Patterns of Wealth, Income, and Health:
The Role of SES in Racial Health Inequality across the Life Course

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Abstract

Racial disparities in health are well documented. Previous research finds that some of the observed racial health disparities can be explained by racial differences in SES, but that controlling for SES does not fully account for racial differences in health. Research suggests, however, that traditional indicators of SES such as income and education are limited in their ability to capture racial differences in economic advantage and deprivation across the life course. Using data from the Panel Study of Income Dynamics (PSID), I examine the role of various aspects of socioeconomic status in the production of racial health disparities from mid- through late-life. I employ hierarchical growth curve modeling to determine whether disparate access to wealth and differential exposure to economic conditions are mechanisms of racial health inequality. This research provides new insights into how economic processes unfold over time to produce racial disparities in health across the life course.

INTRODUCTION

Despite significant public health and medical advances and overall reductions in morbidity and mortality in the United States over the past one hundred years, Blacks in the United States are still more likely than Whites to experience diabetes, cardiovascular disease, disability, and cancer (Farmer and Ferraro 2005; Williams and Collins 1995; Williams et al. 2010). Black Americans live, on average, five years less than Whites, and Black infants are more than two times as likely as White infants to die before their first birthday (Arias 2007). In the late nineteenth century, Du Bois ([1899] 1967) claimed that the root causes of racial health disparities were social, due chiefly to the "vastly different conditions" in which Blacks and Whites live and work. Today, scholars continue to recognize the social roots of racial health disparities. In particular, research has identified socioeconomic status (SES) as a fundamental determinant of health, and efforts to understand the causes of racial health disparities have found that some of the observed racial disparities in health can be explained by racial differences in SES (Hayward et al. 2000; Link and Phelan 1995; Williams and Collins 1995). Accounting for the racial patterning of SES using indicators such as income or education attenuates racial health disparities, but disparities persist even after "controlling" for SES. However, research suggests that the most widely used indicators of SES—annual income and education—may be limited in their ability to capture racial differences in economic advantage and deprivation across the life course (Shuey and Willson 2008; Williams et al. 2010).

Previous research indicates that the incorporation of wealth and patterns of economic well-being over time may help us to better understand the role of socioeconomic status in the production of racial health disparities (Braveman et al. 2005; Shuey and Willson 2008; Willson et al. 2007). As a measure of SES, wealth reflects individuals' levels of economic stability,

consumption patterns, and ability to absorb economic shocks (Spilerman 2000). Additionally, while racial gaps in income are extreme, racial disparities in wealth are even larger and may better capture the racialization of the social class structure (Williams and Collins 1995; Oliver and Shapiro 1995). Finally, while income captures economic earnings at one moment in time, annual income does not capture cumulative exposure to economic conditions. In the context of racial stratification, this is particularly problematic as research indicates that Blacks are more likely than Whites to experience persistent poverty (Duncan 1988).

Using data from the Panel Study of Income Dynamics (PSID), I am to fill this critical gap in the literature by examining the role of socioeconomic conditions across the life course in the production of racial health disparities. I employ hierarchical growth curve modeling to determine whether disparate access to economic capital and differential exposure to economic conditions are mechanisms of racial health inequality.

DATA AND METHODS

Data and Analytic Sample

Data for this analysis come from the Panel Study of Income Dynamics (PSID), which is an ongoing, nationally representative, longitudinal study of individuals and families in the United States. PSID is a particularly rich source of data for the study of racial health disparities because of its long-term collection of data on employment, income, wealth, education, health behaviors, and health status. I selected eight observation points for this study (1984, 1989, 1994, 1999, 2001, 2003, 2005, and 2007), as these waves of PSID include information on both self-rated health and wealth.

My analysis is limited to Black and White respondents aged 26-75 years who were interviewed in at least three waves. To limit the possible effects of reverse causality between

SES and health, I exclude individuals who were in poor health at the time of their first interview. I also limit my sample to respondents for whom there is complete data for the variables included in the analysis. My final analytic sample includes over 5,000 respondents.

Measures

Self-rated health is the dependent variable in this analysis. Self-rated health ranges from 1-5, and I recode this variable so that 1 represents excellent health and 5 represents poor health. Self-rated health has been shown to be highly correlated with morbidity and mortality. Additionally, self-rated health is useful in measuring health at all ages, whereas measures that reflect illness, disease, and disability are most useful for older ages. Finally, because it reflects continuous and underlying changes in health status over time, self-rated health is particularly useful in estimating health trajectories.

I utilize five measures of SES in my analysis: annual household income, total household wealth, education, persistent income (defined as membership top or bottom quintile of the income distribution in a majority of valid waves), and persistent wealth (defined as being in the top or bottom quintile of the wealth distribution in a majority of waves). Both annual income and wealth are adjusted for household size and are measured in constant dollars. Annual income is included as a log transformation to correct for its skewed distribution. To correct for the skewed distribution of household wealth, I include a inverse hyperbolic sine transformed wealth measure, which, unlike log transformation, preserves negative and zero wealth values. I also include race-by-SES interaction terms for each of the four SES variables. Other covariates in the analysis include age, gender, relationship status, birth cohort, and smoking status.

Analytic Strategy

Stratifying my sample by race, I estimate changes individual self-rated health across the life course using hierarchical growth curve modeling. The data used in estimating growth curve models have two levels: multiple observations at level 1 are nested within individuals at level 2. The use of growth curve models allows me to estimate models for data that are unbalanced in time, as is the case with the PSID data (Raudenbush and Bryk 2002). By separately modeling the health trajectories of Blacks and Whites, I will be able to determine whether the health status of Blacks and Whites begin at different starting points (intercepts) and change at different rates (slopes).

EXPECTED FINDINGS AND CONTRIBUTIONS

Years of research documents that racial differences in socioeconomic status are a central factor producing racial health disparities, yet previous research has been limited by short-term measures of socioeconomic well-being. Grounding my work in cumulative advantage theory, the focus of my research is on the temporal processes and cumulative exposures producing racial disparities in health outcomes. Preliminary findings indicate that, net of income and education, wealth, persistent income, and persistent wealth have significant and differential associations with health across racial groups. This research provides new insights into how economic processes unfold over time to produce racial disparities in health across the life course.

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