Assessing Cultural Competence among Florida's Allied Dental Faculty

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Abstract

Purpose: The Commission on Dental Accreditation requires that dental, dental hygiene and dental assisting schools offer educational experiences to ensure that prospective dental health care providers become culturally competent, socially responsible practitioners. To assert that these mandates are met requires that the faculty are knowledgeable and capable of providing this type of training. Currently, little is known about the cultural competence of the state of Florida allied dental faculty. The purpose of this study was to assess the cultural competence among the dental hygiene and dental assistant faculty in the state of Florida.

Methods: One hundred ninety-three faculty were invited to take the Knowledge, Efficacy and Practices Instrument (KEPI), a validated measure of cultural competence. Respondents included 77 (74%) full-time and 27 (26%) part-time faculty. Data were analyzed descriptively and reliabilities (Cronbach's alpha) were computed.

Results: Mean scores and internal estimates of reliability on the KEPI subscales were: knowledge of diversity 3.3 (α=0.88), culture-centered practice 3.6 (α=0.88) and efficacy of assessment 2.9 (α=0.74). The participant's score of 3.6 on the culture-centered practice exceeds scores among dental students and faculty who participated in previous studies suggesting the allied dental faculty have a greater awareness of sociocultural and linguistically diverse dental patients' oral health needs. Participants' score on knowledge of diversity subscales suggests a need for moderate training, while their score on the efficacy of assessment subscale indicates a need for more intense training.

Conclusion: Assessing faculty beliefs, knowledge and skills about cultural competency is critically important in ensuring that accreditation standards are being met and represents one step in the process of ensuring that faculty demonstrate the type of sensitivity and responsiveness, which characterizes behaviors associated with cultural competence.

Keywords: cultural competence, faculty development, quantitative analysis, survey researc

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Introduction

As individuals, worldviews are profoundly shaped by the traditions that define family and country of origin, school, religious and other experiences that characterize upbringing. Thus, cultural experiences shape understanding and perceptions of others who differ, in relation to spoken languages, race, ethnicity, religious affiliation, social and intellectual status, and sexual orientation. The beliefs that individuals hold are constructed through social interactions and are likely to remain unquestioned until individuals experience situations that cause reflection or questioning.

Faculty across all levels of schooling have observed the increasing diversity among student populations.[1] However, it is not uncommon that faculty have varying degrees of familiarity with cultural groups unlike those with whom they have been socialized. How can faculty be assured that they are teaching their students in a culturally responsive manner unless they know about their own knowledge, beliefs and skills towards others with whom they have not shared experiences with during our formative years? Ensuring the provision of educational experiences that reflect cultural sensitivity and awareness requires, as an initial step, determining one's knowledge about groups of people who are socio-culturally and linguistically unlike himself or herself.

Many researchers have reported how a lack of cultural awareness negatively impacts patient care.[2] Over the last 15 years, national health care associations have highlighted the importance of patient-centered care and reducing health care disparities.[3,4] Culturally competent practitioners have the potential to reduce racial and ethnic health disparities. They are often better positioned to speak the language of cultural diverse patients, more sensitive to cultural differences, and more likely to ensure the provision of quality of health care.[5] The Commission on Dental Accreditation (CODA) has responded to the urgency of eliminating racial/ethnic disparities by revising its competencies.[6] CODA mandates that dental, dental hygiene and dental assisting schools provide training to ensure that prospective dental health care providers become culturally competent, socially responsible practitioners. While these changes are laudable, little is known about the faculty who are providing this level of required education. A review of the recent literature revealed sys-

tematic reviews of educational interventions directed at improving cultural competency, an exploration of the different examination methods now used to evaluate cultural competence among dental students and residents and reviews of various cultural competency measures.[7-11] Studies that describe the cultural competence of dental, dental hygiene and dental assisting faculty were not apparent.

Assessing cultural competence refers to determining the level of agreement among participants in their ratings of behaviors, attitudes and knowledge about individuals who are socio-culturally and linguistically dissimilar. Currently, little is known about the cultural competence of the state of Florida allied dental faculty who educate the state's allied dental professional workforce. The purpose of this study was to assess the cultural competence among allied dental faculty, specifically the dental hygiene and dental assisting faculty in the state of Florida. The use of such an assessment is supported by the assumption that if dental hygienists and dental assistants are culturally competent, that they are more likely to work effectively with individuals who are socio-culturally and linguistically dissimilar from themselves. Additionally, this assessment could be useful in guiding instructional or curricular revisions to ensure the preparation of culturally competent dental hygienists and assistants.

The importance of needs assessment has also been underscored in the literature about faculty development.[12-23] The scope of faculty development needs range from enhancing pedagogy and assessment, to promoting scholarship, and advancing careers. However, it also includes measuring the faculty's level of cultural competency so that the potential need for enhancing knowledge, influencing beliefs and augmenting skills can be identified. Faculty development is bound to be more effective if based on the real or perceived needs of the faculty.[24] Moreover, the strategy of surveying faculty to assess their needs is a common and necessary element of faculty development programs. Dental educational literature is also relatively weak in this all-important area of responsibility. Needs assessment is valuable when responding to institutional needs that are most relevant to their mission. Findings from a needs assessment bolstered one college's menu of services and were used to develop new services to support student learning.[25] Also as noted by Valley, needs assessments findings were instrumental in developing faculty development programs for instructors working part-time, a common occurrence in allied dental educational programs.[26]

Methods and Materials

The first task in conducting this study was to build a database of potential participants. To begin that process and with the assistance of the Florida Allied Dental Educators, a list of all of the schools that teach dental hygiene and dental assisting in the state of Florida was acquired. Institutional review board approval was obtained from the University of Florida prior to beginning the study. Next, each program director was contacted via email to request a list of full-time and part-time faculty, along with their first and last name and corresponding email address. After the population participant database was complete, all participants (n=193) were invited to take the Knowledge, Efficacy and Practices Instrument (KEPI).[27] The survey was sent electronically to participants using the professional and encrypted version of Survey Monkey.

KEPI, a validated measure of cultural competency, consists of 27 items and provides mean scores for 3 subscales related to cultural competence: efficacy of assessment, knowledge of diversity and culture-centered practice. The scale measures beliefs, knowledge and skills relative to cultural competence. Items are scored using a 4-point Likert scale where 1=lowest and 4=highest. Scores on knowledge of diversity reflects an individual's understanding of sociocultural and linguistically diverse groups while culture-centered practice reflects awareness of sociocultural and linguistically diverse dental patients' oral health needs. Participants' scores on efficacy of assessment provides a measure of how capable they believe they are in determining culturally diverse patients' oral health needs. Data were analyzed descriptively. Means, standard deviations and Cronbach's alpha were computed for each subscale. The potential associations between the demographic variables and the KEPI subscale scores were explored.

Results

The population was comprised of 93 (48%) full-time and 100 (52%) part-time faculty from 31 dental hygiene and dental assisting schools across the state of Florida. Of these, 117 completed the survey, for a response rate of 61%. Of the 117 surveys, 104 were usable for the analysis. The sample was 94 (90%) female and 10 (10%) male, 82 (79%) White, 22 (21%) minority, 19 (18%) 25 to 39 years of age, 85 (82%) 40 and over, 98 (93%) married, 7 (7%) single, 77 (74%) full-time and 27 (26%) part-time faculty.

The mean scores for the KEPI subscales are: knowledge of diversity 3.3, culture-centered practice 3.6 and efficacy of assessment 2.9 (Table I).

Internal estimates of reliability on the KEPI subscales are: knowledge of diversity α=0.88, culture-centered practice α=0.88, and efficacy of assessment α=0.74. The estimates of internal reliability ranging from 0.74 to 0.88 are considered acceptable in studies that seek to promote changes in practice.

Score ranges on the KEPI subscales hold implications for practice and training. Scores from 3.5 to 3.8 suggest that faculty are moderately skilled and need minimal training. Scores between 3.0 to less than 3.5 indicate a need for moderate training. Scores between 2.5 to less than 3.0 indicate a need for more intense training. Scores below 2.5 suggest a need for the highest level of training.

Table I: Comparison of KEPI Subscale Mean Scores, Standard Deviation and Reliability by Sample

	State of Florida, Dental Hygiene and Dental Assisting Faculty	Dental Students[a] (M(SD)/α)	Dental Students[b] (M(SD)/α	Florida Dental Students (M(SD)/α)	Dental Students[c] (M(SD)/α)	Dental Students[d] (M(SD)/α)	Florida Dental Faculty (M(SD)/α
Knowledge of diversity	3.3(0.4)/ 0.88	3.2(0.5)/ 0.85	3.3(0.4)/ 0.87	3.3(0.4)/ 0.80	3.1(0.4)/ 0.84	3.4(0.4)/ 0.83	3.3(0.4)/ 0.82
Culture-centered practice	3.6(0.6)/ 0.88	2.1(0.6)/ 0.82.	2.4(0.6)/ 0.72	2.1(0.56)/ 0.76	2.1(0.5)/ 0.73	2.3(0.6)/ 0.70	2.5(0.6)/ 0.76
Efficacy of assessment	2.9(0.4)/ 0.74	2.8(0.5)/ 0.90	2.8(0.6)/ 0.92	3.0(0.5)/ 0.89	2.6(0.6)/ 0.93	.8(0.7)/ 0.92	3.0(0.5)/ 0.89

[a-d]Denotes other states where dental students have participated in similar studies. Pseudonyms have been assigned to protect the anonymity of these schools.

The results show the allied dental faculty in Florida are moderately skilled and need minimal training on the culture-centered practice subscale, may benefit from moderate training on the knowledge of diversity subscale and are less skilled on the efficacy of assessment subscale with suggesting a need for more intense training compared to the culture-centered practice and knowledge of diversity subscales.

There were no statistically significant relationships between the KEPI subscales and the exploratory variables of gender, race/ethnicity, marital status, age and employment status.

Discussion

The findings among allied dental hygiene and dental assisting faculty are similar to what has been observed among in previous studies in 2 of the KEPI subscales: knowledge of diversity and efficacy of assessment.[24,27] Compared to studies conducted with dental students in Florida, and with dental faculty in Florida, Nebraska, Tennessee, Oregon and Washington, the mean score of 3.3 on the knowledge of diversity subscale among the dental hygienist/dental assisting faculty are comparable to dental student and faculty scores which ranged from 3.2 to 3.4. Participants' mean score of 2.9 in efficacy of assessment is comparable to dental student and faculty scores that ranged from 2.6 to 3.0. The participants' score of 3.6 on the culture-centered practice exceeds scores in other studies, which ranged from 2.3 to 2.8. This finding suggests the allied dental faculty have a greater awareness of the sociocultural and linguistically diverse dental patients' oral health needs compared to dental students and dental school faculty who participated in previous studies.

The higher mean scores on the culture centered practice subscale suggests that this sample of allied faculty is more culturally competent than dental students and dental faculty. Whether the latter result is due to training or socialization into the profession is unknown. Scores for these participants on the culture-centered practice subscale suggest that faculty are moderately skilled and thus do not need as much training as individuals who score 3.0 or lower. Participants' score on knowledge of diversity subscales suggests a need for moderate training, while their score on the efficacy of assessment subscale indicates a need for more intense training. This study should be replicated across all allied dental schools in the U.S. to determine if these findings are representative.

Rarely do professional schools assess if faculty are meeting the needs of an ever-changing, diversified student body. Additionally, most academic faculties, including allied dental health providers, are relatively unprepared to navigate university culture or meet the university's expectations for success.[22,28] These problems are further exacerbated when it becomes apparent that little is known about the level of cultural competence beliefs among the workforce that is training the prospective groups of dental hygiene and dental assisting practitioners.

Many health care disciplines, such as dental and allied dental programs, face faculty shortages and may draw faculty members from private dental practice. Compounding this problem is that dental hygiene programs typically do not encourage students to seek academic careers. Programs usually do no provide formal teaching experience or opportunities for scholarship. Therefore, asking dental hygiene students to consider a career in academics often differs from their initial plan to enter clinical practice.[28] Determining the present levels of cultural competence among faculty should be considered an essential step in responding to the CODA mandate. Findings from this study can be used to guide faculty development initiatives aimed at enhancing the cultural competence of the allied dental health care faculty in Florida. This survey could also be disseminated nationally to all dental hygiene and assisting faculty to gauge baseline levels.

The findings from this study have several implications. First it is important to assess how well the curriculum is meeting the CODA standards. Second, because competence is really an assessment of beliefs, knowledge and skills, it is important to assess faculty and student beliefs,

knowledge and skills to determine what competencies need to be taught. Third, an assessment of faculty beliefs, knowledge and skills is useful when analyzing the current curriculum and while considering changes to content and teaching practice to evaluate if and how well competencies are being taught. Outcomes from a rigorous and systematic analytical process that are both credible and replicable can guide curriculum changes and faculty development initiatives. Dental educators can benefit from using standardized and valid assessment methods that are cited in the literature to evaluate curriculum.

Both societal demand and accreditation mandates require that dentistry broaden its educational mission to focus on the needs of underserved, un-served and increasingly culturally diverse populations. To ensure that resources directed towards these initiatives are being utilized and are adequate, it is advisable to begin by assessing the knowledge of faculty. Knowing that this sample has a strong awareness of socio and linguistically diverse dental patients' oral health needs suggests that this is one area will not require an additional commitment of training time. Future efforts should focus on strengthening participants' understanding of socio-cultural and linguistically diverse groups and their belief in their ability to determine culturally diverse patient oral health needs.

It is cautioned that the scores on this scale are not sufficient to guarantee cultural competence as there can be a difference between self-reported knowledge, beliefs and skills and displaying sensitivity to cultural differences. Scores on the scale provide an indication of individual's intent to demonstrate cultural sensitivity. This scale can help identify those who lack an awareness of culture and others who may be prone to making cultural assumptions that may hinder care. It is also recommend that scores on this scale be used in tandem with additional initiatives offered by Klein and Benson.[29] They recommend engaging faculty in mini-ethnographies so that they can better understand patients lives in a "local world," and appreciate what "is at stake for patients, their families, and, at times, their communities, and also … for themselves."[29] To aid in strengthening the enactment of cultural competence, the following questions are recommend when talking with culturally diverse patients:

- What do you call this problem?
- What do you believe is the cause of this problem?
- What course do you expect it to take? How serious is it?
- What do you think this problem does inside your body?
- How does it affect your body and your mind?
- What do you most fear about this condition?
- What do you most fear about the treatment?[29]

Conclusion

Allied Florida dental faculty's scores on the KEPI culture-centered practices subscale were the highest, suggesting they are moderately skilled in this area of culture competence. Their scores on the knowledge of diversity subscale suggest a need for moderate training, while scores on efficacy of assessment call for more intense training. Findings from this study demonstrate the importance of assessing faculty cultural competency beliefs, knowledge and skills and is one step in the process towards ensuring that faculty demonstrate the type of sensitivity and responsiveness, which characterizes behaviors associated with cultural competence.

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