

## Brief Communication

### Perceptions of Saudi dental students on cultural competency

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#### ABSTRACT

**Objectives:** To probe dental students' perceptions on their cultural competency and international student exchange programs as a way of improving cultural competency training.

**Methods:** A cross-sectional survey (n=460) was distributed to predoctoral students at the College of Dentistry, King Saud University, Riyadh, Kingdom of Saudi Arabia in May 2014 at the male and female university campuses. Descriptive statistics were carried out using Statistical Package for Social Sciences ( $p=0.05$ ).

**Results:** It was found that 79.6% of students think that teaching them regarding cultural diversity is important. Only 41% of students thought their dental education teaches them on the importance of volunteerism and philanthropy. Most students (89.8%) think that international student exchanges can enhance their cultural competence.

**Conclusion:** In this study, it was found that students believe that cultural competence is important and participation in international student exchange programs can enhance their training.

*Saudi Med J 2016; Vol. 37 (2): 208-211  
doi: 10.15537/smj.2016.2.13013*

The current mission of the King Saud University, College of Dentistry (KSUCD), Riyadh, Kingdom of Saudi Arabia (KSA) is to train competent dental professionals; to contribute to research and community service; and to provide an environment that stimulates the acquisition and dissemination of oral health knowledge by advancing technology and building local and international partnerships.<sup>1</sup> With the mission of the dental college expanding to graduate dentists who will serve both internationally, as well as locally, there is a need to ensure that graduates are aware of cultural diversity, and can communicate effectively with all patients regardless of their race, ethnicity, and social backgrounds. The Commission of Dental Accreditation (CODA) defines cultural competence as "having

the ability to provide care to patients with diverse backgrounds, values, beliefs, and behaviors, including tailoring delivery to meet patients' social, cultural, and linguistic needs."<sup>2</sup> Considerable research has been conducted to evaluate and promote the cultural competency of students.<sup>3-12</sup> The present study aims to probe undergraduate dental students at KSUCD on their perceptions of student exchange programs and their awareness of cultural competency.

**Methods.** Survey questions were adopted from a previous study<sup>7</sup> comparing attitudes toward cultural competency training among American and Bulgarian dental students with slight alterations. A total of 460 questionnaires were distributed to male (n=274) and female (n=186) undergraduate students from the second year to fifth year at their respective campuses, at KSUCD, Riyadh, KSA. First year students were excluded from the survey because they were not exposed to patients and clinical work. Surveys were distributed by hand and participation was voluntary and anonymous. Non-participation did not affect students' academic status in any way. Survey distribution took place in May 2014.

The questions intended to explore student's perceptions regarding global dentistry and whether student exchange programs could enhance their cultural competency. The survey consisted of 15 yes/no questions. The original survey<sup>7</sup> consisted of 22 questions, but 7 questions were eliminated after the survey was pretested on a group of students who thought those questions were not easily understood. Thirteen questions were based on the KSUCD, American Dental Association (ADA), and CODA mission statements, while 2 questions asked the dental students if they were involved in any local or international volunteering missions (Table 1). The study was approved by the Ethics Committee at College of Dentistry Research Center, King Saud University, Riyadh, KSA. Descriptive statistics and bivariate analysis (Chi-square test) were carried out using Statistical Package for Social Sciences version 16 (SPSS Inc., Chicago, IL, USA) ( $p\leq 0.05$ ).

**Disclosure.** Authors have no conflict of interest, and the work was not supported or funded by any drug company. This study was funded by the College of Dentistry Research Center and the Deanship of Scientific Research, King Saud University, Riyadh, Kingdom of Saudi Arabia Research Project (#FR0077).

**Results.** Out of the 460 questionnaires distributed, 330 were answered. Response rate was 81.2% for females, and 65.3% for males with a total average of 71.7%. Table 2 shows the percentages of “yes” answers for male and female students at KSUCD. Almost 80% of all participants think that it is important for dental education to teach them on cultural diversity. Of male respondents, 72.5% feel that their dental education adequately prepares them to understand and respect culturally diverse people, and/or their

challenges to obtaining good oral health care, while only half of females thought so. Approximately 89% of all the students felt that volunteerism and empathy are important qualities of a good dentist. However, only 41% of the students thought that dental education at KSUCD specifically teaches them the importance of volunteerism and philanthropy.

Of the students, 57.1% felt that KSUCD’s mission statement emphasized teaching philanthropy and volunteerism, while 86% of the students thought it

**Table 1 -** Survey questions probing into students’ perceptions on cultural competency and international student exchanges.

No.	Question
1	Do you think it is important for dental education to teach you about cultural diversity?
2	Do you feel that your dental education adequately prepares you to understand and respect culturally diverse people and/or their challenges to obtaining good oral health care?
3	Do you feel that volunteerism and sympathy are important qualities of a good dentist?
4	Does your dental education at King Saud University College of Dentistry (KSUCD) specifically teach you about the importance of volunteerism and empathy?
5	KSUCD mission statement is to develop competent dental professionals and contribute to research and community service; through an environment that stimulates acquisition, dissemination and production of oral health knowledge, adopting technology, and building local and international partnerships. Do you feel this mission statement emphasizes on teaching you empathy and volunteerism?
6	Do you feel it is a moral duty of KSUCD to raise the level of oral health care in communities unable to access such services?
7	Do you feel that KSUCD encourages you to seek out or provides you with opportunities to volunteer to help communities unable to access oral care?
8	If you had a chance to participate in an international student exchange program aiming to raise awareness toward global dentistry and provide communities unable to access oral care, would you participate?
9	Do you think that it is important for KSUCD to provide you with opportunities to participate in international student exchange program?
10	In your opinion, an international student exchange program that provides clinical experience in communities unable to access oral care would:
	- Facilitate the global advancement of dentistry?
11	- Promote an appreciation for cultural and socioeconomic diversity of the communities graduates will be serving?
12	- Teach empathy and volunteerism?
13	Do you think that international student exchange opportunities with other schools would enhance your dental education?
14	Are you currently a volunteer in any local oral or dental health program?
15	Are you currently a volunteer in any international oral or dental health program?

Obtained with permission from: Ivanoff CS, Ivanoff AE, Yaneva K, Hottel TL, Proctor HL. Student perceptions about the mission of dental schools to advance global dentistry and philanthropy. *J Dent Educ* 2013; 77: 1258-1269.<sup>7</sup>

**Table 2 -** Percentages of “yes” responses among male (M) and female (F) Saudi students at the College of Dentistry, King Saud University, Riyadh, Kingdom of Saudi Arabia.

Question	Second		Third		Fourth		Fifth		Total	
	M	F	M	F	M	F	M	F	M	F
1	80.6	87.2	70.0	84.2	87.1	88.9	63.9	75.9	75.4*	84.7
2	93.5	59.6	62.0	55.3	74.2	37.8	48.6	44.8	72.5*	50.3
3	88.7	93.3	83.3	97.4	80.6	89.2	80.6	96.6	84.2*	94.0
4	56.5	43.5	36.0	28.9	43.3	35.1	44.4	29.6	46.1*	35.1
5	75.4	50.0	71.4	48.6	58.1	43.2	50.0	38.5	66.3*	45.8
6	79.0	89.4	82.0	92.1	77.4	91.7	88.6	93.1	81.5*	91.3
7	80.0	37.0	67.3	36.8	61.3	41.7	66.7	55.2	70.5*	41.6
8	83.6	91.5	94.0	81.6	83.9	86.5	82.4	82.8	86.4	86.1
9	90.2	93.5	86.0	92.1	76.7	83.3	80.0	75.9	84.7	87.2
10	85.2	95.5	95.9	97.3	93.5	91.4	90.9	92.6	90.8	94.4
11	80.0	97.7	91.3	97.2	93.3	81.1	87.9	93.1	87.0	92.5
12	80.6	86.7	93.2	100.0	86.7	94.6	77.1	85.4	85.2	91.8
13	93.4	87.2	93.9	97.4	90.3	94.4	77.1	85.7	89.8	91.3
14	53.2	14.9	34.0	32.4	41.9	45.9	28.6	10.3	41.0	26.0
15	35.5	6.4	22.0	10.8	6.5	16.2	19.4	10.3	23.6*	10.7

\* Indicates a statistically significant difference ( $p < 0.05$ )

is a moral duty of KSUCD to raise the level of oral health care in communities that are unable to access such services. Male and female students responded significantly different to whether KSUCD encourages them to seek out volunteering missions, or provide such opportunities with 70.5% of males agreeing, in comparison with 41.6% of females ( $p=0.000$ ). Almost 86% of students think that it is important for KSUCD to provide them with opportunities to participate in an international student exchange program. Most students (nearly 90%) think that an international student exchange program that provides clinical experience in communities unable to access oral care would facilitate the global advancement of dentistry, promote an appreciation for cultural and socioeconomic diversity of the communities graduates will be serving, and teach empathy and volunteerism. Hence, student exchange opportunities with other schools would enhance their dental education. Males were found to be significantly more engaged in participation in a local (41% [ $p=0.004$ ]), or international (23.6% [ $p=0.032$ ]) oral health program than the females (26% local and 10.7% international).

**Discussion.** Current dental education aims to provide communities with dentists who are both clinically and academically competent. A dentist who is not capable of interacting with patients from different cultures is less likely to be fully effective in communicating and treating patients who do not have equal access to oral health care. Over 80% of the Saudi students surveyed agree that compassion and philanthropy are required attributes of a competently trained dentist. The results concur with the survey conducted among American (95.8%) and Bulgarian (81.5%) students.<sup>7</sup> However, only half of the students surveyed at KSUCD thought that KSUCD's mission statement emphasized teaching students to have compassion, nor promoted volunteerism (57.1%) in comparison with American (84.5%) and Bulgarian students (88.0%). This may indicate that the students perceived a need to specifically include these goals in KSUCD's mission statement. Students in general (86% Saudi, (83%) American, and 77.2% Bulgarian)<sup>7</sup> feel that it is a moral duty of their dental school to provide oral health care to those who lack access to equitable health care.

Most students felt that their school should provide them with volunteer opportunities that further enhance their clinical and cultural competency. The KSUCD runs an annual campaign for caries prevention. Participation is voluntary for dental students at any

level. However, more than 3 quarters of the fifth year student respondents, students who are presumably the most qualified in the course of their undergraduate educations to engage in volunteer community service, reported no such engagement either locally (79.7%) or internationally (84.4%). On the other hand, this might reflect a lack of time or interest on the part of senior dental students at KSUCD to participate in volunteer service. However, it also reflects the possibility that KSUCD does not provide them with enough volunteer opportunities, as 61.3% of the fifth year respondents (or 57.1% of the total student pool) also reported that KSUCD encourages them to seek out, or provide them with opportunities to volunteer to help communities unable to access oral care. With an ever increasing number of students and class size, focus group studies, or more detailed surveys need to be conducted to find out why students believe their opportunities are inadequate.

The survey highlights the perception that Saudi dental students want their school to provide them with opportunities to be exposed to different cultures and communities. This is reverberated by KSUCD students' desire to participate in international student exchange programs that serve indigent communities that are unable to access oral care (86.2%). This perception was also shared by American (78.1%) and Bulgarian students (92.9%) in a parallel survey.<sup>7</sup> Despite their willingness to participate in such a program, only a third of the Saudi students surveyed were able to report an opportunity to participate in a local community service program (34.1%), with even less opportunity to engage in international programs (17.7%). The survey showed that the students felt that KSUCD should provide them with adequate training that emphasizes philanthropy, and inculcates them with a sense of volunteerism. This is in accordance with results from another survey, in which 84.6% American and all Bulgarian students expressed the same regarding their respective schools.<sup>7</sup> Such programs would facilitate the global advancement of dentistry, promote an appreciation for cultural and socioeconomic diversity of communities, and teach sympathy and volunteerism. Most of KSUCD students believe that international student exchange opportunities with other schools would enhance their dental education (90.5%).

Given the high response rate of the students at KSUCD, the authors assume that non-response bias was a minimal factor in the study. Given the overlap in many perceptions shared by the Saudi dental students and students from Bulgaria and the US alike, participation bias arising due to characteristics of Saudi

students choosing to participate in the survey was also minimally at play. However, future studies should investigate attitudes among other Saudi dental schools to determine the generalizability of the study's results to other Saudi dental students. There is also a need for future studies to determine what amount and type of community engagement would enhance the desired outcomes. One further limitation of the study is the fact that the original survey was developed in English and Bulgarian. The survey was conducted in English and perhaps terms, such as "cultural competency" are not apprehended well by students, and therefore, may have confused student respondents, or prompted answers from them without fully comprehending the concept. Therefore, future studies should strive to codify these concepts with terminology, that is both mutually intelligible and consistent with Arabic culture and academics.

In conclusion, there is high awareness regarding the importance of cultural competency among Saudi dental students at KSUCD. However, students believe that their college should provide them with additional ways to improve their cultural competency, such as international student exchange programs. The results suggest that Saudi dental students perceive the need for cultural competency training to be integrated into the dental curriculum.

**Acknowledgment.** *The authors would like to acknowledge the College of Dentistry Research Center and the Deanship of Scientific Research at King Saud University, Riyadh, Kingdom of Saudi Arabia for funding this research project.*

*Received 5th August 2015. Accepted 3rd December 2015.*

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## References

1. College of Dentistry, King Saud University's website. [Accessed 2015 October 20]. Available from: <http://dent.ksu.edu.sa/en>
2. Commission on Dental Accreditation, Accreditation Standards For Dental Education Programs. [Accessed 2015 October 20]. Available from: <http://dental.pacific.edu/Documents/microsites/accreditation/Predoc%20Standards%2002%2012.pdf>
3. Gundersen D, Bhagavatula P, Pruszyński JE, Okunseri C. Dental students' perceptions of self-efficacy and cultural competence with school-based Programs. *J Dent Educ* 2012; 76: 1175-1182.
4. Seymour B, Barrow J, Kalendarian E. Results from a new global oral health course: a case study at one dental school. *J Dent Educ* 2013; 77: 1245-1251.
5. Arnett MR, Forde R. Increasing student diversity and cultural competence as part of Loma Linda University School of Dentistry's service mission. *J Dent Educ* 2012; 76: 721-727.
6. Wides CD, Brody HA, Alexander CJ, Gansky SA, Mertz EA. Long-term outcomes of a dental postbaccalaureate program: increasing dental student diversity and oral health care access. *J Dent Educ* 2013; 77: 537-547.
7. Ivanoff, CS, Ivanoff AE, Yaneva K, Hottel TL, Proctor HL. Student perceptions about the mission of dental schools to advance global dentistry and philanthropy. *J Dent Educ* 2013; 77: 1258-1269.
8. Ivanoff CS. "Cross-National Clerkships and Cultural Competence Training in the Predoctoral Dental Curriculum: An Innovative Global Oral Health Initiative, 70th Anniversary Scientific Conference, Medical University of Plovdiv, Plovdiv, Bulgaria, May 21-23, 2015.
9. Broder HL, Janal M. Promoting interpersonal skills and cultural sensitivity among dental students. *J Dent Educ* 2006; 70: 409-416.
10. Crandall SJ, George G, Marion GS, Davis S. Applying theory to the design of cultural competency training for medical students: a case study. *Acad Med* 2003; 78: 588-594.
11. Donate-Bartfield E, Lobb WK, Roucka TM. Teaching culturally sensitive care to dental Students: a multidisciplinary approach. *J Dent Educ* 2014; 78: 454-464.
12. McQuistan MR, Mohamad A, Kuthy RA. Association between dentists' participation in charitable care and community-based dental education. *J Dent Educ* 2014; 78:110-118.