Published in final edited form as:

Dent Clin North Am. 2008 April ; 52(2): 319–vi.

Multicultural Issues in Oral Health

Raul I. Garcia, DMD, MMedSc, Cindy Cadoret, RDH, MPH, and Michelle Henshaw, DDS, MPH
Department of Health Policy and Health Services Research, and Northeast Center for Research to Evaluate and Eliminate Dental Disparities Boston University Goldman School of Dental Medicine, Boston, Massachusetts

Synopsis

Demographic changes over the coming decades will heighten the challenges to the dental profession and to the nation. The expected growth in the numbers of racial and ethnic minorities, and the concomitant growth of immigrant populations are likely to lead to worsening of oral health disparities. Their consequences are becoming increasingly evident as the profession strives to improve the oral health of all Americans. The increasing diversity of the population, together with the importance of cultural beliefs and behaviors that affect health outcomes, will require ways to enhance provider-patient communications and oral health literacy. We discuss the nature and challenges presented by multicultural patient populations. One important means by which to promote oral health in diverse populations is to develop a dental workforce that is both culturally and linguistically competent, as well as one that is as culturally diverse as the American population.

Keywords

Oral health disparities; Cultural competence; Access to care; Cultural diversity

Introduction

Demographic changes in American society will have increasingly important effects on the oral health of the nation and on the practice of dentistry. As the French philosopher Auguste Comte (1798–1857) stated, “Demography is destiny.” One much discussed demographic trend affecting dentistry is the “graying” of America. According to US Census Bureau estimates, by 2030 over 20% of Americans will be 65 and older.¹ One consequence of this trend is that in 25 years most of America will appear demographically much like Florida does today. Overall, the number of Americans 65+ will double over the coming 35 years, reaching 80 million by 2045. The impact on dental practice resulting from these growing numbers of elders has become well recognized.

However, an equally if not more significant demographic trend, but one much less discussed in the context of dental practice, is the dramatic growth in the numbers of Americans from racial and ethnic minority groups. Presently, U.S. Census statistics show that over 30% of Americans are minorities (i.e., Hispanic, African American, Asian, Native American), with Hispanics being the largest of these groups.¹ By 2010, the numbers of minorities are expected

Contact information: Dr. Raul I. Garcia, Boston University Goldman School of Dental Medicine, 715 Albany St., 560, 3rd floor, Boston, MA 02118, Tel: 617-638-6380, Fax: 617-638-6381, Email: rig@bu.edu. Cindy Cadoret, RDH, MPH, Email: ccadoret@bu.edu. Michelle Henshaw, DDS, MPH, Email: mhenshaw@bu.edu.

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to increase to 35%, and by 2025 to approach 40% of the U.S population. Another, and related, major demographic trend that also has yet to receive adequate attention in the context of dental practice is the growth in immigration to America.

From 1990 to 2000, the number of immigrants in the U.S. increased by 50%, from 20 million to over 30 million. Currently, over 11% of the U.S. population is foreign-born (over 52% of them are from Latin America and over 26% from Asia). Immigrants represent an even greater proportion of the population in the nation's two largest states: over 20% of California, and over 16% of New York. However, the effects of immigration are evident throughout the country, e.g., the number of foreign-born in North Carolina, Georgia, and Nevada grew by 200% or more in the past decade. Importantly, the growth of the foreign-born population segment is expected to accelerate.

The social, political and economic pressures on the dental profession to meet the health needs of an increasingly diverse society will only grow over the coming decades. It is important to note that within the practicing lifetimes of many current dentists and certainly of current dental students, the number of persons in our nation who are members of minority groups will exceed the numbers of non-Hispanic Whites in the U.S. Our successes as a profession in meeting such challenges are in large part dependent on adequately addressing the multicultural issues that affect doctor-patient communications and patients' health beliefs and attitudes. This is a major field of research activity that we briefly review in this article, with the goal of identifying ways that may enable current and future dental practitioners to become better prepared to meet the needs of such diverse patient populations.

Health Disparities and the Multicultural Imperative

Health disparities are well documented in minority populations such as African Americans, Hispanics, American Indians/Alaska Natives, and other racial/ethnic minority groups. Individuals in these groups bear a disproportionate burden of disease and disability and these disparities result in "lower life expectancy, decreased quality of life, loss of economic opportunities, and perceptions of injustice".² In their report addressing ethnic and racial disparities in medical care, Betancourt et al. noted that the lack of diversity in both the health care workforce and its leadership has resulted in policies, procedures and delivery systems that are incapable of serving diverse populations. One simple example includes clinic hours that did not accommodate work schedules, long waiting times to make appointments and complicated bureaucratic processes.³ "Unequal Treatment: A Report of the Institute of Medicine" documented the existence of disparities in health care, even when there is equal access to care, and provided evidence of cultural differences in health care between minorities and non-minorities. These differences were also related to disparities in access, health status and health outcomes.⁴ The first U.S. National Healthcare Disparities Report, issued by the Agency for Healthcare Research and Quality (AHRQ), presented a comprehensive national overview of disparities, including disparities in oral health, and in access to health care services and insurance, health outcomes, and the quality of care among U.S. racial, ethnic, and socioeconomic groups.²

A major determinant of oral health disparities is limited access to dental care, both preventive and restorative, and a major barrier to dental care access is lack of dental insurance, in particular private dental coverage.⁸ While dental insurance may be an essential prerequisite for ensuring access to care, it may be insufficient by itself for eliminating oral health disparities, as there exist other important determinants of oral health status and dental care access. These may include issues related to doctor-patient communications, including cultural and linguistic competency of care providers and the health literacy and health beliefs of patients.

Cultural competence in health care may be defined as an understanding of the importance of social and cultural influences on patients' health beliefs and behaviors; considering how these factors interact at multiple levels of the health care delivery system; and, finally, devising interventions that take these issues into account to assure quality health care delivery to diverse patient populations.^{6,7,8} Inconsistent patient behaviors and attitudes related to compliance with treatment regimens is often a result of cultural conflict between minority patients and their providers. Clinical inexperience in interacting with minority patients and beliefs held by the provider about the behavior or health of minorities may contribute to a cultural dissonance between providers and patients. Additionally, time and resource constraints imposed on clinic visits may result in providers making snap judgments based on prototypes or stereotypic decision-making models when diagnosing and treating patients. Overlooking patients' cultural beliefs may foster a lack of trust in the provider and their diagnoses and decrease the likelihood that a person will comply with the prescribed treatment.

A related consideration in ensuring appropriate access to culturally competent health care providers is the discordance on the race and ethnicity of patients and providers and the maldistribution of culturally competent providers. A review by the Sullivan Commission's Report on Health Professions Diversity⁹ showed that minority patients in the U.S. have higher levels of satisfaction in race/ethnicity-concordant settings.^{10, 11, 12} In a study among the Hispanic population Flores reported that it was very important to Hispanics to have a physician who speaks Spanish and fully understands Hispanics' cultural values.¹³ In a recent study of a Canadian Asian community, Wang¹⁴ found low accessibility to medical care providers in areas heavily populated by Chinese immigrants. He concluded that such a maldistribution was especially concerning due to the "overwhelmingly strong preference of Chinese immigrants for ethnically and dialectically matched family physicians".¹⁴

Perceived discrimination affects satisfaction with care and care seeking behaviors. Such significant effects have also been observed in populations in other countries. In a study of access to medical treatment in Sweden, Wamala et al found that perceived discrimination and socioeconomic disadvantage were each independently associated with refraining from use of care.¹⁵ Such perceptions may not only affect patients' care-seeking but may also influence dentists' behaviors. In a study from Brazil, Cabral et al¹⁶ found that a patient's race significantly affects dentists' decision-making as to whether to extract or retain a decayed tooth.

Doctor – patient communication may play a major role, as there may be difficulties in communication particularly in non-English-speaking patients and the case of a dentist's or hygienist's inability to speak the patient's native language. But, even among persons of one language group, Spanish, there exist significant variations and Hispanics serve as an example of the complex challenges we face, combining issues of both culture and language, in meeting the needs of both "new Americans" as well as of those who are multi-generational Americans.

Cultural competence is intimately related to health literacy.^{6,7,8} The American Dental Association (ADA) defines oral health literacy as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate oral health decisions".¹⁷ Importantly, effective communication is dependent on both the oral health literacy of patients as well as the skills, preferences, and expectations of oral health care providers. Health literacy is thoroughly discussed in the chapter by Dr Horowitz.

Health Behaviors, Culture and Oral Health

The WHO Constitution¹⁸ presented a holistic definition of health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." From this perspective, the roles and responsibilities of health care professionals go beyond the

biological and technological sciences and enter the socio-cultural and behavioral domains of health promotion. Patients' individual preferences and behavioral risk factors are intimately related to their socio-demographic and cultural backgrounds. The resulting oral health beliefs held by patients, and their related risk behaviors, are intimately related to patients' health-related risk behaviors, receptivity to change and ultimately on patients' health outcomes. In order to systematically understand oral health outcomes and to design effective oral health interventions, a variety of theoretical frameworks and conceptual models drawn from psychology and social science have been applied to dentistry. For example, Barker¹⁹ has applied the Health Belief Model (HBM) to the analysis of compliance with preventive dental behaviors. The HBM states "that for individuals to follow prescribed advice they must believe that they are susceptible to the disease ('susceptibility'), that the disease is serious ('seriousness'), and that the benefits of following prescribed advice outweigh costs ('benefits')".¹⁹ Using the HBM, she found that the health beliefs of susceptibility and benefits were significantly related to compliance with preventive dental advice.

It has also been found that oral health risk behaviors may not be modifiable by oral health educational interventions, if such interventions are not framed in a culturally informed and sensitive manner. Nakazono et al²⁰ used data from the International Collaborative Study of Oral Health Outcomes II (ICS) USA study to examine oral health beliefs in diverse populations, developing oral health belief measures that corresponded to the Health Belief Model dimensions. They found that both age and race-ethnicity were significant predictors of the perceived benefits of preventive practices, with White adults "more likely to believe in the benefit of preventive practices".²⁰ Kiyak et al²¹, in their study of ethnicity and oral health in older adults, observed that non-White elders tended to have less confidence in their ability to control their oral health. In addition, those elders in their study who were immigrants (primarily the Asian and Hispanic elders) also reported less concern about the value of healthy teeth or "even about saving their natural teeth".²¹

In our own work, we have found the "Health Decision Model"²² to serve as a useful means by which to conceptualize the interplay of multiple factors (Figure 1) that affect oral health, including health beliefs. The Health Decision Model is a conceptualization of factors leading to individuals' health decisions and includes a number of potential influences on health decisions, such as health beliefs, individual preferences and knowledge, prior experiences, and social interactions (such as with physicians and family). The application of such a model may serve to guide the design and implementation of health promotion efforts aimed at improving health outcomes in diverse and multicultural populations. For example, it has been found that patients who are more involved in the decisions regarding their treatment have better subsequent health outcomes.

As described by Eraker et al.²², there is not a pre-specified causal ordering of factors influencing health decisions. Rather, each of the domains of health beliefs, patient preferences, experience, and knowledge influence one another, and are affected by social interaction and sociodemographic factors as well. Cultural factors, for example such as those related to race/ethnicity and national origin, will affect each of these domains in variable ways. Thus, the Health Decision Model is not intended to serve as a causal guide for the relationship among these elements, but may instead be used as an organizing framework to design culturally appropriate interventions as well as to create oral health education and promotion materials that respect cultural beliefs. The materials that are developed may then serve to elevate the oral health literacy of the target population⁸ and serve as community resources, patient self-management and decision support tools.

However, as a "one-size-fits-all" approach will not be maximally effective in multicultural populations, the development of all interventions and materials will most likely need to be

adapted and customized to fit the particularities of each cultural group. Thus, while the Health Decision Model has provided a useful framework for much of our work, when it comes to the implementation of a targeted intervention in a culturally diverse setting, we have found the Chronic Care Model²³ to be a highly relevant conceptual model for implementation and evaluation of interventions in multicultural settings, as described below.

The Chronic Care Model, Multicultural Factors and Oral Health Promotion

Given that the most prevalent oral diseases, such as caries and periodontal diseases, are chronic and progressive, yet preventable through behavior modifications, we have adopted the Chronic Care Model (CCM) (Figure 2) as the conceptual model guiding our own efforts at addressing oral health disparities. The CCM is driven by a set of organizing principles for basic changes or improvements to support care that is evidence-based, population-based, and patient-centered.^{23, 24} At its core is the concept of ‘productive interactions’ between the patient and the care provider. The CCM provides a framework in which strategies for improvement can be tailored to local conditions and multicultural actors by considering six fundamental elements (Figure 2) including: 1) community resources and policies; 2) the health system organization of care; 3) self-management support; 4) an effective delivery system design; 5) decision support; and 6) clinical information systems. The combination of these six elements fosters interaction between informed patients and prepared providers that may improve patient outcomes.

Although the CCM was originally developed for improvements in chronic disease management, this and similar models have been posited for applications in prevention.^{24,25} Prevention and chronic care activities have several overlapping characteristics, such as behavioral counseling and preventive checks that allow for this dual application. Further, activities such as patient-centered care underscore both chronic disease management and prevention efforts which facilitate positive health behaviors and improved outcomes.²⁶

Implementing Solutions in a Multicultural Context

Underserved populations encounter numerous barriers when attempting to access both preventive dental care and restorative dental services. These barriers to health care may be significantly reduced by community-based interventions through the work of a peer health advocate, or a lay-person health promoter (“promotora”)²⁷, who best understands the cultural perspectives of the population. Community health workers (CHW) are defined as “community members who work almost exclusively in community settings and serve as connectors between health care consumers and providers to promote health among groups that have traditionally lacked access to adequate care”.²⁸ Expanding the role of such community health workers (CHW) to include oral health promotion will be valuable in meeting the needs of diverse groups. CHW programs are proven, cost-effective interventions that are used to expand health access and health care services to underserved and underinsured minority communities.²⁹ They have been used extensively to reach diverse populations, such as migrant farm workers, mothers and infants, African Americans and Hispanic/Latino populations.

The “promotora” is a CHW model, customized for Latino populations, that has been shown to be effective in reducing chronic disease risk factors through education, dietary interventions, and increasing screening rates. The extent of success seems to be dependent on the autonomy of individual promotoras and the support of partnering Community Based Organizations. For example, a community based outreach program, “Salud para su Corazon” (Health for Your Heart) tested the efficacy of the promotora model for promoting heart health and reducing cardiovascular disease (CVD) risk factors within seven Latino communities across the country.²⁹ This model was shown to be highly successful in increasing heart healthy knowledge and behaviors.

One study of the impact of a promotora on increasing compliance with annual preventive exams in uninsured women, aged 40 and over and living at the Mexico-U.S. border, showed that using a promotora increased compliance with routine screening exams and was highly effective for reaching this Hispanic population.³⁰ However, in their evaluation of the effect of promotoras and tailored health information materials on dietary intervention in Hispanics, Elder et al³¹ found that the effect was not sustained over time once the intervention by the promotora stopped, suggesting that continuity of effort in such communities is needed for sustained improvements.

A related issue is the importance of diversity in the health care professions, whose enhancement is increasingly recognized as being vital to successfully addressing the health needs of a diverse population.⁹ A review of the evidence for the value of diversity in the health care workforce concluded that greater racial and ethnic diversity among health professionals will improve access to and quality of health care for all Americans.^{9,32} Formicola et al³³ examined these issues as they relate to oral health and suggest that in dentistry as in medicine, when financial access barriers are eliminated then similar cultural factors may account for disparities in oral health. They identified various factors (at the systems level, patient level and provider level), separate from healthcare access, that affect disparities in treatments and outcomes between minorities and non minorities.³³

Patient centered care and cultural competence

In addition to the need to utilize culturally and linguistically competent community residents to promote oral health, it is also clear that dental professionals themselves must gain proficiency in providing culturally competent care^{3, 33} and in enhancing the oral health literacy⁸ of the communities they serve. Patient centered care, as defined by the Institute of Medicine³⁴, is providing "care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions." It is thus self-evident that for such care to be maximally effective it must also be provided in a culturally competent manner. In order to ensure the highest quality care, patients need to be actively involved in decisions about their care and to receive treatment focused on their needs and preferences as well as advice and counsel from providers of care.^{26, 34} It has become well recognized that patient-provider communication, and the interactions between provider and patient, play a crucial role in the effectiveness of treatment and in achieving desired outcomes.^{3,26,34}

In a study assessing patient centered care on primary care outcomes, Stewart et al²⁶ found that patient centered communication was correlated with patients feeling that they were actively engaged in their treatment and finding "common ground" with their physician. Additionally, positive perceptions were associated with better recovery from their chief concern, better emotional health subsequent to the visit and fewer diagnostic tests and referrals. Effective patient-provider communication results in greater patient satisfaction with the care that they receive an increase in patient compliance with treatment and consequently better outcomes. The elements of effective patient-provider communication include:³⁵

- Build a relationship
- Open the discussion
- Gather Information
- Understand the patient's perspective
- Share Information
- Reach Agreement on problems and plans
- Provide closure

Difficulties in communication based on the patient and provider speaking different languages may be addressed by using trained interpreters who facilitate communication between patients and healthcare providers and staff. Culturally competent care and use of professional interpreter services were positively correlated with perceptions of quality of care in a study of Asian-American patients with limited English language skills.³⁶ Most importantly, effective communication is essential to achieve positive health behaviors, reduce risk factors and improve outcomes.

However, while overcoming cultural and language barriers is a necessary prerequisite, it is not always sufficient. In cases where even the best culturally competent care is practiced, challenges may arise when there is a need to enhance motivation to change health behaviors in patients who are not motivated to change. In those situations, there may be great value in applying a specific motivational intervention, such as “Motivational Interviewing”,³⁷ in order to enhance patients’ motivation to change health behaviors in those patients who are resistant or not motivated to change. This intervention is patient-centered and is directly tailored to patients’ readiness to change behavior. For those patients at lower motivational levels, techniques such as cognitive dissonance (highlighting the discrepancy between actual and ideal states); exploring outcome expectations; decisional balance (reviewing the costs and benefits of change); and helping the patient understand the detrimental role that the unhealthy behavior plays in his or her life, are important. Helping the patient work through their ambivalence about health behavior change is also essential. Increasingly, more directive approaches are used for those at higher motivational levels, such as skill building, increasing self-efficacy for making change, helping with decision-making, and preventing relapse. Motivational interviewing has been applied to a variety of health behaviors, including alcohol use, smoking, diet, physical activity, pain management, health screening, sexual behavior, medication adherence, as well as to oral health promotion.

Cultural Competence, Service Learning and Dental Education

The education of culturally competent practitioners should ideally be started early in dental students’ training and be an integral part of the curriculum over all years of dental school. Hewlett et al³⁸ assessed dental students’ perceptions of the adequacy of the cultural competency training they received in dental school and found that 25% of graduating seniors felt time devoted to cultural competency was inadequate. Importantly, almost half of the students also reported that there was inadequate time devoted to other clinical disciplines (implant dentistry, orthodontics) and practice management. With this in mind, it was concluded that integrating cultural competence into the existing curriculum would be more effective than adding separate courses on cultural competence.³⁹ In addition, key components of such curricular integration should include education on the nature of health disparities and on the social responsibility of health professionals to provide care to the underserved.

Service learning is a method of learning that couples learning with service with an emphasis on the student’s reflection of the experience and is especially valuable in addressing multicultural issues in dental education and dental care.^{39, 40} The gains are on many levels: the student is able to apply what has been learned in school to “real life” in treating patients. In addition, the setting may be such that the student is immersed in an underserved community and is able to experience the challenge of treating culturally diverse patient groups who may also have limited resources to afford dental care. The key component to service learning is the reflection requirement, whereby students are encouraged to reflect on the experience by either keeping a journal and/or doing a structured, supervised project.

In 2003, the Robert Wood Johnson Foundation launched a multimillion dollar program, “Pipeline, Profession and Practice: Community-based Dental Education.” With the goal to

enhance system capacity, it has aimed to promote community-based dental education, educate culturally competent practitioners, expand access to care in underserved communities, and increase the numbers of underrepresented minority and disadvantaged students in dental schools.

A greater challenge involves the educational needs of current practitioners to provide care in a culturally competent manner and to address health disparities. One way to meet this need may be to design and offer “service learning” continuing education courses for participating in a community-based dental program. However, there appear to be few such opportunities for continuing education in cultural competency aimed at practicing dentists and hygienists, although there is a growing realization of the need and such a course was offered at the 2007 ADA Annual Session.

Conclusions and Recommendations

We have reviewed the importance of multicultural factors in affecting oral health outcomes. In this regard, the cultural competence of oral health care providers merits examination as one point of intervention, to the extent that trust in and comfort with one’s dentist is important to effective utilization of care and adoption of preventive and positive health behaviors. There is a clear need in dentistry for enhancing the cultural competence and communications skills of care providers. In addition, in order to adequately address the needs of a diverse population and to improve health outcomes, we also need to consider several other challenges. Some specific areas in dentistry that may require attention, or that may need to be newly incorporated into dental care, may include changes in the types of practitioners who comprise the oral health workforce, as well as other improvements in the structure and processes of care. One such approach may be to examine the benefits of “open access” or “advanced access” scheduling as one means by which to promote culturally appropriate care in a logistically feasible manner.^{41, 42}

We have also discussed the effectiveness of community health workers (CHW), such as promotoras. There has also been increasing interest in the role of primary care medical practitioners in oral health promotion. The potential roles of CHW and others in community-based oral health care need to be more broadly considered as essential contributors to addressing multicultural factors and oral health disparities. Similarly creative solutions are needed on the best ways in which to expand the dental team and thereby extend, safely and effectively, the ability of dentists to promote oral health, and to prevent and treat disease in diverse multicultural populations with oral health disparities. Lastly, it is becoming increasingly clear that enhancing the cultural diversity of the health care workforce, including oral health care providers, will be vital to successfully addressing the health needs of our nation’s increasingly diverse population.^{9,32}

Acknowledgments

We thank our colleagues in the Northeast Center for Research to Evaluate and Eliminate Dental Disparities (The CREEDD) for their many contributions. In particular, we acknowledge the input of Brenda Heaton, MPH, and Paul Geltman, MD, for their insights on conceptual models for health behavior change and health literacy as they relate to oral health promotion and disease prevention in diverse populations. This work was supported in part by NIH grants U54 DE-014264 and K24 DE-000419 to Dr. Garcia.

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Factor	Description
Individual preferences	The patient's desired role in decision making, the patient's own assessments of risks and benefits of a particular decision, along with the dentist's recommendations for treatment
Experience	The patient's involvement in decision making, previous experiences with dental care (including perceptions of discrimination in receiving such care), and perceptions of the quality of care as well as satisfaction with it and trust in the dental profession.
Knowledge	Including the dimension of health literacy- includes the awareness of the value of oral health, and the accuracy of the patient's understanding of the prevention.
Social interactions	Interactions that might influence health decisions include those with the dentist and dental office or clinic staff, and with friends and family members.
Sociodemographic variables	Variables such as race, age, income, education, marital status, and health insurance coverage and access to dental care.

Figure 1.
The Health Decision Model [Adapted from Eraker, et al. (22)]

Element	Description
Community resources and policies	Programs and policies that support improvements in health care, including partnerships that identify, create, and support needed services;
Health system organization of care	Promotes safe, high-quality care through leadership support for quality improvement, and effective coordination of care
Self-management support	Emphasizes patients' responsibility in managing their health through such strategies as setting goals, resolving problems, and devising action plans
Effective delivery system design	facilitates patient visits and may include specialist expertise or case management
Decision support	Enhances provider adherence to evidence-based guidelines, which are incorporated in daily clinical practice
Clinical information systems	Provide patient data which can be used to plan an individual patient's care, identify relevant subpopulations for care, and monitor the
	performance of health care providers or systems

Figure 2.
The Chronic Care Model [after Wagner et al. (23); Barr et al. (24)]