

# Research Journal of Pharmaceutical, Biological and Chemical Sciences

## Assessment of the Opinion of Iranian Dentistry Students, about Training Method and Equipment in the Dental Prosthodontics Department.

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### ABSTRACT

Practical training in dentistry have great importance. The aim of the present study is evaluating the opinions of the students about prosthodontics department. This cross-sectional study conducted on 110 dental students. Data were collected by a 38-item questionnaire designed by researchers and evaluated according reliability and validity. Descriptive statistics and t-test were used to analyze data.  $P < 0.05$  was considered statistically significant. The study results show Students generally had moderate satisfaction of existing facilities in the prosthesis. But in the fields of the exam they were not satisfied. There were significant difference between academic year and satisfaction. The girls had lower satisfaction than boys ,but there were no significant difference. Generally dental students had moderate satisfaction.

**Keywords:** Practical Prosthodontics training, theoretical, Dental students –Kerman-Iran

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## INTRODUCTION

Dentistry is an academic major which is mainly consisted of practical training and skills yielded by students depends on university training program (1).

Dentistry education is one of the most expensive programs of health department (2). Students as education consumers can be a valuable capital in providing feedback and suggestions for revision of curriculum and improving the educational environment (3, 4, 5).

Students' suggestions about content, structure and education quality is an essential part of curriculum assessment, and it is a major source of information in educational policy (6). The science of dentistry is improving every day and students are required to become familiar with new developments and dentistry teachers face the challenge of increasing learners' satisfaction from education system (7).

The investigating educational experience of dentistry graduates in India showed that more than 95% of them were satisfied with the educational program. 65 up to 95% of them believed that different components of learning education process were sufficient (8). Sajjadi et al. demonstrated that dentistry students of Kerman (Iran) had a relatively good attitude towards clinical training (9).

Hanzi et al. investigated the perception of dentistry students of America's colleges towards the educational experience of clinical efficiency and showed that the majority of students reported the interaction with clinical teachers as favorable (7). Haqqani et al. evaluated the students' suggestions of the dental college of Kerman about facilities and the way of education in radiology department and showed that students consider equipment, tools, number, and quality of medical devices of radiology as insufficient (10). In the investigation of the degree student satisfaction of Isfahan Dental College from clinical parts showed that, there is a meaningful difference between the degree of student satisfaction from a different part, and that teachers and authorities of Dental College have acted acceptably successful in gaining students satisfaction (11).

Evaluation of an educational program is necessary to validate the results, and since educational programs are never fixed, continuous quality controlling is critical for daily improvements (12). The use of students' viewpoint to improve education, qualitatively and qualitatively, could be a path finding in better recognition weaknesses and strengths of each part (11).

Awareness of suggestions of dentistry clinical students from the situation of educational courses and teachers helps educational authorities to promoting qualitative and quantitative strategies for developing acquisition of clinical and scientific skills of the mentioned students. Hence, to achieve this goal, research about the educational evaluation of various dentistry department s from the viewpoint of target group students, seems necessary. Regarding the importance of dentistry educational system assessment and the fact that a big part of clinical work of general dentistry graduates is dedicated to building prosthesis, and no study has been conducted so far in the field, this study examines the views of students in relation to the quality of education received in dental prosthesis; and it aims to apply the results in identifying the strengths and weaknesses of prosthesis training program in Kerman Dentistry college.

## METHOD

This cross-descriptive study was conducted on dentistry students of Kerman. Sampling was a census. Inclusion criteria were students who had attended at least one course of theoretical and practical fixed and removable prosthesis until the opening of the academic year of 2014-15.

Students who had attended these courses in other colleges as well as students who did not wish to participate in the scheme were excluded from the study. To collect data, demographic information and questionnaires were used. The questionnaire contained 38 questions in the areas of physical space, equipment and materials of the section (A) (8 items), physical space, equipment and laboratory materials (B) (5 items), area of the way of education in prosthesis (C) (10 items), are of equipment and evaluation (D) (4 items), miscellaneous questions associated with stress degree, way of infection control, enjoying works in the prosthesis department, necessity of presence of an assistant by a dentist, and strength and weakness of the

sector was an open question. As the prosthesis department consists of two fixed and removable prosthesis, some questions were designed separately for fixed and removable sectors. The way a responding was as very suitable, suitable, I don't have any idea, unsuitable, and very unsuitable. This questionnaire was set in collaboration with teachers of prosthesis department of Dentistry College of Kerman and with the help of related articles. To evaluate the validity and reliability, the questionnaire was given to 10 of faculty member teachers so as to state their viewpoints about the validity of the designed questions and their pertinence with the subject. The reliability of the questionnaire was evaluated with internal consistency method and using the calculations of Cronbach's alpha (Cronbach's alpha of the questionnaire was 0.87). 5-item Likert scale was the method of questionnaire scoring based on very good score 5 and very bad score 1. To examine the degree of stress of prosthesis department with other department, scoring based on very low was one and very high was 5. Descriptive statistics were used to offer data. The t-test was used to compare variables between the two groups of boys and girls. The ANOVA test was used to compare variables in more than two groups. Meaningfulness level was considered as 5%.

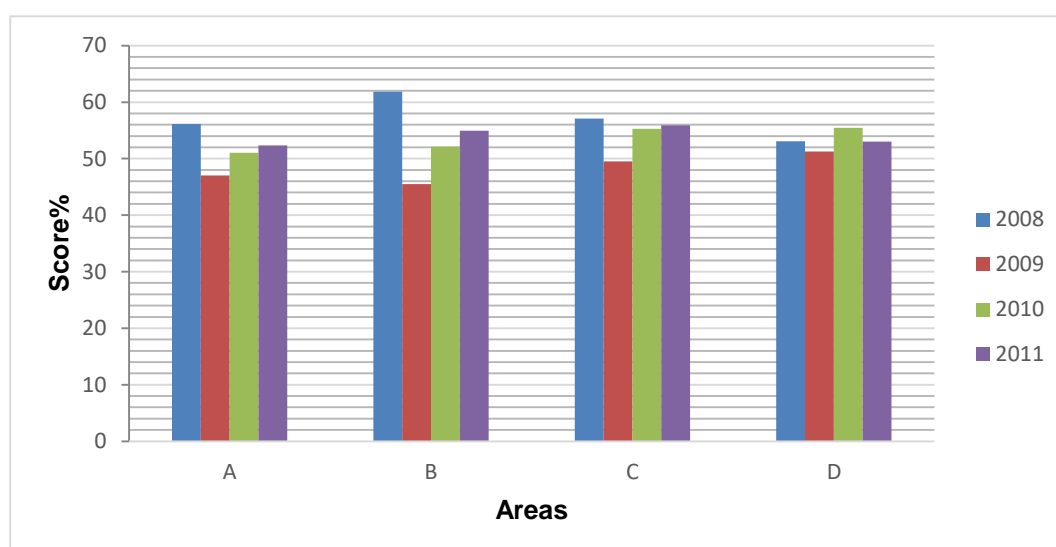
## RESULTS

Among 110 participants in this research, 49 people (45.5%) were boys and 61 participants (55.5%) were girls. The highest responsiveness number belonged to the entering class of 2011, which were 44 persons (40%) (Table 1).

**Table 1: Frequency of participants by gender and year of entry**

Variable		Frequency	%
Gender	Boy	49	44.5
	Girl	61	55.5
Year of entry	2008	13	11.8
	2009	16	14.5
	2010	34	30.9
	2011	44	40.0
		110	100

The maximum satisfaction rate belonged entering class of 2008 in the area of physical space and laboratory facilities with 61.84 percent satisfaction, and the lowest level of student satisfaction belonged to the entering class of 2009 in the area of physical space and laboratory facilities with 45.50 percent satisfaction. No statistically significant difference was observed among the entrance year and their satisfaction degree (Fig. 1).



**Figure 1: Score percent of areas by year of entry**

The average score in each of these areas is shown in Fig.2 based on positive, negative and medium attitudes. As can be seen, the highest percentage of positive attitude in the area of education is 27.3%, and the maximum percentage of negative attitudes in the department space was 6.5%.

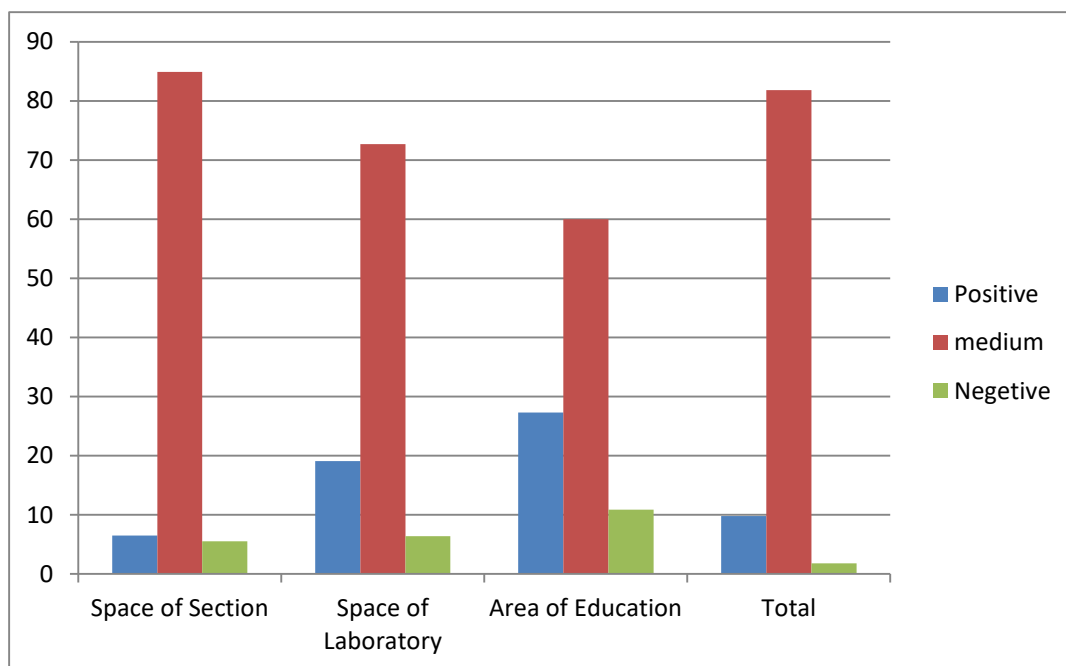


Figure 2.

Figure 3 shows the way of responding to different questions regarding students' entrance year. Statistic analysis showed no significant difference in the average score of each question in this department and entrance year.

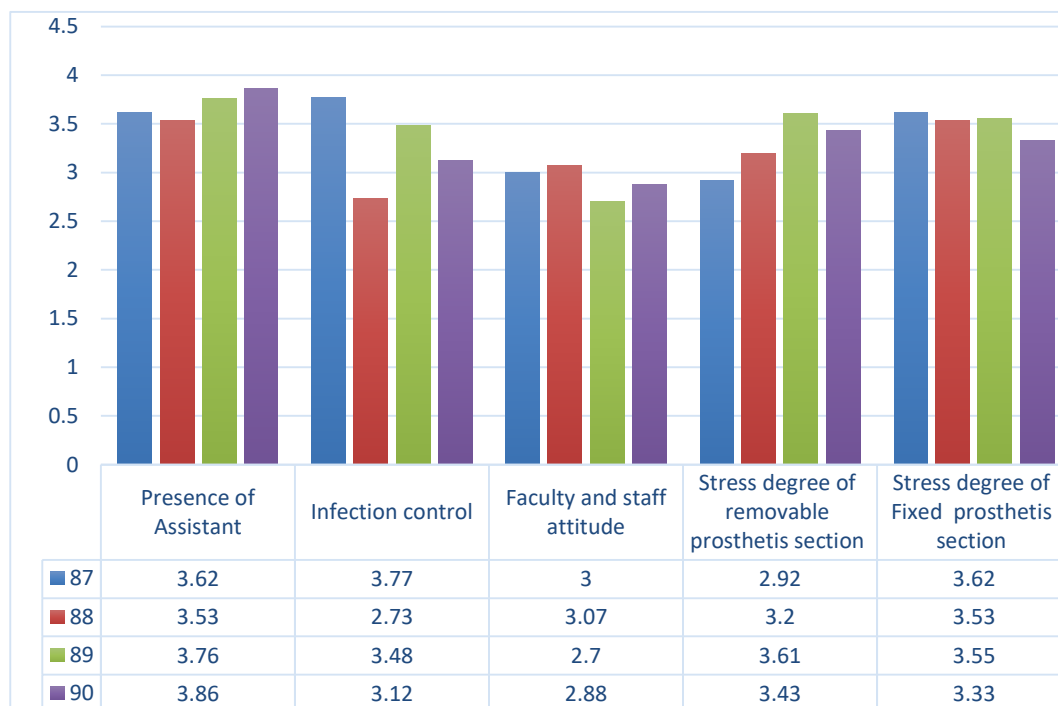


Figure 3.

Capitation of the teacher to student was the most important weakness point of practical prosthesis at Dentistry College of Kerman. Also, the most important factor in the creation of stress at the fixed prostheses department was concerning about lacking patient and about not finishing the work in appointed time. No significant difference was observed in the degree of stress in fixed and removable departments.

## DISCUSSION AND CONCLUSION

In this study, the satisfaction degree of the space and laboratory equipment was moderate. Most of the student believed that the capitation of the number of tools and equipment to the students was insufficient. In the study of Amanat et.al, the lowest student satisfaction degree among different parts of Dentistry College of Shiraz belonged to the equipment and facilities of the departments (13).

An important part of dentistry is the use of the equipment and tools to treat patients and lack of equipment and tools, or if they are depreciable and ruined has a direct impact on the clinical education of the departments (14).

The rate of student satisfaction with the space of the department and the prosthetic clinic was low, and the reason was told as a combination of things such as crowdedness of clinic unit environment, lack of equipment, lack of time and number of sessions and capitation of the teacher to student. Regarding the fact that the dentistry prosthesis department of in all Dentistry Collages, is one of the most prolific departments and taking into consideration the fact that working in prosthesis department has a direct contact with laboratory, so it seems that there should be efforts in updating and improving facilities in the department and laboratory and teacher absorption in this department.

According to the average score obtained from the questionnaire, the viewpoint of students of Dentistry College of Kerman in the area of education in prosthetics department was more the others. The study of Pajhan et al. in 2008 on students of Medical University of Sabzevar about their satisfaction with teaching and facilities of the University, as a whole, represents the moderate satisfaction of the condition (15). In the study of Eslamipur et al. (11) dentistry students of Isfahan were relatively satisfied with the college educational situation. Since a similar study was not done in this area to be compared, it is guessed that the way of education and facilities as well as differences in views and expectations of different universities in our country is different.

In the present study, students were satisfied with the impact of attending Phantom on readiness for clinics but dissatisfied due to the insufficient capitation of teachers and technicians. In this study, most students knew combined teaching method of education by the teacher, discussion and student participation in the classroom and study reference book before class a multiplicative factor in learning. In the study of Amini et al. in examining affective factors in the student's presence in the classroom, it was shown that degree and continuity of students' presence in the classroom are determined by factors such as appropriate teaching method, teachers' dominance on course and interest in course discussion (16). In the study of Najafi et al. (17) students emphasized inessentiality of studying reference textbooks and a high percentage believed that teachers' lecture along with active participation of students is the best method of teaching theoretical courses which are consistent with the current study.

In the evaluation and examination part 44.5% of students, students described scoring and evaluation of practical work in Dentistry Prosthetics department as good or very good that can be one of the positive points. In the present study in the perspective of most of the students examination of the patient in order to evaluate working ability of practical prosthesis, was more appropriate to evaluate student's performance during term, and then a combination of the exam materials of end of the semester written examination, written exam of department entrance, OSCE, and examination on the patient was considered. In the study of Sanatkhanani et al. (2008) the majority of students recognized the essentiality of giving a written test to measure learning in prosthesis department (14). The study of Bahraini Toosi et al. on the way of evaluation of clinical departments of medical college of Mashhad also demonstrated the disproportion and weak compatibility of evaluation methods with educational goals (18).

In general, it appears that a combination of the above methods to evaluate students in each semester is much fairer and more logical than using one or two methods.

The stresses to students in prosthesis department was reported as high by the students in the study of Haqqani et al. in examining students' perspective of radiology department (10). The clinical stress in dentistry students in the study of Shahrawan et al. was also high, which is consistent with the present study (19). This may be due to factors such as the nature of the work in the prosthesis department, shortage of patient and embarrassment of not finishing patient's work in time in the opportunity during the term. Stress is a double edged sword which can cause encouragement and motivation of the student to achieve the most educational efficiency or vise versa, decrease it. Dentistry stresses may cause depression, anxiety and burnout (20).

The majority of students in this study reported infection control in the prosthesis department as good. Yet the need to pay more attention and be full and comprehensive observance in all fields, was recognized by all the students as necessary, though a part of this problem stems the lack of facilities and equipment compared to the number of students which causes some drawbacks in some areas.

The majority of students, recognized presence of an assistant by the student for providing access to materials and equipment needed as critical, which is very essential, because the presence of an assistant alongside students helps reduce stress, speeds up and improves the performance of students in the section.

In this study, no meaningful relationship was observed in the overall assessment questionnaire score and the score of each area by sex and year of their entrance. This result is consistent with the study of Haqqani et al. who did not report a meaningful difference between sex and entrance year with the students' opinion about facilities and equipment of radiology department (10).

In the view of students participating in this study, the most significant advantage of dentistry prosthesis of Kerman, is laboratory space and the most significant weakness is low technician and teachers to students which entails the attention of respected authorities in fixing the weakness which would severely damage education.

## CONCLUSION

Based on the findings of this study, the viewpoint of most of the students about the prosthesis department is moderate. The most important weakness of this department was lack of teacher and laboratory technicians to students and most important strength was lab space. Stress to the students is much as well and the main cause of it is failure in finishing the work in the determined time.

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