Dental Students’ Beliefs About Culture in Patient Care: Self-Reported Knowledge and Importance

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Abstract: In order to decrease the well-documented disparities in oral health and oral health care, the next generation of dentists must be prepared to serve a diverse patient population. This article describes dental students’ self-reported knowledge of culture and importance of using culturally sensitive dental practices. Three consecutive graduating classes (n=111) were surveyed anonymously in their sophomore years. Students indicated their self-rated knowledge of oral health and oral health care for their own culture and the cultures of patients they are likely to see in dental practice. Students also rated their perceived importance of culturally sensitive dental practice. Overall, students reported low knowledge of the cultures of the patients they will see in practice. Few students could identify any cultural group that they knew well. However, students as a group indicated that using culturally sensitive practices in dentistry is important. Students who could identify at least one cultural group they knew well perceived cultural sensitivity in dental practice as more important than students who could not. These results suggest that students need cross-cultural training and believe that such training is important. The results also suggest that a specific curriculum that increases knowledge of other cultures may have the potential to ultimately increase the use of culturally sensitive practices.

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Changing demographics in the United States demand that new dentists be prepared to treat a diverse patient population. Immigration patterns point to significant increases in racially, ethnically, culturally, and linguistically diverse populations. According to the U.S. Census Bureau, one in every ten persons in the United States is foreign-born. Currently, the U.S. foreign-born population comprises a larger segment than at any time in the past five decades, and this trend is expected to continue. In 2000, 18 percent of the total population aged five and over, or 47 million people, reported they spoke a language other than English at home.

From 1995 to 2050, the United States will gain 80 million new immigrants and their descendants, or 25 percent of the total population. Projections for 2050 point to 820,000 net immigrants a year, comprised of 350,000 Hispanics, 226,000 non-Hispanic Asians, 186,000 non-Hispanic whites, and 57,000 non-Hispanic blacks. Thus, Hispanics and Asians will contribute the most to the influx of immigrants.

The U.S. surgeon general’s 2000 report on oral health in America reveals profound and consequential oral health disparities along racial and ethnic lines within the population. Although common dental diseases are preventable, social, economic, and cultural factors affect how health services are delivered and used and how people care for themselves. Reducing disparities requires wide-ranging approaches, including training a workforce that is responsive to the cultural needs of patients.

According to the National Center for Cultural Competence, critical factors in the provision of culturally competent health care services include understanding of the following: the beliefs, values, traditions, and practices of a culture; culturally defined health-related needs of individuals, families, and communities; culturally based belief systems of the etiology of illness and disease and those related to health and healing; and attitudes toward seeking help from health care providers.

Dental schools must strive to prepare their students in these areas. Ideally, the next generation of dentists would be knowledgeable about the cultures they will treat and skilled in using culturally sensitive health care delivery practices. However, little
is known about students’ own beliefs about treating diverse patients. For example, educators know little about students’ perceptions of their own strengths and weaknesses, whether students perceive culture as important to the practice of dentistry, and whether there are modifiable predictors of the perceived importance of culturally sensitive practices. The aims of this study are to 1) describe students’ self-rated knowledge of their own culture; 2) describe students’ self-rated knowledge about the cultures they are likely to encounter in dental practice; 3) describe students’ beliefs about the importance of culturally sensitive practices in dental care; and 4) identify modifiable characteristics of the perceived importance of culturally sensitive practices.

Methods

The multicultural curriculum at the University of Connecticut School of Dental Medicine (UConn SDM) is delivered in a stepwise fashion. The curriculum progresses through didactic lectures, small group seminars with student presentations, patient-instructor rotations, a public health policy course, and community health center rotations. At the beginning of their sophomore year, students are introduced to the multicultural curriculum with a lecture in their pediatric dentistry course. During that class, students complete an anonymous survey regarding their self-rated knowledge of culture in dentistry and their perceived importance of using culturally sensitive practices in dental care. The UConn Institutional Review Board approved this study.

This investigation employed a cross-sectional observational design. Students completed portions of the 2004 version of the values and belief systems measure of the Cultural Competence Health Practitioner Assessment (CCHPA). The CCHPA was developed by the National Center for Cultural Competence at the request of the Bureau of Primary Health Care, Health Resources and Services Administration, U.S. Department of Health and Human Services. Results of the preliminary analysis of the psychometric properties of the CCHPA are very strong, and factor analysis confirms meaningful factor structure. The CCHPA shows strong internal consistency reliabilities (Cronbach alphas .95–.97 for each measure). There is also preliminary evidence of concurrent validity: that is, the CCHPA predicts cultural and linguistic competence. Students were not administered the entire CCHPA because it is very long and much of it assesses actual health care delivery practices that are not applicable to preclinical students.

The values and belief systems measure of the CCHPA concerns knowledge of the health-related values and belief systems of diverse cultural groups and their impact on health care access and utilization. The measure has three subscales, each of which is comprised of several items. The first subscale encompasses seven items, for which respondents rate their knowledge of their own culture. The item stem states, “I know and can articulate the following belief systems for my own culture.” Respondents rate their knowledge of definitions of health, illness, well-being, care-seeking behaviors, traditional health practices, spirituality, and family/community dynamics. Response options are 1=not at all, 2=barely, 3=fairly well, and 4=very well. Scores on these items are summed and divided by 7 to yield a mean subscale score for “knowledge of own culture.”

The second subscale encompasses seven items, for which respondents rate their knowledge of cultures they are likely to treat in practice. The item stem states, “I know and can articulate the following belief systems of the cultures I am likely to encounter while practicing dentistry in Connecticut.” Respondents rate their knowledge in terms of definitions of health, illness, well-being, care-seeking behaviors, traditional health practices, spirituality, and family/community dynamics. Response options are 1=not at all, 2=barely, 3=fairly well, and 4=very well. Scores on these items are summed and divided by 7 to yield a mean subscale score for “knowledge of other cultures.” Respondents are also asked to write in answers to the following question: “I know well the oral health status of the following groups.” Qualitative responses are noted, and the number of groups indicated is summed.

The third subscale encompasses five items, for which respondents rate the importance they place on attending to patient culture in health care practice. The item stem states, “I believe that when I start practicing dentistry, it will be important for me to . . . ” Items include using a history interview that elicits cultural practices, developing affiliations with community organizations, using trained medical interpreters, keeping abreast of research regarding the cultural groups served, and participating in cultural competence professional activities. Response options are 1=not at all important, 2=not important, 3=important, and 4=very important. Scores on these items are summed and divided by 5 to yield a mean
subscale score of “perceived importance of culturally sensitive dental practices.”

Minor modifications were made to the values and beliefs systems measure. First, we modified the language of several items to emphasize dentistry. For example, we replaced the phrase “health status” with the phrase “oral health status.” Second, we made the survey relevant to our geographic location. For example, we replaced the phrase “in my service area” with “in Connecticut.”

One hundred and eleven students from three graduating classes participated. Pediatric dentistry is a required course during the sophomore year at the University of Connecticut School of Dental Medicine. All students who attended the required class during which surveys were administered were investigated. Thirty-five students from one graduating class participated. This graduating class averaged twenty-five years of age; 54 percent were female; 61 percent were from New England; and the class had the following racial/ethnic composition: 66 percent white, 12 percent African American, 10 percent Asian/Pacific Islander, 7 percent Hispanic, and 5 percent other or did not report. Thirty-eight students from the subsequent graduating class completed the survey. This graduating class averaged twenty-six years of age; 37 percent were female; 47 percent were from New England; and the class had the following racial/ethnic composition: 63 percent white, 13 percent African American, 3 percent Asian/Pacific Islander, 13 percent Hispanic, and 8 percent other or did not report. Forty students from a third graduating class participated. This graduating class averaged twenty-four years of age; 49 percent were female; 88 percent were from New England; and the class had the following racial/ethnic composition: 87 percent white, 3 percent African American, 8 percent Asian/Pacific Islander, and 3 percent other or did not report.

Analysis of assumptions revealed normal distribution of CCHPA subscale scores. To describe students’ beliefs, descriptive statistics were calculated. To compare students’ knowledge of their own and others’ cultures, a dependent t-test was performed. To investigate the relationship between knowledge of culture and importance of cultural sensitivity, an ANOVA was performed with knowledge as the independent variable and importance as the dependent variable. Classes were combined for analyses; to protect against any potential differences by class, graduating class was entered as a covariate in appropriate analyses. Data were analyzed using SPSS, with alpha set a priori at .05.

Results

A dependent t-test was performed, comparing within-person differences on the “knowledge of own culture” subscale and the “knowledge of others’ cultures” subscale. Results showed that students reported higher knowledge of their own culture than the cultures they believe they are likely to treat while practicing dentistry in Connecticut, t(111)=11.68, *p<.05. On a scale from 1=not at all to 4=very well, students indicated that they knew their own culture “fairly well” (M=3.1, SD=.50). In contrast, students indicated that they “barely” knew about the cultures they are likely to see while practicing dentistry in Connecticut (M=2.4, SD=.62).

Seventy-one percent of students could not identify a cultural group they felt they knew well in terms of oral health status. Of the students who could name such groups, responses included white, African American, East Indian, Portuguese, Puerto Rican, Alaskan Native, Native American, Latino/Hispanic, Arab, South American, Australian, and Jamaican.

On a scale from 1=not at all important to 4=very important, students rated the importance of using culturally sensitive practices in dentistry as “important” (M=3.3, SD=.44). Students rated use of trained medical interpreters as most important and participation in cultural competence professional activities as least important.

For the next analysis, students were divided into two groups, based on whether they could identify a cultural group whose oral health status they knew well. An ANOVA was performed with group as the between-person independent variable, “importance of culturally sensitive practices” subscale as the dependent variable, and graduating class as a covariate. Results showed that students who could identify such a group perceived cultural sensitivity as more important to dental practice (M=3.5, SE=.08) than those who could not (M=3.3, SE=.05), F(2,109)=5.34, p<.05. Graduating class was unrelated to the outcome.

Discussion

Our main findings are that 1) students report that they barely know about the cultures of patients they are likely to treat; 2) the majority of students cannot identify a cultural group whom they know well; 3) students believe that it is important to use culturally sensitive practices in dental care; and 4)
knowing at least one cultural group well is related to higher perceived importance of using culturally sensitive dental practices. These findings are consistent with literature that suggests that gaining knowledge of specific cultural groups is an important part of improving provision of culturally sensitive health care. For example, Lister\(^8\) posits that cultural knowledge (familiarity with the broad differences, similarities, and inequalities in experience, beliefs, values, and practices among various groupings within society) is an important element of cultural competence. Hughes and Hood\(^9\) have shown that learning about specific cultural groups of the local community improves cultural sensitivity in nursing students.

Fewer than one-quarter of the students in our study could identify a specific cultural group that they knew well. Furthermore, their acknowledgment of barely knowing other cultures speaks to the acute need for a multicultural curriculum. The students surveyed were early in their sophomore year and were just beginning their multicultural curriculum, which is designed to improve both knowledge and perceived importance about culture. The outcomes of this curriculum are being investigated, but are as yet unknown.

Despite the admission of inadequate knowledge, this group of students believes that cultural sensitivity in dental practice is important. Those who knew at least one cultural group well perceived cultural sensitivity as more important than those who did not know another culture well. Perhaps those students who have a relationship with someone from another culture can better appreciate the difficulties of cross-cultural health care and the benefits of health care providers’ cultural sensitivity. This suggests that students may benefit from learning about the characteristics of other cultures and from interacting with people from other cultures. Benefits might include knowledge as well as an openness to appreciating and using culturally sensitive dental care practices. Ironically, the practice perceived as least important to these students was participation in cultural competence professional activities. Students who do not see the importance of these activities may be particularly difficult to engage in a multicultural curriculum. This underscores the importance of maintaining a diverse student body and faculty.\(^10\) A diverse dental school can promote both formal learning through curriculum and informal learning through personal relationships with faculty and students.

Students and faculty alike often express the concern that it is impossible to know every aspect of every culture that they may encounter in practice. There are three important points to make in response to this concern. First, there are techniques that can be used in virtually all cross-cultural situations, regardless of the patient’s specific cultural background. For example, the Culture and Health-Belief Assessment Tool (CHAT) teaches a core set of questions to elicit patients’ culturally specific ideas about health and disease across cultures.\(^11\) At the UConn SDM, we have incorporated the CHAT model and give students the opportunity to roleplay using it with standardized patients.

Second, while it is unrealistic for dentists to become expert in all cultures, it is quite realistic for a dentist to learn some basic characteristics of the cultural groups who will be treated in large numbers in his or her specific setting. Programs need not be all-inclusive or completely group-specific to discuss variations in the values and communication styles of various racial and ethnic groups. However, the recommendation has been made that programs aimed at enhancing the provision of culturally effective health care should be tailored to the demographics of the population served.\(^12,13\) For example, Hartford serves a large Puerto Rican community. A dentist who is practicing in that area would do well to learn about Puerto Ricans—for example, their common dietary practices, common home remedies, family roles and decision-making authority, patterns of high-risk behaviors such as tobacco, the format for names, and the importance of values such as sympatia and familismo, as well as a few phrases in Spanish. At the UConn SDM, in a small group seminar setting, students give presentations on the biological and nonbiological determinants of health and oral health for four of the common cultural groups they are likely to see in practice in Connecticut. These student presentations are developed with the help of an appropriate textbook\(^14\) and relevant scientific articles assigned by the faculty.

Third, cultural competence is a continual learning process. A goal of mastering a particular culture indicates either a limited willingness to integrate new information or an unrealistic goal. In either case, an ongoing openness to learning is a more appropriate and beneficial goal. We encourage students and faculty to take a lifelong learning approach to diversity.

There are several dangers that should be noted when teaching a cross-cultural curriculum. First, focusing on a single given cultural group may not prepare students to interact effectively with a wide variety of cultural groups. This is why, in addition
to learning about several core cultural groups in Connecticut, our curriculum also teaches the CHAT model, which can be used with any individual from any cultural group.

Second, stereotypes may be created or reinforced by trying to teach about a given culture. Because individuals are influenced by their own personal experiences and may or may not subscribe to group norms, individuals who share the same cultural background may think and act quite differently. Also, culture is not static; it changes over time, especially across generations. An emphasis on intracultural diversity and cultural change prevents cultural stereotyping. We take great care in the curriculum to distinguish between stereotypes and generalizations. A stereotype is an unchecked assumption, i.e., the automatic application of information or misinformation about a group to one of its members. A generalization, on the other hand, involves hypothesis testing. In making a generalization, one must determine whether the (mis)information about the group actually applies to a given member of the group. In all of our curriculum activities, we emphasize intragroup variability and discuss the difficulty of drawing generalizations about groups. Without asking students to be spokespersons for their own group, we do invite all students to offer input about the validity of the generalizations being made. We have found that many students are eager to comment, to share personal experiences, and to dispel myths about their own cultures. We believe that creating an opportunity for this type of dialogue, in a safe environment with skilled moderators, is a critical part of dental education. This observation is consistent with findings from other models of health care provider education.15

There are several limitations of this study that should be noted. First, we relied on student self-report, and there was no measure of actual knowledge. Thus, students may overestimate or underestimate their own level of knowledge. Second, we allowed anonymous surveys. Thus, we were not able to investigate individual predictors of knowledge or importance. For example, perhaps foreign-born students, multiracial or multicultural students, or those from particular areas of the country may perceive cultural sensitivity as more important than others do. Third, we did not assess variation in students’ exposure to cultural competence training prior to coming to dental school. Finally, data were collected cross-sectionally. While we hypothesize that knowledge of specific groups influences perceived importance of cultural sensitivity, the converse may be true. Alternatively, they may be reciprocal, with knowledge influencing importance, which in turn influences knowledge. It might also be true that both knowledge and importance could be the result of a common background characteristic such as the student’s personality or cultural background.

Conclusion

Our study found that this group of sophomore dental students believes that cultural sensitivity in dental practice is important, yet they report that they lack knowledge about the cultural groups they are likely to see in practice. Dental educators may meet resistance to incorporating a multicultural curriculum because of a belief that students do not need it, do not want it, and do not think it is important or that knowledge per se may not relate to culturally sensitive practices. Our results indicate just the opposite. Teaching students about the cultural groups they are likely to treat may not only improve knowledge of those groups, but may also have the potential to increase the use of culturally sensitive dental care practices. Longitudinal investigations of the effects of a multicultural dental curriculum on diversity-related attitudes and practices are required to test this hypothesis.

REFERENCES


