Families and Child Wellbeing Study was funded by NICHD grants (#R01HD36916, #R01HD40933, #R01HD40421) and a consortium of private foundations. However, the contents of this paper do not necessarily represent the official views of the NICHD or any additional funders.

REFERENCES

- Abidin R. Introduction to the special issue: The stressors of parenting. Journal of Clinical Child Psychology 1990;19:298–301.
- Abidin, R. Parenting Stress Index manual. 3rd ed. Charlottesville, VA: Pediatric Psychology Press; 1995. Becker, GS. A treatise on the family. Cambridge, MA: Harvard University Press; 1991.
- Belsky, J. Determinants and consequences of infant-parent attachment. In: Balter, L.; Tamis-LeMonda, CS., editors. Child psychology: A handbook of contemporary issues. New York: Psychology Press; 2006. p. 53-77.
- Bigras M, LaFreniere PJ, Dumas JE. Discriminant validity of the parent and child scales of the Parenting Stress Index. Early Education and Development 1996;7:167–178.
- Bumpass LL, Lu H. Trends in cohabitation and implications for children's family contexts in the United States. Population Studies 2000;54:29–41.
- Cabrera NJ, Ryan RM, Shannon JD, Brooks-Gunn J, Vogel C, Raikes H, Tamis-LeMonda C, Chazan Cohen R. Low-income biological fathers' involvement in their toddlers lives: The Early Head Start National Research and Evaluation Study. Fathering 2004;2:5–30.
- Cain DS, Combs-Orme T. Family structure effects on parenting stress and practices in the African American family. Journal of Sociology and Social Welfare 2005;32:19–40.

- Carlson, M.; McLanahan, S.; Brooks-Gunn, J. Unmarried but not absent: Fathers' involvement with children after a nonmarital birth (Working Paper #05-07-FF). Princeton, NJ: Center for Research on Child Wellbeing; 2005.
- Carlson M, McLanahan S, Brooks-Gunn J. Co-parenting and nonresident father involvement with young children after a nonmarital birth. Demography 2008;45:461–488. [PubMed: 18613490]
- Carlson M, McLanahan S, England P. Union formation in fragile families. Demography 2004;41:237– 262. [PubMed: 15209039]
- Child Trends. Early child development in social context: A chartbook. New York: Author; 2004.
- Coley RL, Chase-Lansdale PL. Stability and change in paternal involvement among urban African American fathers. Journal of Family Psychology 1999;13:416–435.
- Coley RL, Morris JE. Comparing father and mother reports of father involvement among low-income minority families. Journal of Marriage and Family 2002;64:982–997.
- Compas BE, Williams RA. Stress, coping, and adjustment in mothers and young adolescents in singleand two-parent families. American Journal of Community Psychology 1990;18:525–545. [PubMed: 2075890]
- Copeland D, Harbaugh BL. Differences in parenting stress between married and single first time mothers at six to eight weeks after birth. Issues in Comprehensive Pediatric Nursing 2005;28:139–152. [PubMed: 16251160]
- Crnic KA, Booth CL. Mothers' and fathers' perceptions of daily hassles of parenting across early childhood. Journal of Marriage and the Family 1991;53:1042–1050.
- Dion MR. Healthy marriage programs: Learning what works. Future of Children 2005;15:139–156. [PubMed: 16158734]
- Edin, K.; Kefalas, M. Promises I can keep: Why poor women put motherhood before marriage. Los Angeles: University of California Press; 2005.
- Edin, K.; Lein, L. Making ends meet: How single mothers survive welfare and low-wage work. New York: Russell Sage Foundation; 1997.
- Ethier LS, Lacharite C, Couture G. Childhood adversity, parental stress, and depression of negligent mothers. Child Abuse and Neglect 1995;19:619–632. [PubMed: 7664141]
- Garfinkel I, McLanahan S. Unwed parents: Myths, realities, and policymaking. Focus 2002;22:93–123.
- Gershoff ET, Aber LJ, Raver CC, Lennon MC. Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. Child Development 2007;78:70–95. [PubMed: 17328694]
- Goode WJ. A theory of role strain. American Sociological Review 1960;25:488-496.
- Hetherington, EM.; Cox, M.; Cox, R. Effects of divorce on parents and children. In: Lamb, M., editor. Nontraditional families. Hillsdale, NJ: Erlbaum; 1982. p. 238-288.
- Hutcheson JJ, Black MM. Psychometric properties of the Parenting Stress Index in a sample of lowincome African-American mothers of infants and toddlers. Early Education and Development 1996;7:381–400.
- Jackson AP, Brooks-Gunn J, Huang C, Glassman M. Single mothers in low-wage jobs: financial strain, parenting, and preschoolers' outcomes. Child Development 2000;71:1409–1423. [PubMed: 11108104]
- Jackson AP, Tienda M, Huang C. Capabilities and employability of unwed mothers. Children and Youth Services Review 2001;23:327–351.
- Kalil A, Ziol-Guest KM, Coley RL. Perceptions of father involvement patterns in teenage-mother families: Predictors and links to mothers' psychological adjustment. Family Relations 2005;54:197– 211.
- Kessler RC, Andrews G, Mroczek D, Ustun B, Wittchen HU. The World Health Organization Composite International Diagnostic Interview Short-Form (CIDI-SF). International Journal of Methods in Psychiatric Research 1998;7:171–185.
- Lerman R, Sorensen E. Father involvement with their nonmarital children: Patterns, determinants, and effects on their earnings. Marriage and Family Review 2000;29:137–158.
- Maccoby, EE.; Mnookin, RH. Dividing the child: Social and legal dilemmas of custody. Cambridge, MA: Harvard University Press; 1992.

Ryan et al.

- Mainieri, T.; Grodsky, M. The Panel Study of Income Dynamics-Child Development Supplement: User Guide Supplement-I. Ann Arbor, MI: Institute for Social Research; 2006. Retrieved November 26, 2007, from http://psidonline.isr.umich.edu/CDS/CDS1_UGSupp.pdf
- McHale JP. Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. Developmental Psychology 1995;31:985–996.
- Ooms, T.; Bouchet, S.; Parke, M. Beyond marriage licenses: Efforts to strengthen marriage and twoparent families. Washington, DC: Center for Law and Social Policy; 2004.
- Ostberg M, Hagekull B. A structural modeling approach to the understanding of parenting stress. Journal of Clinical Child Psychology 2000;29:615–625. [PubMed: 11126638]
- Pianta RC, Egeland B. Life stress and parenting outcomes in a disadvantaged sample: Results of the mother-child interaction project. Journal of Child Clinical Psychology 1990;19:329–336.
- Preacher, KJ.; Leonardelli, GJ. Calculation for the Sobel test: An interactive calculation tool for mediation tests. 2006. Retrieved June 12, 2008, from http://www.unc.edu/~preacher/sobel/sobel.htm
- Presser, HB. Working in a 24/7 economy: Challenges for American families. New York: Russell Sage Foundation; 2003.
- Reichman NE, Teitler JO, Garfinkel I, McLanahan SS. Fragile families: Sample and design. Child and Youth Services Review 2001;23:303–326.
- Rogers SJ, White LK. Satisfaction with parenting: The role of marital happiness, family structure, and parents' gender. Journal of Marriage and the Family 1998;60:293–308.
- Rossi AS. Transition to parenthood. Journal of Marriage and Family 1968;30:28-39.
- Ryan RM, Kalil A, Ziol-Guest KM. Longitudinal patterns of nonresident fathers' involvement: The role of resources and relations. Journal of Marriage and Family 2008;70:962–977.
- Sepa A, Frodi A, Ludvigsson J. Psychosocial correlates of parenting stress, lack of support and lack of confidence/security. Scandinavian Journal of Psychology 2004;45:169–179. [PubMed: 15016271]
- Shrout PE, Bolger N. Mediation in experimental and non-experimental studies: New procedures and recommendations. Psychological Methods 2002;7:422–445. [PubMed: 12530702]
- Sigle-Rushton W, McLanahan S. The living arrangements of new unmarried mothers. Demography 2002;39:415–433. [PubMed: 12205750]
- South SJ, Spitze G. Housework in marital and nonmarital households. American Sociological Review 1994;59:327–347.
- Statacorp. Stata statistical software: Release 10.0. College Station, TX: Stata Corporation; 2007.
- Thoits PA. Stress, coping, and social support processes: Where are we? What next? Journal of Health and Social Behavior 1995;35:53–79. [PubMed: 7560850]
- Vosler NR, Proctor EK. Family structure and stressors in a child guidance clinic population. Families in Society 1991;72:164–173.
- Webster-Stratton C. Stress: A potential disruptor of parent perceptions and family of interactions. Journal of Clinical Child Psychology 1990;4:302–312.
- Weinraub M, Wolf BM. Effects of stress and social supports on mother-child interactions in single- and two-parent families. Child Development 1983;54:1297–1311. [PubMed: 6354635]

Page 16

TABLE 1

Unwed Parents' Relationship Trajectories in the First Year of the Child's Life

	Birth				
1 Year	Coresident	Nonresident- Romantic	Nonresident- Nonromantic		
Coresident	923		334		
n	33.7		12.2		
% of total					
Nonresident-romantic	112	251			
n	4.1	9.2			
% of total					
Nonresident-nonromantic	275	451	390		
n	10.1	16.5	14.3		
% of total					

Note. *N* = 2,736.

NIH-PA Author Manuscript

TABLE 2

Parenting Stress, Father Support, and Other Covariates by Parents' Relationship Trajectory During the First Year of the Child's Life

Ryan et al.

	Col	resident at Baseli	ine		Nonresiden	it at Baseline	
	Consistently Coresident	Coresident to NRS-NRM	Coresident to NRS-RM	Consistently NRS-RM	NRS-RM to NRS-NRM	NRS-RM to Coresident	Consisently NRS-NRM
Dependent variable							
Parenting stress	2.10_{a}	2.29_{b}	2.15_{a}	2.14_{a}	2.36_{b}	2.11_{a}	$2.23_{ m b}^{***}$
Fathers' financial support							
Maternal hh inc/cs	$30,127.92_{\rm a}$	$21,259.34_{ m b}$	$20,057.92_{\rm b}$	$22,699.89_{\rm b}$	$19,642.47_{ m b}$	$27,164.72_{\rm a}$	$21,632.22_{\rm b}^{***}$
Material hardship (%)	26.3_{a}	$36.7_{\rm b}$	45.5 _b	27.1_{a}	35.5_{ab}	32.0_{ab}	$33.1_{\rm ab}^{***}$
Fathers' caregiving support							
Activities with child	4.49_{a}	1.75_{b}	2.94 _c	$3.12_{\rm c}$	1.27_{d}	4.50_{a}	.74 _e ***
Coparenting with mother	3.81_{a}	2.99_{b}	3.76_{a}	3.72_{a}	2.77 _c	3.80_{a}	$2.12_{\rm d}^{***}$
Maternal covariates							
Mother is European American (%)	22.0	17.4	13.3	8.0	6.6	12.2	17.7^{***}
Mother is African American (%)	40.0	54.6	66.1	74.1	74.3	61.4	58.2^{***}
Mother is Latin American (%)	35.8	24.0	18.8	15.1	17.5	24.9	21.3 ***
Mother is other race (%)	2.2	4.0	1.8	2.8	1.6	1.5	2.8
Mother has < HS (%)	35.6	42.6	38.4	37.1	40.6	36.3	42.1
Mother is teenage (%)	18.6	18.2	19.6	27.9	30.6	26.4	24.1 ***
Mother had intact family at 15	41.2	33.8	34.8	32.7	27.1	35.3	31.8 ***
Mothers' religiosity	30.3	28.7	26.8	40.6	34.8	35.3	36.2^{**}
Alcohol during pregnancy	10.2	14.6	6.3	10.4	15.8	9.3	19.7 ***
Smoked during pregnancy	21.6	25.8	20.5	20.3	23.7	21.6	25.4
Grandmaternal coresidence (%)	12.0	21.5	18.8	43.0	30.4	18.7	31.0 ***
Resident partner (%)	0.0	11.6	0.0	0.0	11.8	0.0	16.2^{***}
# children in HH	2.25_{a}	2.39_{a}	2.70_{b}	2.57_{b}	2.43_{a}	2.34_{a}	$2.33_{\rm a}^{**}$
Child Covariates							
Child is male (%)	52.6	49.8	46.4	54.6	52.3	51.2	55.6

Consistently Coresident Coresident to NRS-NRM Core Child's age in months 14.45 _a 15.98 _b 1					
Child's age in months 14.45 _a 15.98 _b 1	Coresident to Coresident NRS-NRM to NRS-RM	Consistently NRS-RM	NRS-RM to NRS-NRM	NRS-RM to Coresident	Consisently NRS-NRM
	15.98 _b 15.13 _a	15.20_{a}	15.84,	$15.30_{\rm b}$	$15.44_{\rm b}^{***}$
Child's health poor 12.7 16.4	16.4 16.1	13.6	14.2	12.3	15.4

Ryan et al.

Note. NRS-RM = Nonresident-Romantic; NRS-NRM = Nonresident-Nonromantic.

Different subscripts represent mean differences significant at p < .05 in Bonferroni post-hoc comparisons.

p < .05;p < .01;p < .01; $^{***}_{p<.001.}$

TABLE 3

OLS Models Regressing Parenting Stress at One Year on Relationship Trajectory and Father Support Measures

	(1)) ^a	(2)
	b	SE	b	SE
Relationship trajectory	-		-	
(Consistently coresident omitted)	-	-	-	-
Coresident to NRS-NRM	.16	.05**	.05	.05
Coresident to NRS-RM	.01	.06	07	.06
Consistently NRS-RM	01	.05	06	.05
NRS-RM to NRS-NRM	.20	.04***	.08	.05
NRS-RM to coresident	01	.04	02	.04
Consistently NRS-NRM	.09	.04*	05	.05
Fathers' financial support				
Maternal hh income/child support (ln)			02	.01
Material hardship			.15	.03***
Fathers' caregiving support				
Activities with child			02	.01**
Coparenting with mother			02	.02
Constant	1.99***		2.32***	
Model F	8.05***		8.76***	
R^2	.05		.08	
R^2 change			.03***	

Note. ^aModel 1 (and subsequent model) includes all maternal and child covariates.

N =2,736.

$$* p < 05;$$

*

p < .01;

*** p < .001.