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Do Physiological Responses to Perceived Racism Amongst African-American Men Increase Risk of Development of Cardiovascular Disease?

Background:

According to the American Heart Association, the prevalence of heart disease and high blood pressure in African Americans is significantly higher than any other racial group. Based on the American Heart Association data, 46,334 black males died from cardiovascular disease (“African Americans and Heart”, 2015). Researchers have developed theories in attempt to explain why African-American men are more likely to develop cardiovascular disease, or CVD, in comparison to their white counterparts by researching genotypic differences as well as environmental exposures. This meta-analysis serves as an initial comprehensive approach to synthesize data across disciplines to form conclusions about mechanistic pathways leading to this correlation.

Methods:

The focus in this meta-analysis is that perceived/personally mediated racism acts as a stressor and induces psychophysiological reactions that negatively affect cardiovascular health. The social experience of an individual contributes to the mechanisms of pathology that are activated through these encounters. I conducted several critical literature reviews and synthesized the information presented from disparate perspectives (Health, Anthropology, Psychology, and Sociology) in efforts to develop holistic encompassing conclusions. Research focusing on African American men, exposure to racism, stress response analysis, perception of racism, and specifically cardiovascular disease were selected for inclusion in this study. I used a mapping approach to thread connections amongst studies.

Results:

In this section I will highlight evidence from utilized studies that support my final conclusions. Daily encounters of racism are correlated with elevated levels of stress response hormones cortisol and adrenaline (Fiscella, et al). These levels are similar to the stress responses humans face from adversities in life, however the responses from racism encountered on a continuum are never alleviated. Scholars explain that African-Americans face racism at three levels (Wyatt, Williams, et al). Institutional racism can lead to limited opportunities for socioeconomic mobility, differential access to goods and resources, and poor living conditions adversely affecting cardiovascular health. Second, perceived/personally mediated racism acts as a stressor and can induce psychophysiological reactions negatively affecting cardiovascular health. Third, in race-conscious societies, the negative self-evaluations of accepting negative cultural stereotypes as true (internalized racism) can have deleterious effects on cardiovascular health (Wyatt, Williams, et al.)

The Jackson Heart Study researchers determined a greater prevalence of cardiovascular disease among African Americans, and identified risks, including hypertension, leading to this statistic (Jackson Heart Study). Scholars Steffen, et al supported these previous findings in their conclusion that perceived racism is related to elevated ambulatory blood pressure (ABP) in daily life of African American men (Steffen, n.d.). An additional study by Carolyn Fang and Hector Myers assessed the biological effects of race-related stressors on 31 African American Men and 31 Caucasian men. The experiment exposed participants to 3 racist, anger-provoking films. Film viewing attributed to elevated blood pressure in study participants (Fang and Myers, 2001). This study was unable to prove that change in blood pressure was significantly greater for black men, but concluded that consistent exposure to this form of stress is correlated to CVD.

Discussion:

The overproduction of the hormones adrenaline, cortisol, and norepinephrine contribute to the development of CVD. Living as an individual who is targeted, oppressed and marginalized leads to a buildup of these stress responses, contributing to the gradual development of CVD. Additionally, perceived racism, and witnessing racist behavior leads to elevated blood pressure, a risk factor for CVD. There are limitations to each of these studies including differences in definitions of racism and perceived racism, as well as a lack of substantial evidence supporting causality. However, when synthesized, these data provide evidence to conclude encounters with racism amongst African-American men have an impact on their higher likelihood of developing cardiovascular disease. African American males' susceptibility to developing CVD is potentially higher due to the current social and political climate in which discrimination and oppression seems to be increasing. This study highlights the need to humanize the experiences of these individuals and prove that their health is impacted by these visceral moments.

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