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Parent–Child Conflict and Early Childhood Adjustment in Two-Parent Low-Income Families: Parallel Developmental Processes

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Abstract

Parent–child conflict is central to most intervention models focused on reducing child problem behavior, yet few longitudinal studies have examined these processes during early childhood. The current study investigates (1) growth in mother–child and father figure (FF)–child conflict, (2) associations between trajectories of mother–child and FF–child conflict and children’s adjustment; and (3) intervention effects in attenuating conflict. Participants are 195 ethnically diverse mother–FF–child triads drawn from a larger parenting intervention study for families with children at risk for developing conduct problems. Mother–child conflict decreased from ages 2 to 4, but decreases were unrelated to changes in children’s adjustment problems. In contrast, the slope of FF–child conflict was positively related to the slope of child externalizing behaviors. Random assignment to a family-centered parenting intervention predicted rate of decline in mother–child conflict. Findings are discussed with respect to developmental patterns of parent–child conflict in early childhood and implications for prevention.

Keywords

Parent–child conflict; Child adjustment; Intervention; Early childhood

Introduction

The parent–child relationship is one of the earliest and most salient relationships that individuals develop. It is theorized that this bond serves as a schema from which other interpersonal relationships are formed [1, 2]. As a result, the quality of the parent–child relationship likely impacts children’s social and emotional development by providing a framework from which to develop healthy interpersonal relationships across different social contexts [3]. For example, caregiver–child emotional warmth, support, and acceptance have been shown to function as protective factors for children facing major life stressors [4]. On the other hand, early discordant parent–child relationships may serve as a model for the development of dysfunctional patterns of interaction and difficulties in navigating challenging social contexts [5]. An alternative perspective is that because problematic parent–child interactions ‘disrupt’ growth in the parent–child relationship, they result in increased acrimonious relationships children have not only with parents, but also with teachers and other adults and peers [6]. Thus, a longitudinal analysis of the development of parent–child conflict and its relation to child adjustment outcomes could provide critical data on children’s socioemotional development during early childhood.

Parent–child conflict can be defined as an aspect of the parent–child relationship that is characterized by discordant or acrimonious interactions during which *both* the parent and child display negative behaviors and affect. In line with Patterson and colleagues’ [7] theoretical perspective, these coercive patterns are dyadic in nature. It should be noted that there is overlap between parent–child conflict and the construct of harsh parenting. Similarities between parent–child conflict and harsh parenting include the expression of negative parental affect, intrusive behaviors, and even aggression [8–12]. In contrast, parent–child conflict is comprised of mutual negative behaviors of both the parent and child (e.g., [13–15]). Whereas there are similarities in parenting behaviors in both constructs, the review below focuses primarily on studies of parent–child conflict where both parent and child behavior have been explicitly considered, especially those studies focusing on parent–child coercive processes.

Parent–child conflict is inevitable; however, relationships characterized by elevated rates of conflict have consistently been found to contribute to the development of socioemotional dysfunction among children from school-age through adolescence [14, 16–19]. In terms of the development of behavior problems, Gorman-Smith, Tolan, and Henry [20] suggested that parent–child conflict is a mechanism by which youth antisocial problems are maintained and reinforced. Importantly, Burt and colleagues found that higher mother- and child-reported conflict predicted significant ADHD, conduct disorder, and oppositional defiant disorder comorbidity among 11-year-old predominantly Caucasian twin pairs [13], suggesting that dysfunctional family processes account for the development of multiple, overlapping disruptive problem behaviors. El-Sheikh and Elmore-Staton [14] demonstrated that mother–child conflict partially mediated the link between marital conflict and children’s internalizing problems at school-age in a cross-sectional study of middle-class, predominantly Caucasian families. Furthermore, higher rates of parent–child conflict have been shown to predict multiple types of problem behavior, serving as a model for early aggression and delinquency among children and adolescents from different socioeconomic

strata [17, 18]. Specifically, higher mother–son conflict at ages 5 and 6 predicted moderately increasing antisocial behavior in one group and high, but decreasing trajectories of antisocial behavior in a second group from ages 5 to 11 among an at-risk sample of low-income families [17]. Taken together, these findings consistently illustrate a predictive association between parent–child conflict and children’s problem behavior, particularly disruptive behavior; however, the link between parent–child conflict and children’s internalizing problems is less clear.

There is a particular need for studies addressing associations between early parent–child conflict and children’s internalizing (i.e., anxiety, depression) problems, as most research to date has targeted disruptive behavior as the outcome (e.g., [16–18]). Notable exceptions include the El-Sheikh and Elmore-Staton [14] paper mentioned above. Harrist and Ainslie [21] demonstrated that parent–child relationship quality mediated the link between marital discord and both child aggression and social withdrawal at age 5 among predominantly Caucasian middle to upper-class families. In studies of adolescents, Branje et al. [22] found that lower mother–child relationship quality was associated with higher levels of depressive symptoms for boys and girls among Dutch teens; lower father-child relationship quality predicted depressive symptoms for boys only. Further, depressive symptoms predicted lower parent–child relationship quality [22]. Relatedly, Sentse and Laird [23] found that parent–child conflict was related to increased antisocial and depressive symptoms 1 year later among a racially diverse sample of 10–14 year olds. Thus, there is evidence supporting a relationship between parent–child conflict and children’s internalizing problems; however, this link during early childhood warrants further investigation, especially for children at risk for demonstrating clinically-meaningful levels of both externalizing and internalizing problem behavior.

In addition to the need for work focusing on the effect of parent–child conflict on internalizing problems, there is a need to explore these relationships specifically during early childhood. The vast majority of studies on the associations between parent–child conflict and child adjustment have focused on school-age and adolescent children, leaving a gap in the literature examining this link during children’s very early years. Early childhood serves as a unique developmental period when children are extremely reliant on their parents and have little independence outside the home relative to school-age children and adolescents. The quality of the parent–child relationship during this time period sets the stage for later social relationship formation. Consequently, the effects of parent–child conflict during early childhood may not be comparable to that during adolescence because teens have more sophisticated regulatory capabilities and access to multiple contexts and individuals for gaining support. Elucidating this parent–child process as children are rapidly acquiring cognitive sophistication from which to navigate interpersonal relationships may be uniquely important in children’s socio-emotional dysfunction during the same time period. Therefore, tracking how parent–child conflict trajectories evolve during early childhood is critical to understand. A notable study by Driscoll and Pianta [24] investigated stability in parent–child conflict from preschool to elementary school age among predominantly white two-parent families. Mother–child and father-child conflict were found to be higher at preschool than school age, suggesting a decline over time. Further, mothers were found to have higher levels of conflict with their children than fathers [24]. While this research is an important

start, still very little is known about how levels of parent–child conflict change during children’s early years or how its stability or change impacts the unfolding of behavioral and emotional problems.

Importantly, there is a dearth of literature examining parent–child conflict among racially diverse impoverished samples. The bulk of research on parent–child conflict has focused on predominantly white, middle-class samples (e.g., Burt et al., El-Sheik et al., Harrist & Ainslie), with the notable exceptions of the previously discussed work of preschool children by Ingoldsby et al. [17] and recent research by Sentse and Laird [23] and Trentacosta et al. [15], both of which focused on adolescents. Previous research in the area of family processes has demonstrated important differences in associations between family processes and child behavior based on race [8] and income differences [25, 26]. Furthermore, children from low-income families have been shown to have greater risk for a myriad of negative outcomes, including socioemotional adjustment problems [27, 28]. Therefore, examining parent–child conflict specifically among ethnically diverse, economically disadvantaged samples is of utmost importance to advance our understanding of how conflict unfolds and co-occurs with adjustment problems among at-risk families.

Co-Occurring Changes in Parent–Child Conflict and Child Behavior

Systems theory posits that relationships among family members should be considered dynamic processes that change over time rather than static traits [29]. Building on this theory, as parent–child conflict persists, children’s socioemotional dysfunction would be expected to be reinforced by negative patterns of interaction with their parents. In turn, children would not only be affected *by* their parents [30], but likely actively impact their family environments by further eliciting acrimonious interactions from their parents, establishing a coercive cycle [31, 32]. Additionally, according to the family stress model [25], economically disadvantaged families may be especially vulnerable to these patterns of dysfunction. Specifically, Conger et al. [25] theorize that economic hardship and pressure elicit parental emotional problems, which in turn precipitate inter-parental conflict and withdrawal. Problems in the parenting dyad are then translated into negative parenting strategies, which in turn are thought to lead to child maladjustment [25]. This complex cascading effect of negative family processes would likely also elicit problems in the parent–child relationship, including increased conflict. Conceptualizing risk of maladaptive problem behavior from a dynamic perspective within the context of economic disadvantage suggests how complex a task it is to identify family processes involved in the development of child socioemotional dysfunction. However, to date there has been little research investigating patterns of parent–child conflict from a longitudinal perspective beginning during the toddler period, especially involving impoverished two-parent families with children at high risk for early problem behavior.

An example of addressing the link between parent–child conflict and child disruptive problem behavior from a dynamic framework, Burt et al. [16] investigated the emergence of coercive patterns of parent–child interaction among a large sample of 11–14 year old, predominantly Caucasian twin pairs. Examining cross-lagged paths, the authors found that initial levels of both conflict and disruptive problems independently predicted the other at

age 14, suggesting an environmental “downward spiral” effect [16]. In contrast, Klahr et al. [19] found that among a sample of predominantly white adoptive families, parent–child conflict predicted the development of conduct problems 4 years later, but conduct problems did not predict increased parent–child conflict, suggesting that the parent–child relationship is the driving force in the emergence of conduct problems, as opposed to the child’s behavior evoking negative parental interactions. Furthermore, Trentacosta et al. [15] found that there were four distinct trajectory groups of mother–son conflict from middle childhood to adolescence among a sample of at-risk, ethnically diverse families. Specifically, high stable, high decreasing, moderate, and low conflict groups were identified. The chronically high and high decreasing conflict groups demonstrated higher rates of antisocial behaviors at age 15 compared to the moderate and low conflict groups, suggesting that how conflict changes over time differentially impacts adolescent problem behavior. Taken together, the work of Burt et al. [16], Klahr et al. [19], and Trentacosta et al. [15] suggests that the presence of elevated parent–child conflict during the school-age period and early adolescence is related to later child behavior problems. Investigating co-occurring parent–child conflict and child maladjustment during early childhood has the potential to shed light on how these processes unfold together when both the parent–child relationship and children’s repertoire for responding to interpersonal conflict are rapidly developing.

Intervention Effects on Parent–Child Conflict

Intervening to improve the quality of the parent–child relationship has important implications for children’s adjustment and for the overall family climate. Because of its experimental design, the current study also can be used to examine whether an intervention specifically designed to improve parenting practices will have positive effects on trajectories of mother–child *and* father–child conflict, as well as children’s externalizing and internalizing problems. Families in the current study were previously randomly assigned to the family check-up (FCU), which is a brief, family-centered intervention program designed to improve positive parenting behaviors among parents of children at high risk for developing conduct problems. The FCU targets parenting practices that have been linked to positive child outcomes, such as proactively anticipating children’s needs and setting clear limits (see [33]).

Using the current data set, the FCU has been shown to reduce growth in broad-band factors of externalizing behavior (i.e., CBCL Externalizing) from ages 2 to 4 for intervention families compared to control families, changes that were found to be mediated by increases in primary caregivers’ positive behavior support between ages 2 and 3 [33]. In addition to the targeted constructs of change (parenting and child behavior) and also using the current data set, the FCU has been shown to have collateral, non-targeted benefits, such as improvements in inhibitory control and child language development from ages 3 to 4 [34] as well as improvements in maternal depression from ages 2 to 3 [35]. Based on the collateral benefits that have been demonstrated for the FCU, we expected the FCU to be associated with decreases in mother–child and FF–child conflict from ages 2 to 4.

Unique Contributions of the Present Study

Based on several notable gaps in the literature, which include a dearth of longitudinal research on the growth of mother- and father-child conflict during early childhood, the use of predominantly Caucasian, middle-class families in such studies, and the absence of intervention studies examining the malleability of parent-child conflict, the current study had the following goals.

The first goal was to model trajectories of both mother-child and father figure (FF)-child conflict from ages 2 to 4 among a racially diverse, at-risk sample of two-parent families from urban, suburban, and rural communities. Two-parent families were selected so as to be able to compare the current findings with the extant literature, which has been primarily focused on two-parent low-risk, Caucasian families. The second goal was to examine the link between change in parent-child conflict and change in children's socioemotional problems. This was carried out using a parallel process latent growth curve modeling analytic framework [36] to examine associations between trajectories of parent-child conflict from ages 2 to 4 and trajectories of children's externalizing and internalizing problems during the same time period for both mother-child and FF-child dyads. The third goal was to test the effectiveness of random assignment to the FCU on improvements in mother-child and FF-child conflict and whether such reductions were linked to improvements in externalizing and internalizing behaviors.

Method

Participants

Participants were a subsample of 195 two parent families drawn from a larger intervention trial of 731 families. Primary caregivers (PCs) and their children (47 % female) were recruited from Women Infant and Children's program centers, which is a nutritional supplemental program for needy families, in and around Pittsburgh, PA, Eugene, OR and Charlottesville, VA when children were 2 years old. In 2002-2003, participants were screened in three key areas to be deemed at high risk for child conduct problems: (1) sociodemographic risk (e.g., poverty, teen parent status), (2) family risk (e.g., maternal stress and depression), and (3) child conduct problems. For families to qualify for the study, they needed to be at least one standard deviation above the normative mean in two of the three categories. Moreover, the child had to demonstrate behavioral problems above the normative mean if this was not a qualifying category for the family. After screening, 272 (37 %) participants were recruited in Pittsburgh, 271 (37 %) in Eugene site, and 188 (26 %) in Charlottesville.

Design and Procedure

Mothers, children, and alternate caregivers (ACs) when available were scheduled for a 2.5 h home assessment when children were between 2 and 2 years 11 months old. ACs were adults identified by the mother as someone who regularly cared for the child. Each assessment involved a series of interactive tasks and caregivers completed numerous questionnaires, including instruments assessing parent-child conflict and children's adjustment. The home visit protocol was repeated at ages 3 and 4. Maternal and FF reports

of parent–child conflict from ages 2, 3, and 4 were used for the current study. Maternal and AC reports of children’s adjustment were also used from the ages 2, 3, and 4 assessments.

Families received \$100 for participating in the age 2 home assessment, \$120 for the age 3 assessment, and \$140 for the age 4 assessment. Randomization to the intervention group was balanced on gender to assure an equal number of males and females in the control and intervention sub-sample. To ensure blindness, the examiner opened a sealed envelope, revealing the family’s group assignment only after the assessment was completed, sharing this information with the family. Examiners who completed follow-up assessments were not informed of the family’s assigned group.

Family Check-Up—PCs of families who were randomly assigned to receive the FCU were contacted after each home assessment in order to schedule two in-home visits with a trained clinician: a 45-min *Get to Know You* initial interview followed by a second 90-min *feedback session*. During the initial interview, the clinician discussed with the parent pressing issues that were important in terms of the child’s well-being. During the feedback session, the clinician presented a summary of results from the home assessment addressing topics such as child adjustment, parenting strategies, and family stressors using motivational interviewing techniques. Clinicians were trained to support family strengths, help the family identify areas of need, assess the parent’s willingness to change, and identify services necessary to help meet the family’s needs. At the end of the feedback session, families were offered followup sessions to focus on parenting strategies and family management. See [33] for a detailed description of the FCU intervention.

Sample Reduction

PCs who were not biological mothers at all assessment points ($n = 27$) were omitted from all analyses. For the purposes of the current study, the sample was reduced to include only two-parent families, defined by having a participating AC who was the child’s father figure (FF; i.e., biological, step-, adoptive fathers and maternal romantic partners), who participated in the study at more than one timepoint, and who was identified by the mother as someone who regularly cared for the child. Data were carefully screened to ensure that the FF was the same person over time in order to model linear growth in FF–child conflict. It should be noted that all available AC reports of externalizing and internalizing problems were used to model growth in these constructs (e.g., if a FF participated at waves one and three, and a grandmother participated as the AC at the second wave, grandmother reports were used to model socioemotional problems). Cases with only one available wave of data were omitted ($n = 46$) from all analyses.

Sample reduction procedures resulted in a subsample of 195 mother, FF, child triads, with 60 % of the families being from the Oregon site, 28 % from Pittsburgh, and 12 % from Virginia. Across sites, the children were reported to belong to the following racial groups: 26 % African American or Biracial, 65 % European American, and 7 % other races (e.g., American Indian, Native Hawaiian). In terms of ethnicity, 12.4 % of the sample reported being Hispanic American. At age 2, greater than half (56 %) of families had a yearly income below \$20,000, and the average number of family members per household was 4.5 ($SD =$

1.44). Fifteen percent of the mothers did not have a high school diploma, 41.5 % had a high school diploma or GED, 39 % had some college education or a 4-year college degree; 62.4 % of the sub-sample was married. At the time of the age 2 assessment, the children's mean age was 30.0 months ($SD = 2.9$).

At age 2, 69 % of FFs were biological fathers, 8 % were maternal romantic partners, and 3 % were step- or adoptive fathers; the remaining 20 % had no participating FF. At age 3, 74 % of FFs were biological fathers, 8 % were maternal romantic partners, and 6 % were step- or adoptive fathers. At age 4, 58 % of FFs were biological fathers, 7 % were maternal romantic partners, and 8 % were step- or adoptive fathers.

Comparisons between the selected subsample and the full sample of 731 showed several demographic differences. As compared to the full sample, the retained participants were more likely to be from the Oregon site than from the Virginia site or the Pittsburgh site, $\chi^2(1) = 25.03$ and 9.23 , respectively, p values $<.05$. Families from the Oregon site tended to have lower levels of relative risk (higher income, higher maternal education) compared to the other two sites, likely yielding more residential stability. Participants in the current sample were also less likely to be African American or Biracial than European American, $\chi^2(1) = 24.86$, $p < .05$. Children in the retained subsample had higher average levels of PC- and AC-reported internalizing problems at age 2 as compared to the full sample ($t = 1.99$ and $t = 3.92$, respectively, p values $<.05$). There were no statistically reliable differences between the full and current samples in Hispanic ethnicity, child gender, age 2 levels of parent-child conflict (PC and AC reports) or in age 2 levels of child behavior problems (PC and AC reports). Furthermore, no differences were found in the number of participants who were in the control versus the intervention groups at age 2 ($n = 101$ and $n = 94$, respectively).

In terms of patterns of missing data within the retained subsample, three observations (1.5 %) of age 2 mother-child conflict were missing; five observations (2.6 %) were missing at age 3, and 15 observations (7.7 %) were missing at age 4. FF-child conflict missingness was as follows: 30 observations (15.4 %) at age 2 were missing; 13 (6.7 %) at age 3, and 37 (19.0 %) at age 4. Families with all three waves of data for both constructs ($n = 111$; 57 %) were less likely to be minority (African American or Biracial), $\chi^2(1) = 4.98$, $p < .05$, more likely to be from the Virginia site, $\chi^2(1) = 8.60$, $p < .01$, and had higher levels of income at age 2, $t(190) = -2.34$, $p < .05$. Families with no missing data on conflict constructs were not more likely to be in the intervention versus treatment group, and they did not differ on maternal level of education at age 2.

Measures

Demographics Questionnaire—Demographic data were collected from mothers during the ages 2, 3, and 4 assessments. This measure included questions about family structure, parental level of education, parental criminal history, and areas of familial stress and strengths.

Parent-Child Conflict—Conflict in the caregiver-child relationship was assessed at ages 2, 3, and 4 using the 10-item conflict subscale of the Adult-Child Relationship Scale

(ACRS). The ACRS was adapted from the 30-item Teacher–Student Relationship Scale [37], which was originally designed to measure teachers’ perceptions of their relationships with children. The measure was modified for parents to rate the quality of their relationships with offspring. Items are rated on a 5-point likert scale ranging from *definitely not* to *definitely*. Sample items from the conflict scale are, “This child and I always seem to be struggling with each other,” “Even though I’ve tried hard, I don’t feel good about how the two of us have gotten along,” and “This child stays angry or resists me after being punished.” Note that conflict scores were calculated by summing the items, with higher scores indicating higher levels of caregiver–child conflict. Internal consistencies for the conflict scale were 0.78, 0.87, and 0.85 for maternal reports at ages 2, 3, and 4, respectively, and were 0.80, 0.80, and 0.81 FF reports at ages 2, 3, and 4, respectively.

Child Behavior Checklist (CBCL/1.5–5; [38])—The CBCL for Ages 1.5–5 is a 99-item questionnaire that assesses behavioral problems in young children. Mothers and ACs completed the CBCL/1.5–5 at the ages 2, 3, and 4 visits. The broad-band Externalizing and Internalizing factors were used in the current study. Overall, the CBCL/1.5–5 has been found to have adequate test–retest reliability (range = 0.68–0.92) and good cross-informant agreement (parent–child care provider agreement = 0.65; [38]). Internal consistencies for Externalizing were 0.89, 0.90, and 0.91 for PC reports at ages 2, 3, and 4, respectively, and were 0.90, 0.91, and 0.91 for AC reports at ages 2, 3, and 4, respectively. For Internalizing, internal consistencies were 0.83, 0.88, and 0.86 for PC reports at ages 2, 3, and 4, respectively, and were 0.82, 0.85, and 0.85 for AC reports at ages 2, 3, and 4, respectively.

Results

Descriptive Statistics and Intercorrelations

Descriptive statistics for measured variables across the three assessment waves are presented in Table 1. Overall, mean levels of parent–child conflict at ages 2, 3, and 4 were more elevated for mothers ($M = 28.07$, $SD = 7.77$, $M = 26.36$, $SD = 8.10$, and $M = 25.81$, $SD = 7.70$, respectively) than for FFs ($M = 21.57$, $SD = 6.30$, $M = 21.92$, $SD = 6.50$, and $M = 21.78$, $SD = 6.34$, respectively). In terms of children’s adjustment problems, T-scores are presented in Table 1. Consistent with the screening procedure used to recruit families for the study, maternal-reported externalizing problems at age 2 were nearly one standard deviation above the normative mean ($M = 59.29$, $SD = 8.79$). With the exception of AC-reported normative mean levels of internalizing problems ($M = 50.35$, $SD = 9.12$), overall at age 2, children’s socioemotional problems were above the normative mean, regardless of informant, with decreasing means across time.

In terms of bivariate intercorrelations among reports of parent–child conflict, mother–child conflict at ages 2 and 3 was moderately to highly correlated 1–2 years later (r s ranged from .44 from age 2 to 4 to .69 from age 3 to 4). Similar magnitudes of correlation were found for FF conflict over time (r s ranged from .45 from age 2 to 4 to .62 from age 3 to 4). Mother–child and FF–child conflict were modestly to moderately correlated concurrently and across time (e.g., r s ranged from .21 to .41, $p < .05$). Within reporter, ratings of child externalizing and internalizing problems were moderately to strongly correlated over time (r s for maternal

reports ranged from .55 to .71, $p < .05$ and r_s for AC reports ranged from .33 to .70, $p < .05$), and across reporter within and across time (r_s ranged from .09 to .49, $p < .05$), with associations among reports of internalizing problems less consistent.

In terms of associations between parent–child conflict and child adjustment, correlations between mother–child conflict and AC reports of externalizing problems were modestly to moderately correlated within and across time (r_s ranged from .20 to .46, $p < .05$). In contrast, AC reported age 2 internalizing problems were not significantly related to mother–child conflict at any timepoint, whereas age 4 internalizing problems were significantly correlated to all three observations of mother–child conflict ($r_s = .17, .28, \text{ and } .19, p < .05$, at ages 2, 3, and 4, respectively). Age 3 AC reported internalizing problems were significantly related to only age 3 mother–child conflict ($r = .29, p < .05$). More consistent patterns were found for FF–child conflict and maternal reports of conduct and emotional problems, with all reports significantly correlated within and across time (r_s ranged from .18 to .36, $p < .05$).

Change in Parent–Child Conflict Over Time

Our first aim was to examine the stability and growth in parent–child conflict from age 2 to 4. To achieve this goal, a series of six unconditional latent growth models (LGM; i.e., no covariates included) were fit using Mplus Version 4.0 [39] to estimate initial levels of, and changes from ages 2 to 4 in, parent–child relationship conflict, with separate models estimated for mother–child and FF–child dyads, as well as children’s externalizing and internalizing problems using both primary and alternate caregiver reports. Parameter estimates and fit indices for each of the six models are presented in Table 2. All unconditional models were a good fit to the data. Overall, mother–child conflict significantly decreased over time ($b = -1.07, SE = 0.29, p < .01$); FF–child conflict did not significantly change over time. Maternal and FF reports of children’s externalizing problems and maternal reports of internalizing problems significantly declined over time (see Table 2).

Parallel Growth in Parent–Child Conflict and Child Adjustment

Our next aim was to examine whether the trajectory of mother–child conflict or FF–child conflict had effects on initial levels of, and/or change in, children’s socioemotional problems. Four parallel process LGMs were fit to test this goal, in which latent growth parameters (i.e., intercept and slope) were simultaneously estimated for two latent growth curves while examining the predictive relationships between growth parameters of one trajectory on the growth parameters of the other. Thus, we tested whether parent–child conflict was concurrently related to child externalizing and internalizing problem behavior at age 2, whether initial levels of one construct predicted changes in the other, and whether changes in parent–child conflict from ages 2 to 4 predicted changes in child socioemotional problems during the same time period. To minimize reporter bias, when modeling associations between maternal and FF reports of parent–child conflict in relation to child problems, different reporters were used to report on child adjustment problems (e.g., mother–child conflict self-reports were modeled with AC reports of externalizing behaviors). Specifically, the four models that simultaneously fit two trajectories were as

follows: (1) mother–child conflict and AC reported externalizing behaviors, (2) mother–child conflict and AC reported internalizing behaviors, (3) FF–child conflict and PC reported externalizing behaviors, and (4) FF–child conflict and PC reported internalizing behaviors. The following covariates were included in all parallel process models: Random assignment to the intervention, study site, child race, child gender, and maternal level of education. Overall, all four parallel process models were good fits to the data according to χ^2 or χ^2/df , CFI, TLI, RMSEA, and SRMR fit indices.

Mother–Child Conflict and Children’s Socioemotional Adjustment—To examine the relationships between longitudinal patterns of mother–child conflict and child adjustment, we fit two separate parallel process models: First, modeling conflict with children’s externalizing problems and second, modeling conflict with children’s internalizing problems. In terms of mother–child conflict and externalizing problems, the model was a good fit to the data ($\chi^2(23) = 36.08, p = 0.04; \chi^2/df = 1.57, CFI = 0.97, TLI = 0.92, RMSEA = 0.05, SRMR = 0.04$). We found that higher age 2 mother–child conflict was significantly correlated with higher levels of concurrent externalizing problems ($r = .32, p < .01$). No other significant paths between latent growth parameters were observed for this model. Importantly, intervention group membership predicted more rapidly declining mother–child conflict ($b = -1.13, SE = .51, p < .05$) from ages 2 to 4 (see Fig. 1). Declines in mother–child conflict were tested as a potential mediating mechanism between the intervention and children’s externalizing behaviors using a bootstrap approach [40]. The confidence interval of the indirect effect based on 1,000 bootstrap samples included zero indicating there was not significant mediation.

In terms of mother–child conflict and internalizing problems, this model was also a good fit to the data ($\chi^2(23) = 32.82, p = 0.08; \chi^2/df = 1.43, CFI = 0.97, TLI = 0.94, RMSEA = 0.05, SRMR = 0.04$). Higher age 2 mother–child conflict was not significantly correlated with higher levels of concurrent internalizing problems ($r = .02, n.s.$), and growth in mother–child conflict was not related to growth in internalizing problems over time ($b = .01, SE = .09, ns$). There was a trend for higher mother–child conflict at age 2 to predict more rapid growth in AC-reported internalizing problems from ages 2 to 4 ($b = .10, SE = .06, p < .10$). In terms of covariates, mothers with higher educational attainment at age 2 had lower concurrent levels of conflict ($b = -1.44, SE = .45, p < .01$), but had less rapidly declining mother–child conflict from ages 2 to 4 ($b = .74, SE = .25, p < .05$). Further, families with minority children (African-American and Biracial) had lower levels of mother–child conflict at age 2 as compared to Caucasian families ($b = -3.16, SE = 1.47, p < .05$).

Father Figure–Child Conflict and Children’s Socioemotional Adjustment—

Next, relationships between FF–child conflict and children’s socioemotional problems were examined in two separate parallel process models. In terms of FF–child conflict and externalizing problems, the model was a good fit to the data ($\chi^2(23) = 21.01, p = 0.58; \chi^2/df = 0.91, CFI = 1.0, TLI = 1.0, RMSEA = 0.0, SRMR = 0.02$). Specifically, higher age 2 FF–child conflict predicted higher concurrent externalizing problems ($b = .41, SE = .12, p < .05$, respectively) and less rapid declines in externalizing problems ($b = .12, SE = .06, p < .05$). Furthermore, the slope of FF–child conflict significantly predicted the slope of externalizing

problems ($b = .37$, $SE = .17$, $p < .05$; see Fig. 2), suggesting that the rate of growth in FF-child conflict was positively related to the rate of growth in children's externalizing problems from ages 2 to 4. There were no significant covariates in this model.

Regarding FF-child conflict and internalizing problems, the parallel process model was a good fit to the observed data ($\chi^2(23) = 21.30$, $p = 0.56$; $\chi^2/df = 0.92$, $CFI = 1.0$, $TLI = 1.01$, $RMSEA = 0.0$, $SRMR = 0.03$). Age 2 FF-child conflict predicted higher concurrent internalizing problems ($b = .34$, $SE = .11$, $p < .05$) but not growth in internalizing problems.

Discussion

The current study had three main goals: (1) to model changes in mother-child and father figure (FF)-child conflict from ages 2 to 4, (2) to investigate associations between trajectories of parent-child conflict and children's socioemotional problems for mother-child and FF-child dyads; and (3) to test intervention effects in improving conflict trajectories and concomitant changes in child externalizing and internalizing problems. In summary, findings suggested an average decline in levels of mother-child conflict but not for FF-child conflict. Moreover, intervention group membership predicted more rapid declines in mother-child conflict as compared to the control group; however, no treatment effect was found for FF-child conflict. Interestingly, dynamic associations were found between rate of change in FF-child conflict and rate of change in child externalizing behaviors during early childhood, with a trend suggesting the same pattern for internalizing problems. These patterns were not evident for mother-child dyads.

In terms of the first goal, we found that mother-child conflict significantly declined over time whereas the slope of FF-child conflict did not. Although there is a dearth of literature on the growth in parent-child conflict over time, the average declines in mother-child conflict are consistent with previous work conducted by Driscoll and Pianta [24] demonstrating lower levels of conflict at elementary school age as compared to preschool age as well as work by Trentacosta et al. [15], which suggested declines in mother-son conflict amongst the majority of dyads in an at-risk sample from middle childhood through early adolescence. The current findings suggest comparable decreases in parent-child conflict between mothers and sons *and* mothers and daughters during early childhood among high-risk two-parent families. Despite this consistency with previous literature, regression toward the mean may explain the declining levels of mother-child conflict that were observed, as average levels approached the lower mean values observed among FF reports. More research is needed to support the found pattern of declining rates of mother-child conflict during early childhood.

Examining differences in levels of parent-child conflict between mothers and FFs in the current study, mothers reported higher levels of conflict with their children than did FFs. It may be that mothers spend a greater amount of time with their children during early childhood, and therefore have a greater opportunity to experience conflict in their relationships than do FFs. Furthermore, research has shown that mothers tend to spend disproportionately more time handling the responsibilities of limit-setting with children as compared to fathers, whereas fathers are more likely to spend a larger percentage of time

engaged in play with their children [41, 42]; thus, mothers may be more likely to elicit acrimonious interaction with their children when setting rules and enforcing consequences with toddlers. As toddlers acquire the greater cognitive and social maturity to regulate their behavior and more readily comply with parental expectations, it follows that such growth would lead to decreases in levels of conflict with the caregiver who is most often making and enforcing the rules. Future research is needed to investigate longitudinal changes in mother–child and FF–child conflict during early childhood while accounting for the levels of involvement and the distribution of parenting duties among the caregivers.

In terms of parallel longitudinal change outlined in goal two, results suggested that growth in FF–child conflict was significantly related to growth in child externalizing behavior. This finding extends the current literature base by demonstrating not only the dynamic relations between FF–child conflict and child adjustment, but that these predictive patterns were evident during early childhood. Further, that changes in FF–child conflict were positively associated with changes in child conduct problems above and beyond the effect of initial levels of conflict and behavior problems are consistent with a focus on approaching the study of family conflict and adjustment from a dynamic perspective [29].

The current study investigated these relationships among a sample of children at high-risk for developing conduct problems. It could be that children who are showing very early behavior problems may be more responsive to the quality of their relationships with their fathers than with their mothers. Furthermore, there was not consistent information available on the current sample of FFs as to whether or not they resided with the mother and child at age 2, or on their level of involvement with the child. Future research is needed to tease apart the factors that are impacting the development of FF–child conflict and its effect on children’s socioemotional problems.

Overall, findings seemed to be more consistent when modeling relations between FF–child conflict and maternal-reported externalizing problems than for relations with internalizing problems. As previously noted, mothers and their children were screened to determine that the child was at high risk for developing conduct problems. Children who qualified for inclusion in the study showed elevated problem behaviors as measured by the Eyberg Child Behavior Inventory [43]. It may be that this sample of children was particularly susceptible to the exacerbation of conduct problems when exposed to other risks. Furthermore, debate exists as to the accurate measurement of internalizing problems in very young children. According to Kendall et al. [44], self-reports of depressive symptoms are crucial based on their subjectivity and that they represent internal states (e.g., sadness, feelings of worthlessness). Very young children lack the ability to self-reflect and reliably report on these abstract processes. In using parental reports on the CBCL/1.5–5 [38] of internalizing problems among children, the internal processes are measured using outward, and sometimes subtle, cues from the child. Parents would have to be very tuned into their children to pick up on some of the behavioral markers of depressive and anxiety symptoms (e.g., nervous, high-strung, or tense and withdrawn; doesn’t get involved with others). Again, based on the screening procedures, mothers in the current sample demonstrated elevated risk in areas such as maternal stress and depressive symptomatology. The work of Fergusson et al. [45] has suggested that depressed mothers’ reports commonly overestimate

the frequencies of their children's behaviors because of their bias for focusing on negative versus positive attributes of themselves and others. Furthermore, overwhelmed mothers experiencing depressive symptoms may be more likely to notice when a child is disruptive and acting out as opposed to when he or she is anxious or withdrawn. It follows that the same biases may be present for other family members living in high-risk, stressful, and potentially chaotic environments. More research is needed to carefully examine the link between parent- and family-level risk factors and potential reporting biases for children's externalizing and internalizing problems.

In terms of the last goal of the current study, random assignment to the FCU was shown to improve mother-child conflict from ages 2 to 4, as mother-child conflict declined more rapidly for mother-child dyads in the intervention group as compared to the control group. These results have implications for prevention and early intervention programs for high-risk children; namely, that the link between parent-child relationship quality and child adjustment represents a possible pathway for interventionists to improve children's developmental outcomes. The intervention findings also mirror other hypothesized effects and unexpected collateral effects found in the current sample in relation to the FCU, including expected positive effects on child conduct problems and positive behavior support [33], as well as unanticipated improvements for maternal depression and child internalizing problems [35], co-occurring problem behavior [46], and child language and inhibitory control [34].

No intervention effects were evident for FF-child conflict. This is not surprising based on the many different family constellations and roles played by FFs in the sample. FFs were always invited to participate in the intervention; however, they were invited via the maternal primary caregiver to maintain rapport and respect for mothers as the gatekeepers of their families (e.g., some nonresidential biological fathers were not invited because of acrimonious relationships with the mother). Thus, the level of FF engagement in the intervention was sometimes filtered by the mother and less optimal than desired.

Of note, intervention status was not associated with declines in child socioemotional problems; however, other papers using this sample have found that the FCU predicted statistically reliable declines in child externalizing [33] and internalizing problems [35] from ages 2 to 4. As described earlier, the current sample was a subsample of two-parent families drawn from the larger study and was derived by omitting participants (1) who did not have participating FFs and (2) who did not have more than one data point for *both* mother- and FF-child conflict due to the complexity of the parallel trajectory modeling. Importantly, post hoc analyses of two separate conditional latent growth models (one each for externalizing and internalizing problems) using the full sample replicated Dishion [33] and Shaw et al. [35] intervention findings for both types of child problem behaviors. The lack of significant intervention effects on child adjustment in the current study is likely due to lower statistical power that resulted from sample reduction techniques paired with bias from a subsample exclusively comprised of two-parent families.

Whereas the current study expands the extant literature on parent-child conflict, there were several limitations. First, measurement method bias should be carefully considered when

interpreting the results as all of the main study variables were questionnaire reports. However, it is important to note that within each parallel process model, the reporter of parent-child conflict always differed from the reporter of children's socioemotional problems. Specifically, when maternal reports of mother-child conflict were included in a model, alternate caregiver reports of children's adjustment problems were used. In turn, FF reports of FF-child conflict were paired with primary caregiver reports of child behavior. Although this strategy helps strengthen the current project by directly addressing the issue of informant biases, method bias remains an issue. When parent-reported mother-child conflict was examined in relation to an observed measure of mother-child coercion, modest correlations were found cross-sectionally at ages 2 and 3 ($r = .13, p = .08$ $r = .19, p < .01$, respectively) and longitudinally from age 2 parent reports to age 3 observations ($r = .16, p < .05$). These findings lend some validity to relying on parental reports of parent-child conflict in the current study, and the modest correlations are not surprising given the differences in measurement (maternal global perceptions vs. in-home observations during structured tasks). Unfortunately, because the observed parenting measure was coded only for mothers and not FFs, and no significant variability was found in growth of observational mother-child coercion, we decided to rely on parent reports of parent-child conflict. Future research should use multiple assessment methods including direct observations of both caregiver-child interactions and of children's behavior across various environmental contexts.

Further, the present study focused on a relatively short time frame that specifically targeted early childhood when children's rapidly developing cognitive and social skills provide unique challenges to their caregivers. The patterns observed may not hold over time and across children's developmental phases. For example, children's transition to school may serve to exacerbate conduct problems, and perhaps in turn, elevate parent-child conflict. On the other hand, the structure of formal schooling may help to develop and enhance interpersonal skills and regulatory abilities, which in turn may transfer to the home setting and positively impact the parent-child relationship. Relatedly, the current study utilized only three waves of data, which provided information to model linear effects, but not quadratic or cubic parameters. It may be that parent-child conflict and children's adjustment patterns follow a nonlinear trajectory and that upswings or downturns in one construct predict similar changes in the other. Future research is needed not only to shed light on the dynamic relations between parent-child conflict and socioemotional problems during early childhood, but also to bridge the gap from early childhood through school age, and into adolescence to better understand how these processes are related across developmental phases. Identifying key periods when families may be at elevated risk for experiencing high levels of conflict will help to inform the timing of targeted interventions.

Another limitation was our focus on two-parent families, which comprised only 27 % of the sample. As stable two-parent households represent the minority of families in the current sample and other low-income samples [15, 47], in future work it will be important to examine whether the current results are valid for always single-parent and both single- and two-parent families that undergo transitions [47].

Finally, from a family systems perspective, there are likely other factors that were not included in the current study that may have an impact on both parent–child conflict and children’s adjustment. Specifically, inter-parental conflict has been consistently shown to have a direct impact on levels of both parent–child conflict and child adjustment [14, 48, 49]. According to Davies and Cummings’ [5] emotional security hypothesis, child exposure to conflict between parents threatens the child’s sense of emotional security within the family, which leads to increasing cognitive and emotional demands from the child, thus contributing to socioemotional maladjustment. The spillover hypothesis also supports a consistent, direct relationship between acrimonious inter-parental relationships and the parent–child relationship [50]. Further research on potentially moderating or mediating mechanisms is needed to elucidate the complex associations between parent–child relationships and child adjustment, and their links with inter-parental conflict and other family-level (e.g., family stress), individual-level (e.g., parental emotional adjustment) and contextual (e.g., social support) factors.

Despite these limitations, the current results suggest that: (1) there are reliable decreases from ages 2 to 4 in mother–child but not FF–child conflict, (2) levels of parent–child conflict are reliably higher for mothers than FFs, (3) more rapid declines in FF–child conflict were predictive of more rapid declines in children’s externalizing problems and (4) the FCU is effective in reducing mother–child conflict but not FF-conflict over time. Taken together, these results underscore the importance of engaging fathers in the FCU to test whether this brief, family-centered intervention can improve trajectories of FF–child conflict, and thus reduce children’s behavior problems at a more rapid rate during early childhood.

By improving parent–child relationships via a brief, individualized, strengths-based parenting intervention, children’s adjustment problems may be circumvented, serving to improve children’s long-term outcomes. In turn, reductions of children’s adjustment problems will likely help sustain improvements in the parent–child relationship and contribute to improved developmental outcomes for children at risk for maladjustment and their families.

Summary

The current study investigated (1) patterns of growth in mother–child and father figure (FF)-child conflict during the course of early childhood, (2) associations between trajectories of mother–child and FF–child conflict and children’s externalizing and internalizing problems; and (3) intervention effects in attenuating conflict. Participants were 195 ethnically and geographically diverse mother–FF–child triads drawn from a larger parenting intervention study for families with children at risk for developing conduct problems. Mother–child conflict decreased from ages 2 to 4, but these changes were unrelated to changes in children’s adjustment problems. In contrast, the average level of FF–child conflict did not significantly change over time, but individual variation in the rate of change in FF–child conflict was positively associated with variation in the rate of change in child externalizing problems. Random assignment to a family-centered parenting intervention predicted rate of decline in mother–child conflict, but not in FF–child conflict. Findings were discussed with

respect to developmental patterns of parent–child conflict in early childhood and implications for prevention science.

Acknowledgments

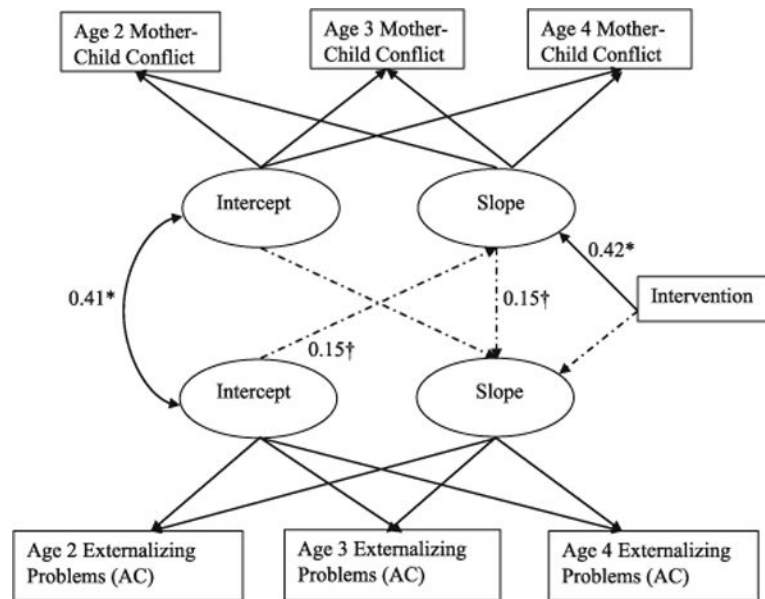
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Model fit indices: $\chi^2(23) = 36.08, p = 0.04$; $\chi^2/df = 1.57$, CFI = 0.97, TLI = 0.92, RMSEA = 0.05, SRMR = 0.04

Fig. 1. Parallel process model of mother-child conflict and alternate caregiver-reported (AC) child externalizing problems from ages 2 to 4. Note that study site, child race, child gender, and maternal level of education are included as covariates, but are not represented in the model for simplicity

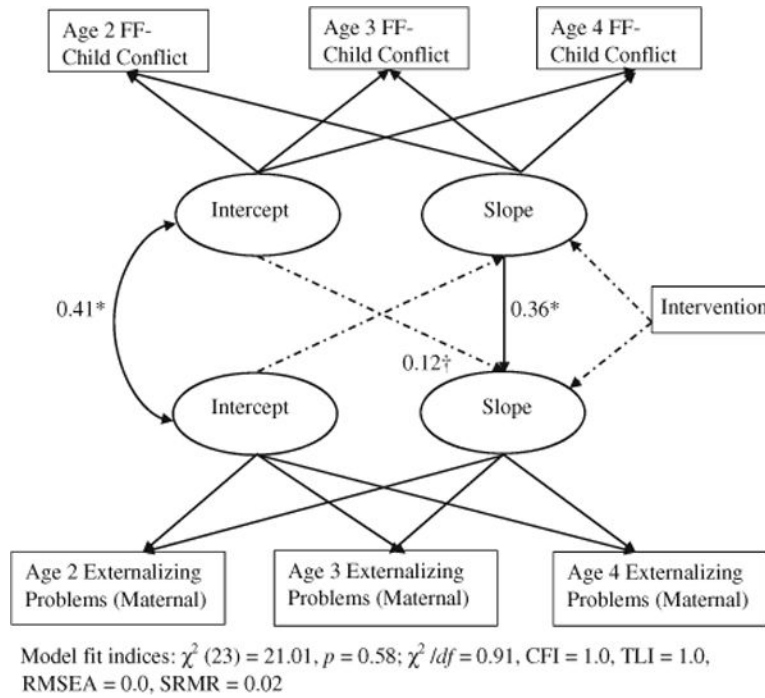


Fig. 2. Parallel process model of father figure (FF)–child conflict and maternal-reported child externalizing problems from ages 2 to 4. Note that study site, child race, child gender, and maternal level of education are included as covariates, but are not represented in the model for simplicity

Table 1

Descriptive statistics for measured variables

	Age 2		Age 3		Age 4	
	Mean	SD	Mean	SD	Mean	SD
Mother-child conflict	28.08	7.77	26.36	8.10	25.81	7.70
Father figure-child conflict	21.57	6.30	21.92	6.50	21.78	6.34
CBCL						
Externalizing problems (PC)	59.29	8.79	54.81	9.68	52.83	10.17
Internalizing problems (PC)	55.28	8.68	53.13	10.16	52.71	9.97
Externalizing problems (AC)	52.40	9.44	50.51	10.00	49.71	10.08
Internalizing problems (AC)	50.36	9.12	50.86	9.97	49.45	9.88

PC primary caregiver reports, *AC* alternate caregiver reports

Table 2
Parameter estimates for unconditional latent growth curve models of parent-child conflict and children's adjustment

	Mother-child			Father figure-child			
	b	SE	T-ratio	β	SE	T-ratio	β
Parent-child conflict							
Mean intercept	27.92*	0.55	51.14*	4.93*	21.57*	45.67*	3.77*
Mean slope	-1.07*	0.30	-3.62*	-0.30*	0.18	0.68	0.06
Intercept variance	38.62*	7.58	5.09*	1.0*	32.74*	5.66*	1.0*
Slope variance	12.38*	3.41	3.63*	1.0*	7.30*	2.68*	1.0*
Model fit indices	$\chi^2(1) = 1.39, p = 0.24; CFI = 0.99, TLI = 0.99, RMSEA = 0.04, SRMR = 0.02$						$\chi^2(1) = 0.44, p = 0.51; CFI = 1.0, TLI = 1.0, RMSEA = 0.00, SRMR = 0.01$
Primary caregiver reports							
Alternate caregiver reports							
Externalizing problems							
Mean intercept	20.34*	0.56	36.10*	2.92*	14.70*	26.00*	2.32*
Mean slope	-2.56*	0.28	-9.10*	-0.80*	-1.22*	-4.08*	-0.48*
Intercept variance	48.60*	7.83	6.20*	1.0*	43.36*	4.99*	1.0*
Slope variance	10.23*	3.28	3.12*	1.0*	6.44†	1.65†	1.0†
Model fit indices	$\chi^2(1) = 7.37, p = 0.01; CFI = 0.97, TLI = 0.92, RMSEA = 0.18, SRMR = 0.03$						$\chi^2(1) = 0.03, p = 0.87; CFI = 1.00, TLI = 1.02, RMSEA = 0.00, SRMR = 0.00$
Internalizing problems							
Mean intercept	11.79*	0.47	24.88*	1.77*	8.77*	20.84*	1.68*
Mean slope	-0.79*	0.22	-3.66*	-0.26*	-0.21	-0.92	-0.09
Intercept variance	43.99*	6.36	6.92*	1.0*	27.15*	5.39*	1.0*
Slope variance	9.16*	2.30	3.98*	1.0*	5.54*	2.38*	1.0*
Model fit indices	$\chi^2(1) = 0.09, p = 0.77; CFI = 1.0, TLI = 1.01, RMSEA = 0.00, SRMR = 0.01$						$\chi^2(1) = 5.05, p = 0.02; CFI = 0.97, TLI = 0.92, RMSEA = 0.06, SRMR = 0.03$

* $p < .05$

† $p < .10$