

Father Involvement and Child Obesity

Half of all children in the US will spend some time in a single-parent family, most often with a single mother and a nonresident father. Because there is only one parent in the household, these children receive less parental time and resources, which is associated with poor outcomes across various domains of well-being. Nonresident fathers' financial, social, and emotional involvement with their children can potentially address these disparities. Much research over the past several decades has found fathers' involvement is associated with improved developmental outcomes for children, including cognitive skills, behavior, academic achievement, and educational attainment.

Several sets of mechanisms are hypothesized to be operating. First, fathers' financial contributions increase resources in the household, which can be used to: purchase books, toys, and other items that promote learning and achievement; to move to safer neighborhoods with better schools; or to purchase better child care. Second, these added financial resources may reduce stress among mothers, which may improve their parenting. Third, fathers' close, nurturing relationships with children can enhance children's psychological well-being, which is associated with improved cognitive skills, behavior, and academic achievement.

One child outcome that has received much less attention in this area of research is child obesity. Today, one out of five young children is obese (at or above the 95th percentile height for weight by age and sex), and child obesity has become a major public health concern. Further, children in low-income families, who are disproportionately represented in single-mother families, are at much greater risk for obesity. Given the generally beneficial impacts of nonresident father involvement on other indicators of child well-being, it is important to understand whether involvement can also impact child obesity.

Many of the mechanisms discussed above may operate similarly to reduce children's risk of obesity (e.g. increased resources, reduced maternal stress, improved psychological well-being). However, there is also a possibility that nonresident fathers' involvement may increase risk of obesity for their children. The "Disneyland Dad" hypothesis (Stewart, 1999) suggests that because nonresident fathers' time spent with children is often quite limited, they want to minimize conflict and maximize their pleasant time with children. In this scenario, they are much more likely to indulge children in outings to fast food restaurants, and purchases of soda, snacks, and other high-fat, high-calorie foods in order to make their children happy in the moment. In addition, even fathers who want to provide healthy food to children may find it difficult if they live far away from children and cannot take them home to establish regular healthy routines around food. Finally, research suggests that men, particularly unmarried and divorced men, engage in more unhealthy behaviors, particularly around food and eating patterns. This might suggest that when children spend more time with nonresident fathers, they may become more exposed to unhealthy behaviors and unhealthy food, leading to greater risk of obesity.

Only one study, focusing on adolescents, examined nonresident fathers' involvement and child obesity, and found that more involvement was associated with greater risk of obesity, but only for adolescents with less educated fathers (Menning & Stewart, 2008). The current study delves deeper into these findings by: focusing on younger children, between ages 3 and 9, when parents have a much bigger impact on child behavior; by using longitudinal data to test whether effects

change at different ages; by testing different types and intensities of nonresident father involvement; by controlling for a rich set of fathers' and mothers' characteristics, including both parents' own BMI (body mass index), which has rarely been available in other studies; and by looking at sub-groups, particularly obese vs. non-obese fathers, higher vs. lower-educated fathers, and boys vs. girls, to see if effects differ across these groups.

Methods

Data

Data are from the Fragile Families and Child Wellbeing Study, a panel study of children born in large US cities between 1998 and 2000, with a 3:1 oversample of children born to unmarried parents. Mothers were interviewed at the time of their child's birth and were followed up when children were approximately 1, 3, 5, and 9 years old. Interviewer assessed measures of children's height and weight were taken during in-home surveys conducted at the 3, 5, and 9-year follow-ups. The analysis sample is based on pooled data across these three waves and focuses on 3,200 repeated observations on approximately 1,900 unique children born to unmarried parents who live with their biological mothers and who have a living nonresident father at each follow-up wave.

Measures

Child obesity. The main outcome of interest, child obesity, is based on the child's BMI, calculated from interviewer measures of height and weight at the 3, 5, and 9-year in-home assessments. Obesity was indicated if the child's age for sex BMI was at or above the 95th percentile, as per the CDC guidelines.

Father involvement. The primary measure of fathers' involvement with children is based on the number of days that the father saw the child in the past month as reported by mothers at each wave. Other measures of involvement that are considered include how often the fathers spends more than one hour per day with the child, the number of overnight visits the father had with the child in the past year, and how often he participates in a number of activities with the child. These variables are measured at each wave and are also calculated as cumulative indicators across all previous waves to capture how involved the father has been over the child's lifetime. Models also include material resources that fathers provide, including formal child support, informal child support and provision of in-kind support. All variables are taken from mothers' reports. .

Covariates. Models control for a rich set of demographic, socioeconomic, and psychosocial characteristics of fathers, mothers, and children, including both parents' BMI measured at the 3-year survey. All covariates are taken from mothers' reports and most are entered as time-varying, though some, such as race/ethnicity, education, age at child's birth, and child sex are measured at baseline and are treated as static. In addition, parents' BMI is taken from the 3-year survey.

Analytic Strategy

Analyses are based on logistic regression models of child obesity at each wave on father involvement at each wave using data pooled across three waves. Models control for all variables briefly described above, including both parents' BMI. Standard errors are adjusted to take account of multiple observations on each individual.

Preliminary Results

In this sample of 3 to 9 year old urban children born to unmarried parents and not residing with their biological father, 23% were obese. Mean days of contact in the past month for all children was 6 (sd = 9), while the mean for children who had any contact with fathers in the past month was 11 (sd=10). Preliminary results from multivariate models indicate that the number of days that fathers saw their nonresident children in the past month was significantly associated with child obesity, controlling for socio-demographic characteristics of the mother and father, fathers' financial contributions, mothers' health and health behaviors, child sex, age, and health, and both parents' BMI. Ten extra days per month of contact with the father was associated with 19% higher odds of obesity for the child, or a 3 percentage point higher probability of obesity. Fathers' financial contributions (formal support, informal support, and in-kind support) were not at all associated with child obesity.

Discussion and Future Steps

These results suggest that fathers' time spent with children may increase their exposure to unhealthy eating patterns and contribute to higher rates of obesity. In subsequent analyses, these results will be explored further. First, alternate measures of involvement (discussed above) will be incorporated to test whether more intense involvement or cumulative involvement works similarly. Second, models will include interaction terms of involvement by survey wave (3, 5, and 9) to test whether the impact of father involvement changes as children age. Finally, fathers' involvement indicators will be interacted with different father and child characteristics to see if results differ across important groups.