Racial/Ethnic Disparities in Health Care: Lessons from Medicine for Dentistry

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Abstract: To describe what is known about racial disparities in provided health care and to better understand the dynamics of this issue within dentistry, this article draws on data from the medical literature, focusing especially on reviewing what is known about disparities in care received by those who have accessed the health care system. An overview of the possible causal factors is presented, along with suggestions for future research.

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It is a national public health priority to decrease racial/ethnic disparities in health and health care. While many of the articles in this special issue describe disparities in oral health by age, economic status, race/ethnicity, or other sociodemographic characteristics, the focus of this one will simultaneously be both broader and narrower than the others. To broaden the discussion, this article will draw on data from the medical literature to describe what is known about racial disparities in provided medical health care, but the latter focus will also narrow our attention to disparities in care within the health care system, which are but one possible source of racial/ethnic disparities in health status. Note that other articles in this issue have done an excellent job of documenting disparities in access to health care, specifically dental care. This one will focus on the issue of disparities in care among those who have already gained access to the health care system, which is recognizably only a subset of Americans.

Disparities in health and health care have been recognized as a serious problem for many years. Under President Clinton, the Department of Health and Human Services established the Initiative to Eliminate Racial and Ethnic Disparities in Health, which targeted specific clinical areas in which to focus attention. These included cardiovascular disease, diabetes, infant mortality, cancer screening and management, HIV infection/AIDS, and immunizations. Also during the Clinton administration, the surgeon general’s report on “Oral Health in America” noted that a “silent epidemic” of oral diseases is affecting our most vulnerable citizens—poor children, the elderly, and many members of racial and ethnic minority groups. More recently, the National Institute of Dental and Craniofacial Research (NIDCR) of the National Institutes of Health has developed its own strategic plan to reduce craniofacial, oral, and dental health disparities (www.nidcr.nih.gov). Thus, it is clear that disparities in physical and oral health are on the national radar screen to be addressed, and disparities in the way health care is provided contribute to disparities in health status, although the mechanisms and extent of the influence have not yet been documented.

In 2000, Public Law 106-525 (Minority Health and Health Disparities Research and Education Act of 2000) was enacted. This law mandated that the Institute of Medicine (IOM) study the issue of health care disparities to develop/summarize the knowledge base to make it sufficient for Congress to develop policy from. The law established a new center at the National Institutes of Health dedicated to issues of disparities: the National Center for Minority Health and Health Disparities.

The IOM study produced a landmark report, “Unequal Treatment,” documenting the ongoing extensive disparities in health care received, which occur across a variety of settings and among many clinical areas, including cardiovascular care, cancer, diabetes, and renal disease care. The report noted that the evidence of disparities in health care is quite constant across a myriad of clinical conditions and settings of care and that the disparities persist even after applying extensive controls for socioeconomic differences among patients and patients’ clinical characteristics. Also, the report noted that disparities in care led to worse outcomes for patients who are not given appropriate care, an indicator of the serious implications of such disparities.
Unfortunately, disparities in dental care were not discussed in the IOM report, likely because there is such a small literature on the topic. Our team recently documented racial disparities in one type of dental care by examining rates of tooth extraction versus root canal therapy among insured patients in the Department of Veterans Affairs (VA) health care system with a mean age of fifty-seven years. We examined whether racial variations in dental care exist and whether observed variations in care were a function of varying levels of insurance coverage for dental services. Within three different categories of insurance coverage, we examined whether there were racial differences in the provision of the preferred, tooth-sparing treatment of root canal therapy (vs. tooth extraction) among 54,423 users of outpatient VA dental care in 1998. We controlled for the severity of tooth and gum-related disease, age, sex, geographic region, medical and psychiatric comorbidities, prior use of preventive dental services, tooth extraction, and root canal therapy. In the adjusted regression models, we found that African American and Hispanic patients and those with unknown race were less likely overall to receive root canal therapy than whites, while Asians were more likely. Among patients with eligibility for continuing and comprehensive dental care, African Americans and Hispanics were less likely to receive root canals than whites. For patients covered for only emergency dental care, there were no racial differences in the likelihood of receiving root canal therapy. Among all other types of coverage, only African Americans remained significantly less likely to receive this therapy. Thus, these recent data suggest that racial/ethnic disparities in dental care likely echo observed trends in medical care, and thus warrant further study and attention.

### Why Do Disparities in Care Exist?

Numerous possible explanations have been proposed to answer this question, generally falling under categories of factors related to the patient, the provider, the process of interaction between the two, and the health care system. Figure 1 depicts Kressin and Petersen’s suggested conceptual model to organize factors associated with racial disparities in care. Patient characteristics that likely influence treatment decision making include sociodemographic variables (race, age, income, education, marital status, and amount or type of health insurance), clinical characteristics (disease burden, disease severity), and health-related beliefs, attitudes, and preferences for care. Provider characteristics, including practice specialty and practice style, attitudes, or bias about patients, may also influence decision making, as may aspects of the patient-provider relationship (for example, communication and trust). Finally, characteristics of the health care system in which treatment decisions are made (availability of necessary technology and specialty care, organization of services within the health care system, local practice patterns), as well as reimbursement and financing issues, must be considered. Kressin and Petersen extensively reviewed the literature examining each of these potential causes of disparities, among studies focused on invasive cardiac procedure use, perhaps the most studied clinical situation in the disparities literature. After reviewing over sixty studies, we concluded that the field needs comprehensive studies of disparities that simultaneously include variables from the patient, the physician, and the health care system, all of which work together to determine if disparities in care occur.

Our own comprehensive study of factors associated with use of cardiac catheterization has tried to address this gap in the literature. We examined whether there were racial differences in cardiac catheterization use among a sample of veterans with documented reversible cardiac ischemia (making them potential candidates for cardiac catheterization) and, if so, to comprehensively examine whether patient attitudes and beliefs, or physician assessments or perceptions, could explain racial disparities in the actual use of cardiac catheterization, controlling for the effects of clinical and sociodemographic characteristics. We found that although African Americans were more likely than whites to indicate a strong reliance on religion and to report racial and social class discrimination, and less likely to indicate a generalized trust in people, they did not differ from white patients on numerous other attitudes about health and health care. More importantly, patient health beliefs did not explain the observed racial differences in use of cardiac catheterization, but physician assessments of patients did explain some of the variation. In particular, physician ratings of coronary artery disease and the importance of cardiac catheterization for each individual patient (both higher for white patients) contributed to the observed racial disparities in cardiac catheterization use, beyond what could be at-
tributed to clinical differences identified by chart review. These physician assessments may have captured the effects of other unmeasured clinical variables, but our inclusion of numerous relevant clinical indicators that physicians rely on to make decisions to send patients for cardiac catheterization minimizes this possibility. Thus, this study, the first to comprehensively examine the possible contribution of patient beliefs to observed disparities in care, found no support for the hypothesis that patients’ preferences contribute to observed disparities. It will be important for additional studies to examine this issue further and discern whether the finding is replicated in other clinical situations and settings, including dentistry.

An additional factor that may influence disparities in care is how well the field has communicated the importance of specific dimensions of health to the general population and to subgroups of the population. For example, within dentistry, do patients and clinicians sufficiently understand (and understand equally well across population groups and subgroups) that dental health influences general health? Have findings about periodontal disease and preterm birth, or control of diabetes, or the development of other systemic health problems, been sufficiently well communicated to and understood by patients (and the clinicians who treat them) who are especially at risk for having physical health problems compounded by dental disease?

More Research Needed

Because no definitive causal mechanism for disparities in care has been yet identified, more research is needed that moves beyond access to care as a possible causal factor. Multidimensional studies that include patient preferences, physician-, and system-level factors are needed to explore the full range of possible etiologies.

Without understanding the true impact and relative importance of the potential causal factors, effective interventions to eliminate disparities cannot
be designed. Future research should comprehensively and simultaneously examine the full range of variables relevant to racial differences in the provision of health care. On the basis of numerous reviews of the evidence, it is proposed that future comprehensive studies include variables from the patient (including psychosocial, sociodemographic, and clinical variables), the clinician (including clinical assessments and attitudes and beliefs about specific patients), and the health care system itself (including availability of services). Furthermore, because previous findings show racial differences in use of preventive care and general use of dental services, future studies should seek to identify factors that affect treatment decision-making earlier in the diagnostic process.

Although more research on the reasons for racial differences in care is clearly needed, several promising avenues may help to reduce racial disparities. Improving providers’ cultural competence and communication skills and increasing the number of racial/ethnic minority clinicians will likely improve relations between providers and minority patients and may increase patient satisfaction and improve health outcomes. By recognizing racial and ethnic disparity in health care as a quality issue and ensuring that accurate and appropriate data are available to monitor disparities in care, we will improve our chances of decreasing disparities, allowing us to move toward meeting the goals of the Initiative to Eliminate Racial and Ethnic Disparities in Health.

The Kaiser Family Foundation launched one such initiative, designed to increase physicians’ awareness of disparities in care (www.whythedifference.org), which included running color advertisements in major medical journals that were designed to pique providers’ interest and draw them to the website, which then offered greater detail about the current knowledge of disparities in care.

**Summary**

In summary, while there is a well-described picture of the types of health and health care disparities that exist, particularly in medicine, the causes of such disparities remain poorly understood and warrant much greater attention in the future. Dentistry will especially benefit in the future from an increased knowledge base regarding disparities and their causes.

**REFERENCES**

10. Lillie-Blanton M, Rushing O, Ruiz S, Mayberry R, Boone L. Racial/ethnic differences in cardiac care: the weight of...