Children's Adjustment to Parents' Break Up: The Mediational Effects of Parenting and Co-parenting

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Abstract

Although past studies have shown an association between union instability (i.e., change in family structure) and children's aggressive behaviors, the mechanism by which this occurs is less understood. This study ($n = 3,387$) examined whether father and mother involvement, co-parenting support, and maternal responsiveness explained the association between union instability in early life and children's aggressive behaviors at 9 years, and whether relationship status moderated this association. Findings reveal that only co-parenting support mediated this association and only for children whose mothers divorced (not for mothers who experienced a non-marital separation), suggesting that when a divorce occurs, the relationship between partners (co-parenting) is more important than the relationship with children (parenting) for children's social adjustment.

Keywords

union instability; externalizing behaviors; co-parenting support; parenting; family structure

Externalizing problem behaviors (EPB) during early childhood generally refer to aggressive and hyperactive behaviors displayed by children that stem from difficulty understanding and expressing emotions (Denham et al., 2003). These types of behaviors are more common early in life than internalizing problem behaviors (e.g., withdrawn, anxious, depressed), which often do not emerge developmentally until pre-adolescence (Leve, Kim, & Pears, 2005). When EPB persist into middle childhood, there can be serious and long-lasting consequences for children's wellbeing (e.g., Collishaw, Gardner, Maughan, Scott, & Pickles, 2012). The consequences of EPB for children's concurrent and long-term adaptation have shed the spotlight on families, which are most influential to children's early development (Bornstein, 2002). Two aspects of the family that are consequential for children's adjustment are the types of families they live (i.e., family structure) and the way parents relate to one another as parents and how they relate to their children (family processes). The foci on family structure and family processes are common in sociological research but not often integrated into developmental research. There are strong theoretical reasons to examine how family structure and family processes are associated with children's EPB in early childhood.

The importance of family structure as a potential source of variation for children's behavior problems is underscored by the fact that over the last 40 years dramatic changes in family composition have changed the living conditions of children (e.g., Bumpass & Lu, 2000; Kennedy & Bumpass, 2008; Seltzer, 2019). For example, in 1970, 11% of infants were born to unwed mothers (i.e., single and cohabiting; Akerlof, Yellen, & Katz, 1996), whereas 42% of all children today are born to unwed mothers (CDC, 2018). Compared to children living in families with two married parents, children living in other types of families (e.g. cohabiting, single parent) are more likely to experience a change in their parents' residential relationships, also referred to as union instability (i.e., change from single to cohabiting, married to divorced, cohabiting to single) leading to unstable or unpredictable care or living arrangements that can have deleterious effects on children's behaviors (Karberg & Cabrera, 2017). Stability and predictability in who cares for children and how characterize the best and optimal developmental environments, so any change in family structure may place children under conditions they are not well equipped to handle (Sandstrom & Huerta, 2013). Unstable home environments are also difficult for parents to manage and under these conditions the quality of their interactions with each other as well as with their children, which are most proximal to the child, can also be disrupted with potentially negative consequences for children's wellbeing (Bronfenbrenner, 1986). Whether family processes mediate the association between union instability and children's EPB is just beginning to be explored.

We address this gap in the literature and ask the following research questions: (1) Do co-parenting support, father and mother involvement, and maternal responsiveness at 5 years mediate the association between union instability over the early years (ages 3 to 5) and children's aggressive behaviors at 9 years old? And, (2) does maternal relationship status at age 3 moderate the association between union instability (between ages 3 to 5) and children's aggressive behaviors at age 9 (see Figure 1)?

Theoretical background

We frame this study using family systems theory; individuals' functioning unfolds in a network of interrelated subsystems (e.g., mother-child, mother-father) and is influenced by the characteristics of the individuals interacting within the family network such that a change in one subsystem results in a change in another (Cox & Paley, 1997). According to family systems theory, children's functioning is hierarchically related to other subsystems according to their proximity to the child. For example, the quality of the co-parenting relationship is a stronger predictor of children's adjustment than the quality of the parents' romantic relationship because of its proximity to the child (Feinberg, Kan, & Hetherington, 2007). Further, the effect of family structure on children's development is hypothesized to be both direct, from proximal influences such as parenting, and indirect, from distal factors such as parents' socio-economic status (SES) that spillover to the child through more proximal processes such as parenting and coparenting. These direct and indirect effects are continuous and reciprocal, making the family system dynamic and influenced by time (Cox & Paley, 1997).

Within a family system framework, children and parents have direct influences on children's EPB, including aggression, through their own characteristics and their relationships with one another. The relational subsystems that entail specific dyads (e.g., the parent-child, mother-father) also exert direct and indirect influences on the children's wellbeing. Family level characteristics (e.g., union instability) are hypothesized to influence children's aggressive behaviors through its effects on other family subsystems (e.g., father involvement, mother involvement, quality of mother-child interaction, co-parenting support). Thus, we examine whether union instability during the early childhood period influences children's aggressive behaviors at 9 years through its effects on parenting, that is father and mother involvement and mother responsiveness, and co-parenting support. Further, we examine whether this association varies by maternal relationship status.

Union Instability and Children's Aggressive Behaviors

The last few decades have been characterized by a significant shift in family structure and, consequently, in the living environments of children with almost 40% living with unmarried cohabiting parents at some point during their childhoods (Bumpass & Lu, 2000). Current Population Survey estimates show that 21% of children in 2017 lived with single mothers (Livingston, 2018). In contrast to living in two-parent married households, living in cohabiting families is considered less optimal because they are less stable, which reduces parents' time and resources available to the child (Kalil, Ryan, and Chor, 2014). A study using nationally representative data reports that 60% of unwed parents are cohabiting at their child's birth, but over 60% of these relationships dissolve within their child's first 5 years (Kamp Dush, 2011), compared to 26% of married families (Copen, Daniels, Vespa, & Mosher, 2012).

Given the potential for instability and stress for the entire family as a result of a change in family structure, the question is how does union instability affect children's wellbeing? The answer to this question is just beginning to emerge. A study using a national dataset set found that children who live with cohabiting parents are more likely to exhibit aggressive behaviors than children living in married families (Brown, 2004). Children living in cohabiting unions are expected to experience more instability, which adversely affects children. Couples who frequently move in or out of the home during the first 6 years of a child's life have children with a higher number of aggressive behaviors, net of socio-economic status (SES; Cavanagh & Huston, 2006). But, a study that controlled for union instability (mothers' relationship dissolution and re-partnering) and SES found that children in cohabiting families exhibited similar levels of aggressive behaviors as children living with married parents (Osborne & McLanahan, 2007). These findings suggest that cohabiting unions that are stable may be as supportive of children's development as marital unions. But when parents no longer share the same residence, the amount of parental time and resources available to the child are reduced, which can result in increased behavioral problems as children try to cope with the change in living arrangements (Cavanagh & Huston, 2006; Fomby & Cherlin, 2007). Thus, *stable* cohabiting unions may not be associated with higher levels of aggressive behaviors.

Other research has shown that it is not just the frequency with which partners move out of the household that has negative consequences for children, but also the introduction of a new partner into the household. Using a nationally representative sample of children born in 2001, Fagan (2013) found that toddlers living with their mothers who remained single after a divorce (a measure of stability) had higher literacy scores than children living with their mother and her new cohabiting partner following a divorce (a measure of instability). Presumably, a new partner who may or may not want the child, competes with the child for the mother's attention and may further reduce maternal time spent with the child (Kalil et al., 2014). Collectively, these studies suggest that when parents dissolve their union and a new partner moves into the child's home (union instability), the quality of the relationships between mothers and their children and among other adults in the family also change, creating difficult conditions for children.

Although these studies have shown strong correlational associations between union instability and children's behaviors, they only hint at possible mechanisms that might be at work. To date only a handful of studies have examined the mechanism by which union instability is associated with children's aggressive behaviors. To address this gap, we examine why (i.e., mediation) and when (i.e., moderation) union instability is negatively associated with children's social adjustment.

Mediating Effects

Because change in parents' residential status is likely to change the way parents and children relate to one another, we focus on two such processes, namely co-parenting and parenting as possible mediating pathways. In general, there is strong evidence (including findings from RCTs) that in contrast to parents that undermine each other, parents who support each other in their roles as parents (co-parenting support) have children who have fewer behavioral problems (Feinberg et al., 2007; Murphy, Jacobvitz, & Hazen, 2016). Moreover, there is already evidence of the mediating effect of co-parenting in the context of union instability. Specifically, a decline in co-parenting support explained children's aggression when their mothers moved in with a new partner but not when their mothers separated from their fathers (Karberg & Cabrera, 2017). However, theory suggests that co-parenting cannot be understood fully outside of the context of other family processes (Feinberg, 2003), and these studies have yet to account for other important family processes that may be at play.

For example, there may also be changes in the parenting relationship when families experience union instability. In particular, fathers influence their children through the quality of their relationship with them (Cabrera et al., 2012; Cabrera, Volling, & Barr, 2018). Fathers who reside with their children are able to be involved and engaged in their children's lives and have children who are more socially adjusted than their counterparts (Cabrera et al., 2007). When fathers become nonresident, father involvement is likely to decline, which may have negative consequences for children (e.g., Carlson, 2006; Tach, Mincy, & Edin, 2010). Additionally, having a new partner in the household after the biological father has become nonresident can decrease father involvement even more (Tach et al., 2010), which may have a negative effect on children's social adjustment (Cabrera et al., 2007).

Theory and research suggest that the quality of the mother-child relationship predicts a number of developmental outcomes across developmental periods (e.g., Bronfenbrenner, 1986). Changes in family structure are a strong predictor of maternal behaviors. Mothers who report their relationships with their partner is stable are more likely to be rated as responsive during interactions with their toddlers than mothers who report relationship instability (Bonds & Gondoli, 2007). Moreover, mothers who report union instability are less likely to report high levels of involvement (e.g., frequent conversation, engagement in activities together) with their children than mothers who are continuously married or cohabiting (Carlson, 2006). These findings suggest that union instability may be linked to children's aggressive behaviors because it reduces the frequency of mother involvement and mother responsiveness.

Moderating effects

Children living in married families are more likely to exhibit better social outcomes (more social competence and fewer aggressive behaviors) than children living in unmarried families (cohabiting, single parent; Carlson & Magnuson, 2011). Because marriage is believed to be permanent and stable, break up can have negative consequences for families and be more stressful (i.e., more so than other union break-ups; Carlson & Magnuson, 2011). Thus, we test an exploratory model that children from divorced parents fare worse than children from separated never married parents because the stress of a divorce is greater than that of a non-marital breakup.

Current Study

Our study expands on the current literature by examining how family processes (mother and father involvement, co-parenting, maternal responsiveness) explain the association between union instability and children's aggression, and whether this differs by relationship status. From a family systems perspective, we hypothesize that changes in family structure influence children because of their effect on different subsystems such as parenting and co-parenting. We hypothesize that union instability is related to children's aggressive behaviors because it reduces father involvement, mother involvement, and co-parenting support. We also hypothesize that the association between union instability and children's aggressive behaviors will be stronger for married families than for cohabiting families.

Methods

Data Source

We use data from the Fragile Families and Child Wellbeing (FFCW) study, a national study that follows a cohort of 4,898 children born between 1998 and 2000 in 20 U.S. cities with populations of 200,000 or more. Mothers and fathers were interviewed when children were born and at 1-, 3-, 5-, and 9-years after birth. Questions about relationship status and living arrangements, parental involvement and co-parenting were asked of both parents. Rich developmental data were available starting at 3 years.

Of the total baseline (at child's birth) sample of $n = 4,898$ families, we excluded $n = 1,428$ (29%) cases because they did not have national sample weights. Thus, they could not be

included in analyses that used weights to make the sample representative. Recent research suggests that the use of weights with the highest response rates (in this case the mother weights) and auxiliary variables to help explain variance in the father survey data (we control for fathers' demographic characteristics) is an acceptable alternative to retain as many cases as possible (Stapleton, 2013). Additionally, we excluded $n = 26$ (<1%) cases because these mothers reported that they never planned to live with their child and $n = 57$ (1.16%) cases because the Mahalanobis distance computation (Hair, Anderson, Tatham, & Black, 1995) identified them as multivariate outliers (i.e., they had an unusual combination of scores on union instability, co-parenting support, father involvement, mother involvement, maternal responsiveness, maternal relationship status, and child aggressive behaviors). The final analytic sample included 3,387 children who resided with their biological mothers at birth. Thus, our findings generalize to children who were living with their biological mothers after birth in large U.S. cities.

Measures

Dependent variable.—*Children's aggressive behaviors* at 9 years were measured with the aggressive subscale of the Child Behavior Checklist (CBCL). The CBCL is widely used in research and has acceptable validity and reliability ($a = .87$) in population samples (Rescorla et al., 2007). Mothers were asked to rate 19 aggressive items on a 3-point scale: 1 = *not true*, 2 = *somewhat true*, 3 = *very true*. Examples of aggressive behaviors include "Child is cruel, bullies, or shows meanness to others," "Child physically attacks people," and "Child has temper tantrums or a hot temper." The aggressive items were then summed for a composite measure of each aspect of aggression. We use the aggression subscale because it is the only component of the CBCL externalizing behavior scale available at ages 3 and 9 (we control for aggression at age 3; see control variable description below). Moreover, there is more variability in the aggression subscale that in the other subscales (e.g., delinquent behavior) of the externalizing behavior scale because the other subscales tend to measure more clinically problematic behaviors.

Independent variable.—*Union instability* (measured between 3 and 5 years) was operationalized as the number of times mothers reported transitioning from one relationship status (e.g., single, cohabiting, married) to another (e.g., single/married, single/cohabiting, cohabiting/single, married/single; Fomby & Osborne, 2010). For a change in relationship status to be counted it needed to involve a change in romantic *and* residential status of the relationship (i.e., a change from cohabitation to marriage is not considered to be a transition because the couple did not change residence). Thus, union instability was assessed as the frequency with which mothers reported a change in their residential and romantic relationship between child 3 and 5 years.

We assessed union instability in our sample between birth and age 3, and the vast majority of mothers (93%) reported no instability (39%) or that they broke up with the child's father but did not re-partner (54%), which is captured in their relationship status at age 3 and thus in our model through moderation.

At ages 3 and 5, mothers were asked whether they resided with their child's biological father and whether they resided with a new partner. To code for union instability, each maternal reported change in residential partnership (e.g., father moves out, new partner moves in) was given a value of one. Mothers were coded "0" if at 5 years they reported no change in their residential relationships since the child was 3 years-old. Mothers were coded "1" if they reported one new residential arrangement (e.g., biological father moved out) since the last wave (when their child was 3 years old). Mothers were coded "2" if they reported two changes to their residential arrangement (e.g., biological father moved out *and* a new partner moved in). When child was 5 years-old, mothers were also asked how many romantic partners they have lived with for more than one month since the last wave (child was 3 years old). This information was incorporated into the coding described.

Mediating variables.—*Co-parenting support* (measured when child was 5 years-old) was reported by mothers, who were asked 6 questions about whether they felt supported by their child's biological father in their role as mother using a 4-point scale: 1 = *always*, 2 = *sometimes*, 3 = *rarely*, or 4 = *never*. The six questions addressed the mothers' trust that the child will be cared for by the father, whether the father respects and supports the decisions the mother makes regarding the child, and about the communication between parents about raising a child. The six questions were reverse coded so that higher scores indicated more co-parenting support; they were summed and then averaged for a composite score of co-parenting support. Alpha for this scale is .85.

Father involvement and *mother involvement* (measured when child was 5 years old) were reported by fathers and mothers, respectively, and were measured with 8 questions that asked each parent how many days per week (0–7) (s)he plays games, sings songs, tells or reads stories, takes child to visit relative, puts child to bed, or shows physical affection when the child is 5 years old. The 8 questions gather information on activities parents do with their children such as engaging in play, engaging in cognitive stimulating activities (e.g., reading), and care giving (e.g., putting child to bed). The 8 questions were summed and then averaged for a composite score of father and mother involvement. Alpha for father involvement is .76; alpha for mother involvement is .80.

Maternal responsiveness.: Maternal responsiveness was measured with the HOME (Home Observation for Measurement of the Environment). The HOME consists of several subscales – parental responsiveness, lack of hostility, verbal skills, home interior environment, condition of surrounding block, and home exterior environment. For this study we used the parental responsiveness subscale, which consists of 8 questions answered yes/no that assessed how warm and responsive the observed mother-child interaction was. Sample questions included "parent encourages child to contribute," "parent caresses, kisses, or hugs child," and "parent praises child twice during visit." The HOME parental responsiveness scale was summed then averaged for a composite score of maternal responsiveness. Alpha for maternal responsiveness is .81.

Moderating variable.—*Maternal relationship status* (married, cohabiting, or single) was assessed with two variables, married (1 = married, 0 = else) and cohabiting (1 = cohabiting,

0 = else), and was derived from mother's reports of her relationship status at 3 years (before her reported union instability).

Control variables.—To isolate the association of union instability to children's aggressive behaviors, we controlled for mother and father ethnicity (measured categorically: White, Black, Latino, other), education (measured categorically: some high school, high school diploma or equivalent, some college or technical school, college or graduate degree), age (measured continuously), mothers' poverty status (1 = meets criteria for poverty) at baseline, whether mothers had a new child with a new partner since the focal child's birth (1 = new child), and mother's union instability between 5 and 9 years (range 0 – 6). These covariates are related to children's aggressive behaviors in the literature (Fomby & Osborne, 2010; Tach et al., 2010). We also controlled for child gender, age (in months) when their mothers rated their behaviors, temperament at 1 year, and CBCL scores at 3 years, as these covariates are also associated with aggressive behaviors (Miner & Clarke-Steward, 2008).

Analytic Plan

We ran a measured variable path analysis in Mplus version 7.4 adjusting for multivariate non-normality using robust standard errors as recommended by Finney and DiStefano (2013). Path analysis is appropriate because it tests a theoretical model and enabled us to assess the theoretical causality of the longitudinal associations between union instability in early childhood, co-parenting support, father and mother involvement, maternal responsiveness, maternal relationship status, and child aggressive behaviors at 9 years. This analysis provides more detailed information about the unique effects among the variables of interest than regression, as well as total effects of how family change influences aggressive behaviors.

To address research question 1 (mediation), we first tested the direct path from union instability to children's aggression at age 9, then tested the direct paths from union instability to our mediators (co-parenting support, father involvement, mother involvement, and maternal responsiveness) and from our mediators to children's aggressive behaviors. To address research question 2 (moderation), we interacted maternal union instability with relationship status (married, cohabiting, or single) and added this term to model 1. We used the mother weights (1 sample weight and 33 replicate weights) from the baseline (child birth) survey because it weights all mother survey questions and has the largest sample size (which minimizes missing data). In the analysis, we allowed the error terms of the corresponding mother and father involvement questions to covary. We modeled all control variables to covary with all endogenous variables (i.e. union instability, father and mother involvement, maternal responsiveness, co-parenting support, maternal relationship status, and children's aggressive behaviors).

Results

Missing Data

There was an average of 22.4% missing data on all study variables, ranging from 0% on demographic variables such as age and race to 58% on maternal responsiveness. This level

of missingness can be handled successfully with various imputation methods (e.g., FIML; Graham, 2009). In this study we used Full Information Maximum Likelihood (FIML) to adjust for missing data. We first tested the patterns of missingness in SPSS and determined the data are Missing at Random (MAR). The percent of missing data on study variables is as follows: union instability 31%, co-parenting support 30%, father involvement 56%, mother involvement 18%, maternal responsiveness 58%, aggressive behaviors 35%, and mothers' relationship status 14%.

The highest amount of missing data was on father involvement and maternal responsiveness. The reason for the large amount of missing data on father involvement was because most of the men were nonresident and difficult to locate. The missingness on maternal responsiveness was because a subset of mothers participated in the in-home assessment (when observers coded maternal responsiveness), thus fewer (61%) completed the in-home assessment compared to the telephone interviews (79%; Bendheim-Thoman Center for Research on Child Wellbeing, 2008). We tested the assumptions for using FIML, and overall the data met the assumption for missing at random.

Descriptive Statistics

Table 1 shows weighted descriptive statistics. At the child's birth, mothers and fathers, on average, were 27 and 28 years old, respectively, and 28% and 27% had less than high school, respectively. The plurality of mothers and fathers were White (38%), followed by Latino (31%), then Black (23%). Twenty percent of mothers reported household incomes that fell below the poverty line.

When children were 3 and 5 years old, nearly 60% of mothers were married at either age (see Table 1), 17% and 15% were cohabiting, respectively, and 23% and 25% were single or in a non-residential relationship, respectively (results not shown). The percentage of mothers reporting any union instability decreased from 21% between 3–5 years ($M = .29$, range 0–6) to 6% between 5–9 years ($M = .21$, range 0–8). Two percent of mothers reported having a new child with a new partner (i.e., not the focal child's biological father) by 5 years (Table 1).

Table 2 shows the bivariate correlations among all study variables. Overall in the weighted models, all study variables reported here were correlated with each other ($p < .05$). Union instability (ages 3–5) was significantly and positively correlated with children's aggressive behaviors at 9 years ($r = .19$) and father and mother involvement ($r = .08$ and $r = .05$, respectively) involvement. Union instability was negatively correlated with co-parenting support ($r = −.41$) and maternal responsiveness ($r = −.15$). Co-parenting support and maternal responsiveness were negatively associated with aggressive behaviors ($r = −.18$ and $r = −.30$, respectively). Mother and father involvement were positively associated with aggressive behaviors ($r = .09$ and $r = .13$, respectively). All study variables were also significantly correlated ($p < .05$) with all control variables with a few exceptions. Mothers' relationship status at 3 years was not significantly correlated with father involvement at 5 years.

Path Analysis

We ran two path models to identify the associations among study variables and test each research questions. Tables 3 and 4 show results of the final path model testing mediation and moderation simultaneously. Results from the path model testing mediation only is available upon request.

In our first path model (results not shown), we tested whether co-parenting support, father and mother involvement, and maternal responsiveness mediated the direct association between union instability and children's aggressive behaviors without taking marital status into consideration. The data fit the model well[1] (RMSEA = .03 (90% CI = .02 - .05), SRMR = .01). There was a significant, direct effect between union instability (ages 3–5) and children's aggression at age 9 (β = .17, p = .04). Moreover, we found that co-parenting support was the only significant mediator of the association between union instability (ages 3–5) and children's aggression (results available upon request). Specifically, the association between union instability (ages 3–5) was significantly and negatively associated with co-parenting support at 5 years (β = −.23, p = .01), which, in turn, was negatively associated with children's aggressive behaviors at 9 years (β = −.15, p < .01). Union instability was not significantly associated with any of the other mediators (i.e., maternal responsiveness and mother and father involvement at 5 years).

We then tested our full model, adding our moderating variables. We first tested whether relationship status (using two variables – married vs. unmarried and cohabiting versus not cohabiting to capture married, cohabiting, and single status) moderated the indirect association between union instability and children's aggressive behaviors (see Figure 1). The model fit was not acceptable (RMSEA = 0.11 (90% CI = .11 - .12), SRMR = .05). To determine how to improve fit, we tested the model with our two moderating variables (married versus unmarried and cohabiting versus not cohabiting) separately. The model with marriage (i.e., married versus unmarried) as a moderator fit well whereas the model with cohabitation (i.e., cohabiting versus not) did not fit well. We further examined the association between relationship status (married, cohabiting, and single) and our variables of interest and found that cohabiting status was not a significant predictor or moderator of union instability, but marriage status was a significant predictor and moderator. Thus, we ran the model with marital status (married versus unmarried) as our only moderator of the indirect association between union instability and children's aggressive behaviors. The data fit the model well (RMSEA = .03 (90% CI = .02 - .04), SRMR = .01).

Tables 3 and 4, also depicted in Figure 1, show that marriage status at 3 years moderated the association between union instability (3–5) and co-parenting support (β = −.19 for unmarried mothers and β = −.32 for married mothers, p = .05), which was significantly related to children's aggressive behaviors (β = −.15, p < .01). That is, the association between union instability and children's aggressive behaviors through co-parenting support was stronger for divorced families than for separated cohabiting families. Marital status did not moderate the association between union instability and father and mother involvement,

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[1]The CFI and χ^2 tests were not available with weighted data.

or maternal responsiveness. The full model explained 28% of the variance in aggressive behaviors (see Tables 3 and 4).

Discussion

Correlational and longitudinal studies have shown that union instability is associated with children's aggressive behaviors (e.g., Cavanagh & Huston, 2006; Fomby & Cherlin, 2007). With some exceptions (e.g., Fomby & Osborne, 2010; Karberg & Cabrera, 2017), this literature has not systematically explored the mechanisms that explain this association. This was the primary goal of the current study. This is an important topic of study because in the United States over the last decades the probability that children live in cohabiting families has increased dramatically (Bumpass & Lu, 2000; Kennedy & Bumpass, 2008). Living in cohabiting families is linked to increases in aggressive behaviors because these families tend to be less stable than married families (e.g., Cavanagh & Huston, 2006; Fomby & Cherlin, 2007). We explored how family processes (e.g., co-parenting support, father and mother involvement, maternal responsiveness, and marital status) worked together to explain why union instability is negatively associated with children's social adjustment, controlling for earlier behavioral problems. Overall, we found that the association between union instability and children's aggressive behaviors is small and is completely mediated by a decrease in co-parenting support. Moreover, this association was found for married families, but not for separated cohabiting.

One important descriptive finding from our study is that union instability was relatively rare. Most research on union instability is conducted with low-income cohabiting mothers and finds that there are high rates of instability among these families (e.g., Kamp Dush, 2011). When married and single families are also included in the sample, as they were in our study, the rates of union instability are not as high. In the sample of "fragile" married, cohabiting, and single-mother families in our study, 27% of mothers reported any union instability (i.e., mothers report that a change in marital status occurred: either the father/partner left, a new person came into the household, or a combination of the two) between 3–5 years and only 9% reported union instability between 5–9 years. Overall, these findings suggest that the prevalence of union instability very much depends on how it is measured, who is included in the samples, and how it is presented. In our study, cohabiting mothers drove the rates of instability, but instability only predicted aggressive behaviors for children of formerly married mothers. This finding warrants more research.

Turning to our predictive analyses, we found partial support for the hypothesis that family processes explained the positive association between union instability and children's aggressive behaviors. We found that the association between union instability and children's aggressive behaviors was channeled through a reduction in co-parenting support. Couples who broke up tended to have children with high levels of aggressive behaviors because they were less likely to support each other in their role of parents. It is noteworthy that union instability was not related to reduced levels of parent engagement or maternal sensitivity at age 5 as some studies have reported with older children (e.g., Carlson, 2006). This is an important finding, suggesting that parents can break up from their partners but continue with their (positive) involvement with their children.

Another important finding is that union instability was negatively related to children's aggressive behaviors because of reduced co-parenting when there was a divorce, but not when there was a nonmarital separation. This finding is consistent with literature showing that divorce might be more traumatic an experience for children and families than separation from a cohabiting union, where break up might be more expected (Carlson & Magnuson, 2011). This is an important finding because cohabiting parents drive the rates of union instability in the analytic sample yet this type of break up does is not significantly related to children's aggressive behaviors. A possible explanation for the differential effects of union instability for divorced families is that cohabiting and single families tend to be of lower SES than their married counterparts (Aughinbaugh, Robles, & Sun, 2013), and the stress from living in or near poverty may matter more for children's outcomes and parents' separation than family functioning (Gennetian & Miller, 2004). Future research should explore this possible explanation.

There are several limitations to our study. First, the measures of mother and father involvement are not ideal, and could be the reason for findings that union instability was not significantly channeled through parenting. There is also no observed measure of the father-child relationship in the FFCW data. Maternal responsiveness is available and is reported by trained observers, which helps assure some level of objectivity and reduces the shared variance that can occur when the same participant reports all data. Not having a measure of father-child relationship quality is a significant limitation of this study. Second, the way that union instability was measured is another limitation. Mothers are asked to report retrospectively how many men they lived with for at least 1 month over the last 2 years. If mothers had a relationship that ended around the last interview, they may have trouble remembering when the last interview was in relation to that relationship. It is also possible, although unlikely, that mothers may not remember everyone they lived with romantically over a two-year period. Third, the child assessments are limited in this data set. Future studies should also explore how other demographic factors besides marital status (e.g., ethnicity) interact with union instability to predict children's social maladjustment, and how each model may differ for children coming from married vs. unmarried families. Fourth, several variables, such as the CBCL, are highly skewed. We used robust standard errors to help adjust for skew and ran preliminary analyses testing the model with transformed variables versus the raw CBCL scale. Based on these results, the skew did not change the models. However, readers should be aware of this limitation.

Despite these limitations, this study makes a significant contribution to the literature. First, it is one of the few studies that examines multiple family systems at once. This approach provides strong evidence that co-parenting support is an important channel through which stress due to family change reaches children for divorce parents. Divorced parents who are unable to work together to raise their child may not provide a secure and harmonious environment for their children. These children may feel insecure and aggressive. Another salient finding is that change in family structure is not channeled through parenting behaviors to influence children's behaviors.

Our findings generalize to children from the 77 U.S. cities with populations of 200,000 or more who live with their mothers at their birth. While this is not a nationally representative

sample, it is representative of the large urban populations in the U.S., which gives power to these findings. Thus, these findings have clear implications for programs and policies. Supporting the co-parenting relationship should be a priority, especially among divorced parents. There are interventions that target co-parenting to strengthen relationships and improve child wellbeing longitudinally (e.g., Feinberg et al., 2008), but the co-parenting relationship has received less attention within larger family policies than the couple relationship, for example. The Responsible Fatherhood Initiative - funded by the U.S. Health and Human Services - aims to target healthy marriage as one of its goals (USHHS, 2011). This goal includes among its activities promoting marriage, enhancing relationship skills, and providing marriage preparation and divorce education and reduction. While some programs include co-parenting skills in their relationship skills repertoire, co-parenting is not an explicit goal of Responsible Fatherhood Programs. This may be because the target is the father, not the children. However, this study suggests that improving co-parenting support may be more important for children in the context of union instability than other family processes. This finding is supported by research with resident middle-class parents. A randomized controlled trial of a co-parenting intervention found that a curricula to improve co-parenting quality among new, resident, middle-class parents significantly improved co-parenting quality, parenting quality, and parenting efficacy, reduced parenting stress, and improved child behavioral outcomes longitudinally compared to a control group (Feinberg et al., 2010; Feinberg, Jones, Hostetler, Roettger, Paul, & Ehrenthal, 2016). While this RTC has not been replicated with low-income, ethnically diverse, or non-resident parents reporting union instability, it supports the idea that co-parenting is foundational for family health and is also a promising point of intervention for the family as a whole.

Acknowledgments

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Figure 1.
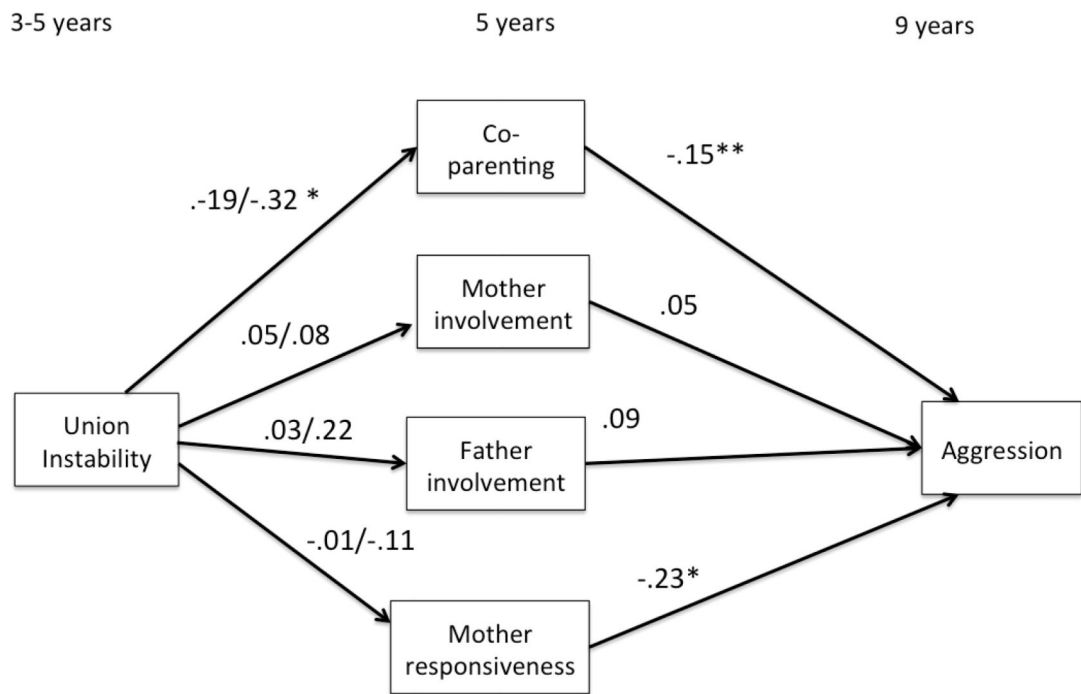Path coefficients for Model 2

Note. Control variable include mother and father ethnicity, education, and age; mother's poverty status, 5–9 instability, and new children; children's gender, age temperament, early childhood EPB.

The paths shown indicate how the paths differ by moderating variables. On the left side of the model the paths are unmarried/married months. *$p<.05$, ** $p<.01$

Table 1.

Descriptive Statistics (*N* = 3,387)

Variable	*n*	*%*	*M(SD)*
Mother age			27.05(6.23)
Father age			27.93(7.02)
Mother years of education			
< HS degree	961	28	
HS degree	1016	30	
Some college	639	19	
College degree	771	23	
Mother race			
Black	763	23	
Latina	1052	31	
White	1290	38	
Other	267	8	
Mother poverty at 5 years	653	19	
Mother married at 3 years	1768	60	
Mother married at 5 years	1677	59	
Child gender			
Male	1273	56	
Child age in months			110.01(3.32)
Mother UI 3–5 years			.29(.70)
Mother UI 5–9 years			.21(.60)
Co-parenting at 5 years			3.53(.63)
Father involvement at 5 years			4.03(1.18)
Mother involvement at 5 years			4.70(1.24)
Mother responsivity at 5 years			6.55(2.04)
CBCL aggression at 9 years			5.33(5.55)
Mother new child between 3–5 years	40	2	

Note. CBCL Aggression = aggression scale of the CBCL.

< HS degree = Completed less than high school/did not complete high school.

Mother new child = new child with a new partner. UI = union instability.

Table 2.

Intercorrelations of model variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. UI (3–5)	1																		
2. UI (5–9)	.13	1																	
3. Co-parenting (5)	-.41	-.06	1																
4. Mother Involve (5)	.05	.01	.23	1															
5. Responsivity (5)	-.15	-.08	.09	-.02	1														
6. F involve (5)	.08	-.02	.06	.31	-.02	1													
7. Temperament	.08	.08	-.11	-.09	-.13	.01	1												
8. CBCL Agg	.19	.09	-.18	.09	-.30	.13	.17	1											
9. C boy	-.07	-.01	-.05	.03	-.07	.08	-.04	-.02	1										
10. C age	-.05	.02	.09	-.06	.03	-.07	.08	-.01	-.05	1									
11. M ed	-.23	-.12	.13	.03	.24	.04	-.15	-.10	.09	-.08	1								
12. F ed	-.20	-.12	.13	.06	.17	-.04	-.08	-.09	.03	-.05	.69	1							
13. M age	-.26	-.10	.22	-.14	.19	-.03	-.18	-.16	.03	.00	.49	.36	1						
14. F age	-.23	-.07	.12	-.17	.21	-.11	-.13	-.12	-.02	.04	.34	.28	.76	1					
15. M race	-.01	-.05	.08	-.15	-.18	.04	.06	-.02	.06	.19	-.22	-.19	-.08	-.05	1				
16. F race	.02	.07	.03	-.16	-.14	-.10	.10	-.01	.10	.20	-.36	-.31	-.14	-.09	.64	1			
17. M poverty	.12	-.01	-.16	-.02	-.11	.04	.04	.11	-.02	-.03	-.34	-.32	-.24	-.16	.15	.21	1		
18. M Married (3)	-.33	-.13	.38	.04	.15	.00	-.09	-.09	.03	.02	.40	.43	.36	.30	-.04	-.14	-.30	1	
19. M new child	.27	.09	-.17	-.06	-.05	.04	.11	.05	-.02	.02	-.11	-.14	-.12	-.06	-.05	.01	.13	-.13	1

Note. Child age in years indicated in (). M = mother. F = father. C = child. UI = union instability. Involve = involvement. CBCL = Child Behavior Checklist. Agg = aggressive behavior. Ed = education. HH = household. Rel qual = relationship quality. All correlations are significant ($p < .05$) except the correlation between M married and F involve.

Table 3.

Direct effects on model mediators

	Co-parenting support			Mother involvement			Father involvement			Maternal responsivity		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Direct effects												
UI (5–9)	−0.03	0.06	0.03	0.04	0.06	0.02	−0.05	0.14	−0.03	−0.15	0.33	−0.04
Other child	−0.62	0.48	−0.16	−0.61	0.60	−0.08	0.01	0.72	0.00	−0.77	1.76	−0.06
M race	0.05	0.04	0.08	−0.10	0.15	−0.08	0.11	0.09	0.09	−0.22	0.14	−0.11
F race	0.00	0.04	0.01	−0.14	0.14	−0.11	−0.20	0.10	−0.16 *	−0.06	0.17	−0.03
M educ	−0.03	0.03	−0.06	0.00	0.09	0.00	0.09	0.10	0.09	0.33	0.16	0.18 *
F educ	−0.01	0.03	−0.01	0.07	0.08	0.06	−0.13	0.08	−0.12	−0.07	0.18	−0.03
M age	0.01	0.01	0.07	−0.04	0.02	−0.18	0.03	0.02	0.15 *	−0.03	0.04	−0.09
F age	−0.01	0.01	−0.06	−0.01	0.02	−0.04	−0.04	0.01	−0.21 *	0.05	0.03	0.17
M poverty	−0.05	0.08	−0.03	0.08	0.18	0.03	0.24	0.20	0.08	0.02	0.40	0.01
C boy	−0.12	0.07	−0.09	0.13	0.15	0.05	0.21	0.21	0.09	−0.44	0.26	−0.11
C aggression (3)	−0.07	0.07	−0.04	0.08	0.22	0.02	0.31	0.22	0.09	−0.77	0.42	−0.13
C temperament	−0.03	0.03	−0.05	−0.13	0.06	−0.11 *	0.02	0.06	0.02	−0.07	0.14	−0.04
UI (3–5)	−0.20	0.12	−0.19	0.09	0.13	0.05	0.06	0.21	0.03	−0.05	0.25	−0.01
M marital status	0.35	0.10	0.27 **	0.16	0.16	0.06	0.26	0.32	0.11	0.13	0.38	0.03
Marital x UI	−0.26	0.13	−0.13 *	0.12	0.26	0.03	0.70	0.83	0.19	−0.62	0.71	−0.10
R^2			0.31			0.08			0.11			0.15

*
$p < .05$

**
$p < .01$

Note. UI = union instability. M = mother. C = child. Educ = education. Child age in years indicated in (). Marital = marital status.

Table 4.

Direct and indirect effects on children's aggressive behaviors

	Children's Aggression		
	B	**SE B**	**β**
Direct effects			
UI (5–9)	0.25	0.28	0.03
Other child	0.37	1.72	0.01
M race	−0.48	0.67	−0.09
F race	−0.07	0.54	−0.01
M educ	0.03	0.38	0.01
F educ	−0.14	0.42	−0.03
M age	−0.02	0.11	−0.03
F age	0.00	0.10	0.00
M poverty	0.62	0.97	0.04
C boy	−0.73	0.75	−0.07
C age	0.09	0.09	0.05
C aggression (3)	6.17	1.17	0.37[**]
C temperament	0.24	0.33	0.04
Co-parenting	−1.31	0.42	−0.15[**]
M involve	0.22	0.32	0.05
F involve	0.43	0.45	0.09
M responsivity	−0.62	0.25	−0.23[*]
M marital	1.21	0.63	0.11[*]
R^2 Model 2			0.28

[*] $p < .05$

[**] $p < .01$

Note. Child age in years indicated in (). M = mother. F = father. C = child. Involve = involvement. Educ = education. HH = household. UI = union instability. Marital = marital status Temp = temperament