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Father residence and father-child relationship quality: Peer relationships and externalizing behavioral problems

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Using longitudinal data from the Early Head Start Research and Evaluation Study, we examined links between early fathers' residence and father-child relationship quality and children’s social development. Participants were 508 ethnically diverse children and their fathers and mothers in low-income families. Fathers reported on their residence during early childhood (age 2- pre K); mothers reported on children’s externalizing behavioral problems and on father residence when children were in 5th grade; and 5th graders reported on the quality of their relationships with fathers and on their relationships with peers. The long-term link between early father residence and the quality of the father-child relationship in 5th grade was significant and partially mediated by father residence during 5th grade. Early father residence or father residence at 5th grade did not predict children’s behavioral problems and peer relationships in 5th grade. Only the father-child relationship quality was directly linked to children’s peer relationships and behavioral problems. Early father residence had no long-term links to children’s social development; however, during middle childhood the quality of the father-child relationship was an important predictor of children’s social adjustment.

Keywords: low-income fathers; middle childhood; peer relationships; behavior problems

For decades scholars have argued, with some empirical support, that father residence was an important contributor of children’s social development (Dawson, 1991; McLanahan, 1997; Sigle-Rushton & McLanahan, 2002). Compared to children in stepparent or cohabiting families, children living with both biological parents are less likely to drop out of school, be suspended or expelled, or exhibit behavior problems and are more likely to score lower on measures of shyness and aggression and highest on measures of sociability and initiative (Sigle-Rushton & McLanahan, 2002; Teachman, Day, Passch, Carver, & Call, 1998, Thompson, Hanson, & McLanahan, 1994). However, a recent analysis has shown few significant associations between living arrangements (e.g., father present, blended, mother only) and child development (Foster & Kalil, 2007). These mixed findings reflect the diversity in the developmental contexts of children and suggest that any adverse effects associated with father absence may not simply derive from a lack of paternal financial support or even to lack of time spent with the child, as has been proposed. Rather, there is mounting evidence that the “benefits” of paternal presence may derive from the quality of the father-child relationship. Compared to nonresident fathers, fathers who live with their children have more opportunities to develop emotionally supportive relationships with them, which are central in supporting children’s social development (Cabrera, Shannon, & Tamis-LeMonda, 2007; Cook, Dick, Jones, & Singh, 2005; Flouri, 2007; Lamb, 2010; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). Thus, the father-child relationship may promote productive patterns of engagement in activities and positive affiliations with others.

With some exceptions, most of what is known about the links between father residence and father-child relationship quality and children’s wellbeing pertains to young children and adolescents (Cabrera, Fagan, & Farrie, 2008; Day & Padilla-Walker, 2009; Flouri, 2007; Ihinger-Tallman & Cooney, 2005; Tamis-LeMonda et al., 2004). Fewer studies have examined the father’s role during middle childhood, a time of increased autonomy, when peer relationships take more prominence and children begin to spend less time in direct contact with their parents. To better understand how fathers are implicated in children’s development during middle childhood, we examine two different aspects of development: peer relationships and externalizing behaviors. Positive peer relationships during middle childhood are critical for the development of social skills and positive self-concept and are likely to contribute to later academic and psychological adjustment over time (Rubin, Bukowski, & Parker, 1998). Similarly, externalizing problems during middle childhood often foreshadow problems...
with adjustment, employment, and family functioning in adulthood (Lynam, Caspi, Moffitt, Loeb, & Stouthamer-Loeb, 2007).

Using data from theEarly Head Start Research and Evaluation study (EHSR), we examine how early father residence (i.e., during early childhood) and the quality of the father-child relationship are related directly and indirectly to children’s social development during middle childhood. More specifically, we address the following research questions: (1) Controlling for child and family background characteristics, does father residence in middle childhood mediate the association between early father residence and the quality of the father-child relationship in middle childhood? (2) Controlling for child and family background characteristics, does the quality of the father-child relationship during middle childhood mediate the association between early father residence and children’s behavioral problems in middle childhood? And, (3) does the quality of the father-child relationship during middle childhood mediate the association between early father residence and children’s positive peer relationships in middle childhood?

**Theoretical framework**

This study is guided by family systems theory that family members (e.g., fathers, mothers, children) are interdependent and influence each other in such a way that one individual can never be fully understood independent of the larger family system (Cox & Paley, 1997). Individuals affect one another through their own characteristics (e.g., marital status) and the quality of their relationships with other subsystems (e.g., parent-child interactions) (Burchinal, Vernon-Feagans, & Cox, 2008; Cox & Paley, 1997; McHale et al., 2002; McLeod, 1990; Minuchin, 1974). Family systems theory suggests that within-family processes (e.g., parent-child interactions) and family context (e.g., family structure) are likely to determine how time spent with children results in children’s adaptive functioning. Individuals who live together have many opportunities to interact directly with one another and develop relationships that influence individual and family functioning (Brody, McBride, Kim, & Brown, 2002; Burchinal et al., 2008). Fathers who engage with their children in positive ways develop warm and caring relationships, which, in turn, support children’s social development. Consistent with social learning theory, children learn to regulate their emotions, take turns, and, through feedback mechanisms, develop positive ways of interacting with others in the context of the parent-child relationship (Bandura, 1997). These skills are central to children’s ability to form relationships and get along with others. In this study, we examine how one aspect of the family context, father residence, influences the quality of the father-child relationship (parent subsystem) as well as how the quality of the father-child relationship influences children’s social adjustment (child subsystem) over time.

**Father residence and father-child relationship quality**

When a parent and child have a good relationship, the child exhibits warmth in interactions with the parent, expresses feelings of closeness, and feels secure in what the parent will do to foster the child’s wellbeing (Rossi & Rossi, 1990; Steinberg, 2001). To develop a warm and close relationship with their children, fathers must spend time with them engaging in meaningful interactions. From a family systems perspective, fathers who reside with their children have many opportunities to interact and develop a relationship with them. Although it is possible that involved and committed nonresidential fathers also build close relationships with their children, co-residence has been found to be a strong correlate of the quality of the father-child relationship (McLanahan, 1997; Sigle-Rushton & McLanahan, 2002). A recent study based on a nationally representative sample of mothers and their children found that the quality of relationships with nonresidential fathers had a significant association with adolescent distress for adolescents only in blended families where adolescent lived with a step father or father figure (Falci, 2006). These findings are difficult to interpret, but they suggest that adolescents’ functioning is linked to the consistent presence of a resident parent, who can monitor and support the child on daily basis.

Although relationships develop in the context of shared time spent together, it is less clear whether there is an optimal time where relationships must be formed and developed to have long-term benefits on children. Because important developmental and socialization processes take place during early childhood, time spent during this period is considered to be important for the development of the father-child bond in later years (Almeida & Galambos, 1991; Trautmann-Villalba, Gschwendt, Schmidt, & Laucht, 2006). Support for this view comes from studies showing that fathers who reside with their children during early childhood are more likely to develop close relationships with them and, thus, more likely to remain involved later on in their lives than those fathers who do not reside with their children early on (Belsky, 1984). Studies have also shown that fathers who are resident and are prenatally involved (i.e., resided with the child’s partner, attended doctor’s visits) are more likely to be involved with their children later on than fathers who were less involved (Cabrera et al., 2008; Shannon, Cabrera, & Tamis-LeMonda, 2009). Moreover, this association seems to be mediated by the status of the couple relationship; that is, fathers who are prenatally involved are more likely to stay involved in their children’s lives later on because they tend to move
into more stable family structures (e.g., from cohabiting to marriage) (Cabrera et al., 2008). These studies suggest that father residence during early childhood, and even before children are born, provides an important context for fathers to become attached to their children and develop long-lasting relationships.

**Fathers and children’s peer relationships and behavioral problems**

The emotional ties between children and their parents have clear implications for children’s wellbeing. When children feel loved by their parents and trust that their parents will care for them, they develop a sense of emotional security. Feeling secure helps children cope with stress and makes them less anxious (Davies & Cummings, 1994). Research on two-parent families shows that feelings of closeness between fathers and children are associated with positive child outcomes, such as low levels of distress and delinquency and fewer internalizing and externalizing problems (Day & Padilla-Walker, 2009; Pleck, 1997; Veneziano & Rohner, 1998). Moreover, children who feel close to their parents are more likely to obey parent rules and emulate parental behavior (Bandura, 1997). A meta-analysis from 63 studies of nonresident fathers and their children found that feelings of closeness rather than frequency of contact were associated with children’s academic success and negatively associated with children’s externalizing and internalizing problems (Amato & Gilbreth, 1999).

Studies using parents’ reports of father-child relationship quality report similar findings. In a recent study of minority youth and their fathers and mothers, level of father conflict was significantly linked to boys’ internalizing symptoms and girls’ internalizing and externalizing symptoms (Crean, 2008). These findings are similar to those with white middle-class samples showing that the most socially competent children had fathers who were sensitive and supportive of their children’s autonomy (National Institute of Child Health and Human Development Early Child Care Research Network, 2004).

In terms of peer relationships, observational studies of fathers and their young children have shown that fathers who exhibited high levels of positive physical play and used fewer directive or coercive tactics had children who were rated as more popular and less aggressive, more competent, and better liked by their peers (Leidy, Schofield, & Parke, in press; McDowell & Parke, 2009). In a study of children and their fathers, positive father-child relationship at age 3 was associated with more positive friendships at age 5, whereas more negative father-child relationships forecast less satisfactory friendships (Youngblade & Belsky, 1992). Studies with older children have shown that fathers’ influence children’s peer relationships through the lessons children learn in the context of the father-child relationship, fathers’ direct advice concerning peer relationships, and fathers’ regulation of access to peers and peer-related activities (McDowell & Parke, 2009). However, most of these studies, as with studies linking fathering to children’s behavior problems, have not parsed out the influence that other aspects of the early home environment, including father residence during the early years, maternal responsiveness and family conflict and risk, have on children’s outcomes. Thus it is difficult to discern the independent effect of the father-child relationship on children’s behaviors.

There is also evidence that the quality of the father-child relationship may partially account for the observed association between father residence and children’s behavioral problems (Carlson & Corcoran, 1991; McLanahan, 1997). A recent study based on a nationally representative sample of early and middle adolescents found that by controlling for the quality of parent-child relationships and for family background characteristics, the association between family structure (father residence) and adolescent wellbeing is significantly reduced (Falci, 2006). Moreover, the quality of residential parent-adolescent relationships explained the most variation in adolescent psychological distress (Falci, 2006). Consistent with a family system perspective, it appears that father residence is linked to children’s wellbeing because of its association with the quality of the father-child relationship, which has been shown to facilitate emotional and behavioral adjustment.

Father residence during the early childhood period may also be linked to children’s outcomes through father residence at a later point in time. Research has shown that fathers who reside with their children early on in their lives are more likely to do so later on (Cabrera et al., 2008).

**Current study**

In this study, we examine whether father residence during early childhood is related long-term to the quality of the father-child relationship and to children’s social behaviors. It also examines whether father residence in middle childhood mediates the association between father residence during early childhood and the quality of the father-child relationship in middle childhood. We also examine whether the quality of the father-child relationship and father residence during middle childhood mediate the association between father residence during early childhood and children’s behavioral problems and positive peer relationships in middle childhood. Based on the review of the literature, we hypothesize that school-age children who resided with their fathers during early childhood are more likely to report having a close relationship with them during middle childhood because they are more likely to reside with their fathers in middle childhood than children who did not reside with their fathers earlier in childhood. We also hypothesize that children who resided with their fathers during early childhood will have fewer behavior problems and more positive peer relationships because they are
more likely to reside with them currently and are more likely to feel close to them during middle childhood than children who do not. This is one of the first studies to examine long-term associations between early father residence and children’s later relationships with their fathers and social development in middle childhood in a sample of low-income families. We focus on low-income children because they are an understudied group. Although many low-income children are at risk for school failure, behavioral problems, and lower social functioning, many do not exhibit these difficulties. The reasons for this are not clear. It is possible that economically disadvantaged children who perform better academically do so because they have involved fathers. This study is an important step toward understanding how father residence and father-child relationship quality might contribute to children’s social functioning.

Method

Data source
Data from this study come from EHSRE, an experimental study that evaluated the EHS program in the United States (see Administration for Children and Families, 2002; Love et al., 2005; Raikes, Chazan-Cohen, Love, & Brooks-Gunn, 2010). Families were recruited into the Early Head Start (EHS) study when they applied for EHS services at 17 sites across the United States and qualified for the program based on family income at or below the federal poverty level, as EHS is a federal program targeted to low-income families (see Administration for Children and Families, 2002). In 14 of the 17 sites, mothers were asked whether children’s biological fathers had seen them within the past three months, and if so, permission was requested to contact children’s fathers. Of the 80% of families where children had contact with their biological fathers (N = 1426), 69% of mothers (N = 984) gave permission for fathers to be contacted, and 85% (N = 838) of these fathers completed at least 1 wave of data collection. In general, families in which both mothers and fathers participated in the EHS study were more likely to be White or Latino, to have completed more years of education, and to be employed than families in which fathers did not participate (see Cabrera et al., 2004 and Tamis-LeMonda et al., 2004 for more detailed analysis of selection bias).

Participants
The final analytical sample consisted of 508 mothers, fathers, and their children for whom data were available at the 24 and 36 months and 5th grade visits. At the time of the focus child’s birth, mothers in the study ranged in age from 13 to 42 (M = 23.1, SD = 5.7) and were 52% White, 23% Latino, 21% African American, and 4% Other (Asian, Native American, and bi-racial). Thirty-nine percent, 33%, and 28% of mothers had less than a high school education, a high school diploma, and some college or more, respectively. At the time of the focus child’s birth, fathers ranged in age from 14 to 49 (M = 26.6, SD = 6.7) and were 50% White, 28% Latino, 20% African American, and 2% Other (Asian, Native American, and bi-racial). Fifty-seven percent, 18%, and 25% of fathers had less than a high school education, a high school diploma, and some college or more, respectively. More than half of fathers resided with their children in early childhood (57%), but by the time children were in 5th grade, only 48% of all fathers had resided in children’s households at both points in time. An additional 10% of fathers resided with their children at 5th grade though they had been non-residents in early childhood. Children were between nine and 12 years old in 5th grade (M = 10.6, SD = .51), and approximately half were male (49%).

Procedures
Mothers were interviewed when they applied to receive services (i.e., at baseline), and during home visits conducted when children were 14, 24, and 36 months old, at the end of the pre-school period (55–60 months of age), and in 5th grade. Home visits consisted of a parent interview, direct assessments of children’s language and cognitive/academic skills, and a 10-minute semi-structured videotaped session of mother-child play. Written consent to participate in the EHS study and family baseline data (e.g., maternal age, race, and ethnicity) was obtained from mothers at the start of the research. Mothers were given $40 and a small gift for their children for participating in each wave of the research study.

In cases where mothers had given written permission for the study to contact fathers, researchers contacted these men, described the purpose of the research project, and scheduled a time for a visit to their homes. Visits with fathers were conducted when children were 24, 36, and at the end of the pre-school period. During visits, written consent was obtained from fathers, who were then administered face-to-face interviews. Surveys assessed a range of father involvement dimensions as well as other father characteristics. Fathers were given $20 and a small gift for their children for participating. When children were in 5th grade, direct assessments of children’s academic skills were conducted. At this time point, children’s primary caretaker (in all cases but one, children’s mothers) completed surveys and children also completed surveys that asked about their relationships with their mothers and fathers.

Measures
The measures for this study were selected for their psychometric properties and applicability to low-income populations.
**Father-child relationship quality.** During the 5th grade assessment, children were asked to identify two caregivers (either parent(s) or the people who otherwise take care of them). Once children identified a caregiver or caregivers, they were asked to report on the quality of their relationship to the individual(s). Children reported on the quality of their relationship with their primary caregiver, and if applicable on a second caregiver, across eight items. Examples of items include “He/she understands me”, “I like him/her”, “he/she likes me”, and “we get along well”. Children responded to items on a 1–4 scale (1 = “not at all true”, 2 = “a little bit true”, 3 = “mostly true”, 4 = “very true”). From these interviews, the quality of the father-child was computed by averaging across the eight items for children who described a relationship with a father as one of their caregivers. Scores ranged from 1.5 to 4 (M = 3.48, SD = .55).

**Children’s behavior problems.** When in 5th grade, mothers reported on children’s behavior problems on the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983). The CBCL is a reliable and validated scale of 118 problem behaviors reported on a three point scale (not at all, sometimes, or very often true of child). The “Externalizing” sub-scale was used in the current study to assess children’s externalizing behavior problems; the internal consistency for this subscale is .92.

**Children’s peer relationships.** When in 5th grade, children reported on their relations with their peers across 12 items. Examples of items include “I get in trouble for fighting with other kids”, “I make friends easily”, and “I worry about having someone to play with at school”. Children responded to items on a 1–4 scale (1 = “not at all true”, 2 = “a little bit true”, 3 = “mostly true”, 4 = “very true”). Items representing negative peer relations (e.g., fighting with other kids) were reverse-coded such that all items used represented positive peer relations. An average was taken across items to create a measure of children’s peer relations for the current study; the internal consistency for this scale is .62.

**Father residence in early childhood and at 5th grade.** Fathers reported whether they resided with their children in surveys completed when children were two years old, three years old, and of preschool age. Due to missing data across waves of data collection in early childhood, it was not possible to chart father residence across children’s first years. If father reported living with the child never, only at one point of data collection, or at two points, they were coded as 0, 1, and 2, respectively. Only a small percentage of fathers for whom at least two waves of data were available (5%) had changes in residence over children’s first years. We classified fathers who ever lived with their children over their first years as resident fathers in early childhood.

Because fathers did not complete surveys during the 5th grade data collection wave, mothers’ report of father residence status when their children were in 5th grade was used. Fathers who lived with their children in 5th grade were classified as resident fathers at the 5th grade data collection time point.

**Control variables.** In addition to the main variables of interest, we used other child and family characteristics to control for possible biasing factors. We controlled for child gender at time 1, family risk, father ethnicity, mother supportiveness at age 2, family conflict, and father-child supportive relationship at age 3 (Ayoub et al., 2009; Cummings, Goeke-Morey, & Raymond, 2004; Hoglund & Leadbeater, 2004; Rubin & Burgess, 2002; Tamis-LeMonda et al., 2004). We were not able to use the same observational measure for mother and father supportiveness because there were a lot fewer father-child observations than there were father reports of father-child relationship. Family conflict was assessed when children were two years old. Mothers reported on the amount of conflict that took place among family members in the household on the Family Environment Scale (FES); the internal consistency for the subscale was .75 (FES; Moos & Moos, 1986). Family risk was constructed from the information provided by mothers during the interview at enrollment. Mothers received 1 point for answering in the affirmative to any of the following five items: (1) being a teenager at the time of their child’s birth; (2) being a single parent; (3) having less than a high school education; (4) being on welfare; and (5) not currently working.

Thus family risk had a potential range of 0 to 5 for the measure. Maternal supportiveness was coded from videotaped interactions of mother-child play when children were two years old along several dimensions, including maternal supportiveness, on the Child-Parent Interaction Rating Scales for the Three-Bag Assessment (Administration for Children & Families, 2000). Coders rated items on a seven-point scale ranging from 1-very low incidence of behavior to 7-very high incidence of behavior. Inter-rater reliability and agreement was established at least 85%; alpha = .83 at 24 months and .82 at 36 months (see ACF , 2002). Father-child supportive relationship was assessed when children were three years old. Fathers reported on their relationships with their children on the Parenting Stress Inventory (PSI; Abidin, 1986). The PSI is a standardized and validated measure of parenting stress, and consists of three sub-scales-Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. The Parent-Child Dysfunctional Interaction sub-scale was reverse coded and used to assess father-child supportive relationship in the current study and has an internal consistency of .78. Fathers reported on 12 items on a five-point scale (1-strongly disagree to 5-strongly agree).

**Results**

**Analytic strategy**

The primary goal of the analyses was to assess whether fathers’ residence during early childhood was predictive
of father-child relationship quality and children’s social development in middle childhood. Fathers’ residence could be linked with father-child relationship and children’s development through a variety of mechanisms. Fathers’ residence might directly be linked to the quality of the father-child relationship and directly promote children’s social development. However, father residence and child functioning could also be linked through child behaviors (Bell, 1968; Bronfenbrenner & Morris, 1998). In our study, we use two approaches to isolate the effect of fathers’ residence. First, we control for a range of child and family characteristics that might be linked to our variables of interest. Second, we used lagged models, controlling for child age and gender, to provide controls for the links between children’s characteristics and parenting (e.g., child-driven parenting). Models also controlled for mothers’ supportiveness, isolating the independent effects of fathers’ residence.

The correlation matrix (Table 1) shows that fathers’ residence during early childhood and at 5th grade was positively and significantly correlated with father-child relationship at 5th grade. At 5th grade, father-child relationship was positively correlated with peer relationship scores and negatively correlated with externalizing scores. Father residence was not correlated with family income ($r = .00$ at the end of the preschool period and $r = -.05$ at 5th grade), thus it was not considered a proxy for family income.

**Descriptive statistics**

Table 2 shows descriptive statistics for this sample of children and their fathers from low-income families. The average family annual income at enrollment and at 5th grade was $10,170 and $13,275, respectively. Mothers and fathers had similar levels of education at enrollment ($M = 11.90$ and 11.83 years, respectively) and were of similar age ($M = 23.08$ and 26.60 years of age, respectively). Table 3 presents descriptive statistics on research variables. The average scores for children’s peer relationship was 3.11 (range = 1–4), higher scores mean better peer relationships and 7.70 (range = 0–42) for externalizing behaviors in 5th grade, lower scores mean fewer behavioral problems. However, 23% of the children had

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Table 1. Inter-correlations of parental interactions and child externalizing and peer relations at 5th grade.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<td>2. Maternal supportiveness 24m</td>
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<td></td>
<td></td>
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<td>-.01</td>
<td>-.06</td>
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<td>4. Father-child supportive relationship 36m</td>
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<td>.18***</td>
<td>-.19***</td>
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<td>6. Child externalizing behavior 5th grade</td>
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<td>-.05</td>
<td>.11*</td>
<td>-.25***</td>
<td>-.21**</td>
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<td>7. Child peer relationships 5th grade</td>
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<td>.04</td>
<td>-.03</td>
<td>.20**</td>
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<td>8. Father residence to Prek</td>
<td></td>
<td>-.26**</td>
<td>.13**</td>
<td>-.06</td>
<td>.04</td>
<td>.10*</td>
<td>-.03</td>
<td>-.04</td>
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<tr>
<td>9. Father residence at 5th grade</td>
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<td>-.25**</td>
<td>.07</td>
<td>-.03</td>
<td>.04</td>
<td>.20**</td>
<td>-.12**</td>
<td>.02</td>
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$p < .05$, $** p < .01$, $*** p < .000$.

Table 2. Sample description.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
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<td>Maternal age at enrollment</td>
<td>13</td>
<td>42</td>
<td>23.08</td>
<td>5.66</td>
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<tr>
<td>Paternal age at enrollment</td>
<td>14</td>
<td>49</td>
<td>26.60</td>
<td>6.71</td>
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<td>17</td>
<td>11.90</td>
<td>2.32</td>
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<tr>
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<td>Master's Degree</td>
<td>Some college or technical training/no degree or certificate</td>
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<td>$6</td>
<td>$270,000</td>
<td>$13,275</td>
<td>$32,230</td>
</tr>
</tbody>
</table>
scores above the clinical cutoff of 9, which places them at risk for later aggression problems. The average maternal supportiveness scores was 4.15 (range = 1 to 7) and the average fathers’ scores on the father-child supportive relationship was 36.63 (range = 12–45), higher scores means fathers reported having fewer problems with their children (See Table 3).

Additive and mediated models
A series of multiple regression models was tested to address our research questions.

Predicting to father-child relationship quality. The first model (see Table 4) included our covariates child gender, family risk during infancy, father ethnicity, maternal supportiveness at age 2, family conflict at age 2, and father-child supportive relationship scores at age 3. In the second model, we entered father residence during early childhood to test whether it made an additional contribution to father-child relationship quality at 5th grade. The results show that our covariates did not predict the father-child relationship. However, father residence during early childhood showed significant and positive long-term links to father-child relationship quality ($B = .08, p < .01$). Fathers who lived with their children during early childhood had children who reported feeling close to them in 5th grade. However, in the third model when father residence at 5th grade was added to the model, early father residence was no longer significant. Regarding effect size, 7% of the variability in the dependent variable was explained, or accounted for, by the independent variables. The association of father residence during early childhood on children’s 5th grade report of their relationship with their father was mediated by father residence at 5th grade, as indicated by a significant mediation test, Sobel test $= 2.44, p = .01$, and a reduction in the path coefficient from .13, $p < .01$, to
−.05, n.s. These results suggest that father residence in 5th grade explained the association between father residence during early childhood and children’s relationship with their father.

**Predicting to children’s externalizing behaviors in 5th grade.** Model 1 (see Table 5) included the same set of covariates we used in earlier analysis as well as child aggression scores at 36 months. In Model 2, we tested the influence of father residence on children’s externalizing behavior problems in 5th grade. Independent of our covariates, early father residence was not related to behavior problems in 5th grade, but father residence in 5th grade was related to 5th grade outcomes. At 5th grade, children who lived with their fathers were reported to have fewer behavioral problems than children who did not. However, father-child supportive behaviors during early childhood showed significant and negative long-term links to behavioral problems. Children whose fathers reported having a supportive relationship during early childhood were reported to have fewer behavioral problems in 5th grade. In Model 3, we tested whether father-child relationship at 5th grade mediated the association between early father residence and children’s externalizing behavioral problems, independent of our covariates. Neither early father residence nor residence at 5th grade was related to children’s externalizing problems in 5th grade. We found that, at 5th grade, the quality of the father-child relationship (as reported by the child) contributed uniquely and negatively to externalizing problems ($B = −2.70$, $p < .001$). Regarding effect size, 16% of the variability in the dependent variable was explained, or accounted for, by the independent variables.

**Predicting to children’s peer relationships.** Table 6 shows the results of our last set of regression models to test the association between our covariates and our father variables on children’s peer relationships. In Model 1, we entered the same set of covariates used in earlier analyses. In Model 2, we entered father residence at 5th grade.

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### Table 5. Multiple regression models predicting externalizing behavior at 5th grade ($n = 393$).

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3 mediated model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$Beta$</td>
</tr>
<tr>
<td>Child gender</td>
<td>1.82</td>
<td>.68</td>
<td>.12**</td>
</tr>
<tr>
<td>Family risk</td>
<td>1.14</td>
<td>.48</td>
<td>.12*</td>
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<tr>
<td>Father ethnicity</td>
<td>−1.35</td>
<td>.34</td>
<td>−.19**</td>
</tr>
<tr>
<td>Maternal supportiveness 24m</td>
<td>−.44</td>
<td>.38</td>
<td>−.06</td>
</tr>
<tr>
<td>Family conflict 24m</td>
<td>.70</td>
<td>.68</td>
<td>.05</td>
</tr>
<tr>
<td>Child aggression 36m</td>
<td>.31</td>
<td>.06</td>
<td>.28***</td>
</tr>
<tr>
<td>Father-child supportive relationship 36m</td>
<td>−.12</td>
<td>.05</td>
<td>−.12</td>
</tr>
<tr>
<td>Father residence during early childhood</td>
<td>.24</td>
<td>.40</td>
<td>.03</td>
</tr>
<tr>
<td>Father residence at 5th grade</td>
<td>−.58</td>
<td></td>
<td>−.04</td>
</tr>
<tr>
<td>Father-child relationship at 5th grade</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. $R = .46$, $F = 12.60$, $p < .001$.
2. $R = .46$, $F = 11.23$, $p < .001$.

*p < .05, **p < .01, ***p < .001.

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### Table 6. Multiple regression models predicting peer relations at 5th grade ($n = 458$).

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$Beta$</td>
</tr>
<tr>
<td>Child gender</td>
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<td>.06</td>
<td>.02</td>
</tr>
<tr>
<td>Family risk</td>
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<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>Father ethnicity</td>
<td>.00</td>
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<td>−.01</td>
</tr>
<tr>
<td>Maternal supportiveness 24m</td>
<td>−.03</td>
<td>.03</td>
<td>−.05</td>
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<tr>
<td>Family conflict 24m</td>
<td>.05</td>
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<tr>
<td>Father-child supportive relationship 36m</td>
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<td>.00</td>
<td>−.02</td>
</tr>
<tr>
<td>Father residence during early childhood</td>
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<td>.03</td>
<td>−.01</td>
</tr>
<tr>
<td>Father residence at 5th grade</td>
<td>.10</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>Father-child relationship at 5th grade</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. $R = .08$, $F = 36$, $p = .927$.
2. $R = .10$, $F = .50$, $p = .858$.
3. $R = .23$, $F = 2.76$, $p < .01$.

*p < .05, **p < .01, ***p < .001.
In Model 3, controlling for variables in Models 1 and 2, we entered father-child relationship quality into the model. The results show that our covariates did not predict children’s peer relations in 5th grade. Neither early father residence nor residence at 5th grade was related to children’s peer relations in 5th grade. However, father-child supportive relationship (father report) was uniquely and positively related to children’s positive peer relationships \( (B = .25, p < .001) \). Regarding effect size, 6% of the variability in the dependent variable was explained, or accounted for, by the independent variables.

**Discussion**

The main contribution of the current study is the identification of longitudinal links between early paternal residence and father-child relationship and children’s social development in low-income families. Consistent with past findings, results provide evidence of the importance of fathers’ residence during early childhood for the development of the quality father-child relationship into middle childhood. That is, children in 5th grade were more likely to say they felt close to their fathers when they resided with them during early childhood. Furthermore, results showed that the mechanism by which early paternal residence was linked long term to the quality of the father-child relationship was through father residence in middle childhood. The results also show that paternal residence per se, either during early childhood or later on in 5th grade, was not related longitudinally to children’s behavior problems and peer relationships in 5th grade. Rather, consistent with past findings with adolescents, children in middle childhood exhibit fewer behavioral problems and report more positive peer relationships when they report feeling close to their fathers, irrespective of whether they lived with their fathers during their early childhood years or at 5th grade (Day & Padilla-Walker, 2009; Flouri, 2007; Pleck, 1997; Tremblay, Tremblay, & Saucier, 2004; Veneziano & Rohn, 1998). In other words, the quality of the father-child relationship is predictive of children’s social development; father residence had no direct effect on children’s outcomes. However, it is likely that father residence facilitates the development of feelings of closeness and connectedness between fathers and children. In our own study, we found that children who feel close to their fathers lived with them during the early years. Moreover, other studies with adolescents have found no nonresident biological father effect on children’s outcomes in adolescence (Flouri, 2007).

This research is based on a randomly selected sample of children who were approximately 14 months at baseline and addressed several methodological and measurement weaknesses of previous research. The statistical models controlled for measured child characteristics, including early child aggression, thus providing controls for child-driven effects and shared genetic variation (Bell, 1968). Importantly, models also controlled for maternal supportiveness, father-child supportive relationships, family risk and conflict, and economic resources in an effort to estimate unique and independent links between father presence and children’s functioning. Measures were drawn from multiple reporters and from validated, reliable instruments. Collectively, the findings suggest that father presence and father-child relationship quality can serve as a buffer or as a risk to low-income children’s social development.

It is important to point out that children’s perceptions of how close they are to their fathers in middle childhood may be influenced by father residence; that is, children may feel less close to a father who does not live with them. Thus the meaning of these subjective items (e.g., He (father) understands me) may especially vary. It could be that children who do not live with their fathers expect less of them and thus have lower expectations for father behavior in order to consider the relationship to be close. This is an important area of future research.

It is also important to highlight the limitations of this research. First, there are concerns over unobserved heterogeneity (Cherlin, 1999). Because individuals select themselves into particular types of families by background variables other than the ones assessed in this study, the effects of father residence might be overstated. It is possible that other factors not assessed here such as fathers’ mental health might be more important for children’s outcomes. At the same time, the criteria used to determine the sample used in the current study also influence results in that findings are only based on children with data from early childhood and who reported on their relationship with a father during middle childhood; children who only reported on their relationship with their mother or caregivers other than fathers are not included in the study. Given our findings and those of previous literature, it is likely that children who do not report even having a relationship with their fathers are higher on behavior problems and lower on positive peer relationships than their counterparts (e.g., McLanahan, 1997). Future research should examine a larger sample of children in middle childhood, including those who do not report having a relationship with their fathers. This may be particularly important in low-income families, as children living in poverty are less likely to live with a father than children from more socio-economically advantaged backgrounds (McLanahan, 1997). A second limitation is related to the measures used in this study. Children reported on both their peer relationships and on the closeness of their relationships with their fathers, thereby creating shared variance that may overestimate the effects. Future studies need to include observational measures of father-child relationships and/or control for children’s psychological status (for example, whether they are experiencing symptoms of depression).

Despite these limitations, this research is important in that it explores the long-term links between early father
presence and children’s quality of their relationship with their father and their social functioning in middle childhood, an important period for children and their parents as children begin the transition into adolescence. Our findings suggest that although low-income families face numerous challenges and stresses, fathers who live with their children during early childhood may provide a central source of security and closeness with their children over time, which is significantly predictive of children’s feeling of closeness toward their fathers. However, our findings also show that although the early childhood period is important for developing children’s sense of closeness to their fathers, it is the quality of the father-child relationship that is more important for children’s social functioning. Children who feel their fathers like them and understand them are better adjusted (exhibit fewer behavioral problems and say they have more positive friendships) in middle childhood than children who do not. Together results from this study provide evidence that supports policies and programs seeking to increase fathers’ engagement in positive parenting during early childhood and beyond.

References


