

EDITORIAL

Race, Ethnicity, Culture, and Disparities in Health care

In spite of significant advances in the diagnosis and treatment of most chronic diseases, there is evidence that racial and ethnic minorities tend to receive lower quality of care than nonminorities and that, patients of minority ethnicity experience greater morbidity and mortality from various chronic diseases than nonminorities. The Institute of Medicine (IOM) report on unequal treatment concluded “racial and ethnic disparities in healthcare exist and, because they are associated with worse outcomes in many cases, are unacceptable.”¹ The IOM report defined disparities in health care as “racial or ethnic differences in the quality of health care that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention.”¹ Since the publication of the IOM report there has been renewed interest in understanding the sources of disparities, identifying contributing factors, and designing and evaluating effective interventions to reduce or eliminate racial and ethnic disparities in health care.

Three studies published in this issue of the journal provide new insight to the sources of and contributing factors to racial and ethnic disparities in health care. In the first study, Trivedi and Ayanian² conducted a cross-sectional analysis of 54,968 respondents to the 2001 California Health Interview Survey to assess the relationship between perceptions of health care discrimination and use of health services. Approximately 5% of respondents reported experiencing some form of discrimination. Those that reported discrimination were less likely to receive some preventive care services; however, adjusting for perceived discrimination did not eliminate the observed racial, gender, and insurance disparities in receipt of preventive care.

The second study by Huang et al.³ compared the factor structure and the rates of endorsement and differential item functioning of the well-validated 9-item Patient Health Questionnaire (PHQ-9) depression scale among 5,053 white, African American, Chinese American, and Latino primary care patients. The factor structure of the PHQ-9 was consistent across ethnic groups although there was evidence of differential item functioning for some items. The authors concluded that the PHQ-9 measures a common concept of depression and is an effective detection and monitoring tool for depression in diverse populations.

The third study by Groeneveld et al.⁴ measured racial differences in attitudes toward innovative medical technology in 171 white and black patients in an urban Veterans Affairs Medical Center. Respondents answered questions about general innovativeness (i.e., attitudes toward new concepts in general) and medical innovativeness (i.e., attitudes toward new

medical drugs, devices, and procedures). There were no significant racial differences in general innovativeness, but whites had higher medical innovativeness and were more likely to accept new prescription drugs than blacks.

Although the findings of these studies are highly relevant, there are inherent limitations in most research studies on ethnic differences that need to be highlighted. There is good evidence that socioeconomic position is a stronger determinant of health-related outcomes than race. Several studies have shown that the effect of race/ethnicity on health outcomes tends to diminish significantly when socioeconomic position is controlled for and in some instances the race effect disappears.⁵ This raises the question whether observed racial/ethnic disparities in healthcare are due to race and ethnicity, race or ethnicity, socioeconomic position, a combination of both, or a yet unmeasured factor.

The study of racial variations in health is driven by a genetic model that assumes that race is a valid biological category, that the genes that determine race are linked with the genes that determine health, and that the health of a population is determined predominantly by biological factors.⁶ However, recent studies have shown that there is more genetic variation within races than between races and that race is more of a social construct than a biological construct.⁷ Therefore, the concept of race although socially meaningful is of limited biological significance.⁸ In addition to the limitations of race as a construct, there are problems with the validity and reliability of race as measured in most research studies. Methods for collecting data on race include self-report, direct observation, proxy report, and extraction from records. In general, self-reported race is most reliable and should be the preferred method. However, with the increase in the number of people that belong to multiple racial categories, it is increasingly difficult to classify individuals into 1 race category, which further complicates the interpretation of race effects in research studies.

Ethnicity is another variable that is commonly used in studies on health disparities. The Office of Management and Budget (OMB) has defined minimum standards for maintaining, collecting, and presenting data on race and ethnicity.⁹ The standards include 2 ethnic categories, “Hispanic or Latino” and “Not Hispanic or Latino” and 5 racial categories: American Indian or Alaska native; Asian; black, or African American; native Hawaiian or other Pacific islander; and white. The concept of ethnicity is an attempt to further differentiate racial groups; however, like race, it carries its own historical, political, and social baggage.¹⁰ The current definition of ethnicity is arbitrary and ill defined. For example, the term “Hispanic” includes over 400 million people from many different ethnic groups and subgroups, in more than 20 different countries.¹¹ Thus, trying to interpret what differences due to ethnicity really mean is always a challenge. In spite of these limitations,

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ethnicity when combined with race provides more information as long as researchers define their construction of it and justify its validity, reliability, and consistency.¹⁰

The concept of culture as distinct from race/ethnicity has been proposed as a better explanation for differences in health behavior and health outcomes.¹² The definition and conceptualization of culture varies across disciplines. The United States Department of Health and Human Services Office of Minority Health defines culture as "integrated patterns of human behavior that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups."¹³ Culture in the context of health behavior has been defined as "unique shared values, beliefs, and practices that are directly associated with a health-related behavior, indirectly associated with a behavior, or influence acceptance and adoption of the health education message."¹⁴ Others have defined culture as "the learned and shared beliefs, values, and life ways of a designated or particular group which are generally transmitted intergenerationally and influence one's thinking and action modes."¹⁵ Although culture is a valid explanatory variable for racial and ethnic differences in health outcomes, researchers need to recognize that knowing someone's ethnic identity or national origin does not reliably predict beliefs and attitudes.¹⁶ Rather, it is more important to specify the cultural traits that are being tested and include appropriate measures that capture such cultural traits.

Acculturation is another concept related to culture that is typically used to explain ethnic disparities in health outcomes. Acculturation as a predictive or explanatory variable is based on the assumption that culturally based knowledge, attitudes, and beliefs cause people to behave in certain ways and make specific health choices.¹⁷ Acculturation measures assume that there is a "mainstream" culture and an "ethnic culture"; however, most studies on acculturation rarely define or describe what constitutes "mainstream" or "ethnic cultures."¹¹ A systematic review of acculturation studies focused on Hispanic health found that only a handful (8%) included any definition of culture and in most instances the definition of culture was nebulous and imprecise.¹¹

In spite of the major limitations of using race, ethnicity, or culture as predictive and explanatory variables in health research, there remains a dire need to conduct research on ethnic differences in health outcomes. However, investigators should be cautious in the way they interpret findings of racial/ethnic differences. Studies that infer that certain health behaviors or outcomes differ by race, ethnicity, culture, or degrees of acculturation may be misleading because they rarely account for the distinct differences within racial or ethnic groups or cultures. For example, blacks that live in California may have very different cultural values from those that live in the Southeast so beliefs and perceptions about health care discrimination may be poles apart. Similarly, blacks from the Caribbean Islands or the continent of Africa who are classified as blacks for research purposes have distinct cultural values that are different from those of blacks who were born and raised in America. Such obvious differences in beliefs, values, and practices are not accounted for with the current classification of race and ethnicity. It is crucial that limitations in the definitions, measurement, and classification of the concepts of race, ethnicity, and culture are recognized as inferences are drawn from studies on health disparities.

Beyond concerns about the validity and reliability of measurements of race and ethnicity, there is also the issue of teasing apart the association between race/ethnicity and poverty. It is important to systematically test for the interaction between race/ethnicity and socioeconomic position. Stratified analysis by socioeconomic position within racial/ethnic groups may give more meaningful information than comparing differences by race and ethnicity alone. Future studies on the relationship among race, ethnicity, culture, or acculturation and health outcomes need to go beyond just showing an association between these variables and health outcomes to providing a causal pathway for any such association. It will be particularly important that researchers make better attempts to separate the effects of poverty from the effects of race/ethnicity or culture and specify how these variables were defined and measured.

The 3 studies published in this issue of the journal raise interesting points. First, that perceived discrimination may not explain racial/ethnic differences in use of preventive care services. Second, that lack of medical innovativeness may be a barrier to adoption of new technology in blacks and may explain observed differences in utilization of innovative medical technologies. Third, that depression may be a universal concept that can be effectively measured across racial/ethnic groups. As already discussed, results of these studies need to be interpreted with caution and put in the appropriate context of the conceptual limitations of the measurement and definition of race and ethnicity in the United States. Nevertheless, the results of these studies underscore the need to continue funding research on understanding racial and ethnic differences in health outcomes. As the United States becomes more diverse, there will be increased need to establish the validity and reliability of constructs and instruments across racial, ethnic, and cultural groups. Researchers need to continue to examine how ethnic differences in risk aversion and patient preferences influence medical decision making and health outcomes. In addition, perceived discrimination, racial bias, and stereotyping should remain legitimate research questions. More studies are needed to determine whether these factors significantly contribute to health care disparities and identify strategies to minimize or eliminate their effects on health.—
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REFERENCES

1. **Institute of Medicine.** Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. In Smedley BD, Stith AY, Nelson AR, eds. Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, Board on Health Policy, Institute of Medicine. Washington, DC: National Academy Press; 2002.
2. **Trivedi AN, Ayanian JZ.** Perceived Discrimination and Use of Preventive Health Services. *J Gen Intern Med.* 2006;21: 553–558.
3. **Huang FY, Chung H, Kroenke K, Delucchi KL, Spitzer RL.** Using the Patient Health Questionnaire-9 to Measure Depression among Racially and Ethnically Diverse Primary Care Patients. *J Gen Intern Med.* 2006;21: 547–552.

4. **Groeneveld PW, Sonnad SS, Lee AK, Asch DA, Shea JE.** Racial Differences in Attitudes Toward Innovative Medical Technology. *J Gen Intern Med.* 2006;21: 559–563.
5. **Williams DR.** Race/ethnicity and socioeconomic status: measurement and methodological issues. *Int J Health Serv.* 1996;26:483–505.
6. **Krieger N.** Shades of difference: theoretical underpinnings of the medical controversy on black/white differences in the United States, 1830–1870. *Int J Health Serv.* 1987;17:259–78.
7. **Cooper R, David R.** The biological concept of race and its application to public health and epidemiology. *J Health Polit Policy Law.* 1986;11: 97–116.
8. **Williams DR.** The concept of race in Health Services Research: 1966 to 1990. *Health Serv Res.* 1994;29:261–74.
9. **Office of Management and Budget.** Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Available at: <http://www.whitehouse.gov/omb/fedreg/ombdir15.html>. Accessed March 2, 2006.
10. **Oppenheimer GM.** Paradigm lost: race, ethnicity, and the search for a new population taxonomy. *Am J Public Health.* 2001;91: 1049–55.
11. **Hunt LM, Schneider S, Comer B.** Should “acculturation” be a variable in health research? A critical review of research on U.S. Hispanics. *Soc Sci Med.* 2004;59:973–86.
12. **Pasick RJ.** Socioeconomic and cultural factors in the development and use of theory. In: Glanz K, Lewis FM, Rimer BK, eds. *Health Behavior and Health Education—Theory, Research, and Practice.* 2nd edn. San Francisco, CA: Jossey-Bass Inc.
13. **U.S. Department of Health and Human Services Office of Minority Health.** Assuring Cultural Competence in Health Care: Recommendations for National Standards and Outcomes-Focused Research Agenda. Washington, DC: U.S. Government Printing Office; 2000.
14. **Pasick RJ, D’Onofrio CN, Otero-Sabogal R.** Similarities and differences across cultures: questions to inform a third generation for health promotion research. *Health Educ Q.* 1994;23(suppl):S142–61.
15. **Leininger MM.** Transcultural care diversity and universality: a theory of nursing. *Nurs Health Care.* 1985;6:208–12.
16. **Hunt LM.** Health research: what’s culture got to do with it. *Lancet.* 2005;366:617–8.
17. **Dressler W.** Health in the African American community: accounting for health inequalities. *Med Anthropol Quart.* 1993;7:325–345.