
THE MEANING OF RACE WITHIN HEALTH SERVICES RESEARCH: BIOLOGICALLY SIGNIFICANT, SOCIAL/POLITICAL LABEL, OR COMPOSITE PROXY?

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Medical research has, to a large extent, identified race differences in health outcome almost exclusively as an effect of race (skin color) (LaVeist 1994). However, there exists a lack of scientific comprehension with regard to the meaning of the association between race and health outcome because of unsatisfactory interpretations of what this race effect is or represents (LaVeist 1994). These interpretations tend to attribute the association between race and health outcome as innate to the individual or group without further analyses of why this association has occurred (Williams et al. 1994). The result of these interpretive problems are that explanations of the association between race and health outcome have limited meaning with respect to clinical, health, and social policy (LaVeist 1994; Williams 1994).

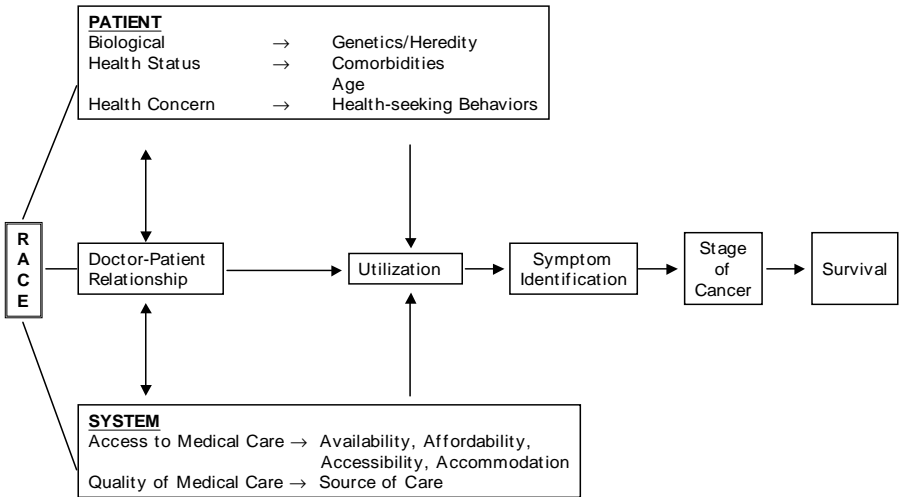
Several problems arise in the use and interpretation of race within research. First, researchers often use race (skin color) to encompass every important indicator of racial inequality or difference (Williams 1994). Presumably, poverty or group socio-economic status, cultural lifestyles and values, genetic predispositions, and racism are all separate variables being measured by race. This categorical or composite approach precludes independent analysis of the separate effects of each implied construct for which race is believed to serve as a proxy (Williams 1994). Second, the use of race in most prior research leaves unstated, but implied, that race (i.e., skin color) has some intrinsic value with regard to health outcome (Trimble 1990). Third, the use of race in research broadly categorizes an entire subpopulation, but provides little explanatory information (Trimble 1990). Finally, there is a growing recognition that racial classification schemes are arbitrary and that race is more a social category than a biological one (Howard et al. 1998; Howard et al. 1996; LaVeist, Wallace & Howard 1995; LaVeist 1994; Williams et al. 1994; Williams 1994; Cooper & David 1986). Previous research on racial variations in health has been dominated by a genetic model that views race as primarily reflecting biological homogeneity, and Black-White differences in health as largely genetically determined (Williams 1994).

According to Williams (1994), race is a societally constructed taxonomy that reflects the intersection of particular historical conditions with economic, political, legal, social, and cultural factors, as well as racism. Macrosocial factors and location in social statuses most often affect health through intermediary mechanisms and processes

such as health behavior, stress, medical care, and a broad range of social, psychological, cultural, and religious resources. Therefore, to understand the complex relationship between race and health, these factors have to be considered. It is more correct to view race as a proxy variable for or an influence of many aspects of the health care experience that subsequently impact health outcome, rather than a direct influence on health outcome (Howard et al. 1998).

In approximating the conceptual approach of Williams, Howard et al. (1998) postulated a framework for understanding the relationship between race and health outcome where race is representative of patient characteristics such as biological factors pertaining to heredity, health status as measured by comorbidities, and health concern that determines care-seeking behaviors (Figure 1). Race may also separately represent or influence the degree of access to care and the quality of received medical care from the health care system and/or interact with more discerning measures such as insurance status, the source of care, and the doctor-patient relationship in impacting access and quality of care. Further, the doctor-patient relationship is assumed to vary by patient race and SES and to influence access, physician concern, and patient utilization and health behaviors (Penchansky 1986). These aspects of health care that are correlated with race, rather than race, in and of itself, ultimately influence utilization and, consequently, symptom identification, stage of disease, and survival.

Figure 1: Hypothesized Relationships Among Race, Intermediate Variables and Survival



Briefly, Howard et al. (1998) explored the race difference in breast cancer survival by examining this relationship in conjunction with established influences on breast cancer survival that are differentiated by race. The research analyzed breast cancer survival among African American and White women receiving care within HMOs. The analysis incorporated a range of variables that may differ by race to determine whether race differences in the distribution of disease, patterns of utilization, and health outcomes are influenced more by social factors than by biologic factors associated with genetic predispositions. The authors hypothesized that after accounting for racial differences in stage of cancer, health status, health behavior, utilization patterns, access to care, quality of care, and the doctor-patient relationship, the effect of race alone on breast cancer survival would be nonexistent.

A series of Cox survival analyses revealed that race was significant when it was the only variable in the analysis, with an African American to White risk-ratio of 2.4 ($P < .001$). When variables pertaining to stage and whether the patient missed appointments after the mention of breast cancer symptoms were included with race, they were significant while race became marginally significant ($P = 0.067$). The risk-ratio for a later stage was 2.8 and the risk-ratio for missing appointments after the identification of breast cancer symptoms was 4.2. These results reflected both the importance of missing appointments to survival and the predominance of African Americans among those who miss appointments. Those who miss appointments before the onset of cancer symptoms were more likely to miss appointments after the identification of cancer symptoms. Missing appointments for some patients did not change even after they became seriously ill, and these folks were much more likely to be African American. This result suggested that a serious problem exists with regard to either the patient's behavior and/or circumstances, or provider actions and/or coordination.

The above-mentioned study is important because it is an impetus in the development of a comprehensive literature that emphasizes the conceptual approach promulgated by Williams. A similarly constructed study on infant mortality also indicated the tenuous relationship between race and health outcome and revealed the influence of macrosocial factors and social statuses on health. Rawlings and Weir (1991) found that within a system that controls for SES, access to care, and quality of care, there was little difference in mortality among children born to African American versus White mothers in the U.S. military. Studies of this nature not only reveal that race (skin color) has a negligible impact on health outcome but also supports the growing recognition that race has to be conceptualized more comprehensively in order to discern its true effects on health outcome (Howard et al. 1998; Howard et al. 1996; LaVeist 1994; Williams 1994). Moreover, these studies further dismiss the long-standing notion that racial disparities in health are primarily due to biological differences between the races.

Finally, the examination of covariables of race causes the level of medical discourse to be expanded into areas that can be impacted by social, clinical, and health policy. For instance, the initial analysis of Howard et al. (1998), if taken alone, would suggest to some that there may be something innately peculiar about African Americans which causes them to have shorter survival from breast cancer than Whites. However, the subsequent analyses allows the clinical focus to evolve from looking specifically at African Americans as an at-risk group to the specific influence of non-compliant behavior and the overrepresentation of African Americans among non-compliant patients. Rather than impotently throwing up one's hands regarding the relationship of African Americans and health outcome, the question of clinical and research significance becomes whether non-compliant behavior is freely chosen by the patient, or a symptom or marker denoting deficiencies in the health delivery system.

Thus, by thoroughly conceptualizing what race is or what race represents (other than skin color) within a research design, researchers are in a better position to interpret correctly any race-related findings that may occur.

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