



Evaluation of Dentistry Students' Satisfaction Rate with Educational Services at Kermanshah University of Medical Sciences, Iran (2015 – 16)

Ebrahim Soltani¹, Seyed Mojtaba Amiri² and Amirhossein Moradi^{1,*}

¹Department of Periodontics, Faculty of Dentistry, Kermanshah University of Medical Sciences, Kermanshah, Iran

²Students Research Committee, Kermanshah University of Medical Sciences, Kermanshah, Iran

*Corresponding author: Assistant Professor of Periodontics, Faculty of Dentistry, Kermanshah University of Medical Sciences, P.O. Box: 6713737364, Kermanshah, Iran. Tel: +98-9122400582, Email: amirhossein7moradi@yahoo.com

Received 2017 September 06; Accepted 2018 July 30.

Abstract

Clinical teaching quality assurance is determined by continuous evaluation. The purpose of this study was to evaluate the satisfaction rate of clinical dentistry students with clinical teaching in Kermanshah University of Medical Sciences between 2015 and 2016. In this descriptive-analytical study, 90 students (56.7% female) with an average age of 25.17 ± 3.15 years participated. The data collection tool was a satisfaction evaluation questionnaire. To compare satisfaction levels between different parts, repeated measures test and Bonferroni post hoc test were used. SPSS version 18 software was used to analyse data. The results showed that there was a significant difference in satisfaction rate of fourth year students with teaching among sections of the faculty ($P = 0.016$). In general, the students satisfaction rate with the clinical departments can be evaluated as moderate. Maximum cooperation of the professors and accurate implementation of the educational curriculum can have a significant effect on increasing student satisfaction.

Keywords: Satisfaction, Dental Students, Clinical Teaching, Clinical Evaluation, Kermanshah

1. Background

One of the methods for evaluating an educational system is surveying student opinions, as they experience the full effect of the teaching during their course (1, 2). As the main recipients of the educational system, evaluating student satisfaction is one of the significant components of the quality of education (3). Studies have shown that in current dental school curricula, students do not reach their predetermined educational goals (4). Thus, it is necessary to evaluate the existing state of the education continuously and identify its strengths and weaknesses to achieve effective clinical education (5, 6). Studies have been conducted to evaluate the views and satisfaction levels of clinical interns of different medical sciences. Studies by Acasian et al. in Qom University of Medical Sciences (7) and Tofighi et al. in Tehran University of Medical Sciences (8) have shown student satisfaction with no aspects of educational services. In conclusion, one can state that all educational systems, especially medical education dealing with the health of individuals and society, need continuous evaluation (9). Although clinical skills are important in dental education, it was evaluated much less than other medical sciences.

2. Objectives

The purpose of this study was to evaluate the satisfaction of students of dentistry in their last three years with education to understand better the clinical educational environment of the dentistry departments in Kermanshah University of Medical Sciences.

3. Methods

The present descriptive-analytic study was conducted on fourth-, fifth-, and sixth-year (clinical level) students from the faculty of dentistry in the academic year 2015 - 2016. The samples entered the study using convenience method. From each academic year, 30 students (90 students in total, 56.7% female, 43.3% male) mean age of 25.17 ± 3.15 years were evaluated. The inclusion criteria were the start of internship and training course, having at least two academic semesters at the faculty, and being satisfied with joining the study. Guest students, students who had not started the internship or training courses and or were unwilling to participate in this study were excluded. The data collection tool was a questionnaire developed by Sanatkhani et al. in 2009 to evaluate the satisfaction levels of clinical students with education in the dental school

(6). The questionnaire had two parts: the first included the academic year, gender and GPA of the student and the second part had 15 questions to evaluate factors related to the professor and staff of the department, educational goals and planning, educational facilities and equipment, and the measurement method of student knowledge and learning. Scoring for each question was based on the Likert scale with 1 for very weak to 5 for very good. After questionnaires were collected, data were entered into SPSS 18.0 (Inc., Chicago, Ill., USA); repeated measures test was used to evaluate the satisfaction level with education offered by different departments of the dental school. Kolmogorov-Smirnov approved the normal distribution of data and Bonferroni's follow-up test was used for pairwise comparisons.

4. Results

In the present study, in the basic model for data analysis, age, gender, year of admission, and GPA were considered as the independent variables, but due to the interaction between students satisfaction with education and admission year ($P < 0.001$), data analysis was done separately for the admission year of the students. The satisfaction level of 4th year students with education in different sections of the dentistry school was statistically significant ($P = 0.016$): restoration had the lowest score and oral and maxillofacial surgery had the highest score (Table 1). Comparison of satisfaction rate of 5th year students with education in different departments of the faculty of dentistry did not show a statistically significant difference ($P = 0.334$). The repeated measures test showed that the level of satisfaction of 6th year students with education in different departments of dentistry faculty was not statistically significant ($P = 0.831$) (Table 1).

5. Discussion

The results of the present study show that student satisfaction with periodontics, fixed prosthesis, movable prosthesis and pediatrics was higher than with the other sections. Restoration, oral diseases, endodontics and orthodontics were the least favorable. The results of the study by Tofighi et al. (8) showing that satisfaction with the pediatric department and the lack of satisfaction with orthodontics were consistent with the results of the present study. Although this consistency is not significant, due to the difference in satisfaction measurement method, in research implementation and in conducting the study in two different times and places, this difference in results is not unexpected. Similarly, the results of studies by Eslamipour

et al. (9) and Tabatabaei et al. (10) were different from the results of this study, which can be justified due to differences in the facilities and procedures of each faculty. In such studies, the best approach is to examine the causes of satisfaction considering the factors affecting the students' view.

One of the important factors in satisfaction of students is the number of professors and their attendance and supervision in the departments. The results showed that the highest score in this area was for periodontics, fixed prosthesis and mobile prosthesis; students were least satisfied with restoration and endodontics. Given the importance of this factor, it is observed that the satisfaction of the factors related to the professor has led to a general increase in the satisfaction of these sections or vice versa.

In Eslamipour et al. (9), the highest satisfaction of the students was with professors of orthodontic and periodontics and the least satisfaction was with professors of the prosthetic and restorative departments. Their results also stressed the importance of the role of the professor in student satisfaction with the sections. In the present study, the students evaluated the time and quality of demonstration in the restoration section as weak and in the fixed prosthesis section as desirable. In the study by Sanatkhani et al. (6) regarding the time allocated to demonstration and its quality, the highest satisfaction was for the oral diseases section and the least was for periodontics and prosthesis.

The next effective factor is the existence of equipment and facilities in the departments. According to the results of this study, the students evaluated periodontics, surgery departments as favorable in this regard, and the radiology section as weak, which has good consistency with the general satisfaction of students with the departments. In Tabatabaei et al. (10), students were most satisfied with the orthodontics department and the least satisfied with the endodontics and surgery sections. Student satisfaction with the equipment and facilities of these units was inconsistent with the overall satisfaction of the sections, which shows the importance of the role of equipment and facilities compared with the role of the teacher.

In the present study, students were most satisfaction with radiology and surgery sections, in the time devoted to each section and the timing and adjustment of patients, and least satisfied with restoration and oral diseases. In the study by Tofighi et al. (8), 75% of the students considered the time for apprenticeship in pediatric and radiology sections enough, and 41.7% stated the duration of orthodontic training as short. Students seem to need more time in the sections that have longer and varied clinical work, and the lack of timing and conditions will increase their dissatisfaction with that section.

In addition, in the present study students had the highest degree of satisfaction with the transparency of the goals of the fixed prosthetic section and the least with oral diseases section. Zamanzad et al. also stated that lack of education in accordance with established goals is due to low satisfaction of medical students from some sections (11). Regarding the cooperation of nursing staff with students, the highest satisfaction was with the surgical section and the lowest with fixed prosthesis and oral diseases. Students from Babol University had the highest level of satisfaction with the nursing section of oral health, which was different from the results of the study (10).

Concerning the necessity of conducting written tests and OSCE, the radiology and periodontics sections were most urgent and the endodontics and oral diseases were the least urgent ones. In a study conducted at Kerman school of dentistry, Faryabi et al. (12) stated that the clinical evaluation of the departments increases student stress and reported that only 30% of the students consider OSCE exams positive and 20% agreed with conducting practical tests.

5.1. Conclusions

According to the results, restoration, oral and maxillofacial diseases, endodontics and orthodontics departments of dentistry of Kermanshah University of Medical Sciences had the lowest acceptability among students. According to students, the most important factors with this dissatisfaction are related to the role of the professor, timing, and facilities and equipment to some extent. Thus, more cooperation of professors and the accurate implementation of educational curriculum in the department with a mean score lower than the average can have a significant effect on increasing student satisfaction.

Acknowledgments

This paper is the result of the student's thesis, No. 95566, which was approved and sponsored by the Center

for Kermanshah University of Medical Sciences development and education.

References

1. Johnson DW, Johnson FP. *Joining Together: Group Theory and Group Skills*. 7th ed. Boston: Allyn and Bacon, Incorporated; 2000.
2. Pariseau SE, McDaniel JR. Assessing service quality in schools of business. *Int J Qual Reliabil Manag*. 1997;14(3):204-18. doi: 10.1108/02656719710165455.
3. Henzi D, Davis E, Jasinevicius R, Hendricson W. In the students' own words: what are the strengths and weaknesses of the dental school curriculum? *J Dent Educ*. 2007;71(5):632-45. [PubMed: 17493972].
4. Spallek H, O'Donnell JA, Yoo YI. Preparing faculty members for significant curricular revisions in a school of dental medicine. *J Dent Educ*. 2010;74(3):275-88. [PubMed: 20203328].
5. Delaram M. [Clinical education from the viewpoints of nursing and midwifery students in Shahrekord University of Medical Sciences]. *Iran J Med Educ*. 2006;6(2). Persian.
6. Sanatkhan M, Molla Z, Akbari M. [Evaluation of the students' perception about clinical education and examination in Mashhad School of Dentistry (Iran) in 2009]. *J Mashhad Dent Sch*. 2012;36(3):211-22. Persian.
7. Abbasian M, Chaman R, Mousavi S, Amiri M, Taromsar MG, Maleki F, et al. [Gap analysis between students' perceptions and expectations of quality of educational services using SERVQUAL Model]. *Qom U Med Sci J*. 2013;7(2):2-9. Persian.
8. Tofighi S, Sadeghifar J, Hamouzadeh P, Afshari S, Foruzanfar F, Taghavi Shahri SM. [Quality of educational services from the viewpoints of students SERVQUAL model]. *Educ Strateg Med Sci*. 2011;4(1):21-6. Persian.
9. Eslamipour F, Shirban F, Refaei P. [Assessment of dental students' satisfaction of clinical departments in Isfahan dental school]. *Iran J Med Educ*. 2011;10(5). Persian.
10. Tabatabaei S, Tabrizzade M, Qazanfari S, Hakimian R. [Evaluating Students' Satisfaction in Regard with Clinical Training at Shahid Sadoughi Dentistry School of Yazd in 2014]. *Yazd J Dent Res*. 2015;4(2):491-502. Persian.
11. Zamanzad B, Moezzi M, Shirzad H. [Rate of satisfaction and evaluation of medical students (interns and externs) from the quality of clinical education in the Shahre-kord university of medical sciences-2005]. *Koomesh*. 2007;9(1):13-20. Persian.
12. Faryabi J, Farzad M, Sinaee N. University students' point of view about clinical evaluation using objective structured clinical examination (OSCE), Kerman School of Dentistry. *Strides Deve Med Educ*. 2009;6(1).

Table 1. Mean and Standard Deviation of Students' Satisfaction with Each Question Separately and Overall and Comparing Them in Different Clinical Departments of the Faculty^{a,b}

	Restoration	Oral and Maxillofacial Diseases	Endodontics	Orthodontic	Oral and Maxillofacial Surgery	Oral and Maxillofacial Radiology	Pediatrics	Moving Prosthesis	Fixed Prosthesis	Periodontics	P-Value
The time allocated for the part	2.97 ± 1.03	3.28 ± 0.69	3.16 ± 0.94	3.18 ± 0.94	3.38 ± 0.99	3.58 ± 0.81	3.40 ± 0.82	3.36 ± 0.93	3.46 ± 0.90	3.34 ± 0.84	< 0.001 [†]
Student awareness of the goals of the department at the beginning of the course	3.04 ± 1.03	2.78 ± 0.86	3.21 ± 0.85	3.01 ± 0.93	3.22 ± 0.98	3.44 ± 0.85	3.44 ± 0.88	3.44 ± 0.85	3.56 ± 0.82	3.38 ± 0.91	< 0.001 [†]
The physical equipment in departments	2.88 ± 0.98	2.79 ± 0.99	3.15 ± 0.89	3.17 ± 0.96	3.46 ± 0.84	2.39 ± 1.09	3.29 ± 0.94	2.86 ± 1.07	2.99 ± 1.03	3.38 ± 0.88	< 0.001 [†]
Availability of tools and materials in departments	2.97 ± 1.01	2.96 ± 0.99	3.06 ± 0.87	3.28 ± 0.92	3.48 ± 0.86	2.48 ± 1.05	3.38 ± 0.88	2.94 ± 1.06	2.96 ± 1.08	3.44 ± 0.82	< 0.001 [†]
The level of nursing staffing in treatment	3.34 ± 1.17	3.14 ± 0.98	3.13 ± 1.05	3.47 ± 0.97	3.68 ± 1.03	3.60 ± 1.04	3.11 ± 0.87	2.86 ± 1.22	2.84 ± 1.12	3.39 ± 0.86	< 0.001 [†]
Scheduling and adjust patients	3.19 ± 1.08	2.92 ± 0.93	3.13 ± 1.00	3.06 ± 0.96	3.37 ± 0.99	3.17 ± 0.92	3.18 ± 0.84	3.17 ± 1.05	3.10 ± 0.94	3.23 ± 0.87	0.092 [†]
The number of teachers' presence in the department	3.03 ± 1.15	2.98 ± 1.07	2.63 ± 1.04	3.06 ± 1.12	3.13 ± 1.17	3.39 ± 1.10	3.20 ± 1.01	3.32 ± 0.96	3.44 ± 1.06	3.52 ± 0.96	< 0.001 [†]
Timely attendance of professors in the department	2.80 ± 1.14	3.07 ± 1.13	3.07 ± 1.10	2.97 ± 1.19	3.01 ± 1.15	3.44 ± 1.14	3.24 ± 1.10	3.56 ± 0.97	3.69 ± 1.05	3.50 ± 0.94	< 0.001 [†]
Supervision of the professors over infection control	2.84 ± 1.22	3.02 ± 1.21	3.13 ± 1.08	2.96 ± 1.12	2.84 ± 1.25	3.13 ± 1.14	3.30 ± 0.99	3.48 ± 0.96	3.62 ± 0.99	3.63 ± 0.88	< 0.001 [†]
Supervision of the professors while the student works	2.44 ± 1.07	2.97 ± 0.98	2.79 ± 0.98	2.82 ± 1.15	3.12 ± 1.16	3.01 ± 1.06	3.27 ± 0.97	3.59 ± 0.99	3.59 ± 1.02	3.40 ± 0.93	< 0.001 [†]
In-department shows	2.51 ± 1.10	2.68 ± 0.91	2.70 ± 0.91	2.98 ± 0.94	2.81 ± 0.98	3.06 ± 1.05	3.09 ± 0.89	3.29 ± 0.86	3.29 ± 0.90	3.26 ± 0.91	< 0.001 [†]
In-department display quality	2.59 ± 1.09	2.63 ± 0.81	2.70 ± 0.92	3.06 ± 1.00	2.81 ± 1.00	3.00 ± 1.00	3.06 ± 0.95	3.20 ± 0.88	3.24 ± 0.90	3.21 ± 0.89	< 0.001 [†]
The necessity of holding entrance exam	2.98 ± 1.18	2.76 ± 1.04	2.87 ± 1.12	2.99 ± 0.97	2.89 ± 1.14	3.08 ± 1.07	3.12 ± 1.00	3.12 ± 0.95	3.17 ± 1.03	3.18 ± 1.10	< 0.001 [†]
Quality of holding seminars	2.64 ± 1.18	3.06 ± 0.85	2.58 ± 1.01	3.10 ± 1.06	2.83 ± 1.07	3.21 ± 0.95	2.97 ± 0.95	3.17 ± 1.01	3.13 ± 1.05	3.16 ± 0.96	< 0.001 [†]
The necessity of written test	2.97 ± 1.19	3.16 ± 0.85	2.91 ± 1.00	3.18 ± 0.93	3.06 ± 1.08	3.29 ± 0.89	3.27 ± 0.91	3.24 ± 0.96	3.22 ± 1.03	3.23 ± 0.94	0.004 [†]
Satisfaction level of fourth year students	2.42 ^A ± 0.99	2.99 ^{AB} ± 0.55	2.86 ^{AB} ± 0.63	2.92 ^{AB} ± 0.76	3.32 ^B ± 0.76	3.22 ^B ± 0.56	3.06 ^{AB} ± 0.70	3.28 ^B ± 0.85	3.21 ^B ± 0.82	3.25 ^B ± 0.75	0.016 [†]
Satisfaction level of 5th year students	3.25 ^A ± 0.70	2.87 ^A ± 0.63	2.95 ^A ± 0.63	3.18 ^A ± 0.75	3.00 ^A ± 0.72	3.11 ^A ± 0.63	3.20 ^A ± 0.65	3.06 ^A ± 0.51	3.15 ^A ± 0.50	3.34 ^A ± 0.61	0.341 [†]
Satisfaction level of 6th year students	2.97 ^A ± 0.68	2.97 ^A ± 0.52	3.03 ^A ± 0.78	3.15 ^A ± 0.73	3.10 ^A ± 0.70	3.13 ^A ± 0.71	3.40 ^A ± 0.76	3.38 ^A ± 0.62	3.52 ^A ± 0.63	3.46 ^A ± 0.60	0.831 [†]
Total satisfaction of the student	2.88 ± 0.86	2.95 ± 0.56	2.95 ± 0.68	3.08 ± 0.75	3.14 ± 0.73	3.15 ± 0.63	3.22 ± 0.71	3.24 ± 0.68	3.29 ± 0.68	3.35 ± 0.66	-

^a Friedman test.^b Different capital letters show a significant difference between groups (P-value < 0.05, [†] repeated measures test).