

Teachers' Perspective on Inclusion of Communication Skills in Dental Education Curriculum

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ABSTRACT

Objectives: Although communication skills may be learned in a clinical setting by trial and error method, a more formal approach to instruction is more efficient and enhances student confidence in clinics. This study describes the perception of teachers in a dental institute, regarding the importance of applying communication skills learning and assessment methods in dental curriculum.

Materials and methods: Seventy-four dental educators participated in this study by answering a questionnaire, which describes the opinions about the application of different communication skill methods in dental curriculum. Chi-square goodness of fit test was applied to compare the distribution of responses as given by the survey participants using Statistical Package for the Social Sciences software version 22 (IBM Corp).

Results: The results showed that most of the teachers agreed to apply different learning and assessment methods instead of the traditional methods which are used in the dental education. Most of the participants (97%) suggested that a broader approach of communication skill is necessary to be included in the dental curriculum.

Conclusion: According to the results of this study, it can be concluded that communication skills should be an integral part of the dental school curricula in both formal and informal courses with appropriate reinforcement and evaluation. Also, this study suggests that dental educators must be updated time to time about the recent methods of learning and assessment.

Keywords: Assessment methods, Communication skills, Dental education, Learning methods.

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INTRODUCTION

An appropriate therapeutic communication skills development is critical and vital to effective quality of patient-centered care. The advantages of effective communication be dental practitioners are: Positive patient satisfaction, good prognosis, and reduced anxiety. However, many dental practitioners and dental educators have reported that their education and, consequently, their skills in communication are often lacking.^{1,2} Therefore, many dental practitioners and dental educators have evaluated communication skills training as highly relevant during undergraduate training program. Communication skills have attracted increasing attention in curriculum development internationally, and various methods have been implied to aid in the learning of these skills. A negligible number of studies have indicated that attitudes toward communication skills training and behavioral sciences have been less positive or have worsened over time.^{2,3} Communication in health care is not a personality trait on the part of the dentist but rather a series of skills that can be taught, learned, retained, and reproduced.⁴

Despite widespread recognition of the importance of communication skills learning and assessment methods in dental curriculum, the reality of what is practiced is somewhat different. Where programs do exist, they often take the form of lectures or passive learning and emphasize theoretical aspects of communication rather than providing opportunities for skills-based practice. In some schools, tutors simply allow students to observe them at work and expect the students to learn what they need to know about communication simply by direct observation and also students' skills are then often graded by the person they had previously been observing. This subjectivity can cause wide variability in the skills acquired by students with different tutors and in different institutions.⁴

Most studies in dental literature have focused on all aspects of the dental curriculum, and little is known specifically about undergraduates' perceived competence in dentist/patient communication skills. A study by Sharon, Sonya, and Rita describes the student's perception, which suggested that enhancement of communication

skills, patient satisfaction, time management, and patient assessment as a result of good communication skills training. Time constraints and lack of faculty interest also play a part in the lack of emphasis in the development of sound communication skills among dental students. Many dental schools around the globe argue that communication is a core clinical skill rather than an optional curricular component and thus must be an integral part of the undergraduate dental curriculum. Therefore, dental facilitators in developing countries are striving to incorporate communication skill training in the undergraduate and postgraduate curricula.^{4,5}

Lack of time in the dental curriculum, faculty time, and funding for standardized patients are potential limitations for communication skills training in dentistry. In particular, assessment, observation, and feedback on students' communication skills are time-intensive. However, interdisciplinary collaboration among health care faculties could address these limitations.⁵ Carey et al⁶ have recommended that the role of real patients in the development of communication skills be active rather than passive.

There is always an association between attitudes and behaviors, therefore, it is necessary to examine the faculty attitudes toward dental communication training skills pertinent, especially given that dental educators are now charged with ensuring greater student competency in clinician/patient interpersonal skills. Undergraduate dental education in Saudi Arabia is characterized by rigorous laboratory and clinical training of the students, resulting in numerous patient encounters during the clinical years. The dental undergraduate course to achieve the Bachelor of Dental Surgery in this country comprised 6 years program for dental training followed by 1 year of internship. The proficiency of these students in communication skills is part of five domains in the dental curriculum and this domain is one of the main requirement for accreditation of National Commission for Academic Accreditation and Assessment in Saudi Arabia. To date, the literature does not include reports of evaluation and training in communication skills during undergraduate dental education in this country. The aim of this study was to evaluate the importance of applying communication skill learning and assessment methods, based on the opinion of dental educators, in dental curriculum of College of Pharmacy and Dentistry, Buraidah Private Colleges, Saudi Arabia.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted from March to June 2016 to determine the knowledge and opinion of dental faculty to include communication

skills learning and assessment methods in dental curriculum. The sample for this study included all the dental faculty (n = 74) in the College of Pharmacy and Dentistry, Buraidah Private Colleges, Saudi Arabia. A seminar was conducted on different communication skills training and assessment methods followed by question and answer session for 15 minutes. After the seminar, a close-ended questionnaires was distributed to all the dental faculty and were given 20 minutes to tick the suitable options according to their understanding and experience in the field of dental education. The details of the participant were not recorded to prevent any bias. Ethical clearance was taken from the institution ethical committee before the commencement of the study.

The questionnaire was divided into two parts based on the type of communication skill method used; i.e., learning methods and assessment methods (Table 1). The first part consisted of didactic lectures, role play,⁷⁻⁹ brainstorming, simulated patients (actors trained to represent specific clinical and behavioral profiles),^{3,10,11} small group discussions,¹⁰ videotape interview, and real patient.^{9,12} The second part of the questionnaire consisted of student evaluation questionnaire,^{3,7,8} interpersonal communication checklist,¹³ videotape reviewing,^{9,13} simulated patient assessment,^{3,10,14} behavioral observation form,¹² dental consultation communication checklist (DCCC),^{10,14} multiple choice questions,¹⁰ behavior role play test,¹⁰ videotaped assessment using DCCC,¹⁰ objective structured clinical examination,¹³ and real patient interview assessment.¹⁴ A modified version of semantic differential scale was included in the questionnaire, which consisted of direct questions with four options like agree, disagree, not sure, and not applicable.

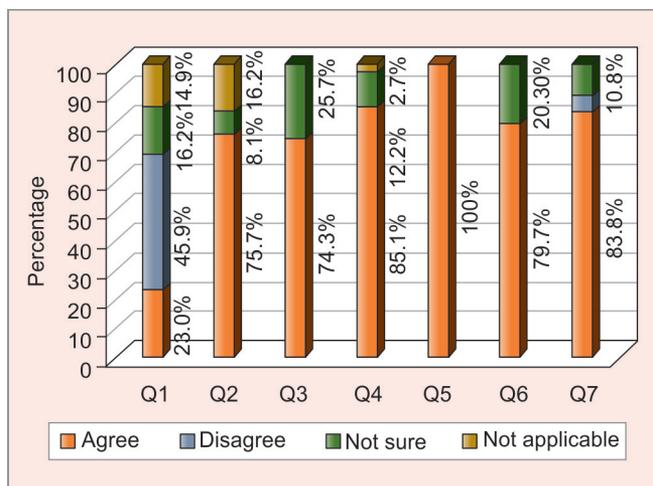
The study data were analyzed using Statistical Package for the Social Sciences software version 22 (IBM Corp). The frequency distribution for the study variables was expressed in terms of numbers and percentages in Table 1. Chi-square goodness of fit test was used to compare the distribution of responses as given by the survey participants toward various questions put forth to each dental faculty. The level of significance (p-value) was set at $p < 0.05$.

RESULTS

The results of this study showed that most of the participants agreed to include a diversified and recent communication skills learning and assessment methods in dental education rather than the traditional methods. According to the Graph 1 and Table 2, out of 74 participants only 17 (23%) participants comply that traditional didactic teaching is sufficient to teach communication skills. Most of the faculty, 34 (46%) dentist educators, suggested that

Table 1: Questions put forth to the participants in the survey

Q1	Do you believe that Didactic Teaching is sufficient to teach communication skills?
Q2	Would you recommend Role Play to be added in your course?
Q3	Would you recommend Simulations to be used in your course to teach communication skills?
Q4	Do you think Brainstorming will help in improving student's communication skills?
Q5	Do you think Small Group Discussions will improve communication skills?
Q6	Do you suggest Videotaped Dental Interview should be included in the course to improve communication skills?
Q7	Do you think Real Patient interviewing is sufficient to develop communication skills?
Q8	Would you recommend Student Evaluation Questionnaire to assess the communication skills teaching methods?
Q9	Do you think Interpersonal Communication Checklist is required to assess teaching methods?
Q10	Do you believe Videotape Reviewing of the student/patient interaction is a must for assessing communication skills?
Q11	Does patient response form by Simulated Patient help in assessing communication skills?
Q12	Do you believe Behavioral Observation Form is needed to assess Nonverbal communication of students?
Q13	Would you recommend, the use of DCCC?
Q14	Do you believe MCQ knowledge is sufficient to assess communication skills?
Q15	Do you think Behavior Role Play Test will help to assess both verbal and Non-verbal Communication?
Q16	Do you recommend the use of Videotaped assessment using DCCC?
Q17	Do you suggest OSCE – objective structured clinical examination as an important tool to assess communication skills?
Q18	Do you believe Real Patient consultation is sufficient to assess communication skills?



Graph 1: Graphical representation of faculty opinion on different methods of learning

a broader approach on communication skill learning is necessary to be included in the dental curriculum, which was statistically significant in this study. The results also show that around 75 to 85% participants agreed for inclusion of alternative learning methods, such as role play (56/75.7%), brainstorming (63/85%), simulated patients (55/74%), videotape interview (59/79.7%), and real

patient (63%) should be included in the dental education which was also statistically significant. All the participants were in agreement that small group discussion is an effective method of learning communication skills.

Table 3 and Graph 2 show that 24 (32%) participants out of 74 suggested that traditional multiple-choice questions (MCQ) can be used to assess communication skills, which was statistically significant. Although many participants agreed that other assessment methods, such as student evaluation questionnaire (85%), videotape reviewing (66%), simulated patients (97%), behavioral observation form (60%), behavior role play (73%), videotaped assessment with DCCC (75%) and real patients (68%) are suitable to assess communication skills which was statistically significant, all the participants strongly believed the use of interpersonal communication checklist and Objective Structure Clinical Examination (OSCE) are the best methods to assess communication skills in dentistry.

According to the results (Tables 2 and 3), faculty members are of the opinion that small group discussions, interpersonal communication checklist, and OSCE should be included in the dental curriculum to improve communication skills of dental students.

Table 2: Learning methods – comparison of the distribution of the responses given by the study participants for different questions using Chi-square goodness of fit test

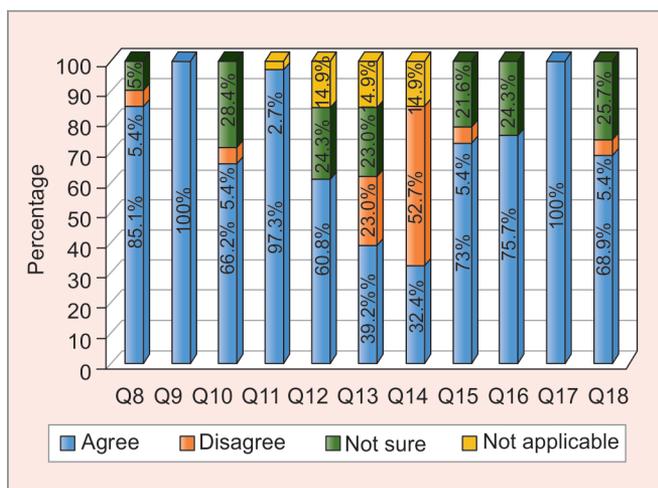
Questions	Agree		Disagree		Not sure		Not applicable		χ^2 value	p-value
	n	%	n	%	n	%	n	%		
Q1	17	23.0	34	45.9	12	16.2	11	14.9	18.432	<0.001*
Q2	56	75.7	0	0.0	6	8.1	12	16.2	60.432	<0.001*
Q3	55	74.3	0	0.0	19	25.7	0	0.0	17.514	<0.001*
Q4	63	85.1	0	0.0	9	12.2	2	2.7	90.351	<0.001*
Q5	74	100.0	0	0.0	0	0.0	0	0.0		
Q6	59	79.7	0	0.0	15	20.3	0	0.0	26.162	<0.001*
Q7	62	83.8	4	5.4	8	10.8	0	0.0	85.081	<0.001*

*Statistically significant (p < 0.05)

Table 3: Assessment methods – comparison of the distribution of the responses given by the study participants for different questions using Chi-square goodness of fit test

Questions	Agree		Disagree		Not sure		Not applicable		χ^2 value	p-value
	n	%	n	%	n	%	n	%		
Q8	63	85.1	4	5.4	7	9.5	0	0.0	89.541	<0.001*
Q9	74	100.0	0	0.0	0	0.0	0	0.0		
Q10	49	66.2	4	5.4	21	28.4	0	0.0	41.865	<0.001*
Q11	72	97.3	0	0.0	0	0.0	2	2.7	66.216	<0.001*
Q12	45	60.8	0	0.0	18	24.3	11	14.9	26.135	<0.001*
Q13	29	39.2	17	23.0	17	23.0	11	14.9	9.243	0.03*
Q14	24	32.4	39	52.7	0	0.0	11	14.9	15.919	<0.001*
Q15	54	73.0	4	5.4	16	21.6	0	0.0	55.243	<0.001*
Q16	56	75.7	0	0.0	18	24.3	0	0.0	19.514	<0.001*
Q17	74	100.0	0	0.0	0	0.0	0	0.0		
Q18	51	68.9	4	5.4	19	25.7	0	0.0	46.730	<0.001*

*Statistically significant ($p < 0.05$)



Graph 2: Graphical representation of faculty opinion on different methods of assessment

The results also suggested that significant number of participants were not having sufficient knowledge of certain assessment methods, such as student evaluation questionnaire (9.5%), videotape reviewing (28%), behavioral observation form (24%), DCCC (23%), behavior role play (21.6%), videotaped assessment with DCCC (24%), and real patients (25.7%); therefore, they were not sure that these methods could be included in the dental curriculum.

DISCUSSION

Dental education curriculum is in a constant state of change due to the dynamic process involving clinical, cognitive, and communication skills.¹² Lectures were the most common teaching method, and written examination was more frequently used before for assessment in dental schools. Recently, many methods have been introduced based on the Miller’s pyramid of competence.

According to Sharon et al,⁵ a course on communication skills should focus on knowledge, observation, simulation,

and experience (KOSE). In the simulated and nonsimulated environment, KOSE allows students to obtain knowledge of, and observe, effective communication skills and practice these skills.

The results of this study suggested that the faculty members who responded to this survey clearly support the importance of communication skills training. Also, it appears that at Buraidah Private College, we have a dental faculty who appreciate the inclusion of recent methods of communication skills training as reflected in the scores for the questions in the survey. This finding is similar to observations in other dental and medical institutions across Canada, Germany, Austria, and Switzerland.^{15,16}

Consistent with results of previous studies done on communication skill methods, this study also suggested that innovative methods, such as role play, simulations, small group discussions, videotaped dental interview, real patient, student evaluation questionnaire, behavior role play test, interpersonal communication checklist, videotape reviewing, DCCC, videotaped assessment using DCCC, OSCE, and real patients should be included in dental curriculum planning and implementation.^{6,10-13,17-19}

Simulated patients are a feasible and effective method of learning and assessing communication skills in the health care setting. Many studies have successfully incorporated the use of simulated patients to teach and evaluate interviewing skills and presentation of treatment plans, often also incorporating audio- and videotaping. Typically, simulated patients provide feedback to the students on their communication skills, such as eye contact, types of questions asked, if anxiety or fear was addressed, the degree of patient involvement, and perceived empathy.^{3,5,10,11} The results of this study support this view about simulated patients to be introduced in the dental curriculum as accepted by most of the dental educators.

Some studies have shown that methods, such as role play, real patient dental interview and DCCC, improved interpersonal skills significantly after training, were most effective for reducing anxiety; similar observations were recorded in the present survey.^{12,17,18}

Moreover, OSCE is a noteworthy evaluation tool that can be used to provide a standardized assessment of students' competency in several areas of dental education, including communication skills, medical history taking, treatment planning, and psychomotor skills assessment. As suggested by Cannick et al,¹³ utilization of the OSCE in evaluating comprehensive training programs can be a valuable educational methodology in dental curriculum.⁶

This study was designed to study, evaluate, and assess the outcomes of a survey among dental educators which may help in the development of a new dental curriculum which should include communication skills. There are many studies which were done to evaluate and assess each learning and assessment method of communication skills using dental students and patient instructors, but the present study illustrates the dental educator's perspective on different methods of learning and assessing communication skills.^{3-5,10-12}

One important finding of this study was that the DCCC method was not fully accepted by dental faculty, which was similar to another study.²⁰ The reason for this may be the participants believe that DCCC does not capture the patient and other stakeholder's perspective on the communication dynamics occurring between patient and students in the clinic.

The limitations of this study were that the results cannot be generalized to all dental schools due to differing program integrated learning objectives determined by quality control unit in the dental schools and lack of faculty time. Simulated patient exercises and small group discussions can be an alternative or additional methods to be included in the dental course to solve the problem of lack of faculty time. Simulated patient exercise have the potential to be feasible, effective, and efficient strategies for learning and assessment of communication skills in a health care setting. Small group discussion have many benefits, such as greater teamwork, confidence, and respect for peers, which are vital in developing professionalism.⁵ Because this was an educational institution, the teachers could not be blinded to their group assignments. Another major limitation of this study is that there was no intervention and control groups to evaluate the validity and reliability of clinical communication learning and assessment methods.

The results of this current study can be applied to dental program in College for Pharmacy and Dentistry, Buraidah Private Colleges, Saudi Arabia, and can have implications for other dental schools in Saudi Arabia and around the

globe. One of the goals of dental schools across the globe is to train their students to have excellent clinical skills and production. Increasingly, these schools also seek to ensure that their graduates are able to understand the overall health care needs of their patients, not just to treat the oral cavity. This means that these professional schools are striving to graduate dentists who are able to relate, understand, and effectively communicate with their patients. Therefore, future research in this field should include developing new dental communication skills assessment tools by including patients and other stakeholders, and evaluation of communication skills attitude scale.^{11,20,21}

According to a recent review on communication skills in dental practice, the authors concluded that the dentists should be trained and they should apply in their job adequate communication methods tailored to the individual characteristics of each patient. This is the only way trust can be built, and at the end of the treatment both patient and dentist be satisfied with the outcome.²² The results of the present study show similar opinions have been observed in dental faculty to improve communication skills of their students before passing the dental course by using different methods; therefore, it is high time that these methods are used in combination in the upcoming dental programs in all the dental institutions.

CONCLUSION

Clearly, more research in this area is warranted because communication skills are vital for a healthy patient/dentist relationship. The American Dental Education Association recommends that dental schools should include communication skills training throughout the predoctoral training. Communication skills should be an integral part of the dental school curricula in both formal and informal courses with appropriate reinforcement and evaluation. According to the results of this study, most of the dental educators were of the same opinion that the new methods, such as role play, simulations, videotape interview, real patient, student evaluation questionnaire, behavior role play test, behavior role play test, interpersonal communication checklist, videotape reviewing, DCCC, videotaped assessment using DCCC, and OSCE should be incorporated in the dental curriculum instead of traditional didactic lecturers and MCQs. Also, there is a need for continuous education, workshops, and web-based learning that are targeting the dental educators regarding the different methods of learning and assessing communication skills.

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REFERENCES

1. Dieter JS, Mickey EW, Nita M. Determining the validity and reliability of clinical communication assessment tools for dental patients and students. *J Dent Educ* 2012 Oct;76(10):1276-1290.
2. Kruger C, Blitz-Lindeque JJ, Pickworth GE, Munro AJ, Lotriet M. Communication skills for medical/dental students at the University of Pretoria: lessons learnt from a two-year study using a forum theatre method. *S Afr Fam Pract* 2005;47:60-65.
3. Hannah A, Millichamp J, Ayers KM. A communication skills course for undergraduate dental students. *J Dent Educ* 2004 Sep;68(9):970-977.
4. Sunila BS, Ara T. Communication skills course in an Indian undergraduate dental curriculum: a randomized controlled trial. *J Dent Educ* 2013 Aug;77(8):1092-1098.
5. Sharon KL, Sonya LR, Rita MW. Communication skills instruction utilizing interdisciplinary peer teachers: program development and student perceptions. *J Dent Educ* 2008 Feb;72(2):172-182.
6. Carey JA, Madill A, Manogue M. Communication skills in dental education: a systematic research review. *Eur J Dent Educ* 2010 May;14(2):69-78.
7. Broder HL, Janal M. Promoting interpersonal skills and cultural sensitivity amongst dental students. *J Dent Educ* 2006 Apr;70(4):409-415.
8. Croft P, White DA, Wiskin CM, Allan TF. Evaluation by dental students of a communication skills course using professional roleplayers in a UK school of dentistry. *Eur J Dent Educ* 2005 Feb;9(1):2-9.
9. Gorter RC, Eijkman AJ. Communications skills training courses in dental education. *Eur J Dent Educ* 1997 Aug;1(3):143-147.
10. Van der Molen HT, Klaver AA, Duyx MP. Effectiveness of a communication skills training programme for the management of dental anxiety. *Br Dent J* 2004 Jan 24;196(2):101-107.
11. Wagner J, Arteaga S, D'Ambrosio J, Hodge CE, Ioannidou E, Pfeiffer CA, Yong L, Reisine S. A patient-instructor program to promote dental students' communication skills with diverse patients. *J Dent Educ* 2007 Dec;71(12):1554-1560.
12. Hottel TL, Hardigan PC. Improvement in the interpersonal communication skills of dental students. *J Dent Educ* 2005 Feb;69(2):281-284.
13. Cannick GF, Horowitz AM, Garr DR, Reed SG, Neville BW, Day TA, Woolson RF, Lackland DT. Use of the OSCE to evaluate brief communication skills training for dental students. *J Dent Educ* 2007 Sep;71(9):1204-1209.
14. Theaker ED, Kay EJ, Gill S. Development and preliminary evaluation of an instrument designed to assess dental students' communication skills. *Br Dent J* 2000 Jan 8;188(1):40-44.
15. Langille DB, Kaufman DM, Laidlaw TA, Sargeam J, MacLeod H. Faculty attitudes towards medical communication and their perceptions of students' communication skills training at Dalhousie University. *Med Educ* 2001 Jun;35(6):548-554.
16. Rüttermann S, Sobotta A, Hahn P, Kiessling C, Härtl A. Teaching and assessment of communication skills in undergraduate dental education – a survey in German-speaking countries. *Eur J Dent Educ* 2016 Mar 9:1-8.
17. Hiler C. Psychological consultation in dental training. *J Psychother Independent Pract* 2001;2:91-104.
18. Ratzmann A, Wiesmann U, Gedrange T, Kordab B. Early patient contact in undergraduate dental education in Germany – 'The Greifswald Model'. *Eur J Dent Educ* 2007 May;11(2):93-98.
19. Ryan CA, Walshe N, Gaffney R, Shanks A, Burgoyne L, Wiskin CM. Using standardized patients to assess communication skills in medical and nursing students. *BMC Med Educ* 2010 Mar 17;10:24.
20. Mickey EW, Dieter JS, Mazurat N. Developing new dental communication skills assessment tools by including patients and other stakeholders. *J Dent Educ* 2011 Dec;75(12):1527-1541.
21. Brian L, Elizabeth MB, Tawana F, Roberta H, Carolyn S. Adaptation of the Communication Skills Attitude Scale (CSAS) to dental students. *J Dent Educ* 2012 Dec;76(12):1629-1638.
22. Aleksandrova V, Stoykova M, Musurlieva N. Communication skills in dental practice: a review. *Stoma Edu J* 2016;3(1):63-67.