



# The Role of Parents' Relationship Quality in Children's Behavior Problems

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## Abstract

**Objectives** Using longitudinal data from the Fragile Families and Child Well-Being Study ( $N = 507$ ), we considered the role of parents' earlier (child age 5) relationship quality, co-parenting quality, and father involvement in children's later (age 9) internalizing and externalizing behaviors, with a specific focus on mediational links. We also explored the possibility of different patterns of associations based on child gender.

**Method** A demographically diverse sample of women who were in stable relationships (married or cohabiting) with the focal child's biological father completed questionnaires assessing the primary study variables at child ages 5 and 9 years.

**Results** Correlational analyses supported many of the hypothesized links between relationship quality, co-parenting quality, father involvement, and children's behaviors problems, although more so for boys. Regression analyses further illuminated the associations among the study variables. Importantly, co-parenting quality served as a mediator in the link between relationship quality and boys' age 9 internalizing and externalizing behaviors.

**Conclusions** This study identified different patterns for boys and girls, with relationship quality, co-parenting quality, and father involvement being important for boys but only co-parenting quality being important for girls. Further, findings suggest that for boys, the quality of the mother's romantic relationship has a bearing on the quality of her co-parenting with the father, which in turn impacts the son's behavioral adjustment. Future studies are needed to understand the nature of the longitudinal associations among the study variables more fully.

**Keywords** Relationship quality · Co-parenting · Child behavior problems · Father involvement · Fragile families

The quality of a couple's relationship has been linked to children's adjustment (Brock and Kochanska 2015; Fomby and Osborne 2010; Goldberg and Carlson 2014; Schrodtt and Shimkowski 2013; Zemp et al. 2016). However, the mechanisms by which these parent and child attributes are connected have been less clearly identified (Goldberg and Carlson 2014). While couples' relationship quality has been shown to be associated with children's behavioral outcomes, it is important to determine how the couple's relationship impacts the child by examining mechanisms that may serve as either risk or protective factors (Feinberg et al. 2014).

Prior research examining parents' relationship quality and child adjustment has primarily considered parent and child attributes concurrently (Schoppe-Sullivan et al. 2007), giving less attention to longitudinal associations. However, recently researchers have been focusing on earlier couple and parent attributes as predictors of later child outcomes (Fagan and Palkovitz 2011; Fomby and Osborne 2010). Additionally, the samples have been primarily middle-class, married couples with children (Stroud et al. 2011; Stroud et al. 2015), with most studies indicating that a stable two-parent household offers an advantage by helping to protect children against maladaptive developmental outcomes (e.g., Fomby and Cherlin 2007; Waldfogel et al. 2010). Although the evidence has favored an intact household where both biological parents reside and are married (e.g., Ackerman et al. 2001), more recent studies have suggested that relationship status is less important than is stability in the couple's relationship (Goldberg and Carlson 2014; Waldfogel et al. 2010). Still, it is not yet well understood how

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processes within stable families impact children (Goldberg and Carlson 2014).

According to a family systems perspective, children's development is impacted by the interactions among other family members (Cox and Paley 1997). The dynamics in the parents' relationship are considered an influential force because they are at the center of family life (Easterbrooks and Emde 1988) leading to "spillover" into the parent-child relationship (Erel and Burman 1995) which, in turn, affects the child's adjustment (Goldberg and Carlson 2014).

Stroud et al. (2011) found evidence of spillover in dyadic and triadic family interactions; however, they showed that relationship quality was significantly associated with fathers' responsiveness, but not that of mothers, during parent-child interactions. Although true for both boys and girls, some gender differences did emerge. The study showed an association between marital distress and greater hostility and disagreement in parents' co-parenting for daughters but not sons. Additionally, McHale (1995) showed a link between parents' marital distress and hostile-competitive co-parenting with boys but not girls.

Goldberg and Carlson (2014) found that parents' relationship quality, defined specifically as parents' supportiveness toward one another, at child age 3 years predicted children's behavior problems at age 5. Interestingly, parents' supportiveness at child age 5 did not predict children's behavior problems at child age 9. These findings highlight the importance of parents' supportiveness of one another during early childhood but suggest that as children age other aspects of the couple's relationship or broader family dynamics may need to be considered.

Co-parenting reflects the extent to which parents work in a cooperative and supportive manner in the context of child-rearing (McHale 1995). When parents are more cooperative and supportive of one another in their roles as co-parents, they provide positive models for their children, creating a more positive emotional climate in both their relationship and the broader family atmosphere. McHale and Rasmussen (1998) found that partners' competitive and unsupportive co-parenting behaviors were associated with more externalizing and internalizing behaviors in children. Additionally, Schrodts and Shimkowski (2013) found that supportive co-parenting was associated with reduced mental health symptoms in children.

Some studies suggest that the nature of co-parenting may vary depending on the couple's relationship quality and relationship status. One study indicated that parents reported less cooperative co-parenting immediately following divorce (Kamp Dush et al. 2011). Goldberg and Carlson (2015) found that quality of co-parenting following union dissolution depended on couples' earlier relationship quality. Among couples whose relationships remained intact, McClain and Brown (2016) found positive associations between couples' relationship quality and co-parenting.

A parent's behavior toward the child reflects interpersonal processes within the parent-child relationship (Erel and Burman 1995). While much research has identified mothers' parenting behavior as a salient correlate of children's social and emotional adjustment (Lyons-Ruth et al. 1993; Marchand et al. 2002; Harnish et al. 1995; Yildirim and Roopnarine 2015), far less has examined the effect of fathers' behavior on child outcomes (Fagan and Palkovitz 2011; Marchand-Reilly 2012; Torres et al. 2014). However, Baker et al. (2011) suggested that as children got older, fathers' involvement became increasingly important for the child's adaptive social functioning. They found that fathers' emotion socialization was more strongly related to middle school-age children's social competence than the mothers' socialization.

Again, as noted by Easterbrooks and Emde (1988), qualities in the couple's relationship likely affect their relationship with their child. This may be especially true for fathers, as the father vulnerability hypotheses suggests that marital functioning has a greater impact on fathers' parenting (Cummings et al. 2010), an idea that has received support from the research literature (Nelson et al. 2009; Stroud et al. 2011). Furthermore, when a mother is feeling less satisfied in her relationship with the father, she might attempt to influence the father's involvement with the child by acting as a gatekeeper (Schoppe-Sullivan et al. 2015) especially when the parents are not married. Yet, father involvement may be even more important for optimal child's adjustment among at-risk families, since mothers may experience more parenting stress as the number of risk factors, such as low income and education level, increase (Beck et al. 2010). At least one study has suggested fathers' behaviors that reflect positive parental involvement serve as important protective factors in children's adjustment, especially among non-marital couples (Berger and McLanahan 2015).

More research is needed that considers couples' relationship quality, co-parenting quality, and father involvement together as they relate to children's adjustment to understand better how aspects of the couple's relationship and their parenting impact the child, especially within diverse families. Greater emphasis on longitudinal associations is needed to understand better how family processes at earlier developmental stages impact children's later adjustment.

In the present study, we will expand previous research by using data from a demographically diverse sample of couples in stable relationships and their children. In order to understand more fully the link between relationship quality and children's adjustment, we will examine the longitudinal associations between earlier relationship quality (child age 5) and children's later internalizing and externalizing behaviors (child age 9) and will consider whether co-parenting and

father involvement at child age 5 serve as mediators between earlier relationship quality and children's later externalizing and internalizing behaviors.

## Method

### Participants

Fragile Families and Child Well-Being (“About the Fragile Families and Child Wellbeing Study” 2018) secondary data were used in the present study. The data were first collected in 1998 when the target child was born, and follow-up data were collected when the child was age 1, 3, 5, 9, and 15 years. The current study is based on a demographically diverse subsample of 507 families who remained in a relationship (married or cohabiting) at child age 9 years. The gender make-up of the focal children included 259 boys and 248 girls. See Reichman et al. (2001) for more information on the sampling method. Table 1 shows the demographic characteristics of the sample of parents used in this study.

### Procedure

The present study is based on interviews conducted during Wave 3 and Wave 4 when the children were 5 and 9 years old. Only families with the biological parents in a stable married or cohabiting relationship and with the target child living with the parents during Wave 4 were included in this study.

### Measures

#### Outcome variables

**Internalizing and externalizing behaviors** Children's internalizing and externalizing behaviors were based on mother-reported data from the Child Behavior Checklist (CBCL; Achenbach 1991) at child age 9 years. Internalizing behaviors were measured using all items on the anxious/depressed scale, all items from the somatic complaints scale, and all items from the withdrawn/depressed scale for a total of 31 items. In the present study Cronbach's alphas for internalizing and externalizing behaviors were 0.84 and 0.90, respectively.

#### Predictor variables

**Relationship quality** Relationship quality was measured using mothers' responses to five items asked at child age 5 years. The items were selected from the 9-item Couple Relationship Quality Scale. The items reflect partners'

**Table 1** Mothers' and fathers' characteristics

Characteristic	Frequency mother	Percentage mother	Frequency father	Percentage father
<b>Race at baseline</b>				
Black	181	35.5%	196	38.4%
White	213	41.8%	201	39.4%
Asian	21	4.1%	16	3.1%
American Indian	11	2.2%	12	2.4%
Other	73	14.3%	81	15.9%
Missing or don't know (for father)	11	2.2%	4	0.8%
<b>Ethnicity at baseline</b>				
Hispanic or Latina/o	139	27.3%	135	26.5%
Non-Hispanic	369	72.4%	374	73.3%
Missing/don't know	2	0.4%	1	0.2%
<b>Age (years) at baseline</b>				
15–19	52	10.2%	21	4.2%
20–24	199	30.1%	120.2	23%
25–29	134	26.3%	127	22.7%
30–39	153	32.5%	183	55.9%
40–49	18	3.6%	35	7%
50+	0	0%	4	0.8%
<b>Education level at baseline</b>				
Less than high school diploma	119	23.3%	122	23.9%
High school diploma or equivalent	145	28.4%	147	28.8%
Some college/tech	132	25.9%	138	27.1%
College graduate or grad	114	22.4%	101	19.8%
Missing	0	0	2	0.4%
<b>Annual income constructed at baseline</b>				
\$19,498 or less	154	30.2%		
\$19,499–48,483	187	36.7%		
\$48,484–108,433	98	19.2%		
\$108,434+	71	13.9%		
<b>Relationship status at wave 4 (age 9)</b>				
Married	386	75.7%		
Cohabiting	124	24.3%		

commitment to the relationship, satisfaction with the sexual relationship, and trust. Most of the items on the scale were borrowed in their original form or slightly modified from previously well-established measures of relationship quality (e.g., Stanley and Howard 1992), except for one item measuring trust which was created by the Fragile Families and Child Well-Being research team (“About the Fragile

Families and Child Well-Being Study”, 2018). Item responses were then summed for a total possible score ranging from 5 to 25. Cronbach’s alpha for relationship quality was 0.70 in the present study.

**Co-parenting quality** Co-parenting quality was measured using mothers’ response to five questions asked at child age 5 years used by researchers as indicators of co-parenting quality (Kamp Dush et al. 2011; Goldberg and Carlson 2015). Each item was rated on a four-point Likert scale ranging from 0 = always true to 3 = never true. Items responses were then summed for a total possible score ranging from 0 to 15, with lower scores indicating greater quality of co-parenting and higher scores indicating lower quality of co-parenting. For ease of interpretation, in the present study, the items were reverse scored. In the present study Cronbach’s alpha for co-parenting quality was 0.74.

**Father involvement** Father involvement was measured by asking mothers at child age 5 years to report the number of days in the past week that the father had been engaged in various activities with the child (e.g., playing outside in the yard, park, or playground). These items have been used previously by researchers as indicators of father involvement (e.g., Castillo et al. 2013). Item responses were summed for a total possible score ranging from 0 to 56. Cronbach’s alpha for father involvement was 0.69 in the present study.

### Control Variables

We controlled for family income at baseline and parents’ relationship status (married or cohabitating) at child age 9. Regarding child characteristics, we controlled for children’s behavior problems at age 5 which were based on mother-reported data from the Child Behavior Checklist (Achenbach 1991). In the present study Cronbach’s alphas for age 5 internalizing and externalizing behaviors were 0.77 and 0.83, respectively.

### Data Analyses

Pearson correlations examined associations among the primary study variables. To explore the possibility that mothers’ reports of co-parenting quality and father involvement at child age 5 might serve as mediators in the link between relationship quality at child age 5 and children’s externalizing and internalizing behaviors at age 9, we used a series of regression analyses as recommended by Baron and Kenny (1986). Information on the Baron and Kenny approach can be found in other previously published research (e.g., Marchand-Reilly 2012).

## Results

Means and standard deviations for the study variables are presented in Table 2. T-tests were used to determine whether child gender differences existed for any of the primary study variables. The only variable for which there was a significant difference was externalizing behaviors. The t-test ( $t = 3.51, p < 0.01$ ) showed that boys had higher scores for externalizing behaviors ( $M = 38.20, SD = 6.65$ ) than girls ( $M = 36.39, SD = 4.75$ ).

Results for the correlational analyses are shown in Tables 3 and 4. Regarding the hypothesized links between the relationship and parenting attributes at child age 5 and boys’ internalizing and externalizing behaviors at child age 9,

**Table 2** Means and standard deviations for boys ( $N = 259$ ) and girls ( $N = 248$ )

	M	SD	Min.	Max.
<b>Boys</b>				
1. Relationship quality	20.60	3.56	5	25
2. Co-parenting quality	9.00	1.62	0	14
3. Father involvement	28.36	10.51	2	56
4. Boys’ externalizing behaviors	38.20	6.65	32	87
5. Boys’ internalizing behaviors	35.75	5.74	31	93
<b>Girls</b>				
1. Relationship quality	20.74	3.60	9	25
2. Co-parenting quality	9.89	1.83	3	15
3. Father involvement	30.21	11.43	0	56
4. Girls’ externalizing behaviors	36.39	4.75	32	61
5. Girls’ internalizing behaviors	35.52	4.52	31	63

**Table 3** Correlations among the study variables for boys ( $N = 259$ )

	1	2	3	4	5
1. Relationship quality	–	0.36**	0.20**	–0.25**	–0.24**
2. Co-parenting quality		–	0.18**	–0.38**	–0.27**
3. Father involvement			–	–0.17**	–0.13*
4. Boys’ internalizing behaviors				–	0.60**
5. Boys’ externalizing behaviors					–

\* $p < 0.05$ , \*\* $p < 0.01$

**Table 4** Correlations among the study variables for girls ( $N = 248$ )

	1	2	3	4	5
1. Relationship quality	–	0.35**	0.20**	–0.03	–0.12
2. Co-parenting quality		–	0.30**	–0.14*	–0.16**
3. Father involvement			–	–0.04	–0.04
4. Girls’ internalizing behaviors				–	0.58**
5. Girls’ externalizing behaviors					–

\* $p < 0.05$ , \*\* $p < 0.01$

**Table 5** Regression analyses testing the mediational role of co-parenting quality for boys

Predicted variable	Variables in equation	R <sup>2</sup>	β
Step 1. Co-parenting quality	Family income	0.13**	−0.03
	Age 5 internalizing behaviors		−0.04
	Relationship status		−0.01
	Relationship quality		0.35**
Step 2. Internalizing behaviors	Family income	0.17**	−0.07
	Age 5 internalizing behaviors		0.32**
	Relationship status		0.04
	Relationship quality		−0.17**
Step 3. Internalizing behaviors	Family income	0.26**	−0.09
	Age 5 internalizing behaviors		0.31**
	Relationship status		0.05
	Co-parenting quality		−0.34**
Step 4. Internalizing behaviors	Family income	0.26**	−0.09
	Age 5 internalizing behaviors		0.31**
	Relationship status		0.03
	Relationship quality		−0.05
	Co-parenting quality		−0.32**

\* $p < 0.05$ , \*\* $p < 0.01$ 

Table 3 shows that greater relationship quality, greater quality of co-parenting, and greater father involvement at age 5 were significantly associated with fewer internalizing and externalizing behaviors at age 9. Results also supported the hypothesized links between the couple's relationship and parenting attributes. For boys, greater relationship quality at child age 5 was significantly associated with greater quality of co-parenting and greater father involvement at child age 5.

Regarding the links between the couple's relationship and parenting attributes at age 5 and girls' internalizing and externalizing behaviors at age 9, Table 4 shows a considerably different pattern of associations. Only quality of co-parenting was significantly related to girls' internalizing and externalizing behaviors, with greater quality of co-parenting at child age 5 associated with fewer internalizing and externalizing behaviors at age 9. Greater relationship quality at child age 5 was significantly associated with greater quality of co-parenting and greater father involvement at child age 5 for girls as it was for boys.

We conducted several regression analyses based on the results from the correlational analyses. Only boys' data were considered as relationship quality was not significantly related to girls' age 9 internalizing or externalizing behaviors.

As shown in Table 5, relationship quality was significantly associated with quality of co-parenting, after controlling for baseline family income, age 5 externalizing behaviors, and parents' relationship status at child age 9. Relationship quality was significantly associated with boys' age 9 internalizing behaviors. Further, the mediator, quality of co-parenting, was significantly associated with boys' age

9 internalizing behaviors. Finally, the association between relationship quality and boys' age 9 internalizing behaviors was no longer significant when boys' age 9 internalizing behaviors were regressed on relationship quality and quality of co-parenting, providing support for mediation.

As shown in Table 6, relationship quality was significantly associated with father involvement. Relationship quality was significantly associated with boys' age 9 internalizing behaviors and father involvement was associated with boys' age 9 internalizing behaviors. However, when boys' age 9 internalizing behaviors were regressed on relationship quality and father involvement, the strength of the association between relationship quality and boys' age 9 internalizing behaviors was not reduced. Thus, mediation was not supported.

Regarding boys' externalizing behaviors, Table 7 shows that relationship quality was significantly associated with co-parenting quality. Relationship quality was significantly associated with boys' age 9 externalizing behaviors and quality of co-parenting was significantly associated with boys' age 9 externalizing behaviors. The strength of the association between relationship quality and boys' age 9 externalizing behaviors was reduced to nonsignificant when boys' age 9 externalizing behaviors were regressed on relationship quality and co-parenting quality, providing support for mediation.

Lastly, father involvement was considered as a mediator between relationship quality and boys' age 9 externalizing behaviors. As shown in Table 8, mediation was not supported. Father involvement was not significantly related to boys' age 9 externalizing behaviors.

**Table 6** Regression analyses testing the meditational role of father involvement for boys

Predicted variable	Variables in equation	R <sup>2</sup>	β
Step 1. Father involvement	Family income	0.07**	−0.15*
	Age 5 internalizing behaviors		−0.08
	Relationship status		−0.10
	Relationship quality		0.18**
Step 2. Internalizing behaviors	Family income	0.17**	−0.08
	Age 5 internalizing behaviors		0.32**
	Relationship status		0.04
	Relationship quality		−0.17**
Step 3. Internalizing behaviors	Family income	0.16**	−0.10
	Age 5 internalizing behaviors		0.33**
	Relationship status		0.06
	Father involvement		−0.13*
Step 4. Internalizing behaviors	Family income	0.17**	−0.07
	Age 5 internalizing behaviors		0.32**
	Relationship status		0.04
	Relationship quality		−0.18**
	Father involvement		0.07

\* $p < 0.05$ , \*\* $p < 0.01$ **Table 7** Regression analyses testing the meditational role of co-parenting quality for boys

Predicted variable	Variables in equation	R <sup>2</sup>	β
Step 1. Co-parenting quality	Family income	0.14**	−0.03
	Age 5 externalizing behaviors		−0.09
	Relationship status		−0.01
	Relationship quality		0.35**
Step 2. Externalizing behaviors	Family income	0.23**	−0.04
	Age 5 externalizing behaviors		0.40**
	Relationship status		0.07
	Relationship quality		−0.15**
Step 3. Externalizing behaviors	Family income	0.25**	−0.05
	Age 5 externalizing behaviors		0.39**
	Relationship status		0.09
	Co-parenting quality		−0.20**
Step 4. Externalizing behaviors	Family income	0.25**	−0.05
	Age 5 externalizing behaviors		0.38**
	Relationship status		0.07
	Relationship quality		−0.09
	Co-parenting quality		−0.18**

\* $p < 0.05$ , \*\* $p < 0.01$ **Table 8** Regression analyses testing the meditational role of father involvement for boys

Predicted variable	Variables in equation	R <sup>2</sup>	β
Step 1. Father involvement	Family income	0.07**	−0.15*
	Age 5 externalizing behaviors		−0.08
	Relationship status		−0.09
	Relationship quality		0.18**
Step 2. Externalizing behaviors	Family income	0.23**	−0.04
	Age 5 externalizing behaviors		0.40**
	Relationship status		0.07
	Relationship quality		−0.15**
Step 3. Externalizing behaviors	Family income	0.21**	−0.06
	Age 5 externalizing behaviors		0.41**
	Relationship status		0.10
	Father involvement		−0.08

\* $p < 0.05$ , \*\* $p < 0.01$

## Discussion

A considerable research literature has identified couple's relationship quality as a salient correlate of children's social and emotional adjustment (Brock and Kochanska 2015; Fomby and Osborne 2010; Zemp et al. 2016). Only recently, however, have researchers begun to recognize the importance of considering more specific aspects of the couple's relationship and the broader family context to understand better the underlying family processes that account for the link (Goldberg and Carlson 2014).

The present study sheds new light on the role of parents' relationship quality in children's adjustment by considering direct and indirect links among parents' earlier relationship quality, quality of co-parenting, father involvement, and children's later internalizing and externalizing behaviors. As predicted, in the present study, relationship quality was related to co-parenting quality and father-involvement. As well, aspects of the mother-father relationship and father involvement were related to children's externalizing and internalizing behaviors; however, different patterns of associations were noted for girls and boys.

Findings from the present study fall in line with the family systems notion that dynamics in the parents' relationship are influential in children's development (Easterbrooks and Emde 1988). Further, the present findings advance the understanding of these family processes by highlighting specific aspects of the parents' interactions with one another (supportive co-parenting behaviors) and with the child (father involvement) as being important factors in children's behavior problems while illuminating different processes for boys and girls. In the present study, relationship quality, co-parenting quality, and father involvement emerged as significant correlates of boys' internalizing and externalizing behaviors; whereas, for girls, only co-parenting quality was significant. Further, for boys, co-parenting mediated the link between relationship quality and behavior problems in the child. This finding is consistent with a previous study which found a significant association between parents' marital distress and their hostile-competitive co-parenting among parents with boys, but not girls and suggests that processes within the parents' relationship may vary depending on the gender of the child (McHale 1995).

Although our findings do support the idea that processes in the parents' relationship with one another impact the child (Easterbrooks and Emde 1988), they do not provide support for the family systems notion that dynamics within the parents' relationship "spillover" into the parent-child relationship by way of their parenting behavior (Erel and Burman 1995; Goldberg and Carlson 2014). Results from our regression analyses did not yield support for father

involvement as a mechanism that accounts for the link between relationship quality and children's behavior problems. However, it has been noted within the broader research literature that spillover may be the result of direct relations between the couple's relationship and child outcomes (Gerard et al. 2006), which seems to be more consistent with our findings. Results from the regression analyses provided support for direct, rather than indirect, links between the couple's relationship quality and children's behavior problems. It may be that children are directly impacted, for the better or worse, by the couple's relationship through relationship modeling or through the emotional atmosphere that is created because of qualities in the couple's relationship. For example, parents' combative behaviors toward one another in the parenting context may be observed and learned by their children or such behaviors may create anxiety or distress in the child which may then manifest as internalizing or externalizing behaviors; whereas, parents' supportiveness toward one another in the context of parenting would likely reduce these problems in the child, serving as protection against the development of behavior problems.

In the present study, our focus on father involvement, as opposed to mother involvement, was intended to help advance knowledge on the role of fathers' parenting in children's adjustment. While mothers' parenting behavior has been well-established as a risk factor for child maladjustment (Harnish et al. 1995; Lyons-Ruth et al. 1993; Marchand et al. 2002), much less is known about the role of fathers' parenting (Fagan and Palkovitz 2011). Still, findings from at least one study suggest that fathers' parenting, as opposed to mothers' parenting, may be more important as children advance beyond early stages of child development to the middle-school stage of development (Baker et al. 2011). Our finding that father involvement was significantly related to children's internalizing and externalizing provides support for the importance of fathering behavior in school-age children's adjustment. Further, our findings suggest that fathers' parenting may be more important for boys than girls, as father involvement was significantly related with boys', but not girls', internalizing and externalizing behaviors.

Also, noteworthy in the present study was the significant association between relationship quality and boys', but not girls', internalizing and externalizing behavior problems. This finding does align to some extent with previous research showing that boys are more likely than girls to be impacted when there are problems in the parents' relationship. In their meta-analytic review, Reid and Crisafulli (1990) found support for a link between greater marital discord and increased externalizing behaviors in boys, but not girls. According to O'Leary (1984),

one explanation for boys' increased vulnerability is that girls may be protected to a greater degree from marital distress than boys.

Taken together, findings from the present study underscore the importance of considering a broader range of family dynamics to more fully understand their role in children's behavior problems and suggest a need to explain how family dynamics present during earlier developmental stages may impact boys and girls differently at subsequent developmental stages.

## Limitations

These findings must be interpreted with caution due to some methodological limitations. The lack of support for father involvement as a mediator in the link between relationship quality and children's externalizing and internalizing behaviors may be due at least in part to the relatively small number of behaviors that were used to serve as indicators of father involvement, with some of the behaviors perhaps being more characteristic of mothers than fathers, such as singing songs or nursery rhymes or reading stories to the child. Findings suggest that there is a need for research wherein a broader range of parenting behaviors is explored to better account for the link between the parents' relationship quality and children's behavior problems. Further, it may be more fruitful in future studies to consider both mothers' and fathers' parenting behaviors, as this would enable the examination of parent gender as a potentially important variable in couple and parent-child dynamics, as the work of Stroud et al. (2011) would suggest.

As well, the present study was based exclusively on mother-reported data. The findings, especially those that relate to co-parenting quality and father involvement, may have been different if they had been based on father-reported data. Some of the father's time with the child may have been spent in the absence of the mother, leaving the mother not fully aware of the degree to which the father may have engaged in some activities with the child. Thus, future research based on both mother-reported and self-reported father involvement with the child is needed.

Further, the model used in the present study was based on the assumption that earlier couple relationship variables and parenting attributes predict later child internalizing and externalizing behaviors. However, the relationship between the parent and child variables may be reciprocal in nature. That is, earlier child behavior problems may impact later mother-father relationship variables and parenting attributes, such as relationship quality or father involvement. Indeed, some research has provided support for this idea (Gerard et al. 2006; Goldberg and Carlson 2014). Unfortunately, we were unable to

consider the possibility of reciprocal relations in the present study due to a lack of comparable parent and child data at both child ages 5 and 9. Future studies based on comparable parent and child data collected at multiple time points across childhood is needed in order to more fully understand the nature of the longitudinal associations between parents' relationship quality and parenting attributes and children's behavior adjustment.

Overall, findings from the present study make important contributions to the research literature by highlighting parents' earlier relationship quality, co-parenting quality, and father involvement, as salient correlates of children's later adjustment in a sample of demographically diverse families and by revealing some different patterns of associations for boys and girls. Moreover, findings illuminate the role of these variables further by identifying their direct or indirect impact on the child's behavior problems.

**Author Contributions** All aspects of the study were undertaken jointly by both authors.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** We can confirm that Institutional Review Panels at Princeton University and Columbia University have provided the requisite ethics approvals for the Fragile Families and Child Wellbeing Study. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained for all study participants.

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