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Social Science & Medicine 63 (2006) 1415–1427

SOCIAL SCIENCE & MEDICINE

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Self-reported health, perceived racial discrimination, and skin color in African Americans in the CARDIA study

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Available online 5 June 2006

Abstract

This study investigates the association between self-reported physical and mental health and both perceived racial discrimination and skin color in African American men and women. We used data from the longitudinal coronary artery risk development in young adults study (CARDIA) in African American men and women ($n = 1722$) in the USA. We assessed self-reported mental and physical health status and depressive symptoms at the Year 15 (2000–2001) follow-up examination using the Medical Outcomes Study Short Form (SF-12) and the Center for Epidemiologic Studies Depression scale. Skin color was measured at the Year 7 examination (1992–1993). To assess racial discrimination, we used a summary score (range 0–21) for 7 questions on experiencing racial discrimination: at school, getting a job, getting housing, at work, at home, getting medical care, on the street or in a public setting. Self-reported racial discrimination was more common in men than in women (78.1% versus 73.0%, $p<0.05$) and in those with higher educational attainment, independent of gender. Discrimination was statistically significantly associated with worse physical and mental health in both men and women, before and after adjustment for age, education, income, and skin color. For example, mental health (0–100 scale) decreased an average of 0.29 units per unit increase in racial discrimination score in men; this became 0.32 units after adjustment. There was no association between self-reported physical and mental health and skin color. Further studies of the health consequences of discrimination will require investigation of both the upstream determinants of discrimination and the downstream mechanisms by which perceived discrimination affects health outcomes.

Keywords: Racial discrimination; Racism; Skin color; Physical health; Mental health; African Americans; Gender; USA

Introduction

Disparities in heath status between blacks (or African Americans) and whites are large, pervasive and persistent over time (Danzinger & Gottschalk, 1993; Lenfant, 1996; "National Institutes of Health", October 6, 2000; US Department of Health and Human Services. Healthy People 2010:

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doi:10.1016/j.socscimed.2006.04.008

Understanding and Improving Health. 2nd ed., 2000; Williams, 2005). There are large socioeconomic status (SES) differences between these two racial groups and they account for a substantial portion of the racial differences in health. However, the persistence of racial differences in health, even when SES is considered, has stimulated scientific interest in identifying other race-related factors that are adversely affecting the health of African Americans. Discrimination has recently emerged as an important risk factor for health that is differentially distributed across race and may contribute to elevated health risks for African Americans (Krieger, 1999; Williams, 1999; Williams & Collins, 1995; Williams, Neighbors, & Jackson, 2003; Williams, Yu, Jackson, & Anderson, 1997).

Recent research reveals that a substantial proportion of African Americans experience discrimination and there is evidence that discrimination is adversely related to multiple indicators of health status. For example, discrimination has been found to be associated with multiple indicators of mental and physical health (Harrell, Hall, & Taliaferro, 2003; Krieger, 1999; Krieger & Sidney, 1996; Schulz, Israel et al., 2000; Schulz, Williams et al., 2000; Williams et al., 2003). In sum, these studies have found that African Americans reporting experiencing racial discrimination are more likely to exhibit negative health outcomes than their counterparts experiencing no discrimination.

The shade of skin color (or skin tone), another potential risk factor for the health of African Americans, has received inadequate research scrutiny. In many cultures the color black is associated with negative attributes (Brown, Ward, Lightbourn, & Jackson, 1999; Franklin, 1968; Williams, 1997) and the African American population is no an exception (Brown et al., 1999). Research has long indicated that skin tone is a maker of social status and an important predictor of access to opportunity and resources within the black population in the United States (Drake & Clayton, 1945; Frazier, 1957). Since the days of slavery, when lighter skin tone reflected family ties to whites, lighter skinned blacks were more likely to obtain freedom and had greater access than others to education, property and employment opportunities (Frazier, 1957). More recent studies indicate the persistence of skin tone in affecting the quality of life of African Americans. For example, the National Study of Black Americans conducted in 1979–1980, found that compared to their darker complexioned peers, lighter-skinned blacks had higher levels of education, occupational prestige, personal and family income and were more likely to have spouses with more education and higher occupational prestige (Hughes & Hertel, 1990; Keith & Herring, 1991). Moreover, these associations were stronger for women than for men.

Skin tone may also be related to health, at least under certain conditions. Early studies of African Americans examined the association between skin color and health status with skin tone as a proxy for genetic admixture, with darker skinned blacks presumed to be of purer African ancestry (Boyle, 1970; Gillum, 1979; Harburg, Gleibermann, Roeper, Schork, & Schull, 1978). These initial studies found a positive association between darker skin color and hypertension (Boyle, 1970; Gillum, 1979; Harburg et al., 1978). Subsequent studies revealed that this association was reduced to non-significance when adjusted for SES, confirming the importance of skin tone as a marker of social status (Keil, Sandifer, Loadholt, & Boyle, 1981; Keil, Tyroler, Sandifer, & Boyle, 1977). However, one study documented that the association between skin color, SES and health may be complex (Klag, Whelton, Coresh, Grim, & Kuller, 1991). These researchers found that darker skin color was associated with higher levels of blood pressure only among low SES African Americans. Apparently, the occupancy of two low status positions (low SES and dark skin color) was especially deleterious to health.

Prior research has shown that skin tone is also a marker for discrimination, with darker skinned blacks reporting higher levels of discrimination than their lighter skinned peers (Keith & Herring, 1991; Klonoff & Landrine, 2000). Because dark skinned African Americans experienced more discrimination than their light skin peers, skin color may interact with discrimination to affect health. However, prior research has not examined potential interactions between skin color and discrimination on health outcomes. Moreover, women, both African-American and white, are more likely to report gender discrimination. However, African American women are less likely to report racial discrimination than African American men (Keith & Herring, 1991; Klonoff & Landrine, 2000; Krieger, Sidney, & Coakley, 1998) but more likely to be educated and be in executives and professional occupations. Finally, because women tend to have lighter skin than men, it is possible that the association between skin color and health outcomes