Nonresident Fathers’ Contributions to Adolescent Well-Being

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Abstract

Using nationally representative data from Wave 2 of the National Survey of Families and Households, this study examines how multiple dimensions of nonresident father involvement are associated with different dimensions of child well-being for a sample of 453 adolescents. Prior research has frequently focused on father contact and payment of child support, but we pay particular attention to the quality of father-child ties and father’s responsive parenting, aspects of the father-child relationship (whose incidence we find varies greatly among nonresident fathers) that may be more directly linked to child outcomes. We also assess the relative influence of mother-child and father-child ties. Although we find no direct link between contact and adolescent outcomes, contact is an important predictor of father-child relationship quality and responsive fathering. Relationship quality and responsive fathering, in turn, are modestly associated with fewer externalizing and internalizing problems among adolescents. Furthermore, father involvement is equally beneficial for different groups of children (e.g., boys and girls). At the same time, however, the quality of the mother-child relationship has stronger, more consistent effects on child well-being. Nevertheless, even if adolescents have weak ties to their mothers, those who have strong ties to nonresident fathers exhibit fewer internalizing problems than their peers who have weak ties to both parents. Indeed, we find that adolescents are worst off on a wide range of outcomes when they have weak ties to both their mothers and nonresident fathers.

Key words: child well-being, divorce, father involvement, nonresident parenting
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Past research has demonstrated the many disadvantages faced by children who grow up apart from their fathers (Amato, 2000; McLanahan & Sandefur, 1994). Although half of all U.S. children face this situation for some period during their childhood (Bianchi, 1990), a father’s absence from the household does not necessarily mean that he is absent from his child’s life (King, 1994a). A significant number of nonresident fathers still maintain ties with their children (Amato & Sobolewski, 2004), although the dynamics and consequences of this relationship are not well understood. Increased attention is needed to understand the role of nonresident fathers in their children’s lives and the ways in which involvement by nonresident fathers can promote child well-being (King, 1994b). Recent evidence indicates that the influence of nonresident fathers on offspring can be significant, but it is highly variable (Amato & Gilbreth, 1999).

The primary aim of this study is to assess how multiple dimensions of nonresident father involvement are associated with different dimensions of adolescent well-being. Prior national research has frequently focused on father contact and payment of child support but we pay particular attention to the quality of father-child ties and father’s responsive parenting, aspects of the father-child relationship that recent research indicates may have greater benefits for child well-being (Amato & Gilbreth, 1999). We also report on the frequency of high quality ties and engagement in responsive parenting practices given that little is known about the prevalence of these aspects of the father-child relationship among nonresident father families in the United States.

We use nationally representative data from Wave 2 of the National Survey of Families and Households (NSFH) and focus on adolescents (ages 10 – 18) who reside with their mothers and who have a nonresident father living elsewhere. We use adolescent reports of the father-child relationship (with mother reports of child support) and examine child outcomes from the
perspective of both mothers and the adolescents themselves. This is an important advantage because prior research demonstrates that information varies by source. For example, custodial mothers may underestimate the father’s involvement (Lin, Schaeffer, Seltzer, & Tuschen, 2004; Seltzer & Brandreth, 1994). Adolescents should be in a better position than their mothers to report on their father’s involvement in their lives (with the exception of child support payments where mothers are more appropriate respondents than children). Having mother reports for several well-being measures allows us to use separate reporters for several of our predictor and outcome variables, thereby avoiding common method variance that can lead to overestimating the true association between them.

In assessing the role of nonresident father involvement for child well-being, we also consider the role of the mother-child relationship in order to better understand the unique and relative contributions that nonresident fathers can make toward child well-being. We also address the issue of whether children benefit most when they enjoy close relationships with both parents or whether close ties to at least one parent is what makes the crucial difference. Little prior research examines such issues.

Finally, we also examine whether the importance of the father-child relationship for child well-being is the same for different groups of children. Do all children appear to benefit equally from having high quality ties to nonresident fathers, or do some children appear to benefit more than others? For example, do boys benefit more than girls because their fathers are especially important as role models? Perhaps adolescents benefit more from supportive ties to nonresident fathers when they have other characteristics that place them at a disadvantage such as being born outside of marriage or having parents with low education or income. Adolescents with other sources of advantage may derive less additional benefit from father involvement.
With half of all U.S. children growing up in households without their fathers, it is crucial that researchers begin to systematically assess the extent to which specific child outcomes are influenced by specific forms of nonresident father involvement (Tamis-LeMonda & Cabrera, 1999). By focusing on multiple dimensions of father involvement and child well-being, and by considering the importance of father involvement for different groups of children, our study will provide a more comprehensive portrait of the effects of nonresident father involvement on child well-being than has been conducted to date.

Nonresident Father Involvement and Child Well-Being

Research on the effects of nonresident father involvement on child well-being indicates that the type of involvement matters. Early research on nonresident fathers often was predicated on the assumption that frequent father contact benefits children (King, 1994a). Father involvement in two-parent families is associated with child well-being on an array of measures (Lamb, 1997; Marsiglio, Amato, Day, & Lamb, 2000), and it was assumed that nonresident fathers who maintained frequent contact could mitigate some of the negative consequences associated with their absence from the household (King & Heard, 1999). Evidence supporting this assumption, however, has been limited. Most studies based on large national surveys have found little or no association between nonresident father visitation and child well-being (Amato & Gilbreth, 1999; Furstenberg, Morgan, & Allison, 1987; King, 1994a). The evidence for child support is mixed. Although not significant for all measures of well-being, a few studies report a positive link between child support and child well-being in the domains of educational achievement (Argys, Peters, Brooks-Gunn, & Smith, 1998; King 1994a) and behavioral adjustment (Furstenberg et al., 1987; McLanahan, Seltzer, Hanson, & Thomson, 1994).

More recent evidence suggests that intensive types of involvement beyond mere contact are especially important for children’s welfare. In particular, the warm, supportive, and close
ties that characterize high relationship quality, and the responsive, negotiated control that characterize authoritative parenting practices (Baumrind, 1991) appear to promote child well-being and positive child development (Amato & Gilbreth, 1999; Marsiglio et al., 2000). High quality father-child ties may be particularly important for child well-being because fathers who develop close affective bonds with children can be more effective in monitoring, communicating, and teaching children, thereby allowing the social capital (Coleman, 1988, 1990) inherent in the father-child relationship to be realized (Amato, 1998; King, Harris, & Heard, 2004). Contact alone does not guarantee that this will occur. Many nonresident fathers engage in leisure activities like taking their children to restaurants and movies, but fail to engage in responsive parenting or other authoritative practices, such as talking about problems or setting limits (Amato & Gilbreth, 1999; Stewart, 1999). Not sharing a residence with children makes it difficult for men to enact the parental role. Some highly motivated nonresident fathers, however, find ways to act like authoritative parents rather than adult companions, and they maintain close, supportive ties to their children, and their children appear to benefit when they can do so (Amato & Gilbreth, 1999). Few studies, however, have considered if or when such aspects of the father-child relationship influence child well-being, and these studies are often based on small, unrepresentative samples. Furthermore, as we discuss later, most studies do not take the mother-child relationship into account to assess whether fathers make a unique contribution to child well-being.

Thus, in addition to contact and child support, we examine two other dimensions of father-child ties: relationship quality and responsive parenting. Our measure of relationship quality includes items that tap both the general quality of the relationship as well as indicators of how important the father appears to be in the child’s life (e.g., how likely the child would talk to the father if depressed). This multiple-item measure is a more comprehensive indicator of the
quality of nonresident father-child relations than the more typically used single-item measure of
closeness found in some national surveys (e.g., the National Longitudinal Study of Adolescent
Health). Our measure of responsive parenting indicates how often fathers consider the child’s
viewpoint and explain reasons for decisions to the child. This aspect of parenting has been
largely neglected in prior studies of nonresident father involvement and child well-being, but
research on two-parent families suggests that when parents discuss and explain rules and
decisions to their adolescents, adolescent cognitive and social competencies are enhanced
(Steinberg & Silk, 2002).

Of the four dimensions of father involvement considered, we hypothesize that
relationship quality and responsive parenting will have the strongest direct effects on child well-
being. Given prior research, we do not expect contact to have much direct influence on child
well-being, although it may have significant indirect effects through promoting high quality ties
and responsive parenting practices by providing opportunities for nonresident fathers to engage
in active forms of parenting. In a prior study using the NSFH (author citation), we discovered
that nonresident father contact was strongly associated with both better quality father-child
relationships and more responsive parenting practices. We also hypothesize that child support
will be less strongly associated with child well-being, particularly given that its incidence and
level are fairly low (although typical, Graham & Beller, 2002; Seltzer, 1994) in our sample of
families with adolescents. In assessing the importance of nonresident father involvement,
however, it is important to control for the payment of child support because it is positively
associated with father contact (Garfinkel & McLanahan, 1995; Seltzer, 2000) and it is likely to
be associated with high quality ties and responsive parenting as well (Stewart, 2003).

Father involvement may not be equally important for all types of outcomes (e.g., as the
research on child support suggests). It is essential, therefore, to consider multiple dimensions of
child well-being. We focus on six important indicators of well-being. Internalizing problems (depression and other symptoms of distress) and externalizing problems (antisocial or aggressive behavior) are central components of well-being that developmentalists have identified and studied extensively (Achenbach & McConaughy, 1997). A focus on both externalizing and internalizing behavior allows us to assess sex-typical problems for boys and girls. There are significant gender differences in mental health and emotional problems, with girls exhibiting higher rates of internalizing problems and boys exhibiting higher rates of externalizing problems (Avison & McAlpine, 1992; Gore, Aseltine, & Colten, 1992; Kessler et al., 1993).

Academic performance, as indexed by grades, is another core dimension of child well-being that is predictive of educational attainment and other outcomes, such as health, over the life course (Moore, Evans, Brooks-Gunn, & Roth, 2001; Ross & Wu, 1995). Acting out at school (e.g., disobedience, cutting classes) can also compromise academic achievement and educational attainment. Finally it is important to note that child well-being encompasses positive dimensions as well as the absence of negative dimensions. Previous research on the effects of divorce (e.g., McLanahan & Sandefur, 1994) and of nonresident father involvement (e.g., Amato & Rezac, 1994) on child well-being has overwhelmingly focused on negative child outcomes such as behavioral problems, delinquency, and dropping out of school. Less is known about the influence of nonresident father involvement on positive outcomes such as self-esteem and self-efficacy (Moore, et al., 2001). Self-esteem and other indicators of positive self-regard are essential components of mental health that are linked with successful adjustment (Kling, Hyde, Showers, & Buswell, 1999). Among adolescents, self-esteem promotes higher educational and career aspirations (American Association of University Women, 1994).

Is Nonresident Father Involvement More Beneficial For Some Children Than For Others?
The lack of significant effects for nonresident father visitation on child well-being have led some researchers to speculate that although it does not appear in the aggregate, father involvement may be more important for certain subgroups of children. In particular, researchers have speculated that boys might benefit more from nonresident father involvement than girls (Coley, 1998; Furstenberg et al., 1987; Furstenberg & Weiss, 2000). Consistent with this notion, a social learning perspective views identification and imitation as crucial processes in child socialization and development (Lamb, 1981). Although both parents can play important roles, fathers may be especially important as role models for their sons. Evidence for the differential effects of nonresident father involvement by child’s gender has not been strong (Amato & Gilbreth, 1999; Furstenberg et al., 1987; King, 1994b; but see Amato & Rezac, 1994, for an exception). Most of these studies, however, have been limited to a consideration of father contact or child support.

Prior studies examining other moderating effects have failed to find significant differences in the effects of contact or child support on child well-being based on child’s race, whether the child was born within marriage, the time since the parental separation, the mother’s education, the mother’s income, or the mother’s marital status (Amato & Rezac, 1994; Furstenberg et al., 1987; King, 1994b). The expected direction of effects is less clear for such moderators than for gender. On the one hand, children may benefit disproportionately from supportive ties to nonresident fathers when they have other characteristics that place them at a disadvantage including being born outside of marriage, living in a single-mother household, being a member of a minority group, low household income, and low parental education. Older adolescents may also be more vulnerable than younger adolescents, as they are more at risk for exhibiting many types of behavioral problems, particularly delinquency and risk behaviors. For such disadvantaged adolescents, the involvement of their nonresident fathers may make a crucial
difference for their well-being whereas children with other sources of advantage may derive less additional benefit from father involvement. On the other hand, ties to nonresident fathers may not be enough to compensate in the lives of disadvantaged children, particularly given that levels of nonresident father involvement tend to be fairly modest on average. Thus any positive influence of father involvement may be relatively inconsequential given the many stressful conditions that disadvantaged children face (McLoyd, Cauce, Takeuchi, & Wilson, 2000).

Our study will clarify whether certain subgroups of children benefit more than others from nonresident father involvement by examining its importance for multiple dimensions of both father involvement and child well-being. In addition to child’s gender, we consider child’s race, child’s age, whether the child was born in marriage, whether a stepfather is present, parental education, and household income.

The Role of Mothers

In assessing the influence of nonresident father involvement, it is important to separate the effects of father involvement from the effects of the mother-child relationship, as well as from the effects of family characteristics that are associated with patterns of fathering (Harris, Furstenberg, & Marmer, 1998). Any positive effect of a high-quality father-child relationship, for example, may be confounded with the quality of the mother-child relationship as they are positively correlated (Buchanan, Maccoby, & Dornbusch, 1996; White & Gilbreth, 2001). Do fathers make a unique contribution to their child’s well-being, or is the mother-child relationship what matters most? Mothers are more often the primary parenting figure in children’s lives both before and after divorce (Pleck, 1997; Seltzer, 1994), and it may be the mother-child relationship that is most consequential for child outcomes (Harris et al., 1998). Certainly numerous studies report that the relationship between the mother and her child and the effectiveness of a mother’s parenting after divorce are important correlates of child well-being (Amato, 2000).
The mother-child relationship is often not assessed or controlled for in studies of the effects of nonresident father involvement, although five studies of adolescents do so and are particularly suggestive in this regard. Simons, Whitbeck, Beaman, and Conger (1996) report that engagement in authoritative behaviors (e.g., providing emotional support, praising children’s accomplishments) by nonresident fathers was associated with fewer externalizing problems among adolescents, but was unrelated to internalizing problems. Results, however, were based on a small, largely rural sample of Iowans in which either the mother or adolescent had seen the father within the prior 3 months. Buchanan, Maccoby, and Dornbusch’s study (1996) of adolescents in California revealed that the closeness of the nonresident father-adolescent bond made a positive, albeit small, contribution to adolescent adjustment for two of their five outcome measures (depression, severity of the adolescent’s “worst” problem).

In the first study with national data to address this issue, however, Furstenberg, Morgan, and Allison (1987) found closeness to nonresident fathers to be unrelated to a variety of well-being measures based on adolescent, mother, and teacher reports in the National Survey of Children. More recently, White and Gilbreth (2001) found that adolescents in the National Survey of Families and Households who reported good relationships with their nonresident fathers scored significantly lower on both externalizing and internalizing problems than adolescents who had no relationship at all with their fathers (there was little difference, however, between adolescents who reported good relationships and those who reported weaker ones).

Evidence for the importance of father-child closeness also comes from analyses of the National Longitudinal Study of Adolescent Health. Stewart (2003) found adolescent reports of closeness to nonresident fathers to be associated with their reports of less emotional distress, although there was no association with reports of delinquency or grades. Other individual-item measures of leisure activities and aspects of authoritarian parenting (e.g., discussing problems)
were generally not related to better outcomes. Manning and Lamb (2003) report significant associations between nonresident father-child closeness and 5 of their 6 well-being measures in the domains of behavioral problems and academic achievement. Although this study may appear to provide the strongest evidence for the importance of nonresident father involvement, we note that of the five significant associations, three are only at the $p < .05$ level and are based on a large sample of 5504 adolescents, suggesting rather modest effects.

Taken together, these studies provide some limited evidence that father-child closeness and authoritative parenting practices may contribute to adolescent well-being independently of the mother-child relationship. All of these studies, however, also report that the quality of the mother-child relationship has a stronger, more consistent effect on adolescent well-being than the father-child relationship. Thus we consider the quality of the mother-child relationship when assessing the influence of nonresident father involvement on child outcomes. We hypothesize that a close relationship to both mothers and fathers will be positively associated with child well-being, although we also expect stronger effects for closeness to mothers than to fathers.

Beyond the direct influence of both mothers and fathers, interactive processes may also be important. Children may benefit most when they have highly involved mothers and fathers and be worst off when ties to both are weak. It is unknown whether nonresident father involvement is especially beneficial if a mother’s involvement with her child is low, or if the mother-child relationship is what matters most, regardless of ties to nonresident fathers. In the only study to address this issue, Buchanan, Maccoby, and Dornbush (1996) found that adolescents who reported close relationships with both parents were doing somewhat better in terms of adjustment, compared with adolescents who had a close relationship with only their nonresident fathers or who had poor relationships with both parents. There was no difference
between adolescents who were close to both parents and adolescents who were only close to the resident mother.

We will examine whether these kinds of interactive processes are evident by comparing children who have strong ties to both parents to those who have strong ties only to mothers, only to nonresident fathers, or to neither parent. We hypothesize that adolescents will be worst off when ties to both parents are weak. What is less clear is whether close ties to both parents confers additional benefits over being close to only one parent, and whether it matters if the one parent is the mother or the nonresident father.

*Control Variables*

We include measures in our models for characteristics that are associated with both child well-being and nonresident father involvement. Parental education and family income are positively associated with child well-being (Bornstein & Bradley, 2003; Yeung, Linver, & Brooks-Gunn, 2002). Due in part to greater economic and social disadvantages, children born outside of marriage (Seltzer, 2001) and Black children (Farkas, 2004) are at greater developmental risk than children born within marriage and White children. Black children, however, do not uniformly rank lower on all dimensions of well-being. For example, although Blacks often score lower than Whites on measures of academic performance (Farkas, 2004), Black adolescents often report higher self-esteem (American Association of University Women, 1994).

Children who gain a stepfather are advantaged in terms of greater economic resources, which should enhance their well-being, but other problems associated with stepfamilies (e.g., stresses involved in family reorganization) sometimes results in fewer advantages over single mother families than might be expected (Amato, 2000; Coleman, Ganong, & Fine, 2000; McLanahan & Sandefur, 1994). Boys tend to experience greater externalizing problems and
lower academic achievement whereas girls tend to have more internalizing problems and lower self-esteem (Allison & Furstenberg, 1989; Kling et al., 1999). Age differences are also apparent in levels of child well-being. Although greater maturity can lessen the incidence of some types of behavior problems, engagement in delinquency and risk behaviors generally increase during adolescence (Kann et al., 2000). Research is mixed with regard to whether child well-being improves with time following divorce. Some studies report that children show improvements in well-being a year or two after divorce, but others show persistent or delayed effects of divorce on child outcomes (Amato, 2000).

The above factors are also linked to nonresident father involvement although findings are sometimes mixed and can also vary depending on the type of father involvement. Socioeconomic resources, particularly the father’s education, are generally associated with nonresident father involvement (King et al., 2004). Children born outside of marriage have significantly less involved nonresident fathers (King et al., 2004). Time since divorce or separation is also associated with declining father involvement (Seltzer, 2000). A mother’s remarriage has sometimes been found to be associated with lower levels of father involvement (Hofferth et al., 2002; Seltzer, 1991).

Some studies find that nonresident father involvement is higher with sons than daughters (Hetherington, Cox, & Cox, 1982; King et al., 2004; Manning & Smock, 1999), but other studies find no association (Cooksey & Craig, 1998; Seltzer, 1991). Involvement by nonresident fathers tends to generally decline during adolescence although some activities such as talking with fathers about problems can become more frequent (King et al., 2004). Inconsistent effects of race on father involvement are reported in the literature. Some studies find that Black fathers are more involved than non-Blacks (e.g., King, 1994b; King et al., 2004; Seltzer, 1991) but others find no difference (e.g., Seltzer & Bianchi, 1988).
Overview

We extend current knowledge about the importance of nonresident father involvement by considering a wider range of fathering behaviors and child outcomes than most prior studies, which more frequently focus on contact and child support. We do not rule out the importance of contact, but assess its potential influence as an indirect predictor of child well-being through relationship quality and responsive parenting. Moreover, we use national data and rely on child, rather than mother, reports of the father-child relationship. We also examine whether nonresident father involvement is more beneficial for some children than for others. Finally, this is one of the few studies to include the role of the mother-child relationship when assessing the importance of nonresident father involvement in children’s lives.

METHOD

Sample

Our analysis is based on data from the second wave of the National Survey of Families and Households (NSFH). The first wave (NSFH1) contained a national probability sample of just over 13,000 adults interviewed between 1987 and 1988 (see Sweet, Bumpass, & Call, 1988 for a detailed description of the data). Follow up interviews were conducted with 10,007 of the original respondents between 1992 and 1994 (NSFH2). An important addition to the second wave of data collection was the inclusion of phone interviews with a focal child (age 10-18) of the main respondent. Using the second wave allows us to use children reports of the father-child relationship, as well as to have measures of child well-being from the perspective of both the child and the mother. All reported descriptive statistics (means, standard deviations, and percentages) are weighted for national representativeness (using the Wave 2 individual sample weight). The number of cases reported, however, refers to the unweighted sample.
Our sample includes only those focal children who lived with their biological or adoptive mothers and had a biological or adoptive father living elsewhere in Wave II \((n = 456)\). Two of the focal children were older than 18 years of age by the time of their interview, and another was under 10 years of age. These three cases were excluded, resulting in a final sample size of 453.

To deal with possible bias resulting from attrition between the first and second waves, we employed Heckman’s (1979) method. We first constructed a regression equation using several demographic variables to predict attrition from the sample. Attrition was higher for Blacks, Hispanics, and Asian Americans than for Whites, and was significantly greater among men, those who were older, were widowed, had lower education and less income, had never owned a home, and had no children. We then used these predictors to calculate lambda, which is the predicted probability of dropping out of the study for all of the original respondents. This lambda served as a control in our analytic models.

**Analysis Strategy**

We use structural equation modeling (SEM) to test our hypotheses (Arbuckle & Wothke, 1999). SEM offers several advantages over traditional multiple regression. In particular, SEM is confirmatory, allowing us to specify a theoretical model, estimate it, and evaluate how well our theoretical model fits the observed data. SEM also allows us to incorporate measurement error into the equations, thereby isolating measurement error in our models. Another benefit of SEM is that is allows us to directly test models with multiple dependent variables, and to simultaneously control for the relationships between them. Finally, SEM makes it easy to test the model for group differences.

In reporting the significance levels of the coefficients in our models, we rely on the traditional two-tailed test. It could be argued, however, that a one-tailed test of significance is appropriate given that our hypotheses do suggest a specific relationship direction (i.e., father
involvement will be associated with greater child well-being). We therefore report findings that
are significant at the .10 level because a coefficient significant at the .10 level in a two-tailed test
would be significant at the .05 level in a one-tailed test.

Measures

Most measures described below were treated as uni-dimensional latent variables, which
we constructed using confirmatory factor analyses with the Analysis of Moments Structure
(AMOS) software (Arbuckle & Wothke, 1999). We conducted a series of analyses to arrive at
the measurement model with the best fit, the result of which is described in further detail in the
results section. Although additional items other than those utilized here were available for
several of our latent variables, including them reduced the fit of the model.

Child outcomes. For our analyses, we considered six child outcomes, three of which were
reported by the focal child, including grades, self-esteem, and self-efficacy. The first was a
single item asking children what kind of grades they mostly received (1 = F’s, 8 = mostly A’s; M = 5.66, SD = 1.71). We measured self-esteem with three items asking children how much they
agreed (1 = strongly disagree, 4 = strongly agree) with statements about being able to do
anything they set their minds to (M = 3.32, SD = .58), being able to do things as well as other
people (M = 3.16, SD = .54), and feeling satisfied with themselves (M = 3.17, SD = .56). Self-
efficacy was measured as a latent construct tapping two items that asked children (1 = strongly
disagree, 4 = strongly agree) if they felt they had control over things that happened to them (M = 2.91, SD = .84), and if they felt they could change the important things in their lives (M = 2.86,
SD = .76).

The custodial mothers reported on adolescent externalizing problems, internalizing
problems and acting out at school. Reports (1 = not true, 3 = often true) of whether the child
bullies others (M = 1.33, SD = .53), has trouble getting along with other children (M = 1.32, SD =
.52), disobeys at home ($M = 1.56$, $SD = .60$), has a strong temper and loses it easily ($M = 1.54$, $SD = .66$), acts impulsively ($M = 1.68$, $SD = .67$), and is overly active or restless ($M = 1.53$, $SD = .69$) served as observed indicators of the latent construct representing externalizing problems in the past three months. To assess a latent construct representing internalizing problems in the past three months, we relied on reports ($1 = not true$, $3 = often true$) of whether the child feels worthless or inferior ($M = 1.38$, $SD = .54$), has sudden changes in mood or feeling ($M = 1.91$, $SD = .59$), is unhappy or depressed ($M = 1.38$, $SD = .52$), is fearful or anxious ($M = 1.40$, $SD = .58$), and is nervous or high strung ($M = 1.54$, $SD = .67$). Finally, the latent construct representing acting out at school was measured using mother’s reports ($1 = yes$, $0 = no$) of whether the child had cut class in the last year ($yes = 13\%$), whether the mother had been asked to meet with the principal or a teacher because of the child’s behavior in the last year ($yes = 18\%$), and whether the child was disobedient at school in the last three months ($1 = not true$, $3 = often true$; $M = 1.32$, $SD = .55$).

**Nonresident father involvement.** We relied on the adolescent’s report of father-child contact, which was measured with two items asking how often ($1 = not at all$, $6 = several times a week$) in the last year the adolescents: (a) had seen their father in person ($M = 3.38$, $SD = 1.68$), and (b) had talked on the phone or received a letter from their father ($M = 3.72$, $SD = 1.86$). We used these two items as observed indicators of a latent construct representing father-child contact. Similar to other research, we find great variation in the amount of contact. A sizeable minority of adolescents in our sample have quite frequent contact with their fathers, with 29% seeing their fathers in person at least once per week, and 41% reporting talking on the phone or receiving letters at least once per week. A significant number (19%), however, report no contact of any kind with their father in the last year; 22% report no in-person contact and 24% report no contact by telephone or mail.
We relied on mothers’ reports of the amount and forms of monetary support the father paid in the last year. For our main analyses, we constructed a dichotomous observed variable reflecting whether or not (1 = yes, 0 = no) the father paid at least some kind of support, including not only child support, but also paying for various child expenses (yes = 62%). We also tested alternative father support variables, including the amount of child support paid (median = $775), the proportion of the ordered amount of child support that the father paid (50% paid the ordered amount or more), and a scale reflecting the number of ways (0 = none, 4 = 4 ways) the father provided support to the child (M = 1.01, SD = .99), such as child support payments (yes = 59%), paying medical insurance (yes = 28%), uninsured medical expenses (yes = 14%), and other expenses (yes = 2%). Because the item reflecting the amount of support paid was so skewed (skewness = 7.91), and because none of the other alternative measures of support other than child support payment were related to child outcomes, we used the item reflecting whether or not the father provided at least some form of monetary support in our final models. (Alternative analyses using the item reflecting whether the father paid some child support – rather than any form of support – yielded nearly identical results).

Father-child relationship quality was assessed with five items reported by adolescents. Two items asked adolescents how likely it was (1 = definitely wouldn’t, 5 = definitely would) that they would talk to their father if they felt depressed or unhappy (M = 2.73, SD = 1.43) or if they had a major decision to make (M = 3.01, SD = 1.51). Adolescents were asked to rate how much they admired their father (0 = not at all, 10 = a tremendous amount; M = 7.30, SD = 2.79), and their overall relationship with the father (0 = really bad, 10 = absolutely perfect; M = 6.93, SD = 2.95). Finally, adolescents also reported how often (1 = never, 5 = almost every day) their father praised or complimented them (M = 2.51, SD = 1.35). All five items were used as observed indicators of a latent construct representing father-child relationship quality. Some adolescents
had no contact with their nonresident fathers, and therefore had missing values for the measures of relationship quality. We assigned these cases the lowest value on the items assessing the adolescents’ likelihood of talking to the father about depression or an important decision, as well as the item reflecting how often the father praised the child. For the items measuring overall relationship quality and how much the adolescent admired the father, however, we left these cases coded as missing because, unlike the other three measures of father-child relationship quality, these two items were not necessarily dependent on recent contact.

Responsive fathering was measured with adolescent reports of how often (1 = never, 5 = all the time) their father explained his reasons to them when he wanted them to do something or not to do something ($M = 2.69$, $SD = 1.56$), how often, when the father had decisions to make about things that affect the adolescent, he talked it over with them first ($M = 2.68$, $SD = 1.53$), and how often their father changed his mind because of what the child wanted or thought would be best ($M = 2.23$, $SD = 1.23$). These three items served as indicators of the latent construct representing responsive parenting. Adolescents who had no contact with their father were assigned the lowest value on these three items. Given that relationship quality and responsive fathering are of central concern, we report further details about the frequency of these items in the results section.

The mother-child relationship. We treated mother-child relationship quality as a latent construct based on adolescent reports of five items that were identical to those asked about the father-child relationship, including how likely the child would talk to the mother if they were depressed or unhappy ($M = 3.63$, $SD = 1.15$), or if they had a major decision to make ($M = 4.09$, $SD = 1.08$), the overall relationship with the mother ($M = 8.33$, $SD = 1.81$), how much the child admired the mother ($M = 8.68$, $SD = 1.71$), and how often the mother praised the child ($M =$
3.87, \(SD = 1.08\)). No items that specifically measured the mother’s responsive parenting were available.

**Controls.** Controls include the child’s gender (1 = female, 57%; 0 = male) and age (in years; \(M = 13.97, SD = 2.20\)), the child’s household income (in dollars divided by 1,000; \(M = 43.07, SD = 38.79, \text{median} = 35.40\)), and how much time in months had passed since the child lived in the same household with the father and mother (\(M = 124.13, SD = 48.75\)). Single item dichotomies measure whether or not (1 = yes, 0 = no) the mother and father had been married to each other at one time (yes = 84%), whether the mother was currently married (yes = 42%), and whether each parent had at least some college education (yes = 47% of mothers, 28% of fathers).

The number of Hispanics, Asians, Native Americans, and other groups were too small to analyze separately so mother’s race was dichotomized (1 = non-White, 33%; 0 = White). Finally, all models include the lambda for attrition as a control. We note that this attrition variable was not significant at \(p < .05\) in any of our models.

Aside from a handful of cases on various items, missing data was not a major problem in this study for most measures used. However, ninety-nine mothers did not answer any questions about the nonresident father, leaving a large number of missing cases for the father’s education, whether the mother and father had been married, how much time had passed since the father lived in the same household as the child and the mother, and payment of child support. To deal with this, and because including these mothers in our sample could bias our results, we created a variable reflecting membership in this group of ninety-nine mothers (1 = yes, 0 = no) and included it as a control in our models (it was never significant, however). Moreover, models were estimated using the missing data facility in AMOS, which uses full information maximum likelihood estimation (Arbuckle & Wothke, 1999).

**RESULTS**
How Prevalent are Indicators of High Quality Ties and Responsive Parenting Practices Among Nonresident Fathers and Their Adolescent Children?

Because little is known regarding how common high quality father-child ties and responsive parenting practices are in nonresident father families at the population level, we begin by assessing the frequency of the individual items that reflect father-child relationship quality and responsive fathering. (All reported frequencies are weighted for national representativeness). As Figure 1 shows, there is wide variation in the father-child relationship, with significant numbers of families at both extremes. On the 0-10 point overall relationship rating item (which is skewed toward the higher end, \( M = 7 \)), 15% of the adolescents rate the relationship at 3 or lower (6% give the very lowest rating of 0 or really bad). At the other extreme, 24% rate the relationship a 10 or absolutely perfect. Similarly, on the admiration item (\( M = 7 \)), 12% of the adolescents give a rating of 3 or lower (almost 6% give the very lowest rating of 0 or not at all) whereas 26% admire their father a tremendous amount (rating of 10).

Although many adolescents report that they probably or definitely would not talk to their father if they felt depressed or unhappy (45%) or had a major decision to make (37%), many others report that they probably or definitely would do so (35% and 47% respectively). Nearly one third of adolescents report that their father never praised or complimented them, yet a quarter of them report being praised or complimented at least several times a week.

-- Figure 1 about here --

Turning to the responsive parenting items, we find that although many adolescents report that their nonresident father never explains reasons (34%), never discusses decisions regarding them (32%), and never changes his mind because of what the adolescents wants or thinks would be best (36%), many others report that their father does these things most or all of the time (38%, 34%, and 21%, respectively).
**Measurement Model**

For our main analysis, we relied on structural equation modeling using the Analysis of Moments Structures (AMOS) software (Arbuckle & Wothke, 1999). The measurement model (see Table 1a) shows the ten latent constructs included in our analyses, as well as the observed indicators for each construct and their factor loadings. The model fit the data reasonably well, and all paths between the latent and observed variables were significant ($p < .001$).

-- Table 1a about here --

Correlations between each of the latent variables are shown in Table 1b. (Because child grades and father’s payment of any monetary support were key variables, we included them in the correlation matrix as well). As the table suggests, all four dimensions of father involvement (contact, relationship quality, responsive fathering, and payment of support) were positively related to each other ($p < .001$). Similarly, all but a few of the correlations between the six child outcomes were significant and in the expected direction.

-- Table 1b about here --

With respect to the link between nonresident father involvement and child outcomes, father-child relationship quality and responsive fathering were both correlated with better grades ($p < .01$), and responsive fathering was also associated with fewer internalizing problems ($p < .05$). Payment of support was correlated with less acting out in school ($p < .05$). A few marginal associations ($p < .10$) emerged as well: father-child relationship quality was associated with fewer internalizing problems, responsive fathering and contact were correlated with fewer externalizing problems, and payment of support was related to higher self-efficacy. Although these findings are consistent with our hypotheses regarding the positive benefits of father involvement, we note that the magnitude of these correlations is modest.
The quality of the mother-child relationship was related to the quality of the father-child relationship ($p < .001$), and was marginally associated with responsive fathering ($p < .10$), but was not significantly related to the other two measures of nonresident father involvement. With the exception of self-efficacy, mother-child relationship quality was correlated with all measures of child well-being, including grades, fewer internalizing and externalizing problems, less acting out at school (all $p < .001$), and self-esteem ($p < .01$). As hypothesized, the magnitude and significance of the effects for the mother-child relationship are larger than those for the father-child relationship.

We should note that despite the high correlations between some of the nonresident father involvement variables (e.g., relationship quality and responsive fathering) and some of the outcome variables (e.g., externalizing problems and acting out at school), treating these constructs as distinct and separate resulted in higher factor loadings and a better model fit than modeling them together as one construct.

*Full Structural Model*

Following our hypotheses, we modeled father-child relationship quality and responsive fathering as direct predictors of child outcomes, with father-child contact as an indirect predictor of child outcomes through relationship quality and responsive fathering. (Preliminary analyses not shown revealed that once controls were added to the model, the modest correlation between contact and fewer externalizing behaviors was no longer significant.) Because father-child relationship quality and responsive fathering are so highly correlated ($r = .85, p < .001$), we did not include them in the same analysis, but rather treated each as a predictor of child outcomes in separate structural models with all control variables included (see Figures 2 & 3). (Although preliminary analyses not shown revealed that payment of support was not associated with child
outcomes once controls were added, we included it as a control in our full structural models because of its correlation with the other dimensions of father involvement.)

All figures indicate that our structural models fit the data reasonably well. In the first set of analyses (see Figures 2a & 3a), we estimated the effect of father-child relationship quality and responsive fathering on outcomes net of all controls except mother-child relationship quality. We then added mother-child relationship quality to the models in a second set of analyses (see Figures 2b & 3b) to assess the importance of nonresident father involvement once the role of the mother was considered. This step allowed us to determine the extent to which excluding information on the mother-child relationship results in overestimating the influence of fathers.

*Father-child relationship quality.* Figure 2a shows the estimated effect of father-child relationship quality on adolescent outcomes. The results show that a closer father-child relationship is modestly associated with fewer externalizing and internalizing problems, and with better grades ($p < .05$), suggesting the potential benefits fathers can afford their children.

--Figure 2a about here--

Figure 2b shows the results of our analyses once the mother-child relationship is included in the model. Although father-child relationship quality is still modestly associated with fewer externalizing and internalizing problems ($p < .10$), the coefficients are reduced, and the association with better grades is no longer significant. These results suggest that studies that do not account for the mother-child relationship overestimate the influence of the father-child relationship on child outcomes. As the figure also indicates, the mother-child relationship is particularly important for adolescent outcomes (coefficients are in parentheses). A closer mother-child bond is associated with better outcomes for children on all measures of well-being except self-efficacy.

--Figure 2b about here--
**Responsive fathering.** With respect to the estimated effect of responsive fathering, Figure 3a shows a nearly identical pattern to that found for father-child relationship quality. Responsive fathering is associated with fewer externalizing and internalizing problems \((p < .05)\), and with higher grades \((p < .10)\).

--Figure 3a about here—

The results in Figure 3b show that once mother-child relationship quality is added to the model, responsive fathering is still modestly associated with fewer internalizing and externalizing problems \((p < .10)\), but the coefficients are reduced, and the link with better grades is no longer significant. Again, mother-child relationship quality is consistently and more strongly related to adolescent well-being. Although the links between both relationship quality and responsive fathering and externalizing and internalizing problems are modest, they are particularly noteworthy given that these two outcomes are based on mother reports and thereby avoid the problem of common method variance.

--Figure 3b about here—

**Father-child contact.** Although father-child contact has no direct association with any of the child outcomes in our models, it is significantly related to higher quality father-child relationships and more responsive fathering \((p < .001\), see Figures 2a through 3b\), suggesting that contact may be an important indirect factor in promoting child well-being. To test this, we performed a bootstrapping procedure in AMOS (Arbuckle & Wothke, 1999) to obtain standard errors for the indirect effects of contact on externalizing and internalizing problems through father-child relationship quality and responsive fathering. The results (not shown) indicated that contact has a significant, albeit indirect, association with fewer internalizing and externalizing problems through responsive fathering \((p < .05)\), and with fewer internalizing problems through
father-child relationship quality ($p < .10$). (The indirect effect of contact on externalizing behaviors through relationship quality approached, but did not reach significance.)

Group differences. To assess whether the estimated effect of father-child relationship quality and responsive fathering on child outcomes differed by groups, we tested our models for interactions (results not shown) by running multi-group models (Arbuckle & Wothke, 1999) separately for boys and girls, Blacks and Whites, those born inside and outside of marriage, those who were 10 – 15 and 16 – 18 years of age, those with and without a stepfather, those whose parents had and did not have some college education, and those above the median income and those at or below the median income. We tested for interactions by running the models twice: once with the paths free to vary, and again with each path constrained (one at a time) to be the same between groups. A significant chi-square change served to indicate whether group differences existed. We found no significant differences, indicating that our models were consistent across all groups.

Ties to Both Parents

To test for interactive processes between the father-child and mother-child relationship, we compared the mean level of child outcomes for four groups: those with strong ties to both parents, those with strong ties to the mother only, those with strong ties to the nonresident father only, and those with weak ties to both parents. To create these groups, we used the factor loadings from the latent variables representing father-child and mother-child relationship quality to construct a weighted scale for each. We then split each scale at the median, which yielded the four possible parent-child relationship patterns described above. Because we expected those who had weak ties to both parents to be worse off than all other offspring, we present results from the model that initially used this group as the omitted category (see Figure 4). We also tested the model, however, with each other group as the omitted category in order to test for the
significance of the differences between all of the groups (results not shown but discussed below).
The mean level of all outcomes for those with weaker ties to both parents was therefore set at zero in Figure 4, and all other group means were relative to that zero point. The mean levels of all outcomes were also adjusted to reflect the inclusion of our control variables.

--Figure 4 about here--

As the figure indicates, adolescents who do not have strong ties to either parent have significantly worse outcomes than all other groups. Compared to adolescents with weak ties to both parents, adolescents who report close ties to both parents report significantly higher grades, fewer internalizing problems, and less acting out at school (all at $p < .01$), as well as fewer externalizing problems ($p < .05$). Those with close ties only to the mother also report higher grades, fewer internalizing problems, and less acting out at school ($p < .05$), along with fewer externalizing problems ($p < .10$) than adolescents with weak ties to both parents. They also report higher self-esteem ($p < .05$). Moreover, analyses directly comparing those with close ties to both parents and those with close ties only to the mother showed no significant differences between them in terms of any adolescent outcome.

Having strong ties to the father alone is associated with fewer internalizing problems ($p < .05$) compared to having weak ties to both parents. Comparing adolescents with close ties only to the father with adolescents who were close to both parents revealed that the only significant advantage of being close to both parents was that this group earned higher grades ($p < .05$). Comparing adolescents with close ties only to their mother with adolescents who were only close to their father indicated that the only significant difference between them is that those with strong ties to their mother had higher self-esteem ($p < .10$).

Overall, what most clearly emerges from these results is that adolescents are worst off when they have poor relationships with both their mothers and nonresident fathers. Having
strong ties to one parent is nearly as beneficial as having strong ties to both parents, with only a limited advantage if that stronger tie is to the mother rather than the nonresident father. This is further evidence that strong ties to nonresident fathers can benefit child well-being. We note that our results regarding the negative effects of having poor relationships with both parents is consistent with the findings of Buchanan, Maccoby, and Dornbusch (1996). They also reported, however, that adolescents who had strong ties only to the nonresident father were not doing any better than those who had poor relationships with both parents. In contrast, we find that adolescents who had strong ties only to their fathers are somewhat advantaged over adolescents who have poor ties to both parents in terms of exhibiting fewer internalizing problems.

CONCLUSIONS

With half of all U.S. children growing up in households without their fathers, increased attention is needed to understand the role of nonresident fathers in their children’s lives and the ways in which this involvement can promote child well-being. As Nord and Zill (1996) warn, current policy concerning nonresident fathers and their children is largely based on studies with small, unrepresentative samples, or on the experiences of families in particular states. These studies may not reflect what is currently happening in many families (Cabrera & Peters, 2000; Furstenberg, 1995).

Our results suggest that strong ties to nonresident fathers can benefit adolescent well-being. Even after controlling for family background characteristics that are associated with patterns of fathering, and accounting for the mother-child relationship, we found that fathers still made a unique contribution to their children’s well-being. In particular, high quality relationships, in which nonresident fathers exhibited warm and supportive behaviors, were associated with fewer internalizing and externalizing problems among adolescents. Father’s responsive parenting was also associated with fewer internalizing and externalizing behaviors.
Not surprisingly, high quality relationships and responsive parenting behaviors are highly correlated, suggesting that warm fathers tend to be also highly responsive to their children.

Furthermore, the benefits of nonresident father involvement appear to be equally important for different groups of children. We did not find that boys benefited more from father involvement than girls, or that disadvantaged adolescents were more or less affected by the involvement of their fathers than their more advantaged counterparts.

Further evidence that strong ties to nonresident fathers can benefit adolescent well-being comes from our finding that adolescents are worst off when they have poor relationships with both their mothers and nonresident fathers. Even if adolescents have a poor relationship with their mother, having strong ties to the father alone is associated with fewer internalizing behaviors compared to having weak ties to both parents.

Our findings are consistent with recent research suggesting that more intensive types of involvement beyond mere contact are especially important for children’s welfare (Amato & Gilbreth, 1999). Consistent with prior research, we found no direct link between contact and child outcomes. We discovered, however, that contact does have significant indirect effects on child well-being through its strong association with both relationship quality and responsive fathering. Although hardly a guarantee, more frequent contact appears necessary for nonresident fathers to maintain high quality relationships with their children and to engage in responsive parenting.

Prior research has shown that child support is linked to some child outcomes and we suspect that the lack of significant effects of monetary support in our study may be due in part to the rather low levels of payments in our sample of families with adolescents. Nevertheless, the provision of support is positively associated with contact as well as with relationship quality and father’s responsive parenting.
The effects of father involvement on adolescent well-being found in this study are modest. This finding is consistent with the meta-analysis by Amato and Gilbreth (1999) showing that when it comes to nonresident father involvement, although feelings of closeness and indicators of authoritative parenting have the strongest influence on child well-being, the effects are modest.

Our results also reveal that the quality of the mother-child relationship has stronger, more consistent effects on adolescent well-being than the father-child relationship. This finding does not negate the importance of fathers, but it does highlight the crucial role that the mother-child relationship plays in children’s well-being. This is also a consistent finding among the few studies that examine the influence of both the mother-child and nonresident father-child relationship.

Given that mothers are more often the primary parenting figure in children’s lives both before and after divorce, it is not surprising that the mother-child relationship is particularly consequential for child well-being. It is possible that the relatively weaker effects of father involvement could be stronger if a larger number of fathers were highly involved in their children’s lives. Because minimally involved fathers make up a significant portion of all nonresident fathers, shifting the level of father involvement upward would likely lead to a corresponding shift in the magnitude of associations between father involvement and child well-being.

Our study is limited by examining the relationship between nonresident fathers and their children at a single point in the child’s life. Although our findings are based on national data, they are limited to families with older children, most of whom are adolescents. Given that many years on average have passed since the parents separated, and that nonresident father involvement tends to decline over time (Seltzer, 2000), the nonresident fathers in our study who
were still actively engaged in parenting their adolescents may be a more select group of fathers. Future research would benefit from a life course perspective that would focus on fathering over time and across the lives of children. In addition, although our study suggests that relationship quality and responsive parenting are particularly salient dimensions of nonresident father involvement in terms of positive outcomes for children, other forms of paternal involvement must also be considered, such as noncoercive discipline, setting limits, monitoring, and taking responsibility for children.

Our study makes important contributions toward understanding the ways in which nonresident father involvement can promote child well-being. Using national data, we consider a wider range of fathering behaviors and child outcomes than most prior studies, allowing us to assess what forms of father involvement are most consequential for different aspects of adolescent well-being. In particular, we provide new evidence on the extent and importance of father-child relationship quality and father’s responsive parenting practices. We also examine whether nonresident involvement is more beneficial for some children than for others. Importantly, we include the role of the mother-child relationship when assessing the importance of nonresident fathers in children’s lives. Finally, in contrast to many prior studies that rely on mother reports of father involvement (which likely underestimate his involvement), our study uses adolescent reports of the father-child relationship, providing an important contribution to the literature. Our findings demonstrate that although living apart from children makes it difficult for men to enact the parental role, when nonresident fathers find ways to maintain high quality relationships with their children and engage in responsive parenting practices, their children appear to benefit.
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parenting, involvement by nonresident fathers, and parental conflict on the adjustment of

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Figure 1. Frequency of Father-Child Relationship Indicators

Note: Overall Relationship and Child Admires Father were originally coded from 0 (really bad/not at all) to 10 (absolutely perfect/a tremendous amount). Scores on these items were recoded to fit a five point scale as follows: 1 = 0, 2 = 1-3, 3 = 4-6, 4 = 7-9, and 5 = 10. Would Talk to Father if Depressed and Would Talk to Father about Decision: 1 = definitely wouldn’t, 2 = probably wouldn’t, 3 = about a 50/50 chance, 4 = probably would, 5 = definitely would. Dad Praises Child: 1 = never, 2 = less than once a week, 3 = about once a week, 4 = several times a week, 5 = almost every day. Dad Explains his Reasons, Dad Discusses Decisions w/Child, and Dad Changes Mind for Child: 1 = never, 2 = some of the time, 3 = about half the time, 4 = most of the time, 5 = all the time. a Percentages are weighted. Unweighted N = 453.
Table 1a. Measurement Model: Latent Variables and Factor Loadings of Observed Indicators

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>Observed indicator</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father-child contact (child)</td>
<td>How often child sees father</td>
<td>.82</td>
</tr>
<tr>
<td></td>
<td>How often child talks to father on phone/in letter</td>
<td>.90</td>
</tr>
<tr>
<td>Father-child relationship quality (child)</td>
<td>Overall father-child relationship</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>How much child admires father</td>
<td>.73</td>
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<tr>
<td></td>
<td>Child would talk to father if depressed</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>Child would talk to father about decisions</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>How often father praises child</td>
<td>.69</td>
</tr>
<tr>
<td>Responsive fathering (child)</td>
<td>Father explains reasons to child</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Father discusses decisions with child</td>
<td>.86</td>
</tr>
<tr>
<td></td>
<td>Father changes mind for child</td>
<td>.60</td>
</tr>
<tr>
<td>Mother-child relationship quality (child)</td>
<td>Overall mother-child relationship</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>How much child admires mother</td>
<td>.60</td>
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<tr>
<td></td>
<td>Child would talk to mother if depressed</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Child would talk to mother about decisions</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>How often mother praises child</td>
<td>.33</td>
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<tr>
<td>Self-esteem (child)</td>
<td>Child can do what sets mind to</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>Child can do things as well as others</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>Child is satisfied with self</td>
<td>.52</td>
</tr>
<tr>
<td>Self-efficacy (child)</td>
<td>Child feels has control over life</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>Child feels can change important things</td>
<td>.46</td>
</tr>
<tr>
<td>Acting out at school (mother)</td>
<td>Child has cut class</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>Mother had to talk with principal about child</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td>Child disobeys at school</td>
<td>.84</td>
</tr>
<tr>
<td>Externalizing behaviors (mother)</td>
<td>Child bullies others</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td>Child disobeys at home</td>
<td>.67</td>
</tr>
<tr>
<td></td>
<td>Child has trouble getting along with others</td>
<td>.57</td>
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<tr>
<td></td>
<td>Child loses temper easily</td>
<td>.69</td>
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<td></td>
<td>Child is impulsive/acts without thinking</td>
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<td></td>
<td>Child is restless/overly active</td>
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<tr>
<td>Internalizing behaviors (mother)</td>
<td>Child feels worthless</td>
<td>.66</td>
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<td></td>
<td>Child has sudden changes in mood</td>
<td>.62</td>
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<tr>
<td></td>
<td>Child is unhappy or depressed</td>
<td>.62</td>
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<td></td>
<td>Child is fearful/anxious</td>
<td>.45</td>
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<td>Child is nervous/high strung</td>
<td>.67</td>
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</table>

Note: all factor loadings are significant at p < .001
Chi-square = 824.16, df = 520, CFI = .95, RMSEA = .04, N = 453

* Whether the mother or child is the reporter is in parentheses.
### Table 1b. Measurement Model: Correlation Matrix for all Latent Variables, Child’s Grades, and Father’s Payment of Child Support

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>3</th>
<th>4</th>
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<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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</thead>
<tbody>
<tr>
<td>1. Father-child contact</td>
<td>1</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>2. Father-child relationship quality</td>
<td>.74***</td>
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<tr>
<td>3. Responsive fathering</td>
<td>.80***</td>
<td>.86***</td>
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<tr>
<td>4. Father pays support</td>
<td>.37***</td>
<td>.27***</td>
<td>.28***</td>
<td>---</td>
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<td></td>
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<tr>
<td>5. Mother-child relationship quality</td>
<td>.08</td>
<td>.21***</td>
<td>.10†</td>
<td>-.05</td>
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<td>6. Grades</td>
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<td>.15**</td>
<td>.14**</td>
<td>.06</td>
<td>.21***</td>
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<td>7. Self-esteem</td>
<td>.06</td>
<td>.01</td>
<td>.06</td>
<td>.04</td>
<td>.19**</td>
<td>.16*</td>
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<td>8. Self-efficacy</td>
<td>.06</td>
<td>-.09</td>
<td>.04</td>
<td>.15†</td>
<td>-.12</td>
<td>.22**</td>
<td>.55***</td>
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<td>9. Acting out at school</td>
<td>-.07</td>
<td>-.07</td>
<td>-.10</td>
<td>-.14*</td>
<td>-.22***</td>
<td>-.47***</td>
<td>-.11</td>
<td>-.25**</td>
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<tr>
<td>10. Externalizing</td>
<td>-.10†</td>
<td>-.08</td>
<td>-.12†</td>
<td>.02</td>
<td>-.21***</td>
<td>-.32***</td>
<td>.06</td>
<td>-.23**</td>
<td>.64***</td>
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<tr>
<td>11. Internalizing</td>
<td>-.05</td>
<td>-.10†</td>
<td>-.12*</td>
<td>.08</td>
<td>-.25***</td>
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<td>-.09</td>
<td>-.12</td>
<td>.47***</td>
<td>.86***</td>
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*** p < .001, ** p < .01, * p < .05, † p < .10
Figure 2a. Father-Child Relationship on Child Outcomes

Father-child relationship (child reports) → Grades (child reports)
Father-child relationship (child reports) → Self-esteem (child reports)
Father-child relationship (child reports) → Child self-efficacy (child reports)
Father-child relationship (child reports) → Acting out at school (mom reports)
Father-child relationship (child reports) → Externalizing problems (mom reports)
Father-child relationship (child reports) → Internalizing problems (mom reports)

Note: All coefficients are standardized.
Chi-Square = 715.438, df = 506, CFI = .96, RMSEA = .03

This model controls for whether father pays any support, child's household income, race, gender, and age, father and mother's education, whether mother is married, whether mother and father were married, time since child lived with his father and mother together, attrition, and whether mothers reports of father's information is missing.

† p < .10   * p < .05   ** p < .01   *** p < .001
Figure 2b. Father-Child (and Mother-Child) Relationship on Child Outcomes

Note: All coefficients are standardized. Coefficients for the mother-child relationship are in parentheses. Chi-Square = 985.372, df = 673, CFI = .95, RMSEA = .03

a This model controls for mother-child relationship quality, whether father pays any support, child's household income, race, gender, and age, father and mother's education, whether mother is married, whether mother and father were married, time since child lived with his father and mother together, attrition, and whether mothers reports of father's information is missing.

† p < .10   * p < .05   ** p < .01   *** p < .001
Figure 3a. Responsive Fathering on Child Outcomes

Father-child contact (child reports) → Responsive fathering (child reports)

Responsive fathering (child reports) → Grades (child reports): .10†
Responsive fathering (child reports) → Self-esteem (child reports): .05
Responsive fathering (child reports) → Child self-efficacy (child reports): .07
Responsive fathering (child reports) → Acting out at school (mom reports): -.08
Responsive fathering (child reports) → Externalizing problems (mom reports): -.15*
Responsive fathering (child reports) → Internalizing problems (mom reports): -.15*

Note: All coefficients are standardized.
Chi-Square = 619.235, df = 441, CFI = .96, RMSEA = .03

† p < .10   * p < .05   ** p < .01   *** p < .001

This model controls for whether father pays any support, child’s household income, race, gender, and age, father and mother’s education, whether mother is married, whether mother and father were married, time since child lived with his father and mother together, attrition, and whether mothers reports of father’s information is missing.
Figure 3b. Responsive Fathering (and Mother-Child) Relationship on Child Outcomes

- Father-child contact (child reports)
- Responsive fathering (child reports)
- Grades (child reports)
- Self-esteem (child reports)
- Child self-efficacy (child reports)
- Acting out at school (mom reports)
- Externalizing problems (mom reports)
- Internalizing problems (mom reports)

Note: All coefficients are standardized. Coefficients for the mother-child relationship are in parentheses. Chi-Square = 855.563, df = 602, CFI = .95, RMSEA = .03

This model controls for mother-child relationship quality, whether father pays any support, child's household income, race, gender, and age, father and mother's education, whether mother is married, whether mother and father were married, time since child lived with his father and mother together, attrition, and whether mothers reports of father's information is missing.

† p < .10   * p < .05   ** p < .01   *** p < .001
Figure 4. Child Outcomes by Parent-Child Relationship Pattern

Note: All scores are standardized. † p < .10, * p < .05, ** p < .01
Chi-square = 577.87, df = 407, CFI = .95, RMSEA = .03

* Close to Neither Parent is the reference group (N = 146).