The Effects of Nonresident Father Closeness on Offspring Well-being during the Transition to Adulthood

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Abstract

The majority of research on nonresident father involvement focuses on the effects of involvement on offspring's well-being during childhood or adolescence. What is less clear is how nonresident father involvement continues to influence offspring well-being during the transition to adulthood, and throughout offspring's adult years. Using a sample of offspring with nonresident fathers (N = 2,785) from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health), this study builds on previous research by examining the role of nonresident father closeness over-time, by analyzing the unique contributions to offspring's well-being of fathers and mothers, and by focusing on multiple dimensions of offspring's well-being during the transition to adulthood.

Results suggest that offspring who are close to their fathers during young adulthood have higher levels of self-esteem than those with lower quality relationships. Fathers' financial contributions improve offspring's chances of obtaining some level of post high school education, including going to and completing college. Analyses also show that only about a quarter of the sample experienced an improvement in father-offspring closeness between the first and third waves of the study. However, increases in father-offspring closeness appear to benefit offspring by increasing self-esteem and decreasing their level of depressive symptoms during young adulthood.

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Father involvement contributes to offspring well-being, which has resulted in growing pressure for fathers to be highly involved parents. However, high rates of divorce and increasing rates of nonmarital fertility limit many fathers' opportunities to be involved in the lives of their offspring (Amato and Sobolewski, 2004). Approximately 50% of all children will live in a household without their biological fathers at some point in their childhood (Bianchi, 1990). The strength of the father-child relationship is challenged when fathers live apart from their children. Compared to resident fathers, nonresident fathers have much lower levels of involvement with their children. Only about a third of nonresident fathers have weekly contact with their offspring, while the majority sees them once a month or less (Seltzer and Bianchi, 1988; Seltzer, 1991).

Lower levels of involvement among nonresident fathers occur for a number of reasons. Visitation may be too emotionally painful for fathers and children, mothers may not allow fathers to visit if there are high levels of conflict between parents, children may reject their fathers attempts at contact, or family transitions such as relocation, remarriage or the birth of new children may cause fathers to withdraw even more from the lives of their nonresident children (King and Heard, 1999; Cooksey and Craig, 1998; Manning and Smock, 1999). Furthermore, research by Stewart (1999) indicates that nonresident father involvement tends to be limited to recreational activities with their offspring (e.g., playing sports or going to the movies) that limit opportunities for open communication and support. Only about 40% of nonresident fathers who see their children weekly have relationships that involve open communication, setting reasonable limits, and providing support (Amato and Gilbreth, 1999;

Amato and Sobolewski, 2004). The absence of these qualities in many nonresident father-child relationships severely limits nonresident fathers' abilities to influence offspring's positive development and well-being.

Despite the barriers to nonresident father involvement, fathers' continued presence in the lives of their children after they leave the household is believed to be positively associated with child well-being. Previous research suggests that divorce and living in a single parent household negatively affects children's educational and occupational attainment, psychological well-being, physical health, engagement in risky behaviors such as delinquency and substance use, and interpersonal relationships throughout the life course (Amato and Booth, 1997; Cherlin, Chase-Lansdale, and McRae, 1998; Manning and Lamb, 2003; McLanahan and Sandefur, 1994). One explanation for why children in single-parent households are at risk in terms of lower well-being is that father absence results in a loss of economic and social resources that are necessary for positive offspring development (Amato, 1998). Not only are children with nonresident fathers at a financial disadvantage, but they also suffer from lower social capital in the form of close parent-child relationships, parental monitoring and support, cooperative mother-father relationships, and parents' social ties to the community that are associated with offspring well-being.

The main goal of this study is to determine whether or not the social capital that nonresident fathers provide to their offspring during adolescence and the transition to adulthood reduces some of the negative effects of divorce and living with a single mother by improving offspring's educational attainment and psychological well-being, and reducing criminal behavior and substance use during the transition to adulthood.

Nonresident fathers may contribute different types of resources to offspring of different ages, and may be more effective in protecting offspring against specific types of outcomes. The majority of research on nonresident fathers' social capital contributions focuses on the effects of fathers' involvement on various dimensions of offspring's well-being during childhood or adolescence. Findings from this body of research suggest that nonresident father involvement is positively related to a number of indicators of childhood and adolescent well-being including academic achievement, fewer internalizing (e.g., depression) and externalizing behaviors (e.g., delinquency), self-esteem and an overall feeling of positive well-being (Amato and Gilbreth, 1999; Marsiglio et al., 2000). However, these effects are typically modest and vary by the measure of father involvement used, and the outcome of interest.

What is less clear is how nonresident father involvement continues to influence offspring well-being during the transition to adulthood, and throughout offspring's adult years. Research suggests that young adulthood has become an increasingly distinct and extended stage of the life course, in which people spend an extended period of time exploring many potential life directions (Arnett, 2000). The benefits of close parental ties may weaken during offspring's transition to adulthood as they develop extra-familial relationships, and acquire new adult roles that also have the potential for increasing or decreasing offspring well-being (Roberts and Bengston, 1993). The strength of the father-offspring relationship when offspring are young adults appears to be contingent on the quality of the relationship when offspring are younger. Aquilino (2006) found that nonresident fathers who were close to their children during childhood and adolescence were closer to their children during young adulthood. However, research on how nonresident father closeness to their young adult offspring influences offspring's well-being

during young adulthood is virtually non-existent. To my knowledge, there have been no published studies on this topic.

Hypotheses

Given the knowledge that nonresident father involvement during childhood and adolescence promotes offspring well-being during earlier stages of the life course, three hypotheses will be tested:

> **Hypothesis 1**: Nonresident father involvement during *young adulthood* is positively related to offspring well-being during young adulthood.
>
> **Hypothesis 2**: Nonresident father involvement during *adolescence* is positively related to offspring well-being during young adulthood.
>
> > **2A**: Nonresident father involvement during adolescence **indirectly** influences offspring well-being by improving father-offspring relationship quality in young adulthood. The current relationship between fathers and offspring during young adulthood is what drives the association between nonresident father involvement during adolescence and young adult offspring well-being.
> >
> > **2B:** Nonresident father involvement during adolescence **directly** influences offspring well-being during young adulthood. The benefits of nonresident father involvement during adolescence (prosocial behaviors, socialization, and fewer problem behaviors) create a positive trajectory of influence that continues during young adulthood.

Although prior research finds evidence of a significant association between nonresident father involvement and offspring well-being during adolescence, the effects of nonresident father involvement are generally modest; especially when the influence of mother involvement is controlled (Amato and Gilbreth, 1999; King and Sobolewski, 2006). Further, nonresident father involvement is beneficial for some, but not all, indicators of well-being. Given the modest findings during adolescence, it is possible that the effect of nonresident father involvement on well-being when offspring reach young adulthood is even more modest, or nonexistent. Once offspring gain more independence from their parents, form new relationships, and acquire new

adult roles, the quality of nonresident father-offspring relationships may decline, and fathers may no longer be able to transmit social resources to their offspring. Therefore, an alternative hypothesis for the proposed study is:

> **Hypothesis 3**: Nonresident father involvement during adolescence and young adulthood has no effect on offspring well-being during young adulthood.

Support for any of the proposed hypotheses would result in an improvement in our understanding of the ways nonresident father involvement influences young adult offspring well-being.

Predicting Changes in Offspring Well-being

As offspring move through the transition to adulthood, they are likely to experience changes in their own feelings of well-being, along with changes to their relationships with parents. Examining the relationship between father involvement during offspring's adolescence and young adulthood on their well-being as young adults does not take into account offspring's initial levels of well-being, or how well-being changes over time, particularly in response to changes in the father-child relationship. The longitudinal nature of the Add Health makes it possible to control for offspring's initial levels of well-being when predicting well-being during young adulthood, and to examine the association between changes in father-child involvement and changes in well-being. Previous research suggests that although trajectories for depression or self-esteem are typically established before young adulthood, sources of stress and support during the transition to adulthood can alter these trajectories by increasing or decreasing feelings of well-being (Meadows, Brown, and Elder, 2005). Nonresident father closeness and involvement serve as potential sources of social support during the transition to adulthood that influence changes in offspring's well-being as young adults.

Additional Factors Related to Nonresident Father Involvement and Offspring Well-being

The associations between nonresident father involvement and offspring well-being may be due to a variety of related variables. Certain characteristics of the child, mother, father, and their family background are likely to influence nonresident father involvement as well as offspring well-being at different stages of the life course. This study examines the role of offspring's age, gender, race and whether or not they were born in the United States, father and mother's socioeconomic background, whether or not offspring were born outside of marriage, whether or not offspring ever lived with their father, and for how long, whether or not fathers ever served time in jail or prison, the strength of the mother-child relationship, and whether or not the mother remarried, in shaping father involvement and offspring well-being.

In terms of offspring's characteristics that influence nonresident father involvement, previous research suggests that father involvement tends to decline during adolescence and early adulthood as adolescents gain autonomy, distance themselves from parents, and spend more time with peers (Furstenberg, 2000). A recent study by Scott, Booth, King and Johnson (2005) found that 28 percent of offspring who live with both biological parents, and 56 percent of offspring whose parents were divorced, experienced a decline in father-offspring closeness during the period between adolescence and young adulthood. Fewer than 20 percent in both groups experienced an increase in closeness, suggesting that father involvement is lower for older offspring, especially those with nonresident fathers. Problem behaviors and lower levels of psychological well-being also tend to increase during late adolescence, suggesting that younger and older offspring may have different levels of well-being (Kann et al., 2000).

There are mixed findings on whether or not nonresident father involvement differs by offspring's gender. Some studies find no difference between son's and daughter's amount and

quality of contact with nonresident fathers (e.g., Cooksey and Craig, 1998), while others suggest that nonresident fathers are more involved and have closer relationships with sons (Harris and Morgan, 1991; Manning and Smock, 1999). Psychological studies consistently reveal that females are more likely to experience internalizing problems and males are more likely to exhibit externalizing problems making gender an important predictor of well-being as measured by outcomes such as depression or delinquency (Avison and McAlpine, 1992; Gore, Aseltine, and Colten, 1992).

Nonresident father involvement also varies across racial and ethnic groups (King, Harris, and Heard, 2004), as do levels of behavioral adjustment (McLeod and Owens, 2004) and academic achievement (Gamoran, 2001). However, inconsistent effects of race and ethnicity on father-child relationships are reported in the literature. For example, Black adolescents report being closer to their nonresident fathers than Whites (King et al., 2004) and some studies find that Black fathers have more contact with their nonresident children than White or non-Black fathers (King, 1994; Seltzer, 1991), but others find no differences (Seltzer and Bianchi, 1988). Less is known about Hispanic nonresident fathers, but there is some evidence that involvement is lowest for this group of nonresident fathers (King, 1994; Seltzer and Bianchi, 1988). Offspring that are not born within the United States may be more susceptible to the negative effects of father absence, especially if divorce and father absence are uncommon in their country of origin. Adolescents born outside the U.S. also have lower levels of academic achievement compared to native-born students if English is not the primary language spoken at home (Kao and Tienda, 1995).

Part of the explanation for racial and ethnic differences in nonresident father involvement is due to lower income and less education among many minority fathers. More highly educated

fathers have more financial resources to provide to their children, and typically have better parenting skills, greater commitment to their paternal role, and higher levels of involvement (Cooksey and Fondell, 1996; Furstenberg et al., 1983; King, Harris and Heard, 2004). This is true for mothers as well. Families' socioeconomic status (typically measured by mother and fathers' education) is consistently related to parental involvement and children's well-being during adolescence and young adulthood (Amato and Booth, 1997).

Nonresident fathers' education and greater financial resources increase fathers' ability to pay child support, which has been linked to a number of child outcomes (King, 1994; McLanahan et al., 1994). However, more recent studies of nonresident father involvement suggest that fathers' payment of child support is positively related to a limited number of outcomes, and may not be as important for child well-being as other forms of involvement, especially during adolescence (Hawkins, Amato, and King, 2005; McLanahan et al., 1994; King and Sobolewski, 2006). Fathers' payment of child support, and continued economic support during young adulthood may be more influential when offspring enter young adulthood and acquire additional financial responsibilities such as college tuition, rent, and other expenses associated with the acquisition of new school, work and family roles.

One final father characteristic, whether or not the father ever served time in jail or prison, is considered as an additional father characteristic that may be related to father involvement and offspring's well-being. Imprisoned fathers have fewer chances to see their children, and may not possess the proper skills to parent effectively when they are out of prison. Offspring's involvement with fathers that are or have been involved in criminal activity, and other negative behaviors, may negatively affect their well-being, rather than having a positive influence.

Four family structure variables are also associated with nonresident father involvement

and offspring well-being. Whether or not offspring were born to married parents, whether or not they ever lived with their biological father, the amount of time fathers have lived apart from their offspring, and whether or not mothers remarry all influence nonresident fathers' willingness for involvement, offspring's access to fathers' social and economic resources, and have the potential to affect children's well-being (Hawkins, Amato, and King, 2005).

Nonresident fathers tend to stay more involved in their children's lives if they were married to the child's biological mother when the child was born (King, Harris, and Heard, 2004; Seltzer and Bianchi, 1988). Similarly, if the child lived with the father at some point, the nonresident father may be more committed to the child and therefore more involved in active fathering after he leaves the child's residence. The more recently the father and offspring shared a residence, the more involved the nonresident father is likely to be (Seltzer and Bianchi, 1988). Several studies also show that adolescents whose mothers remarry tend to have less involved nonresident fathers due to the presence of a stepfather in the household (Furstenberg et al., 1983; Seltzer and Bianchi, 1988; Stephens 1996). Other studies show that adolescents face more problems in stepfather families than in mother-only families (Hetherington, 1993).

A final key factor associated with nonresident father involvement and offspring well-being is mother involvement and the quality of the mother-child relationship. The mother-offspring relationship is consistently linked with long-term offspring adjustment and competence (Parke and Burial, 1998). Compared to nonresident fathers, there is much stronger evidence that the mother-child relationship protects against the negative consequences of divorce. Numerous studies report that the quality of the mother-offspring relationship and mothers' effective parenting after divorce is a key predictor of offspring's post-divorce well-being (Amato, 2000).

Because the quality of the mother-offspring relationship is positively correlated with

nonresident father involvement, it is likely that offspring who are close to their mothers also benefit from a closer relationship to their nonresident fathers (Buchanan, Maccoby, and Dornbush, 1996; King and Sobolewski, 2006). However, much of the positive effects of father involvement may actually be due to better quality mother-child relationships, especially if mothers' residential status and role as the primary parenting figure (Pleck, 1997) makes it easier for them to transmit social and economic resources to offspring. Without controlling for mother involvement, the positive effects of nonresident father involvement may be overestimated. Few studies include measures of offspring's relationships with both parents, and those that do focus on offspring well-being during adolescence rather than young adulthood (Manning and Lamb, 2003; Stewart, 2003; White and Gilbreth, 2001). These studies provide limited evidence that the positive influence of nonresident father involvement is independent of the effects of mother involvement. By including a measure of the mother-child relationship (during adolescence and young adulthood), the proposed study will determine the unique effects of mother and father involvement on offspring's development during young adulthood.

METHOD

The National Longitudinal Study of Adolescent Health

Data for this study come from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health). This is a longitudinal survey of adolescents who were in middle school or high school at the time of the first interview. The Add Health is ideal for examining how various social contexts including the family influence adolescents' health and well-being.

The initial Add Health sample was obtained from a stratified random sample of all U.S. middle and high schools in 1995. A subset of students and parents, consisting of approximately

20,000 respondents was also selected for an in-home portion of the survey. Adolescents, but not parents, from the 1995 in-home sample were re-interviewed in 1996 and again during 2000–2001. Response rates for the three waves were 78.9%, 88.2%, and 77.4%, respectively. Approximately 15,000 adolescents participated in all three waves of the survey. Many subpopulations were over-sampled, including Blacks from well-educated families, and Chinese, Cuban and Puerto Rican adolescents. When appropriate sample weights are used, the data are a nationally representative sample of adolescents in grades 7–12 at the time of the first wave. See Bearman, Jones, and Udry (1997) and Harris et al. (2003) for a more detailed description of the data collection process.

Analytic Sample

For the purposes of this study, the sample is restricted to respondents ages 18 and under at the first interview, who were living with their biological mother in wave 1, had a nonresident biological father whom they know was still alive at the time of both interviews, and had valid sample weights. A large majority of respondents with a nonresident father were living with their biological mothers at the first interview (over 90%). Focusing just on respondents that live with their biological mother is important given the significance of the mother-child relationship in promoting offspring well-being and nonresident father involvement. In order to be in the final sample, respondents also had to answer questions related to the father-offspring relationship in wave 3, and could not be living with their biological father (n = 147). If respondents were not in touch with their fathers at the time of the third interview (n = 565), they remained in the sample, but were assigned the lowest values for each of the father involvement measures. Applying these restrictions resulted in a final sample size of 2,785.

The age range of the respondents in wave 1, and the 5-6 year interval between waves 1 and 3 facilitate the study of offspring as they move through adolescence into young adulthood. At the time of the third wave, the youngest offspring are 18 and the oldest are 24, which allows for comparisons between offspring in the early and later stages of young adulthood.

Measures

Questions pertaining to the nonresident father-offspring relationship (relationship closeness) fathers' financial involvement come from both waves 1 and 3. Measures of the mother-child relationship from both waves will also be included. Other factors that may influence nonresident father involvement and child well-being (offspring age, gender, race/ethnicity, parental education, household income, payment of child support, whether or not the respondent was born outside of marriage, whether or not the respondent ever lived with their father, how long they lived with their father, mother's remarriage and whether or not the offspring and father are native born) come from the first wave. Measures of offspring well-being during young adulthood (educational attainment, self-esteem, depressive symptoms, criminal behavior, and substance use) come from wave 3. Offspring's reports of whether or not their father ever served time in jail also come from the wave 3 interview. Table 1 presents descriptive statistics for the dependent variables used in the analyses. Table 2 describes each of the independent variables.

Dependent Variables

Key dimensions of young adult well-being include educational attainment, psychological well-being, engagement in criminal behavior, and substance abuse. Eleven measures of offspring well-being during young adulthood will be included as an attempt to capture a range of outcomes that fall into these four categories.

Educational Attainment. Four measures of educational attainment are included to determine whether or not fathers are more influential at some levels of educational achievement compared to others. Not all offspring were out of high school or had completed all of their schooling at the time of the third wave. For the purposes of this study, we excluded all respondents that were still in high school (n = 30) when analyzing educational attainment. For two measures (post high school education/training and completed college), we included only those respondents that were not enrolled in any type of schooling at the time of the third wave. The first measure compares respondents that received some education or vocational training after high school (33%) compared to everybody else. The second measure compares all respondents that completed four years of college (10%) to everybody else. Two additional measures include all respondents, regardless of whether or not they have finished school. The first measure compares respondents that dropped out of high school (9%) to everybody else, while the final measure compares everybody that went to college, regardless of whether or not they finished by the third wave to all other respondents (53%).

Psychological Well-being. Two measures of psychological well-being are included as indicators of offspring well-being. Measures of the extent to which the respondents felt bothered by things, could not shake the blues, felt just as good as other people, had trouble focusing, felt depressed, tired or sad, couldn't enjoy life, and felt that people disliked them were combined by taking the average of the nine items to create a scale for depressive symptoms. The response categories ranged from (1) *never or rarely* to (3) *a lot or most of the time*. Each item was coded so that high scores represented higher levels of depression.

Items indicating the extent to which respondents felt satisfied with their life (1 = *very dissatisfied;* 5 = *very satisfied*), felt they had many good qualities, had a lot to be proud of, liked

themselves just the way they are, and felt the were doing things just about right (*1 = strongly disagree*; 5 = *strongly agree*) were combined by taking the average of the five items to form a scale of offspring's self-esteem.

Criminal Behavior. Two outcome measures of offspring's participation in risky and criminal behaviors were created. The first measures involvement in criminal activities. Respondents reported on the frequency of their involvement in the following seven activities in the past twelve months: damaged property that didn't belong to them, stole something worth more than $50, stole something worth less than $50, went into a house or building to steal something, bought, sold, or held stolen property, deliberately wrote a bad check, and used a credit card that wasn't theirs. Respondents who had engaged in *at least* one of these activities *at least once* in the past year were assigned a 1 (20%), and respondents who had never engaged in any of the activities were assigned a 0.

The second variable measures respondents' engagement in violent activities. Respondents provided reports for how often in the past twelve months they used or threatened to use a weapon to get something, participated in a physical fight with a group of friends, used a weapon in a fight, or carried a gun to school or work. Respondents who had engaged in *at least* one of the four activities *at least once* in the past year were assigned a 1 (13%), and respondents who had never engaged in any of the activities were assigned a 0.

Substance Use. Respondents provided information on a variety of alcohol and drug related behaviors. Measures of problem drinking, drug use and marijuana use were created for the purposes of this study. The measure of problem drinking combines offspring's reports of how many times in the past month their drinking led to problems at school or work, problems with friends, problems with someone they were dating, resulted in a sexual situation that they later

regretted, or led to a physical fight. If respondents reported having problems in at least one of the areas, they were assigned a 1 (28%). Respondents that don't drink or never experienced a problem from drinking were assigned a 0.

Respondents were also asked how often they smoked marijuana in the past month, and how often they used cocaine, crystal meth or any other types of illegal drugs in the past year. Those that reported marijuana use in the past month were assigned a 1 (27%), while all other respondents were assigned a 0. A similar variable was created for drug use. Respondents that used at least one of the drugs in the past year were assigned a 1 (15%), while all other respondents were assigned a 0.

----- Table 1 about here -----

Independent Variables

Nonresident Father-Offspring Closeness. This variable is a single item measure of offspring's feelings of emotional closeness to their nonresident father asked in both waves of the study. Adolescents reported how close they felt to their nonresident biological father on a five- point scale that ranged from (1) *not at all close* to (5) *extremely close.*

Wave 3 Financial Contributions from Father. Offspring were asked whether or not their biological father had given them any money or paid for anything significant in the year preceding the Wave 3 interview (0 = n*o;* 1 = y*es*). This measure of fathers' financial involvement will be analyzed separately from the other measures of relationship closeness and involvement.

Mother-offspring Closeness. Respondents were also asked how close they felt to their biological mothers in Wave 1 and Wave 3. The measures of mother-offspring closeness during adolescence and young adulthood are exactly the same as the measures for father-offspring closeness at the two time points. Response categories ranged from (1) = *not at all* to (5) = *very much*.

The main benefit to using single item measures of closeness to fathers and mothers is that the measures are comparable for both parents and are the same in both waves of the study. The measure of father-offspring closeness from Wave 1 of the Add Health has been found to be predictive of child well-being in other studies. King (2006) finds that the measure of closeness predicts adolescent well-being for nonresident fathers, stepfathers, and custodial mothers. Manning and Lamb (2003) also report significant associations between nonresident father-child closeness and adolescent outcomes. Stewart (2003) finds closeness to be related to a number of measures of adolescent well-being. Unlike father-offspring closeness, other individual item measures of time spent in leisure activities and aspects of authoritarian parenting (e.g., discussing problems) were generally not related to better outcomes in previous studies.

Additional Factors Related to Father Involvement and Offspring Well-being

The remaining variables consist of controls from Wave 1 that measure offspring's age, gender, and race (White, Black, Hispanic, Asian and other), father and mothers' education, household income, fathers' payment of child support, whether or not the offspring was born outside of marriage, whether or not the offspring ever lived with their father, the number of years since offspring last lived with their father, mothers' remarriage, and whether or not offspring were born outside the United States. A measure of whether or not the father ever served time in jail or prison was reported by respondents in the third wave.

Offspring's age is a continuous variable that ranges from a minimum of 12 and to a maximum of 18. Gender is a dichotomous variable with females coded as 1, and males 0. 54% of the sample was female. A series of dummy variables were created to compare Whites (62%), Blacks (24%), Hispanics (10%), and all other races (4%). Father's and mother's education is measured using adolescent' report of how far their parents went in school (1 = *eighth grade or less*, 8 = *professional training beyond a four-year college or university*). Household income is mother's report of total income. The measure is logged to minimize skewness. Fathers' payment of child support was a categorical measure of mothers' report of how much the biological father pays in child support "in a typical month" (1 = *none*, 5 = *more than $500*), but the variable was transformed into a dichotomous variable for the purposes of this study. According to the mothers' reports, only a small proportion (about 5%) of nonresident fathers paid more than a couple hundred dollars a month, so all values greater than one were combined to create a dichotomous measure of whether or not the father paid any amount of child support in a typical month (60%). Three dummy variables, *Yes* =54%, *No* = 31%, and *Don't Know* = 15%, are included to indicate whether or not parents were married when the offspring was born. This measure was based on the mother's relationship history matched to their child's birthday. A dichotomous variable indicating whether or not offspring ever lived with their biological father is included (*Yes* = 81%). A measure of the number of years since the offspring last lived with their father was created by subtracting offspring's age when their father left the household from their current age in the first wave. The household roster was used to create a dichotomous variable for whether or not the biological mother remarried (*Yes* = 32%). Offspring reported on their birth origin. Based on these reports, a dichotomous variable was created to identify whether or not the offspring was born outside the United States (*Yes* = 3%). Offspring were asked whether or not

their biological father had ever served time in jail in the third wave. A series of dummy variables indicating that the father did serve time (25%), did not serve time (69%), or the offspring did not know if the father ever served time (6%) were created.

Equivalent measures of offspring's depression and self-esteem were created using Wave 1 data in order to estimate changes in offspring's well-being in the time interval between the first and third waves, and to model the effect of nonresident father closeness and involvement on changes in well-being. The scale for Wave 1 depressive symptoms is an average of the exact same nine items using in the Wave 3 scale (felt bothered by things, could not shake the blues, felt just as good as other people, had trouble focusing, felt depressed, tired or sad, couldn't enjoy life, and felt that people disliked you). The self-esteem scale from Wave 1 includes measures of the extent to which offspring felt they had many good qualities, had a lot to be proud of, liked themselves just the way they are, and felt the were doing things just about right. The item measuring how satisfied offspring were with their lives is removed from the Wave 3 measure of self-esteem for the analyses that include self-esteem at both time points so that the two scales are identical. Change scores were calculated for self-esteem and depressive symptoms by subtracting Wave 1 values from Wave 3 values to estimate how much offspring's self-esteem increased or decreased (or stayed the same) between the two waves. The same procedure was used to create change scores for father and mother closeness.

Responses from Wave 1 are not comparable to the remaining young adult outcome variables, thus limiting the ability to analyze models that include the Wave 1 measures of the remaining dependent variables.

----- Table 2 about here -----

Method

A series of regression models will be tested to estimate the effect of early and current nonresident father closeness offspring's educational attainment, psychological well-being, criminal behavior, and substance use during young adulthood. Ordinary least squares regression techniques will be implemented for the continuous outcomes of depressive symptoms and self-esteem, and logistic regression will be used for the dichotomous measures of high school dropout, post-high school training, going to college, college completion, criminal activity, violence, problem drinking, marijuana use, and drug use.

The first set of models will examine the bivariate relationships between the single item measures of father closeness during adolescence and young adulthood across the four dimensions of offspring's well-being (consisting of eleven outcome variables). Next, the measures of nonresident father closeness during adolescence and young adulthood will be combined in the same model to estimate the indirect relationship between nonresident father closeness during adolescence and young adult well-being. The relationship between father closeness during adolescence and offspring's well-being during the transition to adulthood may be partially or completely mediated by father closeness during young adulthood.

The next set of regression models will add controls for offspring's age, gender, and race, father and mothers' education, household income, payment of child support, whether or not the offspring was born outside of marriage, whether or not the offspring ever lived with their father, the number of years since they lived with their father, whether or not the offspring and father are native born, whether or not the father ever served time in jail and mothers' remarriage to estimate the net effects of nonresident father closeness on young adult offspring's well-being after accounting for a number of other factors that may influence father closeness and offspring

well-being. Offspring's closeness to their mothers during adolescence and young adulthood will be added in the next set of models to estimate the unique contributions of fathers and mothers.

A separate set of analyses will be conducted to estimate the effect of fathers' financial contributions on offspring's well-being. Fathers' payment of child support will be used as a measure of their financial involvement during offspring's adolescence. Offspring's reports from the third wave of whether or not the father made any significant financial contributions in the past year will be used as a measure of fathers' financials support when the offspring are young adults. A final step in the analyses will be to estimate the effect of changes in father and mother-offspring closeness on changes in offspring's self-esteem and depressive symptoms in the time interval between the first and third waves of the Add Health.

All analyses will be conducted using the sample weight for samples that consist of data from wave 1 and wave 3 to correct for the differential probabilities of sample selection from factors such as the over sampling of minority groups. The survey (SVY) procedures in STATA (Stata Corporation, 2003) will be used to adjust the standard errors of the model estimates for the clustered and stratified design of Add Health (Chantala and Tabor, 1999).

RESULTS

To gain an initial idea of how offspring with high quality relationships with their nonresident fathers differ from those with low quality relationships, the distribution of the control variables across low and high levels of father-offspring closeness during adolescence and young adulthood were examined. Offspring that reported their level of father-offspring closeness to be not at all close, a little close, or somewhat close are considered not close to their fathers. Offspring that reported very or extremely close father-offspring relationships are considered close. The results are summarized in tables 3 and 4.

----- Table 3 about here -----

The results presented in Table 3 suggest that there are significant compositional differences between offspring that are close to their nonresident biological fathers and those who are not. Offspring that reported close relationships to their fathers during adolescence are slightly younger, more likely to be male, and White. Offspring are closer to fathers that are more highly educated, pay child support, and never served time in jail. Household income is also slightly higher for offspring with close relationships with their fathers. Offspring born to married parents, and that lived with their fathers at some point in their lives are more likely to report a close relationship to their fathers. Close relationships are also more common among offspring whose fathers left the household more recently. Living with a stepfather is also related to having a close relationship with a biological father. Mother's level of education and offspring's country of origin did not differ between the two groups of offspring.

By the time offspring reach young adulthood, there are fewer differences between offspring with and without a close relationship with their biological fathers. These results are show in Table 4. Levels of closeness no longer differ by race, household income, or mother's remarriage. The age differences between offspring with low versus high levels of closeness are not as big once they reach young adulthood, and slightly older offspring are more likely to be close to their biological fathers, rather than younger offspring, which was the case during adolescence.

----- Table 4 about here -----

Offspring that are close to their fathers during young adulthood continue to differ from those that are not close in terms of gender, fathers' education, whether or not their parents were married when they were born, whether or not they ever lived with their father, the amount of

time fathers have been out of the household, fathers' payment of child support, and whether or not the father ever served time in jail.

Father-offspring Closeness and Child Well-being.

The effects of father-offspring closeness during adolescence and young adulthood on offspring well-being are summarized in Tables 5 and 6. Model 1 for each outcome variable shows the effect of father-adolescent closeness, Model 2 shows the effect of father-young adult closeness, Model 3 shows the net effects of father-offspring closeness at both points in time, and Model 4 summarizes the unique effects of father and mother closeness on the eleven measures of young adult offspring well-being. All models include controls for offspring's age, gender, race, father's education, mother's education, household income, father's payment of child support, whether or not offspring's parents were married when they were born, whether or not the offspring ever lived with their father, the number of years since offspring last lived with their father, mothers' remarriage, whether or not offspring were born outside the United States, and whether or not the father ever served time in jail. The control variables that had a significant effect on offspring's well-being are summarized in the complete model (Model 5) in Table 6.

----- Table 5 about here -----

The results in Tables 5 and 6 show that father-offspring closeness during adolescence has no effect on offspring's well-being during young adulthood. Closeness during young adulthood, however, significant improves offspring's self-esteem and lowers depressive symptoms. Controlling for offspring's level of closeness during adolescence (see Model 3) does not change these effects.

Mother's closeness also increases offspring's self-esteem and decreases their depressive symptoms. This is the case for mother-offspring closeness during young adulthood, as well as

during adolescence. Offspring's earlier relationship with their mothers during adolescence appears to have a longer-term impact on offspring well-being than father's closeness. Mother closeness during adolescence also reduced offspring's use of marijuana. Controlling for mother's closeness during adolescence and young adulthood reduces the negative effect of father's closeness during young adulthood on depressive symptoms to nonsignificance (see Model 4).

Model 5 presented in Table 6 is the complete final model showing the effect of father-offspring closeness on each measure of offspring's well-being while controlling for mothers; closeness, and showing the effects of the control variables.

----- Table 6 about here -----

Offspring's age reduces the probability of dropping out of high school, being involved in criminal activity, and problem drinking. Age is positively associated with obtaining post high school levels of education and completing college. Younger offspring do not have as much time to complete college, and may be in the early stages of frequent criminal activity and problem drinking.

Offspring's gender plays an important role in offspring's problem behavior. The results presented in Model 5 suggest that males are more likely to drop out of high school, and have higher rates of criminal behavior, violence, drug use, marijuana use, and problem drinking. Females are more likely to pursue education after high school, go to, and finish college, have lower levels of self-esteem, and higher levels of depression. Consistent with prior research, these results demonstrate gender differences in internalizing and externalizing behavior. Females are much more likely to exhibit internalizing behavior problems (self-esteem and

depression), while males are more likely to exhibit externalizing behavior problems (substance use, antisocial behavior, etc.).

The only racial differences found are between Whites and Blacks. White offspring are more likely to use drugs, smoke marijuana and experience drinking related problems.

Father and mother's socioeconomic status effects offspring's well-being. Offspring with more highly educated fathers and mothers are more likely to continue their schooling beyond high school, more likely to go to college, and more likely to completed college. Household income also increases the probability of greater educational attainment. These findings are consistent with previous research showing that offspring's education is positively correlated with their parents' level of education, and that offspring form higher SES families have higher educational attainment. Greater household income also appears to increase self-esteem and decrease depressive symptoms among young adult offspring.

Parental education and father's payment of child support had some unexpected results on offspring's well-being. Father's education is associated with greater levels of criminal activity. More highly educated fathers may have had higher levels of involvement with their offspring when they lived together, making their departure from the household more difficult for offspring. Father's payment of child support is associated with higher levels of drug use. The positive relationship between child support and drug use may only be true for offspring from higher socioeconomic backgrounds where they may already have greater financial ability to buy drugs.

Two additional father characteristics are associated with offspring's well-being. If offspring are not native born, they are less likely to smoke marijuana, less likely to have drinking related problems, and are less depressed. Foreign born offspring may have closer ties to their families and other sources of social support that protect them against substance use and higher

levels of depressives symptoms. Fathers that once served time in jail appear to have a negative effect on offspring well-being by reducing offspring's chances of post high school education, completing college, and increasing their chances of marijuana use and problem drinking.

Family structure also influences offspring's well-being. Offspring that lived with their biological father at some point in their lives, and for whom more years since the father left the household have passed are more likely to smoke marijuana. However, offspring have higher levels of self-esteem if more time has passed since they lived with their father.

Father's Financial Contributions

Fathers' payment of child support when offspring were adolescents, and fathers' financial contributions when offspring were young adults, were analyzed to determine if father's financial involvement, net of relationship quality, improve offspring's well-being. Fathers that pay child support are generally more likely to be involved with their children in other ways. In this study, the correlation between father's payment of child support and father-offspring closeness during adolescence is .30. The correlation between child support and closeness during young adulthood is slightly lower, but significant (r = .24). Father's financial contributions to their young adult offspring is also correlated with closeness during adolescence (r = .33) and young adulthood (r= .47). Table 7 summarizes the results from analyses that focus specifically on the effect of father's financial involvement on offspring well-being during young adulthood.

----- Table 7 about here -----

Father's financial contributions during young adulthood improve offspring's chances for educational attainment by increasing their probability of obtaining some level of post high school education and training, going to college, and completing college. This is an important finding that has not been demonstrated in previous research.

Although it appears that father's financial involvement benefits offspring, father's payment of child support and their financial support when offspring are older are also associated with increased drug use, marijuana use, and lower self-esteem during young adulthood. The direction of the effect of father's financial involvement on offspring well-being may depend on offspring's socioeconomic status. Offspring from more affluent families, that use drugs, may already be in a financial position to buy drugs, and may have fathers that have the financial resources to pay higher levels of child support. The negative relationship between fathers' financial contributions during young adulthood and offspring's self-esteem should be interpreted with caution because we do not know the causal relationship between the two variables. It may be that offspring have lower self-esteem due to economic stress, or other types of stressors, and offspring may turn to their fathers for financial support.

Predicting Changes in Offspring Well-being

The longitudinal nature of the Add Health makes it possible to model the effect of changes in closeness on changes in offspring's well-being. Analyses were conducted to examine changes in offspring's self-esteem and depressive symptoms between Waves 1 and 3 of the Add Health. These were the only two dependent variables for which the same exact measures were available in Wave 1. Results from these analyses are presented in Tables 8 and 9. Table 8 summarizes the amount of change that occurred in offspring's levels of closeness with their fathers and mothers, and their levels of self-esteem and depressive symptoms between the first and third waves of the study. Change scores were calculated by subtracting Wave 1 values from Wave 3 values for each pair of variables.

----- Table 8 about here -----

About a quarter (28%) of offspring experienced an increase in closeness to their fathers between the first and third waves. 35% experienced a decrease in closeness, and 37% experienced no change in closeness. A much larger proportion of offspring experienced no change or an increase in closeness to their mothers (58% didn't' change and 16% increased). In terms of changes in well-being, half of respondents experienced an increase in self-esteem between the two waves, and more than half (57%) experienced a decline in depressive symptoms.

The models in Table 9 use change scores to regress changes in father-offspring closeness on changes in self-esteem and depressive symptoms (Allison, 1990; Johnson, 1995). The effects of mother-offspring closeness and changes in mother-offspring closeness are also included in the models to estimate the unique contributions of fathers and mothers.

----- Table 9 about here -----

Model 1 in Table 9 shows that increases in father-offspring closeness significantly predict increases in offspring's self-esteem. However, the association between changes in father closeness and changes in self- esteem becomes nonsignificant when the change score for the mother-offspring relationship is entered into the model (Model 2). The positive association between changes in mother closeness and self-esteem remains significant after all controls are entered into the model (Model 3). Model 3 also shows that females experienced an increase in self-esteem compared to males in the time period between adolescence and young adulthood.

Models 4, 5 and 6 summarize the effect of changes in father and mother closeness on changes in depressive symptoms. Increases in father and mother offspring-closeness are negatively associated with a change in depressive symptoms, suggesting that offspring's depressive symptoms decline when they become closer to their parents between Waves 1 and 3.

None of the controls significantly predicted a change in depressive symptoms when using the change score method (Table 9, Model 6).

DISCUSSION

Previous research suggesting that father involvement contributes to offspring well-being has resulted in growing pressure for fathers to be highly involved parents. However, high rates of divorce and increasing rates of nonmarital fertility limit many fathers' opportunities to be involved in the lives of their offspring (Amato and Sobolewski, 2004). Approximately 50% of all children will live in a household without their biological fathers at some point in their childhood (Bianchi, 1990). Research shows that divorce and living in a single parent household negatively affects children's educational and occupational attainment, psychological well-being, physical health, engagement in risky behaviors such as delinquency and substance use, and interpersonal relationships throughout the life course (Amato and Booth, 1997; Cherlin, Chase-Lansdale, and McRae, 1998; Manning and Lamb, 2003; McLanahan and Sandefur, 1994).

One explanation for why children in single-parent households are at risk in terms of lower well-being is that father absence results in a loss of economic and social resources that are necessary for positive offspring development (Amato, 1998). Not only are children with nonresident fathers at a financial disadvantage, but they also suffer from lower social capital in the form of close parent-child relationships, parental monitoring and support, cooperative mother-father relationships, and parents' social ties to the community that are associated with offspring well-being. The strength of the father-child relationship is challenged when fathers live apart from their children, making it difficult for fathers to transmit valuable social and economic resources to their children.

Despite the barriers to nonresident father involvement, fathers' continued presence in the lives of their children after they leave the household helps to reduce the negative effects of divorce and living with a single mom, and is believed to be positively associated with a number of indicators of child well-being. The main goal of this study was to determine whether or not the social capital that nonresident fathers provide to their offspring during adolescence and the transition to adulthood improves offspring's educational attainment and psychological well-being, and reduces criminal behavior and substance use during the transition to adulthood.

The first set of analyses in the study compared offspring that reported high levels of closeness to their nonresident fathers during adolescence and young adulthood to those that report low levels of closeness in terms of a number of child, parent and family background factors that previous research suggests are related to father involvement and offspring well-being. These results demonstrate the variability of father-offspring relationships. Child, father and family structure characteristics all influence the type of relationship offspring have with their fathers. Younger offspring may be closer to their nonresident biological fathers because they are in the early stages of adolescence, and have not distanced themselves from their parents as much as older adolescents. The finding that male offspring are closer to their nonresident fathers than female offspring is consistent with previous research (Manning and Smock, 1999), although these findings remain inconclusive. Racial differences in levels of father-offspring closeness also remain unclear (King, Harris and Heard, 2004; Seltzer and Bianchi, 1988). This is partly due to the fact that different studies use different measures of nonresident father involvement and examine different types of outcomes, which makes it difficult to find consistent patterns.

The differences between offspring with low and high levels of closeness to their nonresident fathers during adolescence also suggest that offspring that have better quality

relationships with their fathers are advantaged in other ways (fathers are more highly education, more likely to pay child support, and less likely to have been incarcerated), that are likely to enhance offspring's well-being. Offspring's family background is also important for shaping future father-offspring relationships. Fathers that live with their children, and that are married to their child's mother when the child is born may feel more responsible for the welfare of their child, and more committed to the father role. An additional family structure characteristic that appears to influence father-offspring relationship quality is the presence of a stepfather during adolescence. Offspring are slightly closer to their nonresident fathers when they live with a stepfather. This finding is somewhat consistent with Aquilino's (2006) finding that mother's remarriage was associated with closer nonresident father-offspring relationships during young adulthood, although offspring that are close versus not close to their nonresident fathers during young adulthood do not differ in their probability of having a stepfather. The difference is only when offspring are adolescents. Adolescent offspring may turn to their biological fathers for support, when mothers remarry, especially if the change from a single-mother family to a stepfamily is a difficult transition for offspring.

By the time offspring reach young adulthood, there are fewer differences between offspring with and without a close relationship with their biological fathers. Levels of closeness no longer differ by race, household income, or mother's remarriage. Many offspring are living apart from their parents at this time, suggesting that household income and living with a stepfather no longer influence father-offspring closeness once offspring leave their mother's household. The age differences between offspring with low versus high levels of closeness are not as big once they reach young adulthood, and slightly older offspring are more likely to be close to their biological fathers, rather than younger offspring, which was the case during

adolescence. Older offspring may reconnect with their biological fathers once they leave their mother's household and assume more adult roles.

Offspring that are close to their fathers during young adulthood continue to differ from those that are not close in terms of gender, fathers' education, whether or not their parents were married when they were born, whether or not they ever lived with their father, the amount of time fathers have been out of the household, fathers' payment of child support, and whether or not the father ever served time in jail. The significant differences that remain between young adult offspring with not close versus close relationships with their nonresident fathers suggest that family structure characteristics and characteristics of the father continue to influence offspring's relationships with their fathers even during young adulthood. These findings also show that early family transitions and relations between fathers and children set the stage for relationship ties in later stages of the life course.

Regression analyses of the effects of nonresident father closeness on offspring well-show that father closeness is *not* associated with most of the measures of offspring well-being included in the study. Father closeness during adolescence was not associated with any of the dependent variables. Father closeness during young adulthood was only associated with higher self-esteem and lower depression. However, the association between father closeness and depression became nonsignificant after controlling for the mother-child relationship. Analyses of *changes* in offspring's well-being showed that positive changes in the father-offspring relationship are associated with increased self-esteem and reduced levels of depressive symptoms. Fathers that are able to improve their relationships with their children as they move from adolescence into the transition to adulthood can have a positive effect on offspring's increasing levels of well-being.

This was the case for 28% of the sample. Offspring also benefited from increases in the mother-offspring relationship.

These results suggest that close father-child relationships improve offspring's feelings of well-being and self-confidence, but do not protect them from behaviors such as criminal activity, violence, drug use, marijuana use, and problem drinking. Parents, especially nonresident fathers, may have more influence on offspring's personal feelings of well-being and self-concept than on offspring's actual behaviors during the transition to adulthood. Feeling that your father loves you and feeling close to your father is likely to increase offspring's feelings of self-worth and overall sense of well-being. The quality of the father-child relationship was also not related to any of our measures of educational attainment.

Closeness to mothers was also not related to many of the measures of offspring's well-being besides self-esteem and depressive symptoms, although they were stronger than the effects for fathers. These results are consistent with prior research that finds a stronger effect of mother's closeness and involvement on offspring's well-being compared to the effect of nonresident fathers.

The weak effects of father and mother closeness on offspring well-being suggest that the mechanisms that transmit resources from parents to their children when offspring are younger may not operate in the same way when offspring become young adults, and then move through adulthood. The lack of research on nonresident father involvement and young adult offspring well-being makes it difficult to conceptualize the mechanisms or processes that may be occurring at this stage of the life course. It may be that additional dimensions of father involvement not included in this study, such as more specific measures of monitoring and support during adolescence, measures of the coparenting relationship between mothers and fathers, or

unexplored measures of the father-offspring relationship that are unique to the period of young adulthood, are more effective in shaping young adult offspring's well-being. In the future, it will be necessary to identify the specific ways fathers get involved with their children as they get older, and the processes through which fathers can have a positive impact on offspring's well-being.

The negative influence of father closeness on certain aspects of well-being also suggest that there are events or experiences occurring during the transition to adulthood that may lower offspring's well-being, which may then draw fathers into their lives. These are topics that need to be considered in future research on nonresident father involvement and offspring well-being during the transition to adulthood.

Fathers' financial involvement was positively related to offspring's post high school education, going to college, and completing college. However, fathers' financial contributions during adolescence and young adulthood were also associated with drug use, marijuana use, and lower self-esteem. Although the process through which fathers' payment of child support decrease well-being is unclear, and requires further exploration, the positive relationship between fathers' financial contributions and offspring's educational attainment is consistent with the assertion that one way nonresident fathers can get involved with their young adult offspring is by helping them pay for school and expenses related to obtaining higher levels of education.

Given the distinct nature young adulthood as a stage of development, it is likely that the experiences and events that are unique to the transition to adulthood have a stronger impact on offspring's feelings of well-being during this time, than their past and current relationships with their fathers. This study would have benefited from an examination of offspring's characteristics during young adulthood such as whether or not they had moved out of their mother's house, their

relationships status, and whether or not they had children, and the role of these types of transitions on offspring's relationships with their parents, and their own well-being.

The finding that fathers may be more involved (financially or otherwise) with their young adult children when they have problems with drinking or lower self-esteem suggests that the characteristics of the child influence nonresident father involvement, rather than involvement influencing well-being. Until recently, the majority of research on father involvement and child well-being conceptualized offspring's well-being as a consequence of father involvement. There is, however, an increasing amount of research that focuses on child well-being as a predictor of father involvement. A child effects model views children as active agents in the shaping of their own environments, including parents attitudes, and parent-child relationships (Crockenberg & Leerkes, 2003; Kerr & Stattin, 2003). Research on resident father families shows evidence for the child effects model. For example, studies show that mothers report less confidence in their parenting skills and more symptoms of stress and depression when their infants express higher levels of negative emotions (Crockenberg and Leerkes, 2003). A recent study by Hawkins, Amato and King (2005) suggests that these findings also apply to non-resident father-adolescent relationships. The authors found that the association between father involvement and higher levels of offspring's well-being during adolescence was completely driven by child effects. These results suggest that fathers are more likely to get involved with their children if they are happier, and have fewer behavior problems. These offspring may be easier to get along with than more troubled offspring, or may be better at developing interpersonal relationships with peers and adults. In the future, models should be developed that estimate the reciprocal associations between nonresident father involvement and adolescent well-being.

Even though gaps in the literature on the relationship between nonresident father involvement and offspring well-being during young adulthood remain, findings from this study represent the first step toward understanding the long-term influence of nonresident fathers on offspring's well-being during the transition to adulthood. This study builds on previous research by examining the role of nonresident father involvement at two time points, by analyzing the unique contributions to offspring's well-being of fathers and mothers, and by focusing on multiple dimensions of offspring's well-being during the transition to adulthood. The effects of nonresident father-child relationship quality, father's financial contributions, and father involvement on offspring's educational attainment, depressive symptoms, self-esteem, criminal activity, violent behavior, and substance use are examined. Measures of mother involvement and mother-offspring relationship quality are also included in the models.

Results from the study shows that certain aspects of the nonresident father-child relationship are positively associated with higher levels of self-esteem among young adult offspring, even after accounting for the mother-child relationship. Fathers' financial contributions are a key source of support during offspring's transition to adulthood and contribute to offspring's greater educational attainment. The results also suggest that offspring benefit from improved relationships with their nonresident fathers as they move through the transition to adulthood. Offspring are best off when they have close relationships to both their mothers and fathers. Future research should build on the findings presented in this study and continue to explore the ways in which nonresident father involvement improves the lives of offspring across the life course.

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Table 1. *Summary of Dependent Variables from Wave 3: Descriptive Statistics.*

	M or proportion	SD	Range	α	Wave	N
Outcome Variables						
Received post-high school education/training	.33	.47	0 – 1	---	3	1844
Completed college	.10	.30	0 – 1	---	3	1844
High school dropout	.09	.29	0 – 1	---	3	2755
Went to college	.53	.50	0 – 1	---	3	2755
Criminal activity	.20	.40	0 – 1	---	3	2751
Violence	.13	.34	0 – 1	---	3	2757
Marijuana use	.27	.44	0 – 1	---	3	2712
Drug use	.15	.35	0 – 1	---	3	2729
Problem drinking	.28	.45	0 – 1	---	3	2706
Depressive symptoms	.52	.47	0 – 3	.81	3	2785
Self-esteem	4.17	.57	1 – 5	.79	3	2785

Note: All values are weighted.

Table 2. *Summary of Independent Variables from Wave 1 and Wave 3: Descriptive Statistics (weighted; N = 2785).*

	M or proportion	SD	Range	α	Wave
Father-child closeness					
Closeness during adolescence	3.11	1.41	1 – 5	---	1
Closeness during young adulthood	2.96	1.45	1 – 5	---	3
Fathers' financial involvement					
Receive financial contributions from father	.69	.46	0 – 1	---	3
Mother-child closeness					
Closeness during adolescence	4.59	.74	1 – 5	---	1
Closeness during young adulthood	4.40	.89	1 – 5	---	3
Control variables					
Adolescent age	15.32	1.72	11 – 18	---	1
Adolescent gender (1=Female)	.54	.50	0 – 1	---	1
White	.62	.49	0 – 1	---	1
Black	.24	.43	0 – 1	---	1
Hispanic	.10	.29	0 – 1	---	1
Other	.04	.21	0 – 1	---	1
Father's education	4.97	2.19	1 – 8	---	1
Mother's education	5.40	2.19	1 – 8	---	1
Household income (logged)	1.40	.36	0 – 2.88	---	1
Child support	.60	.49	0 – 1	---	1
Marital birth	.54	.50	0 – 1	---	1
Non-marital birth	.31	.46	0 – 1	---	1
Don't know if marital birth	.15	.36	0 – 1	---	1
Ever live with father (1 = Yes)	.81	.81	0 – 1	---	1

Table 2, continued.

Number of years since lived with father	8.97	5.27	0 – 18	---	1
Presence of a stepfather	.32	.47	0 – 1	---	1
Offspring not born in the United States	.03	.17	0 – 1	---	1
Dad ever in jail	.25	.43	0 – 1	---	3
Dad never in jail	.69	.46	0 – 1	---	3
Don't know if father ever in jail	.06	.24	0 – 1	---	3
Offspring's self-esteem during adolescence	4.04	.67	1 – 5	.80	1
Offspring's depressive symptoms during adolescence	.68	.50	0 – 3	.80	1

Table 3. *Distribution of control variables across low and high levels of father-adolescent closeness (in percentages or mean levels; weighted).*

	Not Close	Close	F
Age	15.5	15.1	41.7***
Female	60%	45%	58.4***
White	60%	64%	--
Black	25%	23%	--
Hispanic	10%	8%	--
Other	5%	4%	4.8*
Father's education	4.8	5.3	41.2***
Mother's education	5.3	5.5	1.8
Marital birth (versus non-marital birth)	55%	68%	40.1***
Ever live with father	77%	88%	50.0***
Number of years since lived with father	9.9	7.6	134.8***
Offspring not born in the US	5%	4%	.67
Presence of a stepfather	30%	35%	7.4**
Household income (logged)	1.38	1.41	5.0*
Child support	46%	72%	195.9***
Dad ever in jail (versus dad never served time)	31%	22%	22.7***

Note: N = 2785. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 4. *Distribution of control variables across low and high levels of father-young adult offspring closeness (in percentages or mean levels; weighted).*

	Not Close	Close	F
Age	15.3	15.4	5.6*
Female	58%	48%	29.1***
White	61%	64%	--
Black	25%	24%	--
Hispanic	10%	8%	--
Other	5%	4%	2.5
Father's education	4.8	5.2	24.4***
Mother's education	5.4	5.5	1.3
Marital birth (versus nonmarital birth)	58%	64%	9.1**
Ever live with father	78%	87%	36.6***
Number of years since lived with father	9.8	7.7	113.2***
Offspring not born in the US	5%	4%	.79
Presence of a stepfather	31%	33%	1.8
Household income	1.4	1.4	1.4
Child support	50%	68%	98.1***
Dad ever in jail (versus dad never served time)	32%	20%	44.1***

Note: N = 2785. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 5. *Summary Table for the Effects of Father and Mother Closeness and Involvement on Multiple Dimensions of Young Adult Offspring Well-being (Unstandardized Regression Coefficients, Weighted).*

		HS Dropout [a]	Post HS Education [a]	Went to College [a]	Completed College [a]	Criminal Activity [a]	Violence [a]
Model 1	Father closeness during adolescence	-.06	-.04	.03	-.05	-.03	-.02
Model 2	Father closeness during young adulthood	.07	-.07	-.02	.04	-.06	-.07
Model 3	Father closeness during adolescence	-.11	-.00	.04	-.11	.00	.02
	Father closeness during young adulthood	.12	-.07	-.04	.09	-.06	-.08
Model 4	Father closeness during adolescence	-.11	-.00	.05	-.11	.01	.02
	Father closeness during young adulthood	.12	-.07	-.04	.09	-.06	-.07
	Mother closeness during adolescence	-.02	-.06	-.06	.00	-.09	-.06
	Mother closeness during young adulthood	-.09	.01	.04	-.04	-.07	-.10
	(n)	2754	1844	2754	1844	2751	2757

Table 5, continued.

		Drug Use [a]	Marijuana Use [a]	Problem Drinking [a]	Self Esteem [b]	Depression [b]
Model 1	Father closeness during adolescence	.02	.08	.03	.02	-.01
Model 2	Father closeness during young adulthood	-.07	.06	-.01	.05***	-.02*
Model 3	Father closeness during adolescence	.08	.07	.04	-.01	.00
	Father closeness during young adulthood	-.11	.03	-.03	.06***	-.02*
Model 4	Father closeness during adolescence	.09	.08	.05	-.01	.01
	Father closeness during young adulthood	-.11	.03	-.03	.05***	-.02
	Mother closeness during adolescence	-.14	-.16*	-.08	.06**	-.05**
	Mother closeness during young adulthood	.00	-.04	.09	.11***	-.05**
	(n)	2729	2712	2706	2785	2785

Note: Each model includes controls for offspring age, gender, race, father's education, mother's education, household income, father's payment of child support, nonmarital birth, whether or not offspring ever lived with father, the number of years since offspring last lived with their father, mother's remarriage, whether or not offspring was born outside the US, and whether or not the father ever served time in jail.
[a] Logistic regression. [b] Ordinary least squares regression.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 6. *Summary Table for the Effects of Father and Mother Closeness on Multiple Dimensions of Young Adult Offspring Well-being, Final Model Showing all Variables (Unstandardized Regression Coefficients, Weighted).*

		HS Dropout [a]	Post HS Education [a]	Went to College [a]	Completed College [a]	Criminal Activity [a]	Violence [a]
Model 5	Father closeness during Adolescence	-.15	-.00	.03	-.11	.00	.02
	Father closeness during Young adulthood	.15	-.07	-.04	.09	-.06	-.07
	Mother closeness during Adolescence	.16	-.06	-.05	.00	-.09	-.06
	Mother closeness during Young adulthood	-.14	.01	.03	-.04	-.08	-.10
	Offspring age	-.14**	.41***	.05	.58***	-.09*	-.09
	Female [c]	-.71**	.50*	.47***	.74**	-.97***	-1.65***
	Black [d]	-.16	.14	.18	.01	-.02	.21
	Hispanic [d]	.13	.31	.10	-.50	.42	.11
	Other [d]	-.21	-.31	-.11	.13	-.08	.02
	Father's education	-.10	.13**	.15***	.25***	.10*	-.06
	Mother's education	-.31***	.20***	.21***	.15**	-.03	.04
	Household income	-.99***	.66*	.51**	2.00***	.06	-.25
	Child support	-.33	.07	.04	.47	.10	.28
	Non-marital birth [e]	-.12	-.05	-.17	-.10	-.09	.09
	Don't know marital birth	.06	-.22	-.19	-.48	.18	.25
	Ever live with father	.66	.16	.13	-.01	.23	.14
	Number of years since father left	.04	-.01	.01	-.02	.03	.01
	Presence of a stepfather	.23	-.19	-.20	-.49	-.22	-.11
	Offspring not U.S. born	.13	-.44	.44	.02	-.46	.08
	Father served time [f]	.17	-.39*	-.20	-.58	.14	.33
	Don't know if father served time [f]	-.22	-.36	-.22	.30	.34	-.93*
	(n)	2754	1844	2754	1844	2751	2757
	R2						

[a] Logistic regression. [b] Ordinary least squares regression. [c] Reference category = male. [d] Reference category = white.
[e] Reference category = marital birth. [f] Reference category = father never served time.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 6, continued

		Drug Use [a]	Marijuana Use [a]	Problem Drinking [a]	Self Esteem [b]	Depres-sion [b]
Model 5	Father closeness during Adolescence	.09	.08	.05	-.01	.01
	Father closeness during Young adulthood	-.11	.03	-.03	.05***	-.02
	Mother closeness during Adolescence	-.14	-.16*	-.08	.06**	-.05**
	Mother closeness during Young adulthood	.00	-.04	.09	.11***	-.05**
	Offspring age	-.05	-.04	-.11**	-.01	-.01
	Female [c]	-.65***	-.54***	-.67***	-.08**	.13***
	Black [d]	-1.38***	-.53**	-.73***	.06	.05
	Hispanic [d]	.36	-.19	-.01	-.02	.16**
	Other [d]	.08	-.09	.25	-.02	.09
	Father's education	.03	.06	.00	-.01	.00
	Mother's education	.05	.04	.02	.01	-.01*
	Household income	.20	.10	.36	.06	-.01
	Child support	.34*	.12	.13	-.03	-.03
	Non-marital birth [e]	.21	.23	-.06	-.01	-.01
	Don't know marital birth	.19	.24	.20	.00	-.01
	Ever live with father	.53	.44*	.17	.06	-.05
	Number of years since father left	.03	.05***	.02	.01*	-.00
	Presence of a stepfather	-.24	-.23	-.04	-.01	-.04
	Offspring not U.S. born	-.26	-.79*	-1.02*	.10	-.12*
	Father served time [f]	.12	.39*	.30*	.01	.02
	Don't know if father served time [f]	-.04	.05	-.36	-.03	-.02
	(n)	2729	2712	2706	2785	2785
	R2				.0812	.0757

[a] Logistic regression. [b] Ordinary least squares regression. [c] Reference category = male.
[d] Reference category = white. [e] Reference category = marital birth. [f] Reference category = father never served time.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 7. *Multivariate Results for the Effect of Father's Financial Contributions on Multiple Dimensions of Offspring Well-being (Unstandardized Regression Coefficients, Weighted).*

	Post High school education [a]				Went to College [a]				Completed College [a]			
	1	2	3	4	1	2	3	4	1	2	3	4
Father's payment of child support during adolescence	.03	---	-.00	-.05	.05	---	.01	.02	.43	---	.35	.45
Father's financial contributions during young adulthood	---	.21	.21	.37*	---	.32*	.31*	.41**	---	.68*	.64*	.75*
Father closeness during adolescence	---	---	---	-.01	---	---	---	.04	---	---	---	-.01
Father closeness during young adulthood	---	---	---	-.12	---	---	---	-.09	---	---	---	-.14
Mother closeness during adolescence	---	---	---	-.07	---	---	---	-.07	---	---	---	-.05
Mother closeness during young adulthood	---	---	---	.01	---	---	---	.04	---	---	---	-.03
Offspring age	.40***	.40***	.40***	.41***					.59***	.62***	.63***	.63***
Female [c]	.53***	.54***	.54***	.50**	.47***	.47***	.47***	.45***	.75*	.48*	.50*	.45*
Father's education	.13**	.13**	.13**	.14**	.15***	.15***	.15***	.15***	.25***	.22***	.20***	.21***
Mother's education	.20***	.20***	.20***	.20***	.20***	.20***	.20***	.20***	.15**	.18**	.18**	.18**
Household income	.66*	.66*	.66*	.64*	.52**	.52**	.52**	.51**	.85**	.81**	.84	.86**

Note: All controls included in each model. Only significant coefficients shown for controls.
[a] Logistic regression. [b] Ordinary least squares regression. [c] Reference category = male. [d] Reference category = father never served time.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 7, continued.

	Drug use [a]				Marijuana use [a]				Self-esteem [b]			
	1	2	3	4	1	2	3	4	1	2	3	4
Father's payment of child support during adolescence	.32*	---	.32	.33*	.20	---	.15	.11	.00	---	.00	-.02
Father's financial contributions during young adulthood	---	.10	.05	.16	---	.34**	.35**	.33*	---	-.01	-.01	-.10*
Father closeness during adolescence	---	---	---	.08	---	---	---	.07	---	---	---	-.01
Father closeness during young adulthood	---	---	---	-.13	---	---	---	-.02	---	---	---	.06***
Mother closeness during adolescence	---	---	---	-.14	---	---	---	-.16*	---	---	---	.06**
Mother closeness during young adulthood	---	---	---	.00	---	---	---	-.04	---	---	---	.11***
Female [c]	-.62***	-.62***	-.62***	-.65***	-.54***	-.54***	-.54***	-.54***	-.11**	-.11**	-.11**	-.08*
Black [d]	-1.37***	-1.41***	-1.38***	-1.38***	-.52**	-.57***	-.55***	-.55***	.09*	.09*	.09*	
Hispanic [d]	.38	.35	.38	.36	-.18	-.21	-.19	-.20	-.03	-.03	-.03	
Other [d]	.10	.06	.09	.06	-.09	-.14	-.12	-.13	-.03	-.03	-.03	
Mother's education										.02*	.02*	.02*
Non-marital birth e	.19*											
Don't know marital birth	.16											
Ever live with father					.44*	.44*	.44*	.44*				
Number of years since father left					.05**	.05***	.05***	.05***				
Offspring not U.S. born					-.80*	-.79*	-.79*	-.78*				
Father served time [f]					.39*	.39*	.42*	.40*				
Don't know if father served time [f]					-.00	.05	.07	.07				

Note: All controls included in each model. Only significant coefficients shown for controls.

[a] Logistic regression. [b] Ordinary least squares regression. [c] Reference category = male. [d] Reference category = white. [e] Reference category = marital birth. [f] Reference category = father never served time.

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 8. *Summary of changes in father-offspring closeness, mother-offspring closeness, offspring's self-esteem and offspring's depressive symptoms (percentages; weighted).*

Amount of Change	Father-offspring closeness	Mother-offspring closeness	Offspring self-esteem	Offspring depressive symptoms
Decrease	35%	26%	33%	57%
No Change	37%	58%	18%	11%
Increase	28%	16%	49%	32%

Note: N = 2785.

Table 9. *The Effect of Changes in Father and Mother-offspring Closeness on Changes in Offspring's Self-esteem and Depressive Symptoms in the Time Interval between Adolescence and Young Adulthood (Unstandardized Ordinary Least Squares Regression Coefficients; Weighted).*

	Change in Self-esteem ($Y_{\text{Young Adulthood}} - Y_{\text{Adolescence}}$)			Change in Depressive Symptoms ($Y_{\text{Young Adulthood}} - Y_{\text{Adolescence}}$)		
	1	2	3	4	5	6
Change in Father-offspring Closeness	.03*	.02	.02	-.04***	-.03**	-.03*
Change in Mother-offspring closeness		.12***	.12***		-.07***	-.07***
Offspring age			.00			-.03
Female [a]			.08*			-.00
Black [b]			-.07			.00
Hispanic [b]			.06			.05
Other [b]			.06			-.10
Father's education			.00			.01
Mother's education			-.00			.01
Household income			.09			-.06
Child support			-.08			-.01
Non-marital birth [c]			-.07			-.02
Don't know marital birth [c]			-.02			.02
Ever live with father			-.01			-.01
Number of years since father left			-.00			.00
Presence of a stepfather			.01			-.03
Offspring not U.S. born			.18			-.07
Father served time [d]			.04			.06
Don't know if father served time [d]			-.02			.08

[a] Reference category = male. [b] Reference category = white. [c] Reference category = marital birth. [d] Reference category = father never served time in jail. *$p < .05$. **$p < .01$. ***$p < .001$.