

## CHAPTER VI

# THE INTERGENERATIONAL HEALTH EFFECTS OF MARRIAGE

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**M**ost of our review has focused on how marriage affects the health and health-related behaviors of the people involved in a marriage. However, mounting evidence suggests that marriage also has important long-term health consequences for a couple's children. Several articles have reviewed the research evidence concerning the effects of parental marital status on children's mental health and emotional well-being (Amato 2001; Amato and Sobolewski 2001). This literature suggests that children raised in two-parent families enjoy better mental health and greater life satisfaction as adults than do children raised in divorced or single-parent families. Because the literature on parental marital status and children's mental health has been summarized elsewhere, in this chapter, we focus on the relationship between parental marital status and children's physical health.

We focus specifically on a growing body of research examining the possible long-term effect of parental marital status in childhood on physical health outcomes experienced much later in adulthood. For example, one recent study in this area (reviewed later in this chapter) relates childhood family structure to the chances of developing various chronic and acute health problems in midlife and early old age (Maier and Lachman 2000). Other studies examine the possible links between childhood family structure and adult longevity.

Research on such intergenerational health effects is necessarily more speculative than the research we feature in the earlier chapters of this review. For example, due in part to the relatively limited availability of data linking childhood family structure to adult health outcomes, studies in this area are largely unable to use the same rigorous statistical methods now common in other types of research on marriage and health. It is also generally more difficult to draw strong causal connections between events occurring decades apart and across generations than between changes in individual behavior occurring in the period immediately following a transition in marital status. To date, the most compelling studies of intergenerational health effects use either long-term longitudinal data or retrospective survey data to relate measures of adult health and longevity to basic measures of childhood family structure, adjusting for other related family characteristics.

## **PATHWAYS FOR INTERGENERATIONAL HEALTH EFFECTS**

How might parental marital status in childhood affect adult health outcomes experienced decades later? One possibility is that marriage makes for healthier children, who in turn make for healthier adults. Research has found that physical health in childhood strongly affects adult health and longevity (see, for example, Blackwell et al. 2001, reviewed later in this chapter). A relationship between parental marital status and childhood health might arise if married parents have more economic resources to provide children with high-quality health care, nutritious foods, and safe and healthy living environments. Marriage might also positively affect parenting practices and the amount of time parents have to tend to sick children or seek information about parenting and children's health. If these patterns exist, we would expect the effects of parental marital status on childhood health to account for at least part of the relationship between parental marital status and adult physical health.

Another possible way in which parental marital status could have long-term effects on physical health is through children's social and emotional development. Research shows that children raised in two-parent families exhibit more positive outcomes in adolescence and adulthood, including increased educational attainment, better mental health and emotional well-being, and fewer health-risk behaviors like cigarette smoking, drug use, and heavy drinking (Amato 2001; McLanahan and Sandefur 1994). Children of married parents also enjoy the benefits of increased family economic resources and are more likely as adults to have their own marriages remain intact. All these outcomes, in turn, have important consequences for adult health and longevity, suggesting another possible long-term pathway by which childhood family structure might affect adult health. If this pathway is important, we would expect adjusting for differences in adult socioeconomic outcomes and health risk behaviors to account for much of an observed relationship between parental marital status and adult physical health.

As we describe below, the results of several recent studies support the hypothesis that the effect of marriage on children's social and emotional development also has important long-term consequences for adult physical health. To date, however, research in this area has focused more on establishing the existence of an effect of parental marital status on adult physical health than on establishing the particular reasons for such an effect.

### **THE TERMAN LIFE-CYCLE STUDY**

Some of the best evidence on intergenerational health effects of marriage comes from the Terman Life-Cycle Study of Children with High Ability. The Terman study is a longitudinal survey that has tracked the lives of a highly select group of more than 1,200 men and women since they were school-age children in California in the early 1920s. Participants were originally chosen for the study after their schoolteachers identified them as very high-achieving students and after having scored at least 135 on a screening IQ test. The socioeconomic and racial/ethnic composition of the study sample is also very homogeneous, as most of the children were raised in middle-class, white families. The unique characteristics of the Terman study sample caution against generalizing results from this study to the broader national population. Even so, we focus on this study because it is the only U.S.-

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based study to provide direct evidence on the links between childhood family structure and adult health and longevity based on very long-term longitudinal data for a constant sample of people. Moreover, the homogeneity of the study sample has advantages for distinguishing the effect of parental marital status from the effects of other personal characteristics. For example, if the children are similar in most respects except family structure, then researchers can have more confidence that any differences in adult health and longevity observed later in life are due to differences in family structure rather than differences in other personal or family characteristics. The similarity of the study sample also reduces the need to adjust estimates for a long list of baseline characteristics.

Schwartz et al. (1995) use data from the Terman study to examine the relationship between parental divorce in childhood and adult longevity. Parental divorce is measured before age 21, and longevity is assessed from 1930 to 1991. About 13 percent of the study sample experienced a parental divorce before age 21. The study's statistical procedures use event history regression models to relate parental divorce in childhood to the risk of death in each follow-up year, adjusting for differences in gender, age, childhood personality traits, father's occupation, and mother's and father's education levels.

The study does not adjust for differences in childhood health status, because preliminary analyses showed little association among the Terman study sample between longevity and childhood health as measured by low birth weight, parental assessments of their child's health, and histories of surgery or serious injury. This finding runs counter to other research showing a strong effect of childhood health on adult health and longevity (Blackwell et al. 2001) and likely reflects the absence of many serious health problems among this highly select group of children. Without greater variation in childhood health among the study sample, childhood health measures will not relate to measures of adult health and longevity.

Results of the study show that, at any given age, the risk of mortality is about 30 to 40 percent higher among men and women who experienced a parental divorce before age 21 than among those who went through childhood with parents who were in a stable marriage. This finding implies that men and women with married parents can expect to live four years longer, on average, than those whose parents divorce.

In a follow-up study, these researchers extend their analyses of the Terman data by examining possible gender differences in the relationship between childhood family structure and adult longevity (Tucker et al. 1997). They also investigate some of the mechanisms or pathways by which parental divorce in childhood leads to higher adult mortality rates. The study uses measures and statistical procedures similar to those featured in the earlier study by Schwartz et al.

Results of the study show that—although these intergenerational health effects exist for both men and women—the effect of parental divorce in childhood is larger for men than women. Explanations of the relationship between parental divorce and longevity also seem to vary by gender. The study finds that men who went through childhood with parents who were in a stable marriage eventually obtained more education, participated as adults in more

social activities, and were less likely to have their own marriages end in divorce, compared with men whose parents divorced. These differences explain much of the gap in longevity between married and unmarried men. For women, however, the study finds that the gap in longevity between those who marry and those who do not owes more to differences in adult health risk behaviors, especially cigarette smoking. The study shows that women who experienced a parental divorce before age 21 were more likely to smoke as adults than those whose parents remained in stable marriages, and that this difference contributes to the gap in longevity between the two groups. These findings suggest that parental marital status in childhood is especially important for boys, and that boys raised in two-parent families enjoy better health as adults because they grow up to experience more positive social and economic outcomes and avoid some of the stress and psychological costs associated with divorce and marital disruption.

### **RETROSPECTIVE STUDIES**

Other recent studies address concerns about generalizing results from the Terman study by examining the relationship between childhood family structure and longevity among the national population. For example, Hayward and Gorman (2004) study the relationship between childhood family structure and longevity using data from the National Longitudinal Survey of Older Men (NLS), a nationally representative survey of approximately 5,000 men. The first wave of the NLS, conducted in 1966 with men ages 45 and older, contained retrospective questions about family life at age 15, including a question about the respondent's family structure in childhood. To estimate the effect of childhood family structure on longevity, Hayward and Gorman relate responses to this question to mortality records covering the period from 1966 to 1990. Their results show that men who reported living with both biological parents at age 15 live longer on average than men who reported living with only one parent or with one biological parent and a stepparent. The study adjusts for differences among men in several other childhood family characteristics, including rural or urban residence, the education level and occupation of the household head, and parents' nativity as measured by whether one or both parents were foreign born. The study cannot adjust for differences in childhood health because the NLS does not include such measures.

The study also finds evidence that the effects of childhood family structure and other family characteristics work primarily through such intervening factors as the child's later educational attainment, economic standing, marital status, and adult health risk behaviors. In particular, the study finds that differences in adult health risk behaviors such as smoking and heavy drinking account for much of the longevity gap between men from families with two biological parents and men from families with other living arrangements. It is possible that these behavioral differences date to adolescence, when patterns of adult health risk behaviors are often set.

A more recent study using the same data shows that these findings apply equally for both African American men and white men (Warner and Hayward 2006). Moreover, the study also finds that the higher percentage of African American men raised in families without two biological parents accounts for at least part of the stark gap in longevity between African American and white men.

## OTHER NATIONAL STUDIES

Further evidence on the long-term effects of childhood family structure comes from three additional sources: (1) U.S. Census data; (2) retrospective survey data from the MacArthur Foundation's Survey of Midlife Development in the United States (MIDUS), a national probability telephone survey conducted in 1995; and (3) retrospective data from the longitudinal Health and Retirement Study (HRS).

Preston et al. (1998) use U.S. Census data to study the relationship between childhood family structure and the probability of surviving to age 85 among a cohort of African American men and women born in the late 19th century. The study is based on a unique data set in which death certificates for a sample of people who died in 1985 are linked to childhood demographic data collected in the 1900 and 1910 U.S. Censuses. To locate Census data for the people named on the death certificates, researchers relied on key identifying information reported on the death certificates, including name, mother's and father's names, location of birth, and social security number. Through this procedure, they successfully matched roughly 60 percent of the 1,038 sampled death certificates with the appropriate Census data.

Analyses of these data show that the probability of surviving to age 85 is about 66 percent higher among African-American children raised in two-parent households than among those raised by single parents. The relationship between childhood family structure and longevity persists after adjusting for differences among families in state of residence, rural or urban residence, parents' literacy, and family wealth as measured by owning versus renting a home. The study does not adjust for differences in childhood health because the U.S. Census does not include such data. The study does not examine the effects on longevity of parental marital status separately for men and women.

Maier and Lachman (2000) examine the relationship between parental divorce and adult physical health using data from MIDUS. Participants in the survey ranged in age from 24 to 74, but this study focuses only on participants ages 30 to 60. The survey included a retrospective question about the respondent's family structure at age 17, as well as questions about histories of adult chronic and acute health conditions. The questions about chronic conditions addressed such conditions as tuberculosis, hypertension, and asthma. The questions about acute conditions addressed more short-term problems, such as headaches and trouble sleeping.

The study finds that the relationship between parental divorce in childhood and adult health problems varies by gender. For men, parental divorce before age 17 significantly predicts both chronic and acute health problems in adulthood, with men who experienced a parental divorce reporting more health problems than men whose parents remained in stable marriages. For women, parental divorce significantly predicts more acute health conditions but does not predict chronic health conditions. The finding of a stronger effect of parental divorce for men is consistent with the evidence we reviewed earlier for the study by Tucker et al. (1997) of data from the Terman Life-Cycle study.

Finally, there is little evidence examining the links between parental marital status in childhood and specific adult health conditions like cancer, asthma, or cardiovascular disease. A recent study by Blackwell et al. (2001) of data from the longitudinal HRS suggests that parental divorce in childhood has a less adverse effect on the chances of developing cancer in old age than on the chances of developing other common conditions, including diabetes, chronic lung illness, arthritis/rheumatism, and cardiovascular disease. However, because the study focuses on a relatively small subsample of 654 study participants, it cannot establish the statistical significance of any of these effects. Examining the effect of parental marital status on specific adult health conditions is thus an important area for future research.

## **SUMMARY OF RESULTS**

Overall, the evidence to date suggests that children from two-parent families live longer and enjoy better adult health than children from single-parent families or whose parents divorced in childhood. Research also suggests that such intergenerational health effects are stronger for men than women but operate equally for both African American men and white men.

There is less evidence on the pathways by which childhood family structure affects adult physical health and longevity. Several studies suggest that the effects work mostly through the role of childhood family structure in shaping children's future socioeconomic attainment and adult health risk behaviors such as smoking and heavy drinking. On average, children from two-parent families obtain more education and exhibit healthier adult behaviors than children from other types of families. These differences, in turn, have consequences for adult health and longevity. However, due in part to the relatively limited availability of measures of childhood health in studies of adult health and longevity, studies in this area have largely been unable to test the main alternative explanation—that the relationship between childhood family structure and adult physical health primarily reflects the more immediate effects of family structure on children's physical health.

Moreover, these findings are based on largely cursory evidence from a limited number of studies of retrospective surveys of childhood family structure or long-term longitudinal data from a highly select group of schoolchildren. None of these studies was able to measure childhood family conditions in great detail, and it is difficult to fully distinguish the effect of childhood family structure from effects of closely related characteristics likely family socioeconomic status. For example, it is possible that low socioeconomic status as a child both increases the chances of being raised in a single-parent family and increases the chances of having poor health as an adult. This would result in a correlation between childhood family structure and adult health, even if the two are not causally related.

Finally, except for the study by Maier and Lachman (2000), which focuses on a sample of men and women born in the mid-20th century, the studies reviewed in this section focus largely on trends among people born in the late 19th and early 20th centuries, a period when patterns of marriage, divorce, and single-parenthood were much different than they are today. It is possible that the apparent benefits of marriage for children's health have

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weakened as single-parenthood and divorce have become more common and less stigmatizing.