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Child Support, Father–Child Contact, and Preteens’ Involvement with Nonresidential Fathers: Racial/Ethnic Differences

Sandra L. Hofferth,

Department of Family Science, University of Maryland, 1210 E Marie Mount Hall, College Park, MD 20742, USA

Nicole D. Forry, and

Child Trends, Inc., 4301 Connecticut Ave, NW, Suite 350, Washington, DC 20008, USA

H. Elizabeth Peters

Department of Policy Analysis & Management, Cornell University, 116 MVR Hall, Ithaca, NY 14853, USA

Sandra L. Hofferth: hofferth@umd.edu; Nicole D. Forry: nforry@childtrends.org; H. Elizabeth Peters: Ep22@cornell.edu

Abstract

This study examined how child support, frequency of contact with children, and the relationship between nonresidential parents influenced preteens’ reports of the involvement of fathers and mothers in their life. Data are from the National Longitudinal Survey of Youth 1979 (NLSY79) that has followed the children of NLSY mothers from birth into their twenties. Results showed that increases in child support and in contact with the child over time after separation are linked to a better coparental relationship when children are age 11 or 12. This better relationship between parents is, in turn, associated with greater involvement of both mothers and nonresidential fathers with their children.

Keywords

Child support; Divorce; Father involvement; Parent-child contact

Parents living in separate residences constitute a major source of interhousehold exchange. In 2002, 23% of all children were living with only their mothers¹ (Fields 2003;Hofferth et al. 2002) and child support collections amounted to 25 billion dollars (Grall 2007;Hill and Callister 2007). Financial supports from nonresidential fathers are important to the future success of children in school, as child support has been shown to increase GPA and scholastic achievement and to reduce behavior problems (Argys et al. 1998;Baydar and Brooks-Gunn 1994;King 1994;McLanahan et al. 1994). Children’s living arrangements, however, vary substantially by race/ethnicity; 48% of Black children live with only their mothers compared with 16% of White and 13% of Hispanic children. Black mothers are less likely to have married than White mothers (Kreider and Fields 2002) and they are less likely to receive child support after relationship dissolution (Argys et al. 1998;Garasky et al. 2007). As a result, financial support may contribute less to the well-being of Black than White or Hispanic children.

Correspondence to: Sandra L. Hofferth, hofferth@umd.edu.

¹Another 5% lived with a single father, a proportion that is similar across race/ethnicity; there are too few single fathers and nonresidential mothers to address in the present study.

Most believe that parenting matters to child development. The importance of the relationship between mother and child for future developmental outcomes has been well established (Maccoby and Martin 1983) and the relationship between residential father and child well-studied (Pleck and Masciadrelli 2004). However, parenting increasingly extends across households; over time the biological father is less likely to remain residential (Furstenberg and Harris 1993; Hill and Callister 2007). Besides child support, most studies of nonresidential fathers have focused on contact with children, but other aspects of involvement may be equally or more important. For example, children who were close to their biological fathers when growing up have been found to have fewer behavior problems and better grades (Amato and Rivera 1999; Buchanan et al. 1996; King 2006; Manning and Lamb 2003); whereas, contact has not been so linked. Recent research shows that nonresidential fathers remain involved in many ways that extend beyond the frequency of contact, and that minority fathers are particularly likely to remain involved (Argys et al. 1998; Cabrera et al. 2008; Hofferth et al. 2007; King et al. 2004). A reexamination of the involvement of minority and majority nonresidential fathers with their children is warranted.

Within- and across-household transfers of time and money to children by mothers and nonresidential fathers are rarely studied together (Cao 2006). We argue that the relationship between former partners may influence these exchanges, which we call *involvement*, by both father and mother with their child. Poor cooperation and greater conflict between parents have been shown to decrease children's grade point average and increase behavior problems (Amato 2000; Amato and Gilbreth 1999; Sobolewski and King 2005). One of the reasons may be the reduction in the attentiveness of the parents to the child associated with parental conflict (Conger and Elder 1994). Racial/ethnic patterns of post-separation relationship quality are just beginning to be studied (Cabrera et al. 2008), but how these various patterns influence father and mother involvement have not been examined.

The extent to which nonresidential fathers are involved in children's daily lives, how their involvement may be facilitated by their relationship with the child's mother and by the provision of child support and contact with the child over time, and how these factors differ by race/ethnicity are important questions that have not been widely studied. This study improves upon existing research by examining both maternal and paternal involvement, by incorporating information on paternal involvement across the child's entire lifetime, by examining trends in child support and contact over time rather than studying them at only one point in time, and by examining racial/ethnic differences in a latent variable structural model.

Theoretical Framework and Literature Review

The Importance of Parental Involvement with their Children

Parents who live with their children have been shown to contribute to their well-being in many ways, including supporting them financially, monitoring and managing their activities, spending time with them, and providing a supportive environment at home in which parents work together to rear them (Amato 2000). Although advantages such as high levels of education (human capital) improve the child's learning environment, a positive relationship between parents and children, *social capital*, has been shown to be necessary for human capital to benefit children (Coleman 1988; Parks-Yancey et al. 2007). The parenting literature focuses on defining the types of relationships that promote the well-being of children. For young children, warm and engaged parenting with firm and enforced rules, often called *authoritative* parenting, has been demonstrated to result in better outcomes than cold and rigid (*authoritarian*) parenting or lax (*permissive*) parenting (Maccoby and Martin 1983). Outcomes include greater self-confidence and self-esteem, lower aggression, and more social responsibility. For preteens, *granting more autonomy* through communication and participation in decision-making has been shown to promote maturity and independence (Steinberg 2001).

During most of the twentieth century, parenting research focused on mothers. Fathers supported the family financially and provided emotional support to the mother. Today's fathers have been found to engage with, be accessible to, and take responsibility for their children (Cabrera et al. 2000; King 2006; King and Sobolewski 2006; Pleck 1997; Yeung et al. 2001). *Engagement* refers to direct interaction with a child and *accessibility* to time the father is available to his child but not directly interacting with him or her. *Responsibility* includes management activities, ensuring that the child is fed, clothed, housed, monitored, schooled, examined by a doctor, and cared for (Hofferth et al. 2007). In addition, recent writings have specified that father involvement also includes the parenting dimension described above as warm parenting (Pleck and Masciadrelli 2004). That is, involvement needs to be positive. These aspects of involvement apply to *both* mothers and fathers. Residential parents have the motivation, skills and self-confidence, social support, and flexible institutional policies and practices for involvement (Pleck 1997; Pleck and Masciadrelli 2004).

Nonresidential Fathers—Less is known about nonresidential parental involvement. The variable most often used to measure nonresidential father involvement is contact. However, research has suggested that contact per se is not the appropriate measure of nonresidential involvement as it has been found to have no effect or even negative effect on child well-being (Garasky and Stewart 2007; King 1994). Instead, positive or *authoritative parenting on the part of the nonresidential father* has been shown to be predictive of higher child achievement and fewer behavior problems (Amato and Gilbreth 1999; King 2006; King and Sobolewski 2006; Menning 2006; Stewart 2003).

The motivation for nonresidential fathers to be involved is less clear than for residential fathers. Nonresidential parents have somewhat more choice about how much and how often investments are made (MacDonald and Koh 2003), and they may not expect to benefit from future transfers from their children (Hans et al. 2009; Sheng and Killian 2009). Economic and social exchange theories suggest that children become more costly after divorce (Seltzer et al. 1998; Weiss and Willis 1985), as the benefit of their children's attention and affection on a daily basis is lost; whereas, financial obligations remain. Yet, fathers living apart from their children have been shown to continue to spend time and money on them (Hofferth and Anderson 2003). Generational reproduction and future security considerations as well as emotional benefits may play a role.

Fathers may also start a new family. Without as much contact with their nonresidential child and with increased competition from new children and spouses, fathers' voluntary emotional involvement and financial investments are likely to decline. Child support enforcement mechanisms, such as automatic withholding, may make some fathers' financial contributions through child support payments less dependent on the relationship with their children and former spouse than in the past. However, conflicts over responsibility and involvement may strain the mother-father relationship, making the relationship with the child through the other parent even more costly to maintain and lead to gradual disengagement (Amato and Gilbreth 1999; Eldar-Avidan et al. 2008). Consistent with this hypothesis, most studies have shown a gradual decline in contact with children after separation (Argys et al. 2007). Weiss and Willis (1985) argued that nonresidential fathers pay less because they cannot monitor how the money is spent. Argys and Peters (2003) suggested that contact is a way for the nonresidential fathers to monitor expenditures; thus, child support and contact should be positively correlated. However, fathers' lower incomes after paying child support may reduce their time with their child because they do not have as much money to spend on travel to visit the child or to bring the child to visit (Seltzer et al. 1998).

Research that has examined the associations among child support, contact and parental conflict generally supports the hypothesis of complementarity between child support and contact.

Contact or visitation has been shown to be positively associated with payment of child support in most studies (Peters et al. 2003; Seltzer et al. 1989) rather than negatively associated (Seltzer et al. 1998). Paying/receiving child support, in turn, has been shown to be associated with lower conflict between the partners (McLanahan et al. 1994), and children have linked financial contributions with greater emotional involvement of the father (Eldar-Avidan et al. 2008). However, the role of frequency of contact in parental conflict remains ambiguous (Amato and Gilbreth 1999; Amato and Rezac 1994; King 1994). Conflict could increase as a result of greater contact with a former partner, reducing future contact and worsening the quality of the relationship between father and child.

This problem of inability to sort out causal order is endemic to most of the previous research examining the effects of contact, child support, and conflict. Because all three are usually measured at the same time, researchers cannot rule out the possibility that good fathers pay child support, maintain contact and involvement, and also figure out ways to get along with their former partner because they realize their behavior affects their children. Only one study that we know of analyzed longitudinal data on child support and contact (Seltzer 2000), but neither conflict nor the parent–child relationship was examined. In that study, contact at time 2 was higher the greater the amount of child support paid at time 1, even after other factors were controlled.

Because the present study used data from a longitudinal survey that followed preteens from birth to the present, it can estimate contact with and child support by the father during early and middle childhood, after separation but prior to adolescence. Furthermore, rather than just obtaining an average value of contact, child support, and distance over the period after parental separation, the present study took into account *trends* in these variables. An average over a period of years does not provide an estimate of whether financial support, contact, and distance are increasing or decreasing over time. It may not be the absolute level that matters, but its upward or downward trend. The literature suggests that distance will increase and contact will decline over time; child support could increase or decline.

Most of the previous research has focused on children as the passive recipients of parenting. Recent research has demonstrated that the relationship may be reciprocal in that children have been shown to both respond to and influence the parenting they receive (Hawkins et al. 2007). Children with behavior problems are likely to be parented differently from those lacking such problems. Some parents may even withdraw from involvement with difficult children. Hawkins et al. (2007) found reciprocal influences of fathering and children's behavior during the mid-teen years for children and their residential fathers; however, the influence of the adolescent's behavior on fathering dominated for nonresidential fathers and their children.

The present study focused on the whole childhood, on parental relationship quality, and on parenting by fathers and mothers during middle childhood and the preteen years when parental involvement is still strong. We followed children from dissolution on; parenting precedes the developing autonomy of the mid-teen years and, therefore, is likely to precede the development of serious adolescent problems. Responses to child behavior are likely to be subsumed in trends of contact and support following family dissolution and were not separately examined. A recent study of coparenting and nonresidential fathering among children during the first five years of life found that coparenting influenced fathering but not the reverse (Carlson et al. 2008). Recent qualitative interviews with children of divorced parents also supported our model of causal direction running from financial contribution to positive parental relationship and father involvement (Eldar-Avidan et al. 2008) rather than the reverse.

Residential Mothers—Mothers' involvement with their children may also be influenced by father–child contact, paternal financial support, and the quality of the father–mother

relationship. Increased child support and a better father–mother relationship are likely to be linked with greater mother involvement because they promote maternal physical and mental health. However, greater contact with the father may be linked to lower maternal involvement if the child spends more time with the father. Little previous research has considered maternal involvement in examining nonresidential father involvement (King and Sobolewski 2006).

Racial/Ethnic Differences in the Effects of Support, Contact and Conflict on Father Involvement

Racial/ethnic differences in father involvement are likely to result either from cultural differences or from socioeconomic differences across racial/ethnic groups. Black children's fathers have been shown to exhibit less engagement and less warmth but more control than White children's fathers; whereas, Hispanic children's fathers did not differ in engagement or warmth but exhibited less control (Hofferth 2003). Both Black and Hispanic fathers exhibited more responsibility than White fathers. Demographic and economic factors (income, family size, family structure and employment, neighborhood) appeared to explain most of these racial/ethnic differences in engagement with children (Hofferth 2003). Differences in socioeconomic factors are also likely to explain racial/ethnic differences in child support. Research has demonstrated lower child support receipt among Black mothers because they were less likely than White mothers to have married (Garasky et al. 2007).

To the extent that we controlled for demographic and economic factors, any resulting differences may be due to culture and attitudes rather than to socioeconomic differences. For example, studies suggested that Black fathers and mothers maintain better relationships after separation, which may lead to improved relationships with their children (Cabrera et al. 2008). One study found that, although divorced fathers generally were more likely to pay child support and had more frequent contact with their children than never married fathers, Black never-married fathers had greater contact with their children than Black divorced fathers; the reverse was true for White fathers (Argys et al. 1998). Black mothers and nonresidential fathers have been shown to live in closer proximity, which may facilitate contact (Mott 1990). Little is known about Hispanic parent–child relationships after divorce. Two questions addressed in the current paper are whether father–child involvement differs by race/ethnicity and whether the associations of contact, child support, and mother–father relationships with father involvement differ depending upon race/ethnicity. These questions are exploratory, as little research has addressed this issue.

Other Influences on Father and Mother Involvement

Because of large racial/ethnic differences in income, marital status, and other factors, extensive controls are needed. Theory suggests that the commitment of father to child is likely to influence father involvement (Hofferth and Anderson 2003). The length of time the father and child lived together and the marital status of the parents when the child was born indicate the father's commitment. Economic factors; such as, family income and maternal work hours, should theoretically be associated with the father–mother, father–child, and mother–child relationship. Research has shown that financial hardship causes marital conflict, which disrupts parenting practices (Conger and Elder 1994). Thus, the better off the family of the child after divorce, the less conflict over finances is expected. Family income is dependent on the mother's work hours, her potential wages, and other family (spousal) income. The higher her potential wage and other family income, the less conflict is likely between nonresidential father and mother. Mothers who are better educated and who are older and more mature at first birth should have better relationships both with their children and with their former partners. However, such mothers are more likely to be employed, which could negatively influence maternal involvement. Employment has been shown to reduce the time mothers spend with children (Monna and Gauthier 2008). Having more children could also negatively influence

the mother's relationship with her children. Finally, the gender of the child has been shown to be linked to father involvement after separation, with fathers more likely to remain involved when they have male than when they have female children (Lundberg et al. 2007).

Receipt of child support has been shown to be dependent on parents' marital status at birth, with those who were married the most likely to receive regular child support (Argys et al. 1998). This is a result of differential rules regarding presumed paternity and the greater effort required to establish paternity and establish a child support agreement among unmarried parents. Finally, the closer the child and mother live to the nonresidential parent, the lower the barriers to contact and the greater we would expect his involvement to be. However, the presence of a stepfather may put up additional barriers to contact and to father involvement.

Hypotheses

Although considerable research has examined child achievement and behavior as outcomes of child support and visitation, little previous research has examined the involvement of father *and mother* with their child as the outcome of this process. In addition, almost no research has included the relationship between parents as a mediating factor. Yet the influence of either parent on his child or children is likely to depend directly upon the closeness of the parental relationship rather than on child support or frequency of contact. Father involvement and mother involvement could be independent of the mother–father relationship; however, because mothers serve as gatekeepers, this relationship is likely to mediate father and mother involvement at the very least. Child support and contact may indirectly affect father involvement through the mother–father relationship. This study hypothesized, first, that the increased provision of child support over the years from separation to age 10 will be associated with a more positive relationship between parents when the child is in the preteen years, and, second, that this positive and cooperative relationship between the parents with regard to how they rear their joint child(ren) will be positively associated with the child's report of his/her involvement with the father and with the mother (Sobolewski and King 2005). Even though early literature was inconsistent about whether contact and parental relationship were associated, for example (Amato and Gilbreth 1999; King 1994), this was probably because the two measures were usually obtained at the same point in time. We expect that increased contact over the period from separation to age 10 will be associated with a better relationship between parents and greater father involvement. Although we argue that increased provision of child support is likely to be associated with an improved relationship between parents, we cannot definitively show causality. However, we improved on previous models by examining trends in support and contact over time rather than measures at one point in time. We also hypothesized that Blacks and Hispanics will differ from Whites in this process, but we did not predict specific differences.

Although it did not also examine early characteristics of children, by controlling for early involvement this study adjusted for differences in children's influence on early parenting. The focus here is on how parenting in the preteen years is influenced by prior father involvement and the current parental relationship.

The Structural Model

Figure 1 shows the structural model. Greater father–child contact and financial support over time are expected to be associated with greater involvement of the father and mother with their child. Some of the total effect of father–child contact and paternal financial support is likely to affect parental involvement indirectly, by facilitating a high-quality father–mother relationship, which increases the involvement of mother and father with their child. Not depicted here are background variables controlled in the analysis. We also develop separate

models for the different racial/ethnic groups and test whether models differ significantly across groups.

Data and Methods

Data

This analysis is based on children of female youth interviewed as part of the 1979 National Longitudinal Survey of Youth (NLSY79). The NLSY79 data sets contain information on two generations of youth: (a) men and women 14 to 21 in 1979, the subjects of the original study and which we call G1 (generation 1), and (b) their own children, now in their late teens and early twenties, which we call G2 (generation 2). The NLSY79 obtained mother-reported detailed information on G2 every other year beginning in 1986 and, in 1988, began interviewing them biennially as they entered their preteen years (ages 10 and older). We created a data base with G2's detailed reports of involvement with their parents (G1) during the ages 11–12 and other information about the children and their parents during that same period and, in some cases, back to the child's birth. Because the focus of the child–mother study was children of mothers, the information on parenting by G1 fathers was less detailed than that by G1 mothers. However, each child provided self-reported data on (all) parents in a self-administered supplement from about age 10–14, and it is these data that provided the major source of information. Child self-report has a lengthy record as a valid and reliable method of gathering information on family relationships (Steinberg and Darling 1994). Research suggests that children are very aware of the financial and emotional consequences of their parents' divorces (Eldar-Avidan et al. 2008).

The sample for this study included 2,949 boys and girls who were 11 or 12 years old in either 1992, 1994, 1996, 1998, 2000, or 2002. The 1992 wave of data was the first year in which detailed information on the relationship of these preteens with their parents was asked in a self-administered supplement. To maximize sample size, we started with children who were 11 or 12 in 1992 and added those who turned 11 or 12 each subsequent wave up to 2002. Our questions about parent involvement were limited to a set of three items asked in those 6 waves. Children could have been interviewed several times from 10–14; however, because the interviews were conducted every other year, the child could have been 11 or 12 only once. The year in which the child was 11 or 12 was determined and the other measures for preteen and most parent measures were taken in that same interview year or from the previous years of the child's life. Ages 11 or 12 were chosen to maximize sample size and to study a group prior to entering adolescence. They are unlikely to ever again be as involved with their parents.

The sample was further limited to those preteens who answered a self-administered questionnaire in the year they turned 11 or 12, who were living with the mother at the time of the interview, and whose father was alive but not living in the same household.² Of the full 2,949 youth, we discarded 798 cases who lived with residential fathers or whose father's residential status was unknown, 131 whose father was no longer alive, and 436 who were missing data on whether the father was alive. This left 1,584 children; the unweighted sample comprised 496 White, 766 Black, and 322 Hispanic preteens.

Measures

Mother and Father Involvement—From 1992 on, in the self-administered questionnaire for 10–14 year olds the NLSY79 consistently asked about three parenting dimensions—mother and father warmth and closeness, communication (autonomy-granting), and engagement—that

²Children who live with their nonresidential fathers on a part-time basis (e.g., parents have joint or shared custody) were not counted as having a nonresidential father. This is consistent with common practice.

are closely aligned with the authoritative (vs. authoritarian) dimension of parenting discussed earlier, and with the engagement dimension of Pleck's original fathering model. The construct of warmth or closeness was measured by the question: How close do you feel to each of your parents? (1 = *not very*, 2 = *fairly*, 3 = *quite*, 4 = *extremely close*). Communication, an aspect of psychological autonomy-granting, was measured by: How well do you and each of your parents share ideas or talk about things that really matter? (1 = *not very*, 2 = *fairly*, 3 = *quite*, 4 = *extremely well*). Engagement was measured by: How often does each parent miss the events or activities that are important to you? (1 = *a lot*, 2 = *sometimes*, 3 = *almost never*). Comparable items were asked about the mother and biological father. Reliabilities (Cronbach's alpha) were 0.88 for father involvement and 0.59 for mother involvement.

Mother, Child, and Family Characteristics—In order to determine family background for children in our sample, we identified the survey year the child was 11 or 12 and obtained mother-reported parental and family characteristics for that year, including the mother's completed years of education, the number of children in the family, and the mother's current marital status. Household record data were used to determine whether a stepfather lived in the household with the child's mother when the child was 11 or 12. Mother's race/ethnicity was measured with three dummy variables: Hispanic, nonHispanic Black, and nonHispanic nonBlack or White. The main child characteristic of gender was coded 0 for male and 1 for female.

Father's Characteristics—By examining the household records from the time the child was born, we first determined the number of years the child and father resided in the same household. Dividing the number of years by the age of the child to determine the proportion of years the child had lived with the biological father provides a lifetime picture of the extent to which child and father had lived together. Second, we determined whether the father and mother were married at the birth of the child. Third, because mother and father education tend to be associated and father education data were largely missing,³ mother's education was included as a control for parental education.

Trend in Distance—The distance between father and child is very likely to impact the involvement of the father with his child. The literature is cautious in the use of this variable because, although living close may facilitate interaction, fathers whose relationship with their child is not close may move away fairly quickly. Distance was a categorical variable (1 = *within 1 mile*, 2 = *1–10 miles*, 3 = *11–100 miles*, 4 = *101–200 miles*, 5 = *more than 200 miles*). To reduce the endogeneity of distance, we created a trend indicator for whether the father moved closer, stayed about the same distance, or moved farther away by subtracting the distance at the earliest time point after the father left the household from the distance when the child was 10. A positive value indicates that the distance between father and child increased and a negative value that the distance declined. For the most part distance was monotonically increasing or decreasing; only a small number of children showed non-monotonic changes. This measure and the following are novel; no other study has included such trend variables.

Trend in Child Support—The survey provides information on total paternal child support in dollars from separation up to age 11 or 12, obtained from each wave of the survey. We argue that it is not the total amount of money provided over all years, or the current amount, but, again, whether child support has been increasing or declining over the child's life. By subtracting the child support in the first year available after the father left the household from the amount at age 10, we obtained the trend in child support. A positive difference indicates

³Although we were able to determine the education level of the child's biological father for children whose parents were married at birth, many children whose parents were not married at birth did not live together then or ever; the large amount of systematically missing data meant that we could not reconstruct this variable for fathers not married to the mother at birth.

an increase in child support over the child's lifetime; a negative number indicates a decline. The natural log of this dollar amount was used to normalize its distribution.

Trend in Contact with the Father—Similarly, we created a trend in contact with the father from separation to age 10. The values for contact are ordinal rather than interval, but a high value indicates greater contact (0 = *never*, 1 = *once in last year*, 2 = *2–6 times per year*, 3 = *7–11 times per year*, 4 = *1–3 times a month*, 5 = *once a week*, 6 = *2–5 times a week*, 7 = *almost every day*, and 8 = *every day*). We subtracted the initial value of contact immediately after divorce or separation from the value at age 10. A positive value indicates increasing contact and a negative value decreasing contact over the child's first 10 years.

Parental Relationship Quality—In the child self-administered questionnaire, the NLSY79 asked each preteen about the relationship between his/her parents: How often do your parents agree when dealing with you, and how often do your parents get along, with a 4-part response category (1 = *never*, 2 = *once in a while*, 3 = *fairly often*, 4 = *very often*). A factor analysis found that the *agree* and *get along* items formed a factor with an alpha reliability of 0.78.

Time and Financial Resources—We included a measure of the average annual hours the mother worked for pay over the period the child was 11 or 12 as an indicator of her employment constraints. Her hourly wage (natural log) measures her potential wage in the work force. Subtracting the annual earnings of the mother (wage times hours worked) plus child support from total family income provides an estimate of *other family income*. For analysis, the natural log of other family income was used to make its distribution normal. Data from the household record in previous waves of the survey were used to determine, first, whether the mother was married to the father of the child at birth (1 = *yes*, 0 = *no*) and, second, the age of the mother at first birth. Both are related to availability of financial resources for the child, the first through potential child support and the second through maternal human capital.

Data Analysis Plan

Factor Analysis and Structural Equation Modeling—Confirmatory factor analysis using EQS software was first used to test whether the three involvement items and the two relationship items formed single-factor scales. This was confirmed, with the models fitting the data well. A structural equation model based upon Fig. 1 was developed. Our dependent variables were father–mother relationship quality, mother–child involvement, and father–child involvement and our independent variables were trend in child support and trend in father–child contact. Instead of hypothesizing causal relationships between child support and father–child contact, we permitted the errors between the two variables to be correlated. We also allowed the errors in the comparable mother–child involvement items and the father–child involvement items to be correlated, permitting mother and father involvement to be correlated through the items measuring the constructs. Cases with missing data on individual items were retained in the file and the model was estimated on the covariance matrix using maximum likelihood, including missing data. All analyses were weighted by the population weights provided with the NLSY data set. The correlation matrix is available from the first author.

Model fit was evaluated using two fit indices: (a) the comparative fit index (CFI) that compares the hypothesized model to a model with no relationships and (b) the root mean square error of approximation (RMSEA) that compares the model to the projected population covariance matrix. The CFI ranged from 0 to 1.00, with a cutoff of 0.95 or higher indicating a model with a good fit and 0.90 indicating a model with an adequate fit (Byrne 2001). RMSEA values below 0.05 indicate a good model fit and values between 0.05 and 0.08 indicate an adequate fit (Byrne 2001).

Variables controlled in the analysis of contact, financial support, mother involvement, and father involvement included (a) number of children, (b) age of mother at first birth, (c) maternal education and (d) work hours, (e) maternal wage, (f) other family income, (g) race/ethnicity, (h) gender of child, (i) whether the mother remarried, (j) distance from the child, (k) proportion of years the father lived with the child, and (l) marital status at birth. Because relationship quality was not primarily demographically determined, only a small set of controls was expected to affect the quality of the relationship between the parents (Bradbury et al. 2000). These include maternal education, race/ethnicity, and the proportion of years the father lived with the child. Maternal education was tested but was not significantly linked to the quality of parental relationship. Restrictions in the variable set permitted the identification of the model.⁴ Finally, the model allowed the errors in the independent variables to be correlated.

Because research suggests that the effects of child support, contact, and parental relationship may vary by race/ethnicity of the child and family, after examining the total sample we then examined these groups separately. In early research we looked at the samples separately by marital status of the parents at birth; the models were similar. In addition, we examined the results separately for male and female children. Again, no interactions were found. Even though gender may influence father and mother involvement with the child, it did not affect the association of child support, contact, and relationship quality with father and mother involvement.

Results

Sample Characteristics

Social and Demographic Factors—As expected from the fact that all these children had a nonresidential father, the sample (Table 1) was disadvantaged relative to the population of all children in terms of having a high proportion of minority families, a low maternal age at first birth, and a low level of maternal education. Even after weights were applied, 29% of the sample was Black, 62% was White, and 9% was Hispanic (Table 1, column 1). Slightly fewer than half were males (47%) and slightly more than half were females (53%). Mothers averaged 20 years of age at first birth and had completed 12 years of schooling. Only about half of the parents were married at the child's birth and children had lived with their fathers on average only about one-quarter of their lives. One-third were living with a stepfather at age 11 or 12. The mother's hourly wage averaged \$7.80 (in 2002 dollars), and the average income from other family members was under \$10,000.

Minorities were more disadvantaged than Whites (Table 1, columns 2–4). Relative to White children, mothers of Hispanic children had completed fewer years of schooling. Mothers of both Black and Hispanic children worked fewer hours, had their first child at a younger age, and had more children than mothers of White children. Wages did not vary across groups. The other family incomes of Black children were lower than those of White children. The largest differences were in family structure. Compared with Whites, Black children were less likely to live with a stepfather, they had lived a smaller proportion of their lives with their father, and their mother was less likely to have been married to their father when they were born. Hispanic children were similar to White children except that their parents were less likely to have been married when they were born.

⁴Besides education, we assumed no direct relationship to parental relationship quality of (a) number of children, (b) age of mother at birth, (c) mother's work hours, (d) mother's hourly wage, (e) other family income, (f) gender of child, (g) whether there was a residential stepfather, (h) the trend in distance from the child, and (i) mother's marital status at birth. In any case, these control variables may still affect the mother-father relationship indirectly through child support and contact.

Trends in Contact, Child Support and Distance—Next we examined trends in contact, child support, and distance in the full sample and across racial/ethnic groups. As expected, contact with the father declined after the father left (the average trend in contact was negative), and contact declined more for Black than for White and Hispanic children. Child support, in contrast, increased over the period. It makes sense that support immediately after the father left the household was lower than after a child support award was established. The average trend in child support was more positive for White children, whose mothers were more likely to be awarded child support, than for either Black or Hispanic children. The distance from the father also increased over time, as expected. The average trend toward increased distance from the father was smaller for Black and Hispanic children than for White children. In other words, Black and Hispanic children remained geographically closer to their fathers over time than did White children.

Parent Relationship and Parent Involvement—On average, Black fathers were less involved with their preteen children, regardless of gender, than White fathers. Preteens of Black fathers were less likely to perceive their fathers as emotionally close, less likely to share ideas with the father, and more likely to report that their father missed key events. Preteens of Black mothers were slightly more likely to share ideas with their mothers, but were also more likely to report their mother missed key events. There were no differences between Black and White preteens in perceived emotional closeness with their mothers. In contrast, parental relationship quality was consistently reported to be higher for Black than White parents. According to their preteen children, Black mothers and fathers were more likely to agree and to get along than White mothers and fathers. There are no significant differences between Hispanics and Whites in preteen-reported levels of maternal and paternal involvement and parental relationship. The next step was to see whether these results held up after we controlled for gender and for the well-documented social and economic differences among racial/ethnic groups.

Measurement Model

Table 2 shows the factor loadings for the measurement models. The loadings were higher for fathers than mothers, but were high for both parents. The lowest loading (0.314) was that of *mother does not miss events*. The correlations between errors in mother–father items were significant. Models were similar for White, Black, and Hispanic fathers and for White and Black mothers. The model for Hispanic mothers was not as good; *shares ideas* could not be estimated and the loading on *does not miss events* was low (not shown).

Structural Model without Parental Relationship Quality

Table 3 shows the structural model for mother and father involvement with their child, but without parental relationship. Trend in father–child contact and trend in financial support were included as shown in the full model (Fig. 1), but only their direct effects on father and mother involvement are shown in this table. This model provides an adequate fit to the data, with a CFI of 0.949 and an RMSEA of 0.048. The R^2 for father involvement was acceptable (0.185), but the R^2 was quite low for mother involvement (0.029).

Father Involvement—Trends in contact and child support had direct effects on father involvement with his preteen child (Table 3). The more positive the trend in father–child contact and the more positive the trend in child support, the greater the child report of the involvement of his father. Father involvement was also greater if the parents were married at birth and if the father lived with the child for a longer time. Females reported lower father involvement than males. Greater other family income in the child’s household was also associated with greater involvement of father with his child. Finally, father involvement was greater in Black than in White families, once other differences were controlled.

Mother Involvement—Neither trend in child support nor the trend in father–child contact was associated with the child’s reported relationship with the mother. Only three variables were linked to mother involvement. Females reported less mother involvement than did males. Children whose mothers had remarried and those who were Black reported greater mother involvement than those whose mothers had not remarried and those who were White.

Structural Model Adding Parent Relationship Quality

Table 4 shows the structural model after including parent relationship quality.

The model fit is better, with a CFI of 0.978 and an RMSEA of 0.033. In addition, the proportions of variance in father and mother involvement explained (R^2) have increased considerably, to 0.321 for father involvement and 0.079 for mother involvement.

Parent Relationship Quality—Examining the factors related to parent relationship quality (Table 4, panel C), we see that both contact and child support were strongly and positively related to parent relationship quality, net of other factors. This supports the argument that positive trends in *both* contact and financial support over the previous years are predictive of a high quality relationship between the biological parents. The effect of contact was stronger than child support in predicting relationship quality. This may be because the father has less control over child support than over contact; therefore, more contact is more likely to be associated with a better relationship with the mother than more child support. The standardized coefficient (β) for the effect of contact on relationship quality was about 66% larger than that for child support.

Of the background factors, the greater the proportion of years the father and child lived together, the better the quality of the relationship between the parents. Black race was the only other background variable that also predicted parent relationship quality. After separation, Black mothers appeared to get along better with the child’s father than did White mothers. In other analyses not shown here, we confirmed that this result was primarily because Black parents were more likely to be unmarried at birth and Black unmarried parents had a better relationship with their former partner than White unmarried parents; whereas, there was no racial/ethnic difference in the relationship quality of formerly married parents. Overall, the mean relationship quality of Black parents was higher than that of White parents even though Black parents were less likely to have married (Table 1).

Father Involvement—We next examined the relationship between parent relationship quality and father and mother involvement (Table 4, panels D and E). Parent relationship quality was highly associated with both father and mother involvement; the coefficient was larger for father involvement than mother involvement.

The standardized coefficient for the effect of child support on father involvement was about 50% lower (but still significant) in the model in which parental relationship quality was included ($\beta = 0.064$, Table 4) than in the one in which it was not ($\beta = 0.117$, Table 3). The positive association of child support with father involvement was partially but not entirely due to its positive effect on parent relationship quality. Similarly, the effect of the trend in contact with the father declined by 43% (from $\beta = 0.235$ to $\beta = 0.133$) but also remained statistically significant after parent relationship quality was included (Table 4). Some, but not all of the effect of contact, operated through improved parental relationship quality.

Most of the other results were similar to those presented in Table 3. Females reported lower father involvement than males. Male and female preteens in families with higher other family income reported greater father involvement. Both the proportion of years lived with the father and the mother and father having been married were associated with greater father involvement.

The difference by race/ethnicity was no longer significant, however. We showed earlier that Black parents had better relationships with their preteen children after separation than White parents. Black and White children no longer differed in father involvement once parent relationship quality was included in the model.

Mother Involvement—The R^2 for mother involvement was 0.079, compared with 0.321 for father involvement, demonstrating that our models did not explain mother involvement as well as father involvement. Father involvement was highly affected by parental relationship quality; whereas, mother involvement was not as strongly affected. As in Table 3, the trend in child support was not linked to mother involvement. In contrast to the previous analysis without parent relationship quality in which the effect was not significant, the effect of father–child contact on mother involvement was significant and negative. Preteens who had increased contact with their fathers over time reported mothers to be less involved. Two other variables were also related to mother involvement: (a) a greater number of siblings reduced mother involvement and (b) having a stepfather in the household increased mother involvement. In contrast to father involvement, gender of the preteen was not related to mother involvement.

Trend in Father–Child Contact from Separation to Age 10—The models of father–child contact were good, explaining 12% of variance and the results were the same whether or not parent relationship quality was included. As expected, the greater the increase in distance from the father over time, the greater the reduction in contact. As the proportion of years spent with father increased, the trend in contact between father and child rose. Consistent with trends in Table 1, children of Black fathers showed a steeper downward trend in contact compared with children of White fathers. Gender of preteen was not related to contact.

Trend in Financial Support from Separation to Age 10—Greater maternal wages, maternal education, age at first birth, and number of children were associated with a positive trend in paternal financial support over time. Gender was not associated with the trend in financial support. Again, the results were similar whether or not parent relationship quality was included. Financial support declined among Blacks and Hispanics compared to Whites. Children living with a stepfather and those with increasing distance from their father were also likely to experience declining paternal financial support. Finally, children of parents married at birth experienced increased support over time.

Models for Whites, Blacks, and Hispanics

In Table 5 we show the results of the effects of trends in contact and child support on relationship quality, and then the effects of trend in contact, trend in support, and relationship quality on mother and father involvement for White, Black and Hispanic children. The variables shown in Table 4 are included in each model, but are not shown in the table.

Relationship Quality—The major difference in the models is that the trend in child support influenced the quality of the parental relationship for White children, but not for Black or Hispanic children. The child support coefficient was large and significant for White children but small and not significant for Black or Hispanic children. We constrained the association between child support and the quality of the parental relationship to be the same for Whites and Blacks and then tested whether releasing the constraint would improve the model. The level of significance was 0.10, suggesting that the child support coefficient was marginally different between Blacks and Whites. The same test comparing the child support coefficient for Whites and Hispanics resulted in a probability of 0.15, not even marginally significant. This is a conservative test; given how complex the model is, constraining a single association does not have a major effect on the model. The differences in unstandardized coefficient size ($b = 0.046$ for White children compared with $b = 0.008$ for Black and $b = 0.011$ for Hispanic

children) confirmed that child support was not as important to the relationship between Black and Hispanic parents as it was to White parents. However, we cannot definitively reject the hypothesis that the models were the same across race/ethnicity.

In contrast, the effect of the trend in father–child contact was positive, large, and significant for all three racial/ethnic groups. This suggests that the effect of contact was similar across groups.

Father and Mother Involvement—Parent relationship quality was significantly associated with both father and mother involvement in White and Black families. In Hispanic families, parental relationship quality was related to father involvement, but not to mother involvement.

Although it had a significant direct effect in the total sample and for Hispanic children, the direct effect of child support trend on father involvement was not significant for Black children, although it was marginally significant at $p < 0.10$ for White children ($b = 0.024$, $t = 1.6$). Child support had no direct effect on mother involvement for any group. Because of its effect on parent relationship quality for Whites, child support also indirectly affected parent involvement.

Father–child contact trend had similar effects on father involvement for all racial/ethnic groups. For White, Black, and Hispanic children, contact had positive direct effects on father involvement. For all three groups of children, father–child greater contact was associated with more father involvement both directly and indirectly through a better mother–father relationship. The effects on maternal involvement were only indirect, through a more positive mother–father relationship.

To understand these findings, we examined race differences in the factors associated with trends in paternal financial support and contact (not shown). For White preteens, having a mother married at birth and older at first birth was associated with a positive trend in paternal financial support. In contrast, living with a residential stepfather was associated with declining support. It is likely that the biological father's investment is more costly and less beneficial and perhaps seen as less necessary once a new father enters the household. Legal marital status, which facilitates support, and repartnering, which interferes, was important only for Whites. For Blacks and Hispanics, a mother with higher hourly wage experienced an upward trend in child support. Higher wages, an indicator of self-sufficiency efforts, improved child support receipt for Blacks and Hispanics. For all racial/ethnic groups, contact was primarily a function of distance and proportion of years together. The proportion of years with father was also positively and directly linked to relationship quality for all three groups, but significant only for Whites and Blacks (not shown).

Discussion

This study described how linkages across households, particularly financial support, contact, and the mother–father relationship, influence the involvement of both mother and nonresidential biological father with their preteen child. The main finding is that the relationship between the mother and nonresidential biological father is positively and significantly associated with the child's report of his or her mother's and father's involvement. Improving the relationship between the two parents may be a promising strategy to maintain or increase parental involvement in the lives of children after the dissolution of their parents' relationship. Interventions focusing not only on children but also on the parental relationship after divorce or separation have shown promise (Wolchik et al. 2002) and at least one new randomized controlled trial of a couples-based versus individual-based intervention to increase low-income fathers' involvement with their children has begun (Cowan and Cowan 2006).

However, there are other potential intervention opportunities. In examining the types of factors amenable to policy influence that could reasonably affect the mother–father relationship, this study focused on child support and contact. In line with our theory and the existing research, we found a strong positive association between trends in the provision of child support and both the quality of relationship between mother and nonresidential biological father after separation and the extent of father (but not mother) involvement. Although previous research has not consistently found a positive association, we found that an increasing trend in contact was also associated with a more positive mother–father relationship and with greater father involvement. In contrast to earlier studies, we utilized information on contact over the entire early years of the child before outcomes were measured and the result was a strong positive association. Thus, these results suggest that besides providing crucial financial assistance, child support enforcement programs could help improve family relationships and increase father involvement (Peters et al. 2003).

Greater father–child contact, surprisingly, was found to be associated with lower involvement of the mother with this child. It is possible that nonresidential father involvement substitutes for some aspects of mother involvement. As the child spends more time with the father, perhaps, the mother may spend more time developing new relationships, such as with a new partner and new family. Such tradeoffs are to be expected, but are not likely to have an overall negative effect on child well-being. Research suggests that the involvement of either parent improves preteen well-being compared to having no involved parent (King and Sobolewski 2006).

Group Differences

Some caution is needed in generalizing across all groups of the population. Because of potential racial/ethnic differences in the effects of contact, child support, or relationship quality on parental involvement with their children, we ran the models separately for the three racial/ethnic groups.

Relationship Quality and Parent Involvement by Race/Ethnicity—The results suggest that programs to improve parental relationship quality can be effective for all three groups in increasing parental involvement. The effect of parental relationship quality was large and significant for all three groups in predicting father involvement and for two of the three in predicting mother involvement. The size of the coefficient was always larger for father than for mother involvement, as in the model across all groups. Only the coefficient for mother involvement among Hispanics was not significant, but this is probably because the measurement model was not as good for Hispanic mothers.

Contact, Child Support, and Relationship Quality by Race/Ethnicity—We found weak evidence for racial/ethnic differences in the effect of child support on relationship quality. Although the effect of contact was consistently associated with improving parent relationship quality for all three groups, the same was not the case for child support. The trend in child support was only significantly related to parental relationship quality for White children. As the earlier results for all groups showed, Black parents have a stronger relationship after separation than do White parents. Although Black mothers have a less positive trend in child support than White mothers, the more positive relationship between former partners facilitates informal exchanges which substitute for formal child support (Nepomnyaschy 2007). This positive relationship facilitates father involvement, as was described earlier.

Contact, Child Support, and Father Involvement—Child support also did not directly improve father and mother involvement in each racial/ethnic group. The trend in child support was only directly associated with father involvement for Hispanic children; whereas, the association was marginally significant for White children and not significant for Black

children. For Whites the influence of child support on father involvement was primarily indirect, through relationship quality. For Blacks, child support had neither a direct nor an indirect effect on father involvement.

These results suggest that healthy relationship programs that address the financial aspects of supporting a family and that foster informal exchanges between parents may appeal to Black and Hispanic parents. Activities directly promoting fatherhood, including counseling, mentoring, and job training and placement may also be helpful. This does not imply that child support enforcement does not benefit minority mothers and children; such programs are less effective for minority than for majority populations in promoting positive relationships.

Limitations of the Research

There are four limitations to our analysis. First, we were limited to the few variables about parents asked consistently between 1992 and 2002 in the NLSY-79 child self-administered questionnaire. Although the reliability of father involvement was high (0.88), the reliability of the mother involvement measure (0.59) was low. The types of questions asked do not represent mother involvement as much as they do father involvement. In addition, the model did not measure the involvement of Hispanic mothers as well. On the positive side, the overall fit of the measurement model to the data was very good.

Second, although we had considerable information about each sample child and family going back to birth, we had no information on whether or not the biological father remarried after separating from the sample child and mother. Forming a new family may divert the father's attention and resources from his previous family and children. It may increase the distance between nonresidential father and child as the family moves away and may reduce direct contact. However, there is no reason to think that this would affect parent relationship quality and father involvement except indirectly through reduced contact. The results show that father involvement is dependent less upon frequency of contact than upon on the quality of the relationship between father and mother.

Third, we did not examine whether the parenting of fathers and mothers responded to specific behaviors of the child; this is less problematic in a study such as ours that is not focused on child outcomes. Given the long period of time over which our children were followed and their relatively young age, causality is likely to be consistent with our model.

Finally, our sample does not represent children with shared physical custody. Whether because of reporting problems or the fact that half of the sample was born to unmarried parents, only a few children in our sample were reported as living part of the time with each parent. Consequently, we were unable to separately analyze such children and removing them would likely not have affected our results.

Strengths of the Research

The first advantage of the analysis presented here is that it took advantage of longitudinal information on the children's background and family structure. We examined the influence of trends in child support, distance from the father, and frequency of contact on father involvement. No other study has done so. The second advantage of our analysis was that we were able to examine the relationship of the child with the biological mother as well as the biological father. This allowed us to link the quality of the mother-father relationship with the involvement of the child with each individual parent. As was father involvement, mother involvement was sensitive to the quality of the relationship with the former partner and to father-child contact. Finally, we were able to estimate differences across racial/ethnic groups.

This is the first study to test differences in nonresidential father and residential mother involvement in White, Black, and Hispanic families using structural equation models.

Conclusions

From a policy perspective, the research shows that, in addition to being associated with better relationship quality, increased provision of child support is important for nonresidential father involvement in White and Hispanic families and increased contact is important to greater father involvement for all three groups.

A current \$150 million dollar per year federal initiative, The Healthy Marriage Initiative, funds grantees across the United States who provide premarital and marriage education to individuals ranging from high school students to engaged couples and to long-term married couples to improve relationship and conflict resolution skills and to avoid divorce (Administration for Children & Families 2008). In the Mid-Atlantic region alone, 24 programs are currently in progress. The current Healthy Marriage Initiative emphasizes marriage. Consistent with this emphasis, we showed that having been married and having stayed together longer before separating were associated with greater father involvement after relationship dissolution. Even if we could definitely say that this association is causal, marriage will not solve the involvement problem for Blacks. Black children are less likely to receive child support even if their parents were married when they were born. Instead, in developing policies, capitalizing on the more positive relationship among Black parents and former partners is important. Our results suggest that Black parents have a better relationship post-separation than do White parents, and relationship quality is the strongest predictor of father and mother involvement with their child. However, because this was not a controlled experiment, the reverse interpretation is possible; fathers with a strong relationship with their children will be more motivated to get along with their former partner. In this case, promoting father involvement directly, another allowable activity under the Healthy Marriage Initiative, would be the correct policy prescription, especially for minority parents.

In spite of the limitations of the study, this research supports the conclusion that a good relationship between the parents is strongly linked to both mother and father involvement. Mothers cannot assume that they can maintain a poor relationship with the other parent and a good relationship with their child. Maternal gatekeeping is not a strategy that is to the mother's benefit. A crucial factor in mother-child involvement is the relationship with the other parent, just as it is for fathers. Participation in healthy relationship programs is likely to benefit both parents and children.

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Biographies

Sandra L. Hofferth is Professor, Department of Family Science, School of Public Health, and Director, Maryland Population Research Center, University of Maryland, College Park, the former co-director of the Michigan Panel Study of Income Dynamics, and founding Director of its Child Development Supplement. She received her Ph.D. in sociology from the University of North Carolina at Chapel Hill. Her research focuses on American children's use of time; poverty, food insecurity, public assistance, and child health and development; and fathers and fathering. Hofferth is Vice President of the Population Association of America.

Nicole D. Forry is a Research Scientist in the Early Childhood Development content area at Child Trends. She has a Ph.D. in Family Studies from the University of Maryland at College Park. Dr. Forry's research focuses on predictors of child care quality, the relationship between child care quality and measures of children's school readiness across multiple developmental domains, comparisons of racially diverse infants and toddlers on developmental outcomes, and the child care decision-making process among low-income families.

H. Elizabeth Peters is Professor of Policy Analysis and Management and Director of the Population Program at Cornell University. She received her Ph.D. in economics from the University of Chicago. Her research focuses on family economics and family policy, examining the effects of public policies such as divorce and child support laws, taxes, and welfare reform on family formation and dissolution decisions, inter- and intra-household transfers, investments in children, and the transition to fatherhood.

Fig. 1.

Model of contact, child support, parental relationship, and parent-child involvement. Also controlled in the analysis are (a) number of children; (b) age of mother at birth; (c) mother's education, (d) work hours, (e) wage, and (f) marital status at birth; (g) other family income; (h) race/ethnicity; (i) child gender; (j) presence of stepfather; (k) trend in distance; and (l) proportion of years with father

Table 1

Weighted means and standard deviations, full sample and by race/ethnicity

Variable description	Total			White			Black			Hispanic		
	Mean	SD		Mean	SD		Mean	SD		Mean	SD	p Value
Number of children	2.5	1.2		2.4	1.1		2.7	1.3		2.8	1.2	**
Age of mother at first birth	20.4	3.4		20.9	3.4		19.5	3.4		19.9	3.1	**
Mother's education	12.1	2.0		12.2	1.9		12.1	2.0		11.4	2.2	***
Mother's work hours	24.0	16.3		25.1	15.8		22.2	17.1		21.8	16.6	†
Mother's hourly wage	7.8	9.6		8.1	11.7		7.3	8.0		7.5	6.6	
Log of mother's hourly wage	1.7	1.1		1.8	1.0		1.5	1.1		1.6	1.2	
Other family income	9,536.5	16,341.7		11,231.0	23,515.0		5,980.2	8,782.9		8,452.7	8,732.8	
Log of other family income	5.3	4.5		5.6	4.6		4.6	4.4		5.2	4.5	
Black	0.29	—		0.00	—		1.00	—		0.00	—	
White	0.62	—		1.00	—		0.00	—		0.00	—	
Hispanic	0.09	—		0.00	—		0.00	—		1.00	—	
Female	0.53	—		0.54	—		0.51	—		0.48	—	
Stepfather in household	0.32	—		0.38	—		0.19	—		0.30	—	
Trend in distance from father	1.2	1.2		1.4	1.2		0.8	1.1		1.2	1.3	†
Proportion of years lived with father	0.27	—		0.32	—		0.16	—		0.31	—	
Mother marital status at birth	0.50	—		0.63	—		0.21	—		0.51	—	*
Trend in contact with father	-1.0	2.4		-0.9	2.2		-1.4	2.7		-0.9	2.5	
Log of trend in child support	3.1	3.9		3.7	4.0		2.2	3.4		2.1	3.5	***
Child close to father	3.1	1.5		3.2	1.5		2.9	1.5		3.2	1.5	
Shares ideas with father	2.7	1.4		2.8	1.3		2.5	1.4		2.8	1.4	
Father does not miss key events	2.2	1.0		2.3	1.0		2.1	1.0		2.2	1.0	
Mother and father agree	2.3	1.1		2.2	1.1		2.4	1.2		2.3	1.1	†
Mother and father get along	2.2	1.0		2.1	1.0		2.3	1.1		2.2	1.0	**
Child close to mother	3.5	0.8		3.5	0.7		3.6	0.8		3.6	0.7	
Shares ideas with mother	3.1	0.9		3.1	0.9		3.2	0.9		3.2	0.9	†
Mother does not miss key events	2.4	0.7		2.4	0.7		2.3	0.7		2.3	0.7	*

Variable description	Total		White		Black		Hispanic	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
N (unweighted)	1,584		496		766		322	

Note: Blacks and Hispanics are separately compared to Whites using a *t* test for the difference of means and proportions

[†] *p* < 0.10,
* *p* < 0.05,
** *p* < 0.01,
*** *p* < 0.001

Table 2

Measurement model (standardized)

Items	Coefficients		Correlation between error in mother–father items	<i>p</i> Value
	Mother	Father		
Close to mother/father	0.748	0.914	0.270	*
Shares ideas with mother/father	0.658	0.878	0.248	*
Mother/father does not miss events	0.314	0.742	0.257	*

*
 $p < 0.05$

Table 3

Coefficients from the structural model of parent involvement, without parent relationship

Variable description	Father involvement			Mother involvement		
	β	<i>p</i> Value	<i>b</i>	SE	β	<i>p</i> Value
Number of children	0.012		0.014	0.031	-0.060	
Age of mother at birth	0.012		0.005	0.012	0.026	
Mother's education	-0.009		-0.006	0.020	0.013	
Mother's work hours	-0.046		-0.004	0.003	0.042	
Mother's hourly wage	0.038		0.049	0.045	-0.020	
Other family income	0.092	*	0.028	0.009	-0.065	
Child's race: Black	0.063	*	0.187	0.090	0.087	*
Child's race: Hispanic	0.009		0.045	0.129	0.056	
Child's sex: female	-0.072	*	-0.195	0.069	-0.066	*
Residential stepfather	0.023		0.066	0.081	0.096	*
Trend in distance from child	0.002		0.002	0.034	-0.040	
Proportion of years with father	0.248	*	1.090	0.127	0.055	
Mother's marital status at birth	0.121	*	0.328	0.082	0.030	
Trend in father-child contact	0.235	*	0.132	0.015	-0.018	
Trend in child support	0.117	*	0.041	0.010	0.019	
Proportion of variance explained	$R^2 = 0.185$				$R^2 = 0.029$	
Correlations between errors in trend father-child contact, trend child support	0.045				Model fit: CFI: 0.949 RMSEA: 0.048 CI RMSEA: 0.044–0.053	

*
 $p < 0.05$

Table 4

Coefficients from the structural model of parent involvement

Variable description	A			B			C			D			E		
	Trend in father–child contact			Trend in paternal financial support			Parent relationship quality			Father involvement			Mother involvement		
	β	p Value	b	SE	β	p Value	b	SE	β	p Value	b	SE	β	p Value	SE
Number of children	−0.029		−0.060	0.052	0.059	*	0.195	0.090			0.007	0.03	−0.064	*	0.016
Age of mother at birth	−0.052		−0.036	0.019	0.073	*	0.082	0.036			−0.006	0.011	0.011		0.006
Mother’s education	−0.052		−0.063	0.033	0.064	*	0.126	0.057			−0.005	0.019	0.013		0.010
Mother’s work hours	−0.027		−0.004	0.005	−0.001		0.000	0.009			−0.003	0.003	0.043		0.001
Mother’s hourly wage	0.038		0.087	0.074	0.118	*	0.435	0.131			0.039	0.043	−0.022		0.023
Other family income	−0.052		−0.028	0.014	0.042		0.036	0.025		*	0.028	0.008	−0.065		0.004
Child’s race: Black	−0.125	*	−0.663	0.146	−0.158	*	−1.357	0.252	0.159	*	−0.045	0.088	0.040		0.046
Child’s race: Hispanic	−0.018		−0.153	0.210	−0.101	*	−1.403	0.356	0.037		−0.032	0.123	0.045		0.064
Child’s sex: female	0.003		0.015	0.115	−0.025		−0.196	0.198		*	−0.178	0.066	−0.063		0.037
Residential stepfather	0.010		0.054	0.131	−0.151	*	−1.258	0.225			−0.013	0.077	0.083	*	0.040
Trend in distance from child father	−0.327	*	−0.657	0.054	−0.065	*	−0.213	0.092			−0.008	0.032	−0.045		0.017
Proportion of years with father	0.172	*	1.341	0.207	−0.047		−0.598	0.353	0.131	*	0.860	0.123	0.025		0.064
Mother’s marital status at birth	0.050		0.241	0.136	0.119	*	0.925	0.232		*	0.299	0.078	0.024		0.042
Trend in father–child contact							0.234	0.012	0.133	*	0.075	0.015	−0.080	*	0.008
Trend in child support							0.141	0.008	0.064	*	0.022	0.010	−0.015		0.005
Parent relationship quality									0.401	*	0.579	0.050	0.242	*	0.025
Proportion of variance explained	$R^2 = 0.117$				$R^2 = 0.101$		$R^2 = 0.105$		$R^2 = 0.321$				$R^2 = 0.079$		
Correlation between errors in trend father–child contact, trend child support	0.044								Model fit: CFI: 0.978 RMSEA: 0.033 CI RMSEA: 0.028–0.038						

* $p < 0.05$

Table 5

Coefficients from the structural model of parent involvement, by race/ethnicity

Variable description	Parent relationship quality			Father involvement			Mother involvement		
	β	p Value	b	SE	β	p Value	b	SE	β
White children									
Trend in father-child contact	0.264	*	0.110	0.020	0.141	*	0.083	0.027	-0.081
Trend in child support	0.200	*	0.046	0.011	0.074		0.024	0.015	-0.025
Parent relationship quality					0.340	*	0.481	0.076	0.235
R ²	0.141				0.321				0.079
Model fit: CFI, 0.976; RMSEA, 0.035; CI RMSEA, 0.024–0.045									
Black children									
Trend in father-child contact	0.179	*	0.064	0.016	0.142	*	0.072	0.020	-0.092
Trend in child support	0.028		0.008	0.013	0.026		0.011	0.016	0.007
Parent relationship quality					0.495	*	0.710	0.073	0.334
R ²	0.053				0.338				0.130
Model fit: CFI, 0.992; RMSEA, 0.019; CI RMSEA, 0.006–0.029									
Hispanic children									
Trend in father-child contact	0.253	*	0.093	0.023	0.110	*	0.062	0.031	-0.051
Trend in child support	0.040		0.011	0.017	0.141	*	0.058	0.021	-0.071
Parent relationship quality					0.523	*	0.799	0.102	0.008
R ²	0.077				0.456				0.093
Model fit: CFI, 0.961; RMSEA, 0.045; CI RMSEA, 0.032–0.057									

Note: Controlled in father and mother involvement models are (a) number of children, (b) age of mother at birth, (c) mother's education, (d) mother's work hours, (e) mother's hourly wage, (f) other family income, (g) child female, (h) residential stepfather, (i) trend in distance from child, (j) proportion of years with father, and (k) mother's marital status at birth. Controlled in parent relationship quality model is the proportion of years with the father

* $p < 0.05$