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Union Instability and Children's Behavioral Problems: A Mediation and Moderation Approach

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Abstract

Using data from the Fragile Families and Child Wellbeing study ($n = 2,309$), the present study examined whether family processes – father involvement, quality of co-parenting, and quality of the couple relationship – explained the association between union instability at age 3 (number of residential romantic partner changes) and children’s externalizing problem behaviors at age 5. Our results indicate that only co-parenting support mediated the association between instability and child EPB, controlling for known covariates of children’s EPB. Couple conflict did not exacerbate the negative association between union transition and children’s behaviors. Our findings suggest that the instability associated with romantic partner transitions has a deleterious effect on children’s behaviors because parents do not maintain a supportive co-parenting relationship.

Keywords: partner instability, externalizing problems, co-parenting support, couple relationship quality

Examining the Links Between Instability and Children's Behavioral Problems: A Mediation and Moderation Approach

Although children's behavior problems are normative in the early years, children who continue to exhibit behavioral difficulties in childhood are at a higher risk for school failure and later behavioral problems (Campbell, 1995; Campbell, Shaw & Gilliom, 2000). This is of concern because over the last decade the number of children who exhibit behavior problems has increased. For example, research on American adolescents and school-age children from the mid-1970s to the late 1990s found evidence of increased levels of externalizing problem behaviors (EPB) from low levels in the 1970s (Achenbach, Dumenci, & Rescorla 2003; Collishaw, Gardner, Maughan, Scott, & Pickles, 2012). This alarming trend has shed the spotlight on families, which are most influential to children's development (Bates, Bayles, Bennett, Ridge, & Brown, 1991). One aspect of the family that has received attention in recent decades is family structure because over the last 40 years there have been dramatic changes in family composition (Bumpass & Lu, 2000; Kennedy & Bumpass, 2008). For example, in 1970, 11% of infants were born to unmarried mothers (Akerlof, Yellen, & Katz 1996), whereas today 40% of all children are born to unmarried mothers (CDC, 2013). Moreover, rates of cohabitation (living romantically with someone outside of marriage) among all adults have also increased from 10% in the 1970s to nearly 60% in 2008 (Bumpass & Sweet, 1989; National Center for Marriage and Family Research, 2010; Kennedy & Bumpass, 2008).

Research on the effects of non-marital family structures on children's outcomes is growing; researchers have found that, in general, compared to children living in married families, children living in other types of families (e.g. cohabiting, single parent) exhibit more behavioral problems (Foster & Kalil, 2007; McLanahan & Sandefur, 1994). One explanation for this is that

non-marital families are more likely to experience partnership instability (hereafter called instability; change from one relationship status to another) than married families (Cavanagh & Huston, 2006; Fomby & Cherlin, 2007), which is likely to cause disruption in the family, consequently, in children's behaviors.

However, the mechanism by which instability is associated to children's problem behaviors is not well understood. Some scholars have hypothesized that instability might negatively impact children when it is accompanied by couple conflict. For instance, one study found that mothers who reported instability in the form of residential relationship dissolution within a two year-period rated their children high on EPB when they also reported low couple relationship quality. Yet, there was no evidence of moderation when mothers reported a recoupling after dissolution within the same two years (Fomby & Osborne, 2010). This finding suggests that couple relationship quality may be part of the answer to why instability might be linked to EPB, but it is not the complete story.

Other scholars have hypothesized that instability might be more disruptive to other aspects of family functioning such as co-parenting, not just the couple relationship. Research on the quality of the co-parenting relationship (parents' ability to work together to rear their children) has suggested that it might be more important for children than the quality of the mother-father relationship because of the proximity to the child (Feinberg, 2003). That is, the mother-father parenting relationship is directly linked to the child whereas the mother-father romantic relationship is indirectly linked to the child through parental interactions with the child. A study using the Fragile Families and Child Wellbeing (FFCW) dataset found that children living in married and cohabiting families exhibited fewer EPB when their parents reported positive co-parenting (Cabrera, Scott, Fagan, Steward-Streng, & Chien, 2012). It is possible that

mothers who frequently transition in and out of relationships are less supportive of the biological father's parenting behaviors resulting in more co-parenting conflict, which might explain why instability is positively related to children's EPB.

Instability might also disrupt father involvement, which has been found to be uniquely and independently related to child behavioral outcomes in early childhood (Cabrera, Shannon, & Tamis-LeMonda, 2007). One study found that when mothers repartner (a form of instability) their child's biological father's involvement with the child decreases (Tach, Mincy, & Edin, 2010). In one study, instability (measured as fathers' resident status) was negatively linked father involvement (Carlson, 2006). Thus it is possible that reduction in father involvement might be another mechanism by which instability is linked to children's behavior. We know of no study that has examined whether co-parenting or father involvement explains why instability tends to be related to children's EPB. We address this gap by seeking answers to the following questions: using the FFCW data, (1) what is the pattern of instability in the early childhood among fragile families (families at risk of dissolving)? (2) How is instability during early childhood related to children's problem behaviors at age 5? (3) Does co-parenting support and father involvement mediate the association between instability and children's behaviors at age 5? And, (4) does couple relationship quality moderate the association between instability and children's behavioral outcomes at age 5 after accounting for the effects of co-parenting support and father involvement?

Theoretical background

We frame our study using Feinberg's model of co-parenting that characteristics of the parents and the home environment (e.g., the stability of their relationships) influence the child through the co-parental relationship (Feinberg, 2003). Feinberg's model of co-parenting is based

on family systems theory that co-parenting is at the center of all family interactions (e.g., parent-child). That is, each member of the family cannot be understood outside of the context of the family, with co-parenting at the center as a mechanism that influences the child. Individuals' functioning and adjustment are influenced by a set of interrelated subsystems (e.g., mother-child, mother-father) such that a change in one results in a change in another (Cox & Paley, 1997).

When families undergo changes such as a new partner comes into the household or the biological father leaves, other subsystems – such as father-child or mother-father relationship – are also expected to change. Therefore, we expect co-parenting support and father involvement to change in response to instability.

Family structure and children's behavior problems

A robust body of research has consistently linked family structure to child wellbeing. Specifically, children are thought to thrive in two-parent households because they provide children with predictability, residential stability for a longer period of time, more resources, and expose children to less couple conflict (Kamp Dush, Cohen, & Amato, 2003; Jose, O'Leary, & Moyer, 2010). In these households children are more likely to feel loved, secure, and have the resources to thrive and consequently are more likely to be well adjusted (Davies, Harold, Goeke-Morey, Cummings, Shelton, Rasi, & Jenkins, 2002). This evidence has been interpreted as meaning that the converse must also be true. That is, cohabiting families must be unstable and therefore not the ideal environment for children. And, there is some support for this view. Several large-scale studies of children aged 3-18 living in cohabiting unions found that they were more likely to exhibit behavioral problems because their mothers were more likely to transition into and out of relationships, have more interparental conflict, and have fewer resources than children whose mothers were married (McLanahan, 2004; Hofferth, 2006; Brown & Booth,

1996). In a study of divorced families, Fagan (2013) found that toddlers living with their mother who remained single (one transition) after a divorce had higher literacy scores than children living with their mother and her cohabiting partner following a divorce (more than one transition). Similarly, Fomby and Osborne (2010) found that 3-year-olds whose mothers experienced more instability (reported two residential partner changes) had higher aggressive behavioral problems than children whose mothers experienced less instability (reported only a dissolution, not a re-partnering) or no instability (Fomby & Osborne, 2010). Collectively these findings offer strong longitudinal evidence that cohabiting might put children at risk when it is unstable, that is, when mothers frequently transition from one partner to the next, not cohabitation in and of itself. It follows then that unions that are stable, regardless of relationship or residency status, may not put children at risk.

Mediators

Drawing from family systems theory, we expect that instability will disrupt family functioning, in particular the way parents communicate with one another in their role as parents. Studies consistently show that negative co-parenting (disagreement and conflict over child rearing) predicts child behavioral and emotional problems (Belsky, Putnam, & Crnic, 1996; Margolin, Gordis, & John, 2001) whereas positive co-parenting (when parents support each other in their role as parents) is associated with child adjustment (Jia, Kotila, & Shoppe-Sullivan, 2012). Research has demonstrated that co-parenting conflict is a better predictor of child adjustment than marital quality and conflict from infancy to adolescence (Feinberg, Kan, & Hetherington, 2007; Frosch, Manglesdorf & McHale, 2000). Moreover, it appears that overall levels of quality of the co-parenting relationship is similar for both cohabiting and married couples (Hohmann-Marriott, 2011), suggesting that the instability associated with non-marital

family structures (cohabitation and romantic nonresident), not family structure per se, may result in a more conflicted co-parenting relationship. This view is supported by findings showing that when couples separate, their co-parenting alliance changes. A review of the literature found that nonresident couples (those who had undergone at least one transition) were, on average, less supportive of each other's parenting than were resident couples (Carlson & Hognas, 2009). Additional support comes from studies showing that mothers' co-parenting support with her child's father declines when she has a new partner (Martin, Riina, & Brooks-Gunn, 2013). Given this literature review, we test whether co-parenting support explains why instability is related to children's EPB over time.

Instability is also expected to disrupt father involvement, which can have negative consequences for children. Father involvement, typically assessed as fathers' ability to be engaged with their children in positive ways and to be responsible for them, is uniquely and independently related to children's behaviors from early childhood to adolescence, over and above the effects of mothers on these behaviors (Cabrera et al., 2007; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008; Carlson, 2006). Thus, potentially, instability can have negative effects on children because when parents become nonresident they have less contact and less engagement with their children (Carlson, 2006; Demuth & Brown, 2004; Fagan & Palkovitz, 2011; Tach et al., 2010). However, among nonresident fathers, there is large variability in the amount of time spent with their children (Amato & Gilbreth, 1999). The sources of variability are multiple, including amount of time and quality of father-child relationship before the father became nonresident, for which studies of the impact of non-residence on children's outcomes typically do not account. Another source of variability is whether or not there is a new partner in the household after the father has become nonresident. Findings show that nonresident fathers

are less likely to be involved in their child's life when their child's mother re-partners; his own re-partnering does not seem to influence his level of involvement (Tach et al., 2010). Based on this emerging evidence, we expect that union instability will be linked to children's EPB because it reduces father involvement.

Couple conflict as a moderator

Research has shown that the quality of the couple relationship is a strong predictor family functioning, including child wellbeing (Adler-Baeder, Calligas, Skuban, Keiley, Ketring, & Smith, 2013). Children living with parents who are hostile to one another are more likely to exhibit behavior problems than children living with harmonious parents (Stutzman, Bean, Miller, Day, Feinauer, Porter, & Moore, 2011). Additionally, there is some evidence with young adults that, in general, cohabiting couples might report more conflict than married couples (Kamp Dush & Amato, 2005). A study with children show similar results; children living in cohabiting families are more likely to be exposed to conflict related to their relationship as a couple and conflict related to parenting than children living with married parents (McLanahan, 2004; Hofferth, 2006). Thus couple relationship conflict may exacerbate an already difficult situation such as when the couple union dissolves. Support of this view comes from a study that found couple relationship conflict moderated the effects of instability on children's EPB, but only at lower levels of instability (a relationship dissolution, not re-partnering; Fomby & Osborne, 2010). Based on this review, we model couple relationship quality as a moderator that can worsen or buffer the association between instability and children's EPB.

Current study and hypotheses

Our study expands the current literature on the association between instability and children's EPB by examining the mediating pathways by which instability places children at risk

for behavioral problems. Based on family systems theory and on the review of the empirical literature, we expect that more instability (i.e., number of union transitions) will be linked to children's EPB at 5 years because of reduced co-parenting support between parents and reduced father involvement. We also expect that children living with mothers who experience more instability will exhibit more EPB when their mothers also report high levels of couple relationship conflict.

Method

Data

Data were drawn from the FFCW study, a national data set 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 at the time of the child's birth, and again when the child was 1, 3, 5 and 9 years old. Questions about the biological parent's relationship, mental health, work history, social support, and other relationships were asked at each wave. Measures of child behavior were available starting at year 3. These data are ideal for the current study, because each biological parent was interviewed at each wave and was asked questions about other partners and other children. Family functioning variables, such as co-parenting support and marital quality, were asked for the child's other parent as well as for the interviewee's current partner (McLanahan & Garfinkel, 2000).

Our analytical sample includes 2,309 children with behavioral outcome data available at year 5, who lived with their biological mothers at baseline, and whose mothers have measures of father involvement, couple relationship and co-parenting (the key family functioning variables in our study). Of the total sample of $n = 4,898$, $n = 1,912$ were excluded because they did not have data on the Child Behavior Checklist at year 5. An additional 652 children were excluded

because their parents were not in a romantic relationship at their birth; couples who were not in a romantic relationship at baseline were not asked questions about couple relationship quality.

Lastly, 25 children were excluded because they did not live with their biological mothers at baseline. Our analytical sample of 2,309 represents mothers who were in a romantic relationship at birth (resident and nonresident) with their baby's biological father and who reported on their child's behavior at age 5.

Measures

Dependent variable. All child outcome measures were taken from the 4th wave of data when the focal child was 5 years old. *Children Externalizing Behavior Problems* is measured with the Child Behavior Checklist (CBCL; Achenbach, 1992) externalizing subscale. Mothers completed the CBCL when the child was 36- and 60- months old to develop age-appropriate indicators of externalizing, internalizing, hyperactive, and prosocial behaviors. Mothers rate 30 items from 0 to 2 (0 = not true; 2 = very true). The externalizing subscale includes questions about aggressive and delinquent behaviors ($\alpha = .86$). Examples of aggressive behaviors include "Child argues a lot," "Child is cruel, bullying, or mean to others," and "(He/she gets in many fights."

Independent variable. *Instability* was calculated based on the method outlined in Fomby and Osborne's (2010) study. Mother reports of residential relationship changes were used because the children in the analytic sample lived with their mothers, so measuring mother reports of instability also assesses the instability that the child experiences. The FFCW collected information from mothers regarding the other biological parent and any current partner who is not the biological father of the focal child. Questions included with whom the mother is living, if she has a new partner since the last wave and her marital status since the last wave. These

questions were used to calculate whether a residential romantic relationship dissolved between child age 3 and 5 or if a new residential relationship was reported at child age 5. We measured instability between child ages 3 and 5 because this provides information about the instability children experience in the two years prior to when our dependent variable was measured. There is evidence to suggest that the temporal proximity of an environmental stressor (e.g., instability) is important for the size of the effect it will have on the child (e.g., Foster, Garber, & Durlak, 2008). Moreover, the only instability reported in our sample between birth and age 3 was the dissolution of the mother-father relationship (53% of our sample), which is captured in our measure of instability. In our sample, the most instability mothers can report is a dissolution (coded 1) and a re-partnering (coded 2), which might underestimate the amount of instability a child has experienced from birth to 5. Instability was only coded if the *residential* relationship (cohabiting or marriage) dissolved or a new residential relationship (partner moves in) was begun.

Mediating variables. *Co-parenting support* was compiled from 6 questions that asked the mother at child age 5 if the child's biological father (1) always, (2) sometimes, (3) rarely, or (4) never "Acts like the father you want," for example. The six questions addressed the mothers' trust that the child will be cared for, if the father respects and supports the decisions the mother makes regarding the child, and about the communication about raising a child. Mothers were asked these questions of the biological father even if they were not currently in a romantic relationship. Maternal report was used based on missing data. Cronbach's alpha for maternal report of co-parenting support is .89.

Father involvement assessed at age 5 was compiled from 8 questions that ask the mother how many days per week (0-7) the father plays games, sings songs, tells or reads stories, takes

child to visit relative, puts child to bed, or shows physical affection. The 8 questions gather information on play, cognitive stimulating activities, and care giving. Maternal report of father involvement was used because there is less missing data with the mother report. The 8 items were added to provide a score that was then used as continuous variable with higher scores indicating more involvement. Alpha for this scale is .76.

Moderating variable. *Couple relationship quality* was measured with a composite of three questions reported by the mother that assesses the quality of her relationship with the child's biological father taken from year 5 data because this enables us to assess the quality of the couple relationship for all couples. Questions were asked of mothers if they are currently in a relationship with the father, and they are asked for mothers who are currently separated from the father. The questions for mothers who are not in a relationship with the father asked about the quality of their relationship in the last month they were still together. Thus, using wave 5 couple quality allows us to assess the most recent maternal ratings of couple quality even for couples that are no longer together. Mothers were asked if the father is fair and willing to compromise, expresses love and affection for the mother, and encourages her to do things that are important to her. All questions were answered on a 1 to 3 scale (1 = often; 3 = never). All items were reverse coded for ease of interpretation, then added to provide a continuous measure of couple relationship quality. Higher scores indicate better relationship quality. Cronbach's alpha for maternal report of couple relationship quality is .74.

Control variables. To isolate the effect of instability on children's EPB, we controlled for two sets of variables: demographic and family level. *Demographic controls* include mother ethnicity, education, age, maternal marital status, poverty status (dummy coded 1=meets criteria for poverty), and her number of new children since the focal child's birth. These variables are

related to children's EPB (Cabrera, Fagan, Wight & Schadler, 2011; Tach, Mincy, & Edin, 2010). Child gender was also controlled as boys on average have higher EPB than girls (Campbell et al., 2000). Child age at the time of assessment was also controlled, as children's EPB tend to decline with age (NICHD Early Childcare Research Network, 2004), as was *year 3 CBCL* externalizing score. While overall externalizing behaviors decline as toddlers age, we aim to pinpoint the effects of residential stability on the change in children's behavior. Therefore, controlling for their behavior prior to the measurement of our independent variable will help isolate the association between residential stability and children's externalizing behavior.

Family level control variables included maternal involvement and maternal depressive symptoms because both have been linked to EPB (Cabrera et al., 2012; Fomby & Osborne, 2010; Rinaldi & Howe, 2010). *Maternal involvement* was measured with 8 questions about play, cognitive stimulating activities, and care giving activities. The 8 items were added to provide a score that was then used as continuous variable with higher scores indicating more involvement ($\alpha = .80$). *Maternal depression* was measured with a dummy variable coded by the FFCW researchers (1 = meets criteria for clinical depression).

Missing data

There was an average of 31% missing data on our independent variable, mediator, moderator, and control variables. We assessed the assumption that the data were missing at random with the analyze patterns function in SPSS. Our data met this assumption, so we applied multiple imputations to compute the missing values of our predictor, mediator, moderator and control variables. Multiple imputation is preferable to list wise deletion (Schaffer, 1997). The following results are based on data after five multiple imputations (the default number; Royston, 2004) have been implemented.

Results

Descriptive statistics

To address our first research question, we ran descriptive statistics and cross-tabulations (see Tables 1, 2 and 3). Of the $n = 2309$ mothers who, at birth, were in a romantic relationship (either resident or nonresident) with their child's father ($n = 2309$), 27% ($n = 616$) were married, 40% ($n = 937$) were cohabiting, and 33% ($n = 756$) were romantic non-resident.

In our sample of romantically involved couples at birth, the patterns of instability by the time the children were 5 years of age are shown in Table 2. The full sample of mothers experienced an average instability rating of .34 (range 0-2); at child age 5, 32% were married to their baby's father, 15% were cohabiting, 5% were non-resident romantic, and 48% were not romantically involved with their baby's father. The largest change in status occurred in the cohabiting group, followed by romantic non-resident couples. Across residential status, approximately 70% of our analytical sample reported 0 transitions; close to a third, reported 1 or more resident partner transitions (either biological father moved out *or* new partner moved in); and only 10% ($n = 233$) reported 2 resident partner transitions (i.e., biological father moved out *and* new partner moved in), the most number of transitions mothers can experience. Of the 10% of mothers who experienced 2 transitions by child age 5, the majority (51%) were cohabiting with the biological father at birth, and were separated from the child's father at age 3 (see Table 3). Approximately 40% of mothers who experienced 2 transitions were romantic non-resident at birth and 9% were married at the birth of their child. Of the 70% of mothers who reported no instability between child age 3-5, at birth 33% were married, 38% were cohabiting, and 23% were romantic non-resident. One fourth of the mothers who reported no instability were White, 46% were Black, and 25% were Latina.

Table 4 shows the bivariate correlations among all study variables. At age 5, instability among romantically involved couples (between ages 3-5) was significantly positively correlated with children's EPB ($r = .09$) and negatively correlated with co-parenting support ($r = -.20$), father involvement ($r = -.25$), and couple relationship quality ($r = -.18$). And, co-parenting support, couple relationship quality, and father involvement were negatively associated with EPB ($r = -.20$, $r = -.12$, and $r = -.20$, respectively). Father education, maternal race, and mother's report of physical abuse were not correlated with our dependent variable.

The analytic sample of romantically involved parents at birth ($n = 2,309$) was more economically disadvantaged than the full Fragile Families sample ($n = 4,898$), and had a different racial composition (more mothers were Black in our sample compared to the full - 50% vs. 48% - and fewer mothers were Latino - 23% vs. 27%). This might reflect the fact that compared to the full sample, more mothers in the analytic sample fell at or below the poverty line (30% vs. 26%) and fewer fathers had a high school degree (38% vs. 35%). Research demonstrates that Black families are disproportionately likely to live in poverty than their White counterparts (Census, 2013).

Regression analyses

The next three research questions examining the mediating effects of co-parenting support and father involvement on the association between instability and EPB and the moderating effect of couple relationship quality were addressed with ordinary least-squares (OLS) regression, the assumptions of which were first tested. In model 1, EPB were regressed on the control variables. In model 2, EPB was regressed on the control variables and instability. In model 3, co-parenting support and father involvement were added to the model using Baron and

Kenny's method of mediation (1986). Finally, model 4 added the interaction term to the model of instability by couple relationship quality.

Instability predicting to EPB. The results of model 2 show that instability, with all of the covariates in the model, is positively associated with children's EPB at age 5 ($\beta = .05$, $t(1, 2307) = 2.34$, $p = .02$).

Model 3 tested the mediational effect of maternal report of co-parenting support. To model 2, we first added co-parenting support. The assumptions of Baron and Kenny's (1986) method were tested before the covariates were included in the model (results not shown): instability significantly predicted co-parenting support ($\beta = -.18$, $p < .001$) and co-parenting support significantly predicted child externalizing behaviors ($\beta = -.18$, $p < .001$). Table 5 shows our results; consistent with a full mediation (Baron & Kenny, 1986), co-parenting support at age 5 ($\beta = -.14$, $t(1, 2307) = -4.88$, $p < .001$) reduced the instability coefficient from .05 to .03 to non-significance ($p = .103$). Using Sobel's (1988) procedure, the t-test for mediation was significant ($t = -2.67$, $p = .008$).

Maternal report of father involvement was added to the model after co-parenting support. Father involvement did not predict to EPB at age 5 ($\beta = .03$, $t(1, 2307) = 1.28$, $p = .20$), indicating that the assumptions of Baron and Kenny's (1986) method of mediation were not met. The instability coefficient was unchanged in this model suggesting no mediation.

Model 4 included the interaction term of instability X couple relationship quality. Couple relationship quality (continuously measured) was mean-centered before the interaction term was calculated; a positive interaction term indicates mothers reported instability and couple relationship quality above the mean; a negative interaction term indicates mothers reported instability and couple relationship quality below the mean. The interaction term was not a

significant predictor of child EPB ($\beta = .04$, $t(1, 2307) = 1.33$, $p = .20$), indicating that instability did not have stronger associations to children's EPB when couple relationship quality was higher or lower than the mean.

Co-parenting support remained a significant mediator in model 4, indicating that when accounting for couple relationship, quality co-parenting support is still a significant mechanism that accounts for the association between instability and children's EPB. The full model explained nearly 25% of the variance in children's EPB.

Discussion

The primary goal of this study was to examine the mechanism by which maternal instability (measured as the number of romantic and resident partnership transitions) children experience in early childhood predicts their EPB at school entry. This is an important issue because over the last decade researchers, educators, and policymakers have worried that children's EPB have been increasing and this change has been mainly attributed to the dramatic changes in family composition, especially among fragile families. Given that 40% of mothers in our sample are in cohabiting unions with the biological father at birth, and that these unions are at a higher risk of dissolving, the need to look at whether instability is in some way responsible for the increase in EPB is heightened. It should be noted that our sample represents mothers who are more socioeconomically disadvantaged than the overall sample; we expect that this is driven by the higher number of Black mothers in our analytic sample compared to the full sample, who tend to be more socioeconomically disadvantaged than White mothers (Census, 2013).

Our first research question addressed the variability in instability experienced by mothers who participated in the FFCW study. Our analysis is based on a subsample of mothers who were in a romantic relationship (resident and non-resident) with their child's father at birth, limiting

generalizability. We focused on this sample because the FFWC does not collect all family functioning data (couple relationships quality) on mothers who were not romantically involved with their partners at birth and we were interested in examining how family functioning explains the association between instability and children's EPB. Our findings show that the majority of mothers who were romantically involved with their child's father at birth reported no partnership instability from the time their child was 3 to the time their child was 5 years of age. Less than 20% reported 1 transition and only 10% reported 2 transitions or more. That is, in this subsample of "fragile" families, the majority stayed in stable residential relationships during the latter part of the early childhood period, which is foundational to later development. Thus the view that all low-income children experience high instability may be based on approximately 10% of mothers in our sample. Not surprisingly, the group that has the largest amount of reported instability is mothers who were cohabiting with their baby's father at birth. The cohabiting mothers who reported no instability between child ages 3 and 5 were more likely to be Latina (49% Black, 32% Latina, and 17% White), younger (mean age = 24 vs. 25 in the analytic sample) and less educated (39% have less than a high school degree) than the overall sample. Other scholars have found that Latino parents have high rates of cohabitation, but their cohabitation is more stable than White or Black parents (Castro Martin, 2002). Much of the research until this point has explored instability as a phenomena inherent of all cohabiting unions (e.g., Bumpass & Lu, 2000; Brown, 2000). However, our results suggest that there is broad variability in the stability of cohabiting and single-mother families, that variability may be driven by ethnic or cultural factors as well as demographics.

The second goal of our study was to examine what explains the association between instability and children's EPB. Consistent with our hypothesis, we found that mothers who

reported more instability reported having children with higher externalizing problem behaviors in early childhood. Our results expand the literature by showing that this association was fully mediated by maternal reports of co-parenting support, even when known covariates were included in the model. That is, instability is associated with greater EPB because parent's co-parenting support declined. This finding is consistent with family systems theory (Feinberg, 2003). When mothers transition in and out of relationships, their ability to work with their partners together to raise their children is compromised resulting in more behavior problems.

We did not find support for our hypothesis that father involvement would mediate the association between instability and EPB. This does not necessarily mean that father involvement is not important; rather it may reflect other issues, including measurement. In this study, we could not measure how much father involvement changed as a result of instability because we cannot know with certainty when the instability mothers report took place over the two-year period. If father involvement was low before instability (or of poor quality) it may have remained so afterwards. It is also possible that that father involvement is not really affected by father residency. If fathers are attached and bonded with their children, they may continue to find ways to stay involved with their children after the couple union dissolves. There is some evidence for this view. A study found that a small percentage of fathers stayed involved after the couple relationship dissolved (Cabrera, Ryan, Shannon, Brooks-Gunn, Vogel, Raikes, ..., & Cohen, 2004). Moreover, fathers who are prenatally involved are more likely to stay involved 3 years out (Cabrera, Fagan, & Farrie, 2008). Our findings suggest that the co-parenting relationship may be a more important indicator of child outcomes when a family experiences instability.

We did not find support for the hypothesis that couple relationship quality would protect children from the negative effects of instability as other studies have found (Fomby & Osborne,

2010). This finding could reflect a limitation of this study; that is, our measure of couple relationship quality is not ideal. It only captured the couple relationship quality of the biological parents, not of the mother and her current partner. Yet, the couple relationship quality between the mother and her current partner – biological father or not – is the one to which the child is exposed. It is also possible that co-parenting support is most important for child outcomes because of the proximity to the child (McHale, 2009). Indeed in our study, co-parenting support was still significant, even account for couple relationship quality.

Our results do not suggest that co-parenting is the only aspect of family functioning and the family system that changes when children are exposed to instability. Future studies should examine other measures of family functioning the household in which the child resides. In the context of instability, the child is also adjusting to a new home environment and potentially altered parental characteristics. For example, in all of our models maternal depression remained a significant covariate of child externalizing behaviors, suggesting that maternal psychological functioning may also influence children's adjustment to instability. Additionally, children's own characteristics may buffer the influence of environment stress on their own adjustment. Future studies should include more child characteristics in determining what explains the association between instability and child behavior.

There are several limitations to this study. The FFCW data on partnership instability does not ask the parents about partnership transitions that do not include the biological father or current partner. So if a mother separated from the biological father, re-coupled, separated and then re-coupled again within a 2-year period, the data misses everything that happens between her first separation and last re-partnering. Additionally, co-parenting support is only one facet of the co-parenting alliance. The FFCW data does not measure co-parenting conflict, shared

decision-making or co-parenting communication. These different factors of the co-parenting alliance predict differentially to family functioning and child outcomes. For example, Cabrera and colleagues (2012) found that co-parenting conflict was negatively associated with children's cognitive ability and social skills at kindergarten. It is possible that couples with positive co-parenting support have reduced co-parenting conflict, but this is not something that is disentangled in the literature. Another potential limitation is that all the data are reported by mothers, thus shared variance might be a problem. Lastly, the child assessments are limited in this data set. Researchers have identified the importance of regulatory behaviors in shaping parent-child interactions and children's outcomes. For instance, emotion regulation has been identified as an important mediating variable explaining the association between maternal depression and child internalizing behaviors (Silk, Shaw, Forbes, Lane, & Kovacs, 2006). There are no measures of regulatory behavior available from the FFCW data at child ages 3 or 5.

Despite these limitations, this study makes significant contributions. First, it is one of the few studies to examine the pathways by which instability is channeled to children. Second, we found evidence that supports the hypothesis that relationship quality is less important for children than the quality of the co-parenting relationship. Parents who are unable to work together to raise their children either when they are living together and especially when they are not are not able to provide a stable and secure environment for their children. In such environments, children may feel insecure, anxious, and aggressive. Third, instability may not really disrupt father involvement, as some believe. This could mean that the father-child relationship might be independent from the mother-father relationship. There is support for this view in the attachment literature (Williams & Kelly, 2005); parents who develop secure attachment with their children are more likely to stay involved than those who do not.

Collectively, these findings have clear implications for programs and policies. Building and supporting the co-parenting relationship should be a priority in making sure that family dissolution, all too common in today's society, does not jeopardize children's well-being.

Table 1
Descriptive Statistics (N = 2,309)

Variable	<i>n</i>	%	<i>M(SD)</i>
Mother instability (3-4)			.34(.63)
Couple Quality (4)			7.2(1.6)
Co-parenting (4)			20.2(4.54)
Father involvement (3)			32.3(29.3)
CBCL E (4)			12.4(7.5)
Mother new child (3)			.31(.49)
Mother poverty (3)		17	
Mother involvement (3)			61.3(19.4)
Mother age			25.3(6.1)
Father age			27.8(7.2)
Child gender			
Male	1200	52	
Female	1109	48	
Mother years of school			
< HS degree	708	30.7	
HS degree	723	31.3	
Some college	606	26.2	
College degree	272	11.8	
Father years of school			
< HS degree	727	31.5	
HS degree	832	36	
Some college	502	21.7	
College degree	248	10.7	
Mother race			
Black	1176	50.9	
Latina	540	23.4	
White	524	22.8	
Other	67	2.9	
Father race			
Same as mother	2008	87	
Different from mother	301	13	

Note. Wave indicated in (). CBCL E = externalizing 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.

Table 2

Percent of mothers in each category of instability by relationship status at baseline

	Instability (3-5)		
	0 (n=1679)	1 (n=397)	2 (n=233)
MF married	33.4	10.1	9.4
MF cohabiting	38.2	43.1	50.8
MF romantic	28.4	46.8	39.8
Total	100	100	100

Note. Child age indicated in (). MF = mother and father. Romantic = involved in a relationship but not co-resident. 0 = MF resident 1 = MF relationship dissolved 2 = mother re-partnered after dissolution

Table 3

Percent of mothers in each category of instability by relationship status at child age 3

	Instability (3-5)					
	Age 3			Age 5		
	0 (n=1679)	1 (n=397)	2 (n=233)	0 (n=1679)	1 (n=397)	2 (n=233)
MF married	44	8	11	45	6	0
MF cohabiting	25	18	33	17	18	4
MF romantic	3	10	0	2	3	3
MF non- romantic	28	49	56	36	73	93
Total	100	100	100	100	100	100

Note. Child age indicated in (). MF = mother and father. Romantic = involved in a relationship but not coresident.

Table 4
Intercorrelations of model variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Instability	1																		
2. Co-parenting (4)	-.19**	1																	
3. Couple quality (4)	-.14**	.32**	1																
4. F involvement	-.25**	.47**	.27**	1															
5. CBCL E	.09**	-.19**	-.09**	-.12**	1														
6. C boy	.02	-.02	.01	-.03	.07*	1													
7. C age	.03	-.04	-.02	-.03	-.06*	.00	1												
8. M ed	-.14**	.09**	.06*	.14**	-.15**	.01	.00	1											
9. F ed	.04	-.01	-.01	-.03	.02	-.02	-.02	.06**	1										
10. M age	-.18**	.15**	.04	.13**	-.12**	-.01	-.01	.41**	.01	1									
11. F age	-.13**	.10**	.01	.10**	-.10**	-.02	-.02	.29**	.01	.66**	1								
12. M race	.00	.00	-.02	-.05*	.02	.00	.01	-.21**	-.01	-.10**	-.12**	1							
13. D race	.03	-.05*	-.01	-.02	.01	-.03	-.01	.02	.02	-.03	.01	.20**	1						
14. M HH poverty	.06**	-.14**	-.09**	-.21**	.13**	-.03	-.04	-.37**	-.04	-.20**	-.14**	.11**	-.04	1					
15. M Marital status	-.35**	.35**	.29**	.45**	-.14**	-.01	-.03	.35**	-.02	.31**	.24**	-.10**	-.03	-.31**	1				
16. M new child	.05	-.08**	-.04	-.11**	.03	.01	-.00	-.08*	.02	-.06*	-.03	-.03	-.03	.06	-.15**	1			
17. M depression	.10**	-.14**	-.11**	-.10**	.17**	.03	.02	-.01	.02	-.02	.00	-.03	.04	.05*	-.07**	.04	1		
18. M involve	-.02	.10**	.07**	.25**	-.06**	-.01	-.02	.00	-.01	-.10**	-.06**	-.09**	.03	.00	.03	.00	-.02	1	

* $p < .05$ **

$p < .01$

Note. Wave indicated in (). M = mother, F = father, C = child. CBCL E = externalizing scale of the CBCL. Ed = education, involve = involvement, HH = household.

Table 5
Multiple regression model predicting child externalizing behaviors (n = 2,309)

	Model 1				Model 2				Model 3				Model 4			
	<i>B</i>	<i>SE</i>	β		<i>B</i>	<i>SE</i>	β		<i>B</i>	<i>SE</i>	β		<i>B</i>	<i>SE</i>	β	
CBCL (3)	.51	.03	.40	**	.51	.03	.40	**	.51	.03	.40	**	.51	.03	.40	**
Child boy	.69	.31	.05	*	.68	.31	.04	*	.65	.30	.04	*	.66	.31	.04	*
Child age	-.12	.05	-.05	*	-.13	.05	-.05	*	-.14	.05	-.06	*	-.14	.05	-.06	**
M marital status	.68	.22	.11	**	.62	.22	.10	*	.51	.22	.08	*	.49	.22	.08	*
M race	-.21	.19	-.02		-.19	.19	-.02		-.14	.19	-.01		-.15	.19	-.02	
F race	.11	.42	.01		.08	.42	.00		-.03	.42	.00		-.05	.43	.00	
M age	.03	.04	.02		.03	.04	.03		.05	.04	.04		.05	.04	.04	
F age	-.05	.03	-.05		-.05	.03	-.05		-.05	.03	-.05		-.05	.03	-.05	
M education	-.44	.17	-.06	**	-.42	.17	-.06	*	-.47	.17	-.06	**	-.46	.17	-.06	**
F education	.37	.28	.02		.35	.28	.02		.39	.28	.03		.39	.28	.03	
M HHP	.63	.33	.04		.65	.33	.04	*	.52	.33	.03		.50	.33	.03	
M COP	.29	.99	.01		.25	.98	.01		.10	.96	.00		.07	.97	.00	
M dep.	2.37	.45	.10	**	2.27	.45	.10	**	1.98	.45	.09	**	1.97	.45	.08	**
M involve	-.03	.02	-.04	*	-.03	.02	-.04	*	-.03	.02	-.04		-.03	.02	-.04	
Instability					.540	.23	.05	*	.39	.24	.03		.46	.26	.04	
Co-parenting									-.23	.05	-.14	**	-.22	.05	-.13	**
F involve									.02	.01	.03		.02	.01	.04	
C quality													-.10	.10	-.02	
Instability x Quality													.23	.17	.04	

* $p < .05$ ** $p < .01$

Note: Age is indicated in (). M = maternal. F = paternal. C = couple. F race = father's race is different from mother's race. HHP = household poverty. COP = child other partner. Involve = involvement. Co-parenting = co-parenting quality. *F* change scores were significant at the $< .05$ level for models 1, 2, and 3.

Sobel test for coparenting support = -2.659 ($p = .008$).

1. $R^2 = .231$, $F(14, 2294) = 45.97$, $p < .001$.

2. $R^2 = .233$, $F(15, 2293) = 43.45$, $p < .001$.

3. $R^2 = .246$, $F(17, 2291) = 43.96$, $p < .001$.

4. $R^2 = .247$, $F(19, 2289) = 39.62$, $p < .001$.

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