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Does Time with Dad in Childhood Pay Off in Adolescence?

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Abstract

Objective: We aim to understand the association between father involvement in middle childhood and adolescent behaviors and whether the relationship differs by father residence.

Background: Internalizing and externalizing behaviors in adolescence can trigger a cascade of negative outcomes later in life, including lower educational attainment, criminal justice involvement, and future psychological distress. Evidence, largely focusing on nonresidential fathers and older cohort, suggests that father involvement—particularly closeness and engagement—may reduce adolescents' internalizing and externalizing behaviors.

Method: We use data six waves of the Fragile Families and Child Wellbeing Study, a birth cohort survey representative of births in large U.S. cities between 1998 and 2000, to estimate OLS regression models examining (a) whether father involvement in middle childhood is associated with fewer problem behaviors at Age 15, (b) if the salience of father involvement differs depending on whether the father was present in the home (i.e., was married to or living with his child's mother) in middle childhood, and (c) whether father involvement matters differently based on the child's sex.

Results: We find protective associations between father involvement and adolescent behavioural outcomes that persist even among children who were not living with their fathers. In models stratified by the child's sex, father involvement matters for both boys and girls. In all models, father presence alone, apart from active involvement, is not significantly associated with behavioral outcomes.

Conclusion: Father involvement protects against negative adolescent behaviors even among children with nonresidential fathers and for both boys and girls.

Implications: These results suggest that policies that promote greater father involvement and father-child bonds, rather than other options such as promoting marriage, may be more effective in reducing behavioral problems among adolescents.

Keywords

adolescence; child well-being; fathers; fragile families; parenting

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Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

In the United States, the latter half of the 20th century was marked by significant changes in family structure. From 1940 to 1999, the percentage of all births to unmarried women increased from 3.8 to 33.0% (Ventura & Bachrach, 2000). However, the fact that births were nonmarital did not necessarily mean that the parents were unpartnered. Over time, more of these births were to cohabiting parents, especially as the 20th century came to a close (Cherlin, 2004). The rise in cohabitation was coupled with the declining prevalence of marriage (Ruggles, 2015). Researchers have also documented other changes in the American family, such as the increasing importance of parenthood to men's identities. Today's fathers may have greater impact on their children's lives than in previous decades due to the increasing salience of the parenting role in their lives (Edin & Nelson, 2014; Waller, 2002) and the increase in time spent parenting (Bianchi, 2011).

Family structure dynamism has been accompanied by rising concern over the effect of these changes on maternal and child well-being (Furstenberg, Brooks-Gunn, & Morgan, 1987; Garfinkel & McLanahan, 1986; McLanahan & Sandefur, 1997). During the mid- to late-1990s, two distinct policy strategies were implemented; both were underpinned by the notion that fathers should be involved in their children's lives. The first promoted marriage among unmarried parents and the second focused on improving the federal government's system of collecting child support on behalf of children of unmarried parents. Marriage-promotion policies such as the George W. Bush administration's Building Strong Families and Supporting Healthy Marriage demonstrations were predicated on prior research indicating that children raised in stable, two-parent families had better outcomes than children who were not (Garfinkel & McLanahan, 1986; McLanahan & Sandefur, 1997). Meanwhile, to ensure that fathers who lived apart from their children would contribute their fair share to their children's support, the federal government made significant investments in new child support enforcement tools and implemented increased sanctions for noncompliance.

It is well established that race and class disparities are woven into many of our nation's policies (e.g., Katznelson, 2005). The child support system is no exception. For children whose parents divorce, courts adjudicate custody and visitation when a child support order is set. These parents are more often white and middle class. In most jurisdictions, shared custody has become increasingly common and is granted in a majority of cases (e.g., Meyer, Cancian, & Cook, 2017). For parents who part outside of marriage, fathers are rarely granted visitation when child support orders are set, and shared custody remains uncommon. This group is more often associated with racial/ethnic and economic disadvantage (Insabella, Williams, & Pruett, 2003; Waller & Dwyer Emory, 2014). Thus, these policies often treat less advantaged fathers as mere paychecks, and undervalue their role as involved parents (Edin, Nelson, Butler, & Francis, 2019).

Implicit in this disjuncture is the assumption that more advantaged fathers matter more for children's well-being than less advantaged fathers, a conclusion that has received empirical support from the research on middle-childhood outcomes (M. J. Carlson & Magnuson, 2011; McLanahan, Tach, & Schneider, 2013; Nelson, 2004). Yet a recent examination of the large geographic difference in disadvantaged children's chances of moving from the bottom to the top fifth of the income distribution by young adulthood, as documented by Chetty,

Hendren, Jones, and Porter (2018), shows that a key correlate of intergenerational mobility is the presence of fathers in the community, measured by the proportion of males who claim children as dependents for tax purposes. Both this research and a rich body of literature on the relationship between father involvement and adolescent outcomes (e.g., Ali & Dean Jr., 2015; M. J. Carlson, 2006; Hofferth & Pinzon, 2011; Menning, 2006; Mitchell, Booth, & King, 2009; Stewart, 2003; Stewart & Menning, 2009) suggest that even among youth from disadvantaged backgrounds, father involvement earlier in life may play a particularly salient role as these young people move through adolescence and into adulthood. In this critical life stage, youth are much more vulnerable to the influences of peers and neighborhood contexts than in middle childhood (Leventhal & Brooks-Gunn, 2000; Sharkey & Faber, 2014). If father involvement can stave off problem behaviors among children in adolescence, it might promote more successful transitions to adulthood and greater social mobility.

We deploy the only contemporary data from a birth cohort study of children who have now reached adolescence to explore whether father presence and involvement in middle childhood are associated with teens' behavioral outcomes in middle adolescence. Importantly, this study oversampled births to unmarried parents, giving us a larger sample with which to examine the role of both residential and nonresidential fathers. We examine the association between several measures of father involvement at Ages 5 and 9 (based on mothers' and youth's reports) and perceived emotional closeness at Age 9 (based on youth's reports), and internalizing and externalizing behavior at Age 15 (from mothers' reports). We control for a rich array of covariates collected at earlier survey waves. We find evidence that father involvement in middle childhood is associated with significantly fewer problem behaviors in adolescence. These associations largely persist even among children with nonresidential fathers. Various measures of father involvement are significantly associated with reduced problem behaviors among both girls and boys. Effect sizes are quite large, suggesting that adolescence may be a period in the life course where the payoffs of fathers' prior investments of time may be significant.

Father Involvement and Youth Outcomes: Context

In response to the dramatic demographic changes in the decades leading up to the 1970s, the federal government implemented the Child Support Enforcement (CSE) program in 1975. In subsequent years, CSE implemented new methods to track noncustodial fathers and enforce child support payments, mandating automatic wage withholding, and implementing new sanctions such as suspending driver's and professional licenses, seizing assets, and intercepting tax returns (Legler, 1996). Scholars responded to these changes by trying to assess the impact of nonresidential fathers' financial contributions and the significance of time spent with children and the quality of the father-child bond (Amato & Gilbreth, 1999). However, these early studies typically drew on limited data that often omitted less advantaged populations (Reichman, Teitler, Garfinkel, & McLanahan, 2001).

Results from studies using these data showed mixed results at best (Harris, Furstenberg, & Marmer, 1998), leading scholars to conclude that fathers might not matter, or matter much, for their children's well-being. The Fragile Families and Child Wellbeing Study (FFCWS), utilized in the present article, was designed to address limitations of existing

data. By oversampling births to unmarried parents, the FFWCS captured a larger sample of low-income and minority fathers and the sample size and longitudinal design allow for robust data analysis (Reichman et al., 2001).

We focus our literature review on studies that use representative samples and specify relevant details about the measures and methods employed. In addition, we limit our review to studies of adolescent outcomes, though in the case of research utilizing FFWCS data, we do include studies of earlier outcomes for our adolescent sample, which were captured in prior waves of the study.

Father Involvement and Youth Outcomes: Background

Relationship between Father Involvement and Adolescent Behaviors

Scholars have long recognized that fathers can make a vital contribution to their children's health, development, and well-being (Bornstein, 2006; Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Maccoby, 2000; Maccoby & Martin, 1983). Fathers contribute to their children's well-being in two key ways: engagement (time, both quantity and quality) and economic resources (M. J. Carlson, 2006; M. J. Carlson, McLanahan, & Brooks-Gunn, 2008; Thomson, Hanson, & McLanahan, 1994). When thinking about engagement, we draw on Lamb, Pleck, Charnov, and Levine (1987) to consider both interaction (when a father has direct contact with the child) and availability (the possibility of interaction by way of father presence). Fathers who reside in the same home as the child likely have more availability than nonresidential fathers but both residential and nonresidential fathers can be available to their children and have quality interactions with them. Interaction is also linked to economic provision: Economic resources provided through in-kind and informal support are more closely linked to father involvement than is formal child support (Waller, Emory, & Paul, 2018).

Time spent with children can increase emotional closeness which may, in turn, create the trust necessary for children and youth to discuss their concerns (e.g., bullying or trouble in school) rather than acting out because of them. Even without such discussions, an involved father is more likely to notice a shift in the child's behavior and address it. Similarly, paternal monitoring of children's behavior can also be a valuable contribution. What parents do when they spend time with their children also matters. Parents who engage in activities with their children arguably benefit them more than parents who are merely present (e.g., Amato & Gilbreth, 1999).

Economic resources enable parents to invest in the material goods and services that facilitate positive child development (Berger, Paxson, & Waldfogel, 2009). Economic resources and parenting are also linked: More economic resources are associated with higher-quality parenting, perhaps because they reduce parents' psychological distress and thus decrease harsh parenting (Kopystynska, Paschall, Barnett, & Curran, 2017; Leinonen, Solantaus, & Punamäki, 2003; McLoyd, 1998). Financial stress may be particularly salient to parents in the contemporary economy, where the real value of wages has decreased (e.g., Desilver, 2018), the cash safety net for single mothers without other sources of income has weakened

considerably (Edin & Shaefer, 2015), and an increasing proportion of households are rent burdened (e.g., Desmond, 2018).

We posit that the timing of father involvement in children's lives also matters. While most research on father involvement focuses on investments of resources and time in early childhood, fathers' contributions in middle childhood and adolescence may be equally, if not more, important. At this developmental stage, children's worlds expand as they navigate new, external, influences, such as teachers and peers and neighborhood environments. There are some indications that nonresidential fathers may increase involvement with their children during adolescence (Furstenberg & Harris, 1993) and children and their fathers may draw closer when the child is experiencing emotional distress or engaging in more delinquent behaviors (Stewart, 2003). Additionally, during middle childhood, children may be more aware of their fathers' involvement than during early childhood and form bonds around shared activities. Because of their growing independence, they may also be able to initiate engagement with their fathers. Data from a contemporary sample—the FFCWS—provides an important window into a cohort for whom cellphones are more normative, providing avenues for father–child contact.

It is also possible that fathers' investments of money and time may matter in different ways (or for different outcomes) depending on whether they are resident or nonresident. Research has shown that resident fathers spend more time and contribute more financially than nonresident fathers (Amato & Gilbreth, 1999; M. J. Carlson & Berger, 2013). Thus, based on Lamb et al. (1987)'s theory of availability, resident fathers' involvement may matter more for adolescent outcomes. However, we expect interactions (Lamb et al., 1987) to matter for children regardless of their fathers' residence.

Last, the role of father involvement may differ depending on the child's sex. Boys and girls typically engage in different types of problem behaviors; girls are more likely to exhibit internalizing behaviors while externalizing behaviors are more common among boys (e.g., Eschenbeck, Kohlmann, & Lohaus, 2007; Zahn-Waxler, Shirtcliff, & Marceau, 2008). There are theoretical models that posit that parents might parent boys and girls differently due to biological and environmental factors (e.g., Wood & Eagly, 2002; Zahn-Waxler et al., 2008) though evidence from a recent meta-analysis provides evidence that these proposed differentials in parental control may not exist (Endendijk, Groeneveld, Bakermans-Kranenburg, & Mesman, 2016). However, because the behaviors children exhibit vary by sex, we think father involvement may matter differently associations for boys and girls; substantively, because of difference in prevalence of behaviors by the child's sex, larger associations between father involvement and externalizing behaviors may be particularly salient for boys and the association between involvement and internalizing behaviors may matter more for girls.

Existing Literature

Existing literature finds that father involvement, particularly father–child engagement and closeness, is associated with better adolescent behaviors (Adamsons & Johnson, 2013; Amato & Gilbreth, 1999; Marsiglio, Amato, Day, & Lamb, 2000; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008). Some of this research suggests a positive effect of

cohabitation (Sarkadi et al., 2008) while others highlight differences and similarities in the role of father involvement between residential and nonresidential fathers (e.g., M. J. Carlson, 2006; Chang, Halpern, & Kaufman, 2007; Hawkins, Amato, & King, 2007; Marsiglio et al., 2000), though these differences may be, in part, because cohabitation makes it easier for fathers to be involved. There may also be differences in the importance of father involvement by the sex of the child (e.g., Mitchell et al., 2009; Sarkadi et al., 2008).

A meta-analysis by Amato and Gilbreth (1999) of 63 studies of nonresidential fathers finds that father–child closeness and authoritative parenting are significantly associated with lower internalizing and externalizing behaviors but effect sizes are small; similarly, contact with fathers has a significant but weak association with internalizing behaviors. This meta-analysis did not find child’s sex to moderate the relationships between father involvement and child behaviors. An updated meta-analysis conducted by Adamsons and Johnson (2013) has similar results: Nonresidential father involvement has a small but significant association with child behaviors. In both meta-analyses, it is father involvement, not the amount of contact, that is significantly associated with children’s behaviors, though the effect sizes are small.

Some of the individual studies highlight the importance of close father–child relationships for behavioral outcomes drawing on data from the National Longitudinal Study of Adolescent to Adult Health (Add Health), which enrolled children beginning in Grade 7 between 1994 and 1995 and followed them throughout high school and into adulthood. Stewart (2003) shows that younger adolescents’ perceived emotional closeness to their fathers was associated with lower levels of emotional distress. This closeness, however, did not moderate the effect of father involvement, suggesting that it is somewhat independent of the frequency or quality of time spent. Similarly, Mitchell et al. (2009) found that feelings of closeness to one’s father significantly lowered internalizing behaviors among girls and externalizing behaviors among boys, though the effect sizes were modest. Additionally, this analysis found that shared activities significantly reduced externalizing behaviors among daughters. Other research using Add Health also finds associations between nonresidential fathers’ involvement and reduced adolescent smoking (Ali & Dean Jr., 2015; Menning, 2006).

While the aforementioned evidence points to positive impacts of father involvement, the question of whether father involvement differs by fathers’ residential status is highlighted by a paper that finds nonresidential fathers’ active fathering is associated with positive child well-being when measured contemporaneously but not when fathering is measured a year or two prior to well-being (Hawkins et al., 2007). The authors also found that fathers were more likely to be involved with well-behaved children (see Hofferth & Pinzon, 2011). Another study also brings to light potential differences in the impact of father involvement by father’s residence. Using data from the 1996 and 2000 waves of the 1979 National Longitudinal Survey of Youth (NLSY), M. J. Carlson (2006) found both direct and indirect pathways between father presence and child behaviors at Ages 10–14. Father presence reduced both the size and significance of nearly all the effects of family structure on youth behavior and had direct effects on internalizing and externalizing behaviors. Residential father involvement was more beneficial than involvement of nonresidential fathers. Still, the

idea that father involvement matters differently by fathers' residential status is inconclusive. Research by M. J. Carlson (2006) and Chang et al. (2007) also find that among both groups, father engagement and child–father closeness are associated with reduced internalizing and externalizing behaviors in adolescence.

While there has been research examining differences by the child's sex in the relationship between father involvement and younger children's behaviors and adolescent delinquent behavior (see Sarkadi et al., 2008), less is known about these differences for adolescent internalizing and externalizing behaviors. In an examination of children with nonresidential fathers, boys were more likely to feel closer to their fathers than were girls and this closeness was significantly associated with reductions in girls' (but not boys') internalizing behaviors (Mitchell et al., 2009). Despite this difference, this study also finds benefits of father involvement for externalizing behaviors for boys and girls—feeling close was significant for boys and shared activities were particularly important for girls (Mitchell et al., 2009). A meta-analysis of research from the 20th century does not indicate that the child's sex is a significant moderator of the relationship between father involvement and internalizing and externalizing behaviors (Amato & Gilbreth, 1999). Overall, this literature suggests that there may be differences in the role of father involvement overall for boys' and girls' behaviors and that the types of father involvement associated with each behavior may differ by the child's sex.

Studies using the FFCWS have the advantage of drawing on multiple waves of data collection beginning at birth and, because the data are from a sample born at the turn of the 21st century, provide a window into a contemporary birth cohort. While the FFCWS has been used to analyze the role of fathers' financial contributions to their children's well-being in early and middle childhood (e.g., Nepomnyaschy, 2007; Nepomnyaschy & Garfinkel, 2007, 2011; Nepomnyaschy, Magnuson, & Berger, 2012), there is less research on fathers' investments of time. One study finds that fathers' engagement during the prenatal period is associated with a reduced likelihood of having a low birthweight child (Lee, Sanchez, Grogan-Kaylor, Lee, & Albuja, 2018). Another study, using data at Ages 1, 3, and 5 finds that father involvement is associated with reduced problematic behaviors in early childhood (Choi, Kim, & Kunz, 2018). An analysis limited to children born to unmarried African American mothers finds that frequent, high-quality contact between a father and child at Age 1 is associated with improved child behaviors at Age 3 (Choi & Jackson, 2011). Other research finds that regardless of the father's marital/residential status, cooperative parenting in early childhood (Ages 1, 3, and 5) is associated with reduced risk of injury during the preschool years (Nepomnyaschy & Donnelly, 2015). Because the Year 15 FFCWS data were only recently released (in 2018), our study is among the first to examine father involvement and adolescent outcomes for a contemporary group of adolescents [another manuscript, under review at the time of writing, explores whether father involvement reduces socioeconomic gaps in youth behavioral outcomes (Nepomnyaschy, Miller, Waller, & Dwyer Emory, 2018)].

Three aspects of the existing literature bear mention. First, prior studies drawing on representative samples generally yield positive results, but the effect sizes are typically modest. Second, nearly all the extant research that considers adolescent outcomes draws on

data collected from youth who reached adolescence in the mid- to late-1990s, more than two decades ago. There is evidence that the salience of parenting in men's identities (Edin & Nelson, 2014) and in fathering activities (Bianchi, 2011) has grown. For example, fathers spent 2.5hr a week doing childcare from the mid-1960s through the mid-1980s but 7.3hr in 2011 (Pew Research Center, 2013). Third, much of the research on the impact of father involvement on adolescent well-being has been limited to nonresident fathers. While one might presume that the quantity of involvement is higher among resident fathers on average, there is still likely to be considerable variation in time spent, the quality of interactions, and the closeness of the emotional bond. Research that includes both resident and nonresident fathers is particularly important for policy, as this is the only way to parse out whether it is coresidence (as assumed by those who advocate marriage promotion) or involvement that matters most.

Contributions of the Current Study

In the current study, we deploy the FFCWS, a unique data set that follows children from birth to Age 15 and asks mothers, fathers, and (at Ages 9 and 15) children a rich battery of questions about father involvement. We use these data to examine the degree to which paternal presence and involvement in middle childhood (reported by both mothers and youth) are associated with externalizing and internalizing behaviors in adolescence. We find strong evidence that spending time and engaging with, and emotional closeness to, one's father are associated with significantly lower prevalence of these behaviors. Importantly, we examine whether the importance of father involvement persists among youth with nonresidential fathers and find that when youth spend time with, or feel close to their nonresidential fathers, they have fewer problematic behaviors. We also examine differences in the role of father involvement for adolescent behaviors by the child's sex and find that father engagement matters for both boys' and girls' behaviors while consistent time spent is particularly salient for boys. Furthermore, we find children do not benefit in these domains merely from coresidence.

Data and Sample

This study uses six waves of data from the FFCWS (<https://www.fragilefamilies.princeton.edu>). The FFCWS follows a birth cohort of about 5,000 youth born in 20 large U.S. cities between 1998 and 2000. The study oversamples youth born to unmarried parents by a 3 to 1 ratio and, when weighted, is representative of births to married and unmarried parents in large cities at the study's baseline. Mothers and fathers were interviewed at baseline and when the child was at Ages 1, 3, 5, and 9. The youth's primary caregiver (most often the mother) was interviewed when the youth was Age 15 and the youth was interviewed at Ages 9 and 15. Response rates from the mothers' and primary caregiver survey (at Age 15) were 89% (Age 1), 86% (Age 3), 85% (Age 5), 77% (Age 9), and 73% (Age 15). This data set is well-suited for the current study because (a) the FFCWS provides unique data about father involvement, our primary independent variable of interest; (b) it allows for the examination of household, family, and behavioral characteristics of adolescents and their families across childhood; and (c) there are multiple reporters of father involvement.

The FFCWS included 4,898 focal children at baseline. For this study, the sample was first limited to youth whose mother was their primary caregiver at Age 15 ($n = 3,146$). We eliminated cases without youth interviews at Age 15 ($n = 127$). Because we are interested in father involvement, we dropped observations where the father is either unknown or dead at Age 15 ($n = 53$). We dropped youth who lived apart from their mothers for one or more survey waves ($n = 160$) to limit unobserved confounders that may have led to them to not living with their mother. This left us with a sample of 2,806.

Next, we imputed all remaining missing data on the predictors and dependent variables using chained multiple imputation models to create 20 datasets (Azur, Stuart, Frangakis, & Leaf, 2011). Variables with the largest amount of missing data are Age 3 measures gathered from in-home visits [the youth's score on the Peabody Picture Vocabulary Test ($n = 1,134$) and Child Behavior Checklist items ($n = 614$)]. We then limited our analytic sample to cases that were nonmissing on the dependent variables (two cases were dropped leaving a total sample of 2,804).

Measures

Age 15 Youth Outcome Variables

Internalizing behaviors.—Internalizing behaviors are measured using all variables from the mother's report of the adolescent's behaviors in the anxious/depressed (six items) and withdrawn (two items) subscales of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). These variables include youth cries a lot, feels too guilty, is too fearful or anxious, and is unhappy, sad, or depressed. Answer choices range from 1 (not true) to 3 (often true). Items were averaged and standardized to the analytic sample.

Externalizing behaviors.—Externalizing behaviors are measured using the mother's reports of the youth's behaviors from the aggressive (11 items) and rule-breaking (9 items) subscales of the CBCL (Achenbach & Rescorla, 2001). These items include that the youth is disobedient at school, threatens people, lies or cheats, talks too much, sets fires, and vandalizes. Answer choices range from 1 (not true) to 3 (often true). Items were averaged and standardized to the analytic sample.

Father Involvement.—Our primary independent variables of interest are measures of father involvement in middle childhood (measured at Ages 5 and 9) and range from indicators of coresidence to youth-reported father closeness and draw on reports of involvement from both the mother and youth.

Parents lived together.—This variable is reported by the mother and is coded categorically as mother and father did not live together (at either middle childhood wave), lived together at one wave, and lived together at two waves. Parents were coded as living together at a given wave if they lived together most or all of the time and as not living together if they lived together for none or some of the time. These categories align with research that suggests that part-time cohabiting couples are more similar to dating couples than married couples (Knab, 2005).

Contact with father.—This is a categorical indicator of how frequently the father spends time with the youth and is created from an item asked of the mother at Ages 5 and 9—how often the father spent at least an hour with the youth in the past month. The original variables are coded as never, 1–2 times a month, a few times a month, a few times a week, and daily. The composite measure, combining the variables from Ages 5 and 9, is coded as: The father spent no time with the youth at both waves; the father spent no time with the youth at one wave and some at the other; the father spent some time with the youth at both waves; and the father spent time with the youth daily at both waves. No hour spent at both waves is used as the reference category in analyses.

Extremely close to biological father.—We utilize youth reports of closeness to their fathers at Age 9. This item asks how close the adolescent feels to his or her biological father (not very close, fairly close, quite close, and extremely close) and is asked if the youth had seen his or her father in the past year. We code this variable categorically: extremely close, not extremely close, and not asked because youth had not seen their father.

Youth-reported father engagement.—At Age 9, youth who had seen their biological father in the last year were asked how frequently (never, sometimes, often, and always) they had engaged in activities with their father including, your dad: talks over important decisions with you, listens to your side of an argument, spends enough time with you, and misses events or activities (reverse-coded). Youth who had not seen their biological father in the last year are coded to 0 (never) on each item. Because this is an imperfect solution, we also run sensitivity analyses among youth who were not skipped out of this item. For ease of interpretation, we created a scale by averaging and then standardizing all four items.

Mother-reported father engagement.—At Ages 5 and 9, mothers were asked how frequently fathers (who had seen the focal child in the last year) engaged in developmentally appropriate activities. At Age 5, these activities included singing songs, reading or telling stories, playing with toys (inside or outside), taking the child on an outing, and watching a video or television together. At Age 9, these items included doing chores together, playing outside, watching television or a video, reading or talking about books, playing video games, doing inside activities, talking about current events or the child's day, making sure homework is done, and helping with homework. Answer choices are coded to not once in the past month, 1–2 times in the past month, at least once a week, several times a week, and every day. Following the skip pattern in the questionnaire, if the child did not see his or her father more than once in the month prior to the Age 5 survey or did not see his or her father in the year prior to the Age 9 survey, they were coded to “not once in the past month” at the respective wave. We created a scale by averaging the scores at Ages 5 and 9 and then standardizing to more easily interpret the results.

Measuring involvement by residential status.—We next examine father involvement among nonresidential fathers. Because very few nonresidential fathers spend time with the focal child daily (see Online Supplement A for cell sizes), we code the spending time variable as no hour at both waves, no hour at one wave and some hour at the other, and at

least some hour at both waves (collapsing at least some hour at both waves and daily hour). We utilize no hour at both waves as the reference group.

Covariates

We control for a rich set of covariates across the baseline, Age 3, and Age 15 interviews that may inform the relationship between father involvement and adolescent behaviors. These covariates are measured at the youth's birth and reported in the mother's interview. We include demographic variables: the parents' relationship status at the youth's birth (married, cohabiting, or other), the mother's educational attainment (less than high school, high school, and at least some college), age, race (white non-Hispanic, black non-Hispanic, Hispanic, and other), and whether the focal child is the mother's first-born. We also include indicators of hardship and household characteristics that may impact family resources: whether the mother received assistance from either the Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF), household income, and number of adults and children in the household. Models also include maternal health: whether the mother had an alcohol or drug problem, whether she was in excellent health, and whether she met depression criteria (measured for the first time in the survey at Age 1 using the World Health Organization's Composite International Diagnostic Interview). We include several child-level indicators: the youth's sex, and whether the youth had a low birthweight. We also control for several father characteristics: age at the time of the child's birth, whether he had a higher educational attainment than the mother, if he was the same race as the child's mother, and whether he reported an alcohol or drug problem.

At Age 3, we include several factors that may impact mothers' gatekeeping toward the father: whether the father had ever been incarcerated, the mother's report of the father's cooperative parenting, whether the mother was repartnered (living with a new partner), and whether the father had a biological child with a partner other than the focal child's biological mother by Age 3. Because there may be bidirectionality in the relationship between father involvement and child behaviors (possible pathways discussed in Coley & Medeiros, 2007), the inclusion of the youth's behaviors at Age 3 [standardized CBCL scores and the youth's Peabody Picture Vocabulary Test (PPVT) score], prior to measuring father involvement, is particularly important.

Last, we include the adolescent's age, in months, at the time of the Age 15 interview.

Analytic Strategy

We first present descriptive statistics of the father involvement variables, behavioral outcomes, and covariates used in our analyses. Next, we aim to understand whether father involvement is associated with adolescent behaviors, regardless of the father's residential status. To do so, we estimate a series of ordinary least squares regression models (with robust standard errors to address clustering) on the imputed data examining the associations between each measure of father involvement in middle childhood (Ages 5 and 9) and each behavioral outcome (measured at Age 15) for the full sample controlling for all covariates discussed in the measures section. Next, we examine whether the relationships between father involvement and behaviors persist among children with nonresidential fathers by

limiting the sample to youth who did not live with their fathers at either Age 5 or 9. Then, we explore whether the association between father involvement and adolescent behavior differs by the sex of the child. Finally, we estimate sensitivity analyses. We do not weigh the data; because we excluded cases from the analytic sample based on by factors not adjusted for when creating weights, the weights will likely no longer adjust the sample back to the population of interest. We do include, as covariates, the baseline variables used to create weights—mother's marital status, education level, race/ethnicity, and age (see B. L. Carlson, 2008).

Results

Descriptive Results

As shown in Table 1, about half the sample did not live with both biological parents at either Ages 5 or 9. About a fifth did not spend an hour with their biological father at both Ages 5 and 9 while about 30% fell into each category of spending time with their father at both waves (either some time or daily). Just under half of the youth reported feeling extremely close to their biological fathers. There are large differences in father involvement when comparing youth who did not live with their biological father at either middle childhood wave to those who lived with their father at both waves. Youth who lived with their fathers more regularly spent time with them, were more likely to report being close), and engaged in more activities with them (reported by both the youth and mother). For the full sample youth had average internalizing behavior scores of 0.26 and externalizing scores of 0.23 (range of 0 to 2).

In the full sample, about a quarter of the parents were married at baseline and just over a third were cohabiting. Less than 10% of mothers had repartnered but about two-fifths of fathers had a child with someone other than the focal child's mother. Over 40% of fathers had been incarcerated.

Youth who lived with both biological parents at Ages 5 and 9 also differed from those who did not live with both parents at those waves. Youth who lived with their mothers (but not their fathers) had slightly higher internalizing and externalizing behavior scores. Youth with nonresidential fathers faced more disadvantage: They were more likely to have had a low birth weight, to have a less educated, younger mother, have a mother who experienced depression, have a lower household income, and have a father with drug or alcohol problems, who had been incarcerated, and who had children with other partners. They were also more likely to have an African American mother or a mother of "other" race. Children with residential fathers were more likely to have mothers who were immigrants or were Hispanic.

Additional descriptive analyses indicate that of the biological parents who were not living together at Age 5, about 8% are at Age 9. Of the parents who were living together at Age 5, 81% were still living together at Age 9 and 19% were not. By Age 15, about a quarter of the parents who were living together at Age 9 were no longer living together; only 3% of parents who were not living together at Age 9 were living together at Age 15.

Multivariate Results

Internalizing behaviors.—Results from models examining the association between father involvement and internalizing behavior scale scores are presented in Table 2. Compared to those who did not spend time with their biological father at either middle childhood wave, youth who spent some time with their father at both waves had internalizing behavior scores that are 0.14 SD ($p < .05$) lower. Youth who spent time with their fathers daily at both waves had 0.18 SD ($p < .01$) lower scores. Those who had greater engagement with their fathers (reported by both the youth and the mother) had lower internalizing behavior scores by 0.06 ($p < .05$) and 0.11 ($p < .001$) SD, respectively.

Externalizing behaviors.—Results from models examining the association between father involvement and externalizing behaviors are presented in Table 3. Compared to teens who did not spend an hour with their biological father at either middle childhood wave, those who spent at least some hour with their father at both waves had externalizing behavior scores that were 0.16 SD lower ($p < .05$) and those who spent time with their fathers daily at both waves have scores that were 0.18 SD lower ($p < .05$). Adolescents who reported being extremely close to their biological fathers had 0.09 SD ($p < .05$) lower externalizing behavior scores than those who were not extremely close to their fathers. Engaging in activities with their fathers is also associated with reduced externalizing behaviors: each SD increase in either the youth- or mother-reported measure is associated with a 0.07 and 0.08 SD reduction ($p < .01$ and $p < .001$, respectively) in externalizing behaviors.

Tables 2 and 3 include the r-squares for each indicator of father involvement. Father involvement accounts for about 10% of the variance in internalizing behaviors and 14% in externalizing behaviors.

Father involvement among nonresidential fathers.—Next, we aim to answer the question of whether father involvement still matters for adolescent behaviors if the father is nonresidential. To do this, we limit our sample to children who lived with their mother but not their father when they were Ages 5 and 9. Table 4 presents results from separate models estimating the associations between each type of father involvement and adolescent behavior. Spending at least some hour with their father at both middle childhood waves is marginally associated with a 0.14 SD ($p < .010$) reduction in internalizing behaviors. Higher father engagement, reported by the mother, is marginally associated with a 0.09 SD ($p < .05$) reduction in these behaviors as well. As in the main models, father involvement seems to be more important for externalizing behaviors. Spending at least some hour together at both waves (compared to no hour at both waves) is associated with a 0.22 SD ($p < .01$) reduction in externalizing behaviors. Both mother and youth reports of father engagement are associated with 0.10 SD and 0.06 SD reductions ($p < .05$ and $p < .10$), respectively.

Differences by Child's Sex.—As female and male youth may display different types of problem behavior [e.g., girls may have more internalizing behaviors while boys may have more externalizing behaviors (e.g., Eschenbeck et al., 2007)], we explored differences in the salience of father involvement for youth by sex. To do this, we first ran models stratified by sex (shown in Table 5). Among boys, we find that consistently spending

time with their fathers is associated with reduced internalizing and externalizing behaviors (there is no significant relationship between these variables for girls). Being extremely close to their fathers is associated with reduced externalizing behaviors for boys but not girls. Youth-reported engagement is associated with reduced internalizing and externalizing behaviors for girls and marginally reduced externalizing behaviors for boys. Mother-reported father engagement is associated with both reduced internalizing and externalizing behaviors for boys and reduced internalizing behaviors for girls. While different indicators of father involvement are associated with both internalizing and externalizing behaviors for both boys and girls, a greater number of indicators of involvement are associated with externalizing behaviors for boys and internalizing behaviors for girls. Because consistent time spent with fathers seems to matter for boys but not girls, the significant results for these variables in Tables 2 and 3 may be reflective of associations for boys.

As another test of differences by the child's sex, we next ran models using the child's sex as a moderator and, in these models, did not find any significant (at $p < .05$) moderation of the relationship between any type of father involvement and adolescent behaviors. It is possible that this insignificance is due to small cell sizes for some of these variables. Taken together, the stratified and moderated models suggest, but do not conclude, that there may be differences in the impact of father involvement by the child's sex.

Testing Alternative Model Specifications

We estimate a series of models with alternative specifications to address measurement concerns about the independent and dependent variables. Because the youth-reported father closeness and youth- and mother-reported activities and engagement scales are asked only if the youth and father had recently seen each other, we test the robustness of our main results by limiting our analytic sample only to children and mothers who were not skipped out of these questions. Results from these models are consistent with the main models. We also consider whether another indicator of parents' relationship quality—aside from cooperative parenting—might be included in our primary analyses. Thus, we include the parents' relationship quality (as reported by the mother and measured categorically—excellent, very good, good, fair, and poor—with poor as the reference category) as a covariate in sensitivity analyses. The results from these analyses are consistent with the main analyses.

In order to consider whether the relationships between father involvement and adolescent behaviors may be nonlinear, we model a series of tobit regressions. Results from these models, for all indicators of father involvement and adolescent behaviors, are consistent with the main models.

Discussion

We provide three main sets of models in this article. First, we examined whether father presence and involvement in middle childhood predict internalizing and externalizing behaviors at Age 15. Next, we tested whether the relationship between father involvement and problem behaviors persisted among children with nonresidential fathers in middle childhood. Finally, we examined whether the relationship between father involvement and adolescent behaviors differed for boys and girls. The results across these sets of models

consistently show the significant association between father involvement (spending time with, being close to, and engaging in activities with the youth at both middle childhood waves) and problematic adolescent behaviors.

Illustrating this point, in the first set of models, which analyze the relationship between father involvement and behavioral outcomes, spending time with the biological father at both middle childhood waves is associated with reduced internalizing and externalizing behaviors. Similarly, being extremely close to the biological father is associated with reduced internalizing and externalizing behaviors. Higher levels of father engagement (reported by both the youth and mother) is associated with reduced internalizing and externalizing behaviors. Importantly, we do not find that coresidence alone during middle childhood waves is significantly associated with adolescent behaviors.

Next, we examined the relationships between both father involvement and youths' reports of perceived closeness with their fathers among nonresidential fathers. Here, we see that consistent time spent with fathers is associated with reduced externalizing and internalizing behaviors when the father did not live with the child. Similarly, for those with nonresidential fathers, engagement in activities is associated with fewer problematic behaviors.

Last, we explored whether the relationships between father involvement and internalizing and externalizing behaviors differed by the child's sex. In stratified models, we find that father involvement matters for both boys and girls but that (a) a broader range of father involvement indicators matter for boys than girls and (b) involvement is particularly salient for boys' externalizing behaviors and girls' internalizing behaviors. One important difference is that consistent time spent with biological fathers is significantly associated with reductions in boys' problem behaviors, but not girls'. This may mean that the findings that consistent time spent with the father is associated with reduced internalizing and externalizing behaviors in Tables 2 and 3 are driven by results for boys. Still, in interacted models, sex is not a significant moderator so we view these results as suggestive but not conclusive.

Taken together, we find that fathers' time investment is associated with significant reductions in problematic behaviors among adolescents. These findings suggest that a father's presence in the home might not benefit youth unless he is engaged with his child. In all our models, it is involvement, not merely coresidence, that matters. While this finding holds across a range of models, there are several distinctions worth examining in further detail.

First, a wide range of father presence and involvement are beneficial for internalizing and externalizing behaviors. Both internalizing and externalizing behaviors appear to be shaped by both consistent time spent with fathers and the tenor of the emotional bond. Father involvement may be more salient for externalizing behaviors among boys and internalizing behaviors among girls. Next, we believe our finding that father involvement matters even among fathers who did not live with their children is critical. Among those whose parents did not live together in middle childhood, spending time and engaging in activities with one's father are strongly associated with reduced problematic behaviors. This aligns with

our finding that father engagement and direct investments of time, not just coresidence, are what count for reducing problematic behaviors. This indicates that despite the sweeping changes in family structure the nation has seen, father involvement is still critical in children's lives.

There are possible limitations that may lead to bias in our study. We rely on the mother's report of how frequently the father spends time with the youth. If parents' relationships are contentious, the mother may underreport the father's involvement (e.g., Mikelson, 2008). While it could be helpful to use an aggregate measure of father involvement based on both the mother's and father's reports, fathers' attrition from the study is much greater than mothers' and this attrition is likely not random. We are able, however, to address some of this concern by including multiple reporters' indicators of father involvement by using youths' reports of closeness to and engagement with their father. It is also important to highlight that our findings are associational, not causal. Both father involvement and child behaviors are likely to be informed by unobserved factors not captured by our models.

Our finding that it is father's active involvement, not simply living with both biological parents, that predicts reduced problem behaviors among adolescents has particular policy relevance: Merely having one's father in the household (whether parents are married or cohabitating) may not be the answer to reducing problem behaviors among youth. Instead, at least at this pivotal stage in a child's life course, it is direct involvement and, to a lesser extent, the quality of the father-child bond, that shields adolescents from engaging in problem behaviors. These strongly suggests that the government should ensure that all fathers, including those who were not married to the mother at the time of birth, should be afforded parenting time. In addition, shared custody should be the default for both married and unmarried parents, unless there is good cause not to do so (Edin et al., 2019).

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1.

Descriptive Statistics by Father's Residential Status

	% or mean (standard error)		
	Full sample (<i>n</i> = 2,804)	Did not live together at either wave (<i>n</i> = 1,368)	Lived together at both waves (<i>n</i> = 1,042)
Independent variables			
Mother and biological father relationship in middle childhood			
Did not live together	49.17	100.00	0.00
Lived together at one wave	13.41	0.00	0.00
Lived together at two waves	37.42	0.00	100.00
Frequency child spent an hour with biological father			
Never at both waves	22.61	44.72	0.23
Never at one wave and some at one wave	18.92	28.23	2.06
Some hour at both waves	29.04	24.80	26.89
Daily at both waves	29.43	2.23	70.81
Close to biological father (Age 9)			
Not extremely close	31.03	31.97	29.48
Extremely close	47.84	28.99	69.70
Not asked (did not see father)	21.12	39.03	0.82
Father-child activity scale (prestandardization, range 0–3)	1.38 (0.02)	0.90 (0.03)	1.95 (0.02)
Mother-reported father engagement (prestandardization, range 0–7)	1.72 (0.03)	0.63 (0.03)	3.02 (0.04)
Outcomes			
Internalizing behav (prestandardization, range 0–2)	0.26 (0.01)	0.27 (0.01)	0.24 (0.01)
Externalizing behav (pre-standardization, range 0–2)	0.23 (0.00)	0.27 (0.01)	0.17 (0.01)
Baseline covariates			
Child had had a low birthweight	8.86	10.64	6.31
Child was mother's first born	39.64	42.66	36.57
Child is female	48.79	48.26	48.43
Parents' relationship			
Married	25.82	7.35	52.06
Cohabiting	34.95	32.31	35.56
Other	39.23	60.34	12.38

	% or mean (standard error)		
	Full sample (<i>n</i> = 2,804)	Did not live together at either wave (<i>n</i> = 1,368)	Lived together at both waves (<i>n</i> = 1,042)
Mother's age	25.24 (0.11)	23.67 (0.15)	27.63 (0.19)
Mother's education			
Less than high school	30.38	34.28	23.61
High school or GED	31.51	36.55	24.64
At least some college	38.11	29.17	51.75
Mother's race			
Non-Hispanic white	21.44	13.33	33.40
Non-Hispanic black	49.66	64.60	28.41
Hispanic	25.28	19.83	32.80
Other	3.61	2.24	5.39
Mother reported alcohol or drug problem	2.23	2.84	1.23
Mother in excellent health	32.20	30.61	34.55
Mother met liberal depression criteria (measured at wave 2)	14.82	17.54	11.32
Mother not born in the United States	14.11	6.75	24.97
Number of adults in the household	2.26 (0.02)	2.21 (0.03)	2.29 (0.03)
Number of children in the household	1.21 (0.02)	1.29 (0.04)	1.07 (0.04)
Income (\$)	33589.25 (618.63)	24089.59 (622.06)	48328.64 (1242.87)
Received TANF or SNAP at baseline	35.01	43.55	21.79
Father's age	27.75 (0.14)	26.31 (0.19)	30.00 (0.22)
Father had a higher educational attainment than mother	19.85	21.57	15.88
Father and mother were same race	85.15	83.23	88.24
Father reported alcohol or drug problem	5.59	8.17	2.02
Year 3 covariates			
Father had ever been incarcerated	42.76	60.75	18.17
Father had children with another partner	43.31	58.43	24.97
Mother repartnered	8.76	17.04	0.21
Mother-reported cooperative parenting scale (range 1–4)	3.20 (0.02)	2.68 (0.03)	3.78 (0.01)
Child's PPVT score (std)	86.61 (0.37)	84.30 (0.47)	89.98 (0.62)
Child's CBCL score (std)	0.00 (0.02)	0.10 (0.03)	−0.16 (0.03)
Additional covariates			

% or mean (standard error)			
Full sample (<i>n</i> = 2,804)	Did not live together at either wave (<i>n</i> = 1,368)	Lived together at both waves (<i>n</i> = 1,042)	
Child's age, in months, wave 6	187.28 (0.16)	187.58 (0.22)	186.72 (0.27)

CBCL = Child Behavior Checklist; HH = household; HS = high school; PPVT = Peabody Picture Vocabulary Test; SNAP = Supplemental Nutrition Assistance Program; std = standardized; TANF = Temporary Assistance to Needy Families.

Table 2.

Associations between Father Involvement Indicators and Internalizing Behaviors, Results from OLS Models (n = 2,804)

	Model 1	Model 2	Model 3	Model 4	Model 5
Mother and biological father relationship in middle childhood (ref=did not live together)					
Lived together at one wave	−0.01 (0.06)				
Lived together at two waves	−0.06 (0.05)				
Frequency child spent an hour with biological father (ref=never at both waves)					
Never at one wave and some at one wave		−0.03 (0.07)			
Some hour at both waves		−0.14* (0.06)			
Daily at both waves		−0.18** (0.07)			
Extremely close to biological father (Age 9; ref=not extremely close)					
Extremely close			−0.07 (0.05)		
Youth not asked			−0.01 (0.06)		
Youth-reported activity scale, std (Age 9)				−0.06* (0.02)	
Mother-reported father engagement, std (Ages 5 and 9)					−0.11*** (0.02)
Adjusted R-square	0.10	0.11	0.11	0.11	0.11

Note: Robust standard errors in parentheses. Each model controls for all variables described in the covariate section of the paper. Full results with all covariates are presented in the online appendix.

p < .001.

**
p < .01.

*
p < .05

+
p < .10.

Table 3.

Associations between Father Involvement Indicators and Externalizing Behaviors, Results from OLS Models (n = 2,804)

	Model 1	Model 2	Model 3	Model 4	Model 5
Mother and biological father relationship in middle childhood (ref=did not live together)					
Lived together at one wave	0.05 (0.06)				
Lived together at two waves	-0.09 ⁺ (0.05)				
Frequency child spent an hour with biological father (ref=never at both waves)					
Never at one wave and some at one wave		-0.01 (0.07)			
Some hour at both waves		-0.16 [*] (0.07)			
Daily at both waves		-0.18 [*] (0.07)			
Extremely close to biological father (Age 9; ref=not at all close)					
Extremely close			-0.09 [*] (0.04)		
Youth not asked			0.03 (0.07)		
Youth-reported activity scale, std (Age 9)				-0.07 ^{**} (0.02)	
Mother-reported father engagement, std (Ages 5 and 9)					-0.08 ^{***} (0.02)
Adjusted R-square	0.14	0.14	0.14	0.14	0.14

Note: Robust standard errors in parentheses. Each model controls for all variables described in the covariate section of the paper. Full results with all covariates are presented in the online appendix.

^{***} $p < .001$.

^{**} $p < .01$.

^{*} $p < .05$.

⁺ $p < .10$.

Table 4.*Father Involvement among Children with Nonresidential Fathers (n = 1,368)*

	(1) Internalizing behaviors	(2) Externalizing behaviors
Model 1: Hour spent (ref=no hour at both waves)		
No hour at 1 wave & some hour at other	−0.07 (0.07)	−0.00 (0.07)
At least some hour at both waves	−0.14 ⁺ (0.07)	−0.22 ^{**} (0.07)
Model 2: Close to biological father (Age 9), ref=not extremely close		
Extremely close	−0.03 (0.07)	−0.09 (0.07)
Not asked (did not see father)	0.01 (0.07)	0.01 (0.08)
Model 3: Youth-reported activity scale, std (Age 9)		
	−0.04 (0.03)	−0.06 ⁺ (0.03)
Model 4: Mother-reported father engagement, std (Ages 5 and 9)		
	−0.09 [*] (0.04)	−0.10 [*] (0.05)

Note: Robust standard errors in parentheses. Models control for baseline and Year 3 variables and child's age at Year 15.

p < .001.

**
p < .01.

*
p < .05.

+
p < .10.

Table 5.

Father Involvement Stratified by Child's Sex

	(1)	(2)	(3)	(4)
	Males (<i>n</i> = 1,436)		Females (<i>n</i> = 1,368)	
	Internalizing behaviors	Externalizing behaviors	Internalizing behaviors	Externalizing behaviors
Model 1: Mother and biological father relationship in middle childhood (ref=did not live together)				
Lived together at one wave	−0.13 (0.09)	0.02 (0.10)	0.09 (0.09)	0.09 (0.09)
Lived together at two waves	−0.09 (0.07)	−0.11 (0.08)	−0.03 (0.07)	−0.06 (0.07)
Model 2: Hour spent (ref=no hour at both waves)				
Never at one wave and some at one wave	−0.12 (0.09)	−0.06 (0.10)	0.06 (0.10)	0.03 (0.10)
Some hour at both waves	−0.17 ⁺ (0.09)	−0.19 [*] (0.10)	−0.08 (0.09)	−0.10 (0.09)
Daily at both waves	−0.20 [*] (0.10)	−0.23 [*] (0.10)	−0.16 (0.10)	−0.13 (0.10)
Model 3: Close to biological father (Age 9), ref=not extremely close				
Extremely close	−0.06 (0.06)	−0.12 [*] (0.06)	−0.09 (0.07)	−0.06 (0.06)
Not asked (did not see father)	−0.04 (0.08)	−0.01 (0.10)	0.01 (0.10)	0.05 (0.09)
Model 4: Youth-reported activity scale, std (Age 9)	−0.02 (0.03)	−0.06 ⁺ (0.03)	−0.09 ^{**} (0.03)	−0.08 ^{**} (0.03)
Model 5: Mother-reported father engagement, std (Ages 5 and 9)	−0.11 ^{***} (0.03)	−0.12 ^{***} (0.03)	−0.10 ^{**} (0.03)	−0.04 (0.03)

Note: Robust standard errors in parentheses. Models control for baseline and Year 3 variables and child's age at Year 15.

 $p < .001$.

**
 $p < .01$.

*
 $p < .05$.

⁺
 $p < .10$.