

## Postgraduate Specialties Interest and Related Factors in Dental Students at Kerman University of Medical Sciences (Iran-2016)

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### Abstract

**Background and Aim:** Awareness of dental students 'motivation and expectation and related factors about specialization is important in order to promote public oral health. The aim of the present study was to investigation interesting and factors affecting on motivation to study various field of specialization in dental students of Kerman dental school in 2016.

**Methods:** This descriptive and cross-sectional study conducted on third to last year Kerman dental students through census sampling method. Data collected through a valid and reliable questionnaire was designed in three parts based on previous studies. The T test, chi2 with SPSS21 version were used for data analysis. P value considered at 0.05% significant level.

**Results:** Out of 276 participants 161 (58.4%) were females. The mean age of participants were  $25.62 \pm 3.39$  years. One hundred and seven (49.9%) tend to recruit on campus. Increasing information and access to better social conditions were the most reason for choosing the dental specialty fields. The most important factor for avoiding of continuing study in specialty field was exhaustion. There were no significant correlation between age and year of education disinclination to study in specialty field.

**Conclusion:** The results of the present study showed the portion of dental students who wish to continue their education in order to similar study has been decreased. Increasing information and access to better social conditions were the two most important reason for choosing the dental specialty fields.

**Keywords:** Dental Student; Specialty; Interesting; Education; Motivation

### Introduction

It is now recognized that the presence of skilled and motivated people in order to provide the ideal health service to the community is a necessity [1]. Research on student motivation and expectations of dental practitioners can help dental professionals and health authorities to create a model for attracting and retaining professionals to benefit society [2,3].

The American Dental Association since the 1960s has conducted a review of advanced dental education for all programs that are recognized by the Dental Accreditation Commission. This study collects information on educational institutions' programs from a variety of perspectives. The American Dental Education Association (ADEA) also has an annual study on senior dentistry students, which gathers

demographic information, their short and long term employment plans, reasons for selecting dentistry as a profession, and the literacy levels, the income and information about parents' job, education level, and income [4].

According to the American Association for Dental Education (ADEA) report, 38.6% of graduates want to continue studying in one of the fields of Orthodontics, Pediatric Dentistry, Periodontics, prosthetic, surgical, pathological, radiological, endodontic, and dental health [5]. Study of Khami, *et al.* (2008), showed that 70% of dental students tended to continue their studies in specialized fields [6]. In the study of Vahid Dastjerdi, *et al.* (2012), the intention to continue studying in specialized fields in dentistry and medical students was 9/90% and 89.8 respectively [7]. The results of study conducted by Saeed, *et al.* showed that 31% of American Dental Graduates in the years 2005 - 2007, want to continue studying in the field of Orthodontics. The lowest percentage of them (7.5%) intending to continue their studies in Periodontics, prosthetic fields [4].

A study conducted on dental students at two universities in Pennsylvania and Harvard showed that Harvard students tended to continue their studies in specialized fields than the Pennsylvania students. A large percentage of Pennsylvania students perceived general dentistry as the dental system with the best future in the field of quality of life and overall effect on the dentistry. While a large percentage of Harvard students had the same opinion on orthodontics and facial surgery. Much of this difference can be attributed to the impact of the college environment [8].

Zarchy, *et al.* Showed that 44% of dental students at Harvard ranked "enjoyment of providing the specialty service" as the most important factor, when choosing a specialty. The pleasure of providing specialized services, the impact of the faculty, the duration of program, and cost of the program significantly contributed to the students' desire to choose of prosthodontics as a specialty [9]. In a study on Indian dental students, half of them did not intend to continue their studies in specialized fields. In this study a large percentage of students were interested to continue studying in Endodontics [10].

Hashemi, in evaluating the interest of dental students in Tehran universities in 2001, showed that 78.5% of the students were interested in continuing their education in specialized courses. The main reason for them was to increase the knowledge and to get higher grades.

The results showed that orthodontics was the most popular specialty choice, followed by oral and maxillofacial surgery, Endodontics, Restoration, Pediatric, Prosthodontics, Periodontics, Pathology, Oral Diseases and Radiology [11]. Hashemipour and colleagues in studying the factors influencing the willingness to continue studying in different specialties courses in dentistry students of Kerman, Rafsanjan and Zahedan in the year 90 showed that 73.3% of the students wanted to continue their education and women tended to continue their education more than men. The most important reasons for continuing education, were: interest in employment at the University, family counseling and access to better communication with the patients [12].

Given that the desire to study in each country and in each group of students can be influenced by several factors especially cultural and social factors, and since every student is interested in studying in a specialty with his or her particular motives, such as the ability to work in the appropriate labor market, we have been studying the interest of Kerman dentistry students in continuing education and factors affecting on motivation to study various field of specialization.

## Materials and Methods

This cross-sectional and descriptive-analytic study examines the interest of dental students in Kerman University of Medical Sciences (South East Iran) in continuing education in specialized fields in year 2016 - 2017. Inclusion criteria were satisfaction of participation and students in preclinic and clinic course, from third to seventh years. The reason for not choosing lower-level students was that these students did not enter the clinical course. At first, a graduate student who was trained and sufficiently fluent in the questionnaire and was able to explain the probabilistic questions of the subjects, appeared in different classes of different years and after explaining

the objectives, distributed the questionnaire and received answers at the same meeting. The data collection method was a questionnaire consisting of 2 parts. The first part of the demographic data included gender, age, marital status, place of residence and parental occupation, and the second part of the questionnaire consisted of three parts. If the student is interested in continuing education, The students answered 12 questions about the reasons for interest and otherwise, the student answered 13 questions about reasons for lack of interest. All students responded to the third part of the questionnaire about "if they could continue their education". In this part first, they selected three specialty courses based on the priority of interest, and then answered the reasons for interest in these fields in the form of 7 questions. All questions were based on the 5 Likert scale. The questionnaire used was based on previous studies whose validity and reliability were calculated [8,12]. In this research, the samples were selected as census. Data were analyzed by SPSS software version 21 using T-test and Chi-square test.

### Results

The findings of this study, which were performed on 276 students, showed that 115 (41.66%) were male and 161 (58.33%) were female. The mean age of the subjects was  $25.62 \pm 3.39$  years. Most of the respondents were 104 (37.7%) in the fifth year. Most students were single (85.5%), and (51.4%) lived with their parents. From Students 137 (49.6%) were interested in continuing education (Table 1).

Variable	Number	Percent	Total
<b>Sex</b>			
Male	115	41.6	276
Female	161	58.4	
<b>Academic year</b>			276
Third	25	9.1	
Fourth	93	33.7	
Fifth	104	37.7	
Sixth	49	17.7	
Seventh	5	1.8	
<b>Marital status</b>			276
Single	236	85.5	
Married	40	14.5	
<b>Living area</b>			276
Student dormitory	70	25.4	
With parents	142	51.4	
With friends	52	18.8	
Private home	12	4.4	
<b>Students that one or both parents are physicians</b>			248
Yes	92	33.3	
No	189	66.7	
<b>Students that one or both parents are faculty member</b>			276
Yes	66	23.9	
No	210	76.1	
<b>Interest in continuing education</b>			276
Yes	137	49.6	
No	139	50.4	
<b>Agrees to increase admission capacity</b>			248
Yes	88	31.4	
No	96	34.6	
No idea	94	34.1	

**Table 1:** Distribution of relative and absolute frequency of individuals according to demographic variables.

Increasing information and access to better social conditions were the most two reason for choosing the dental specialty fields. Teachers’ encouragement was minimal (Figure 1).

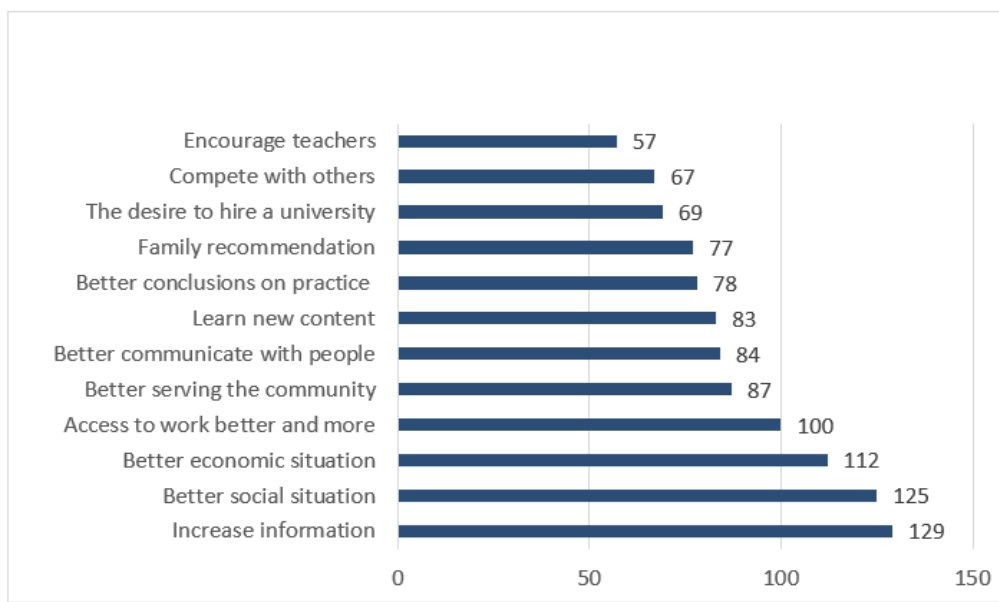


Figure 1: Important factors in the interest in continuing education.

The most important factors for avoiding of continuing study in specialty field was exhaustion and financial problems (Figure 2).

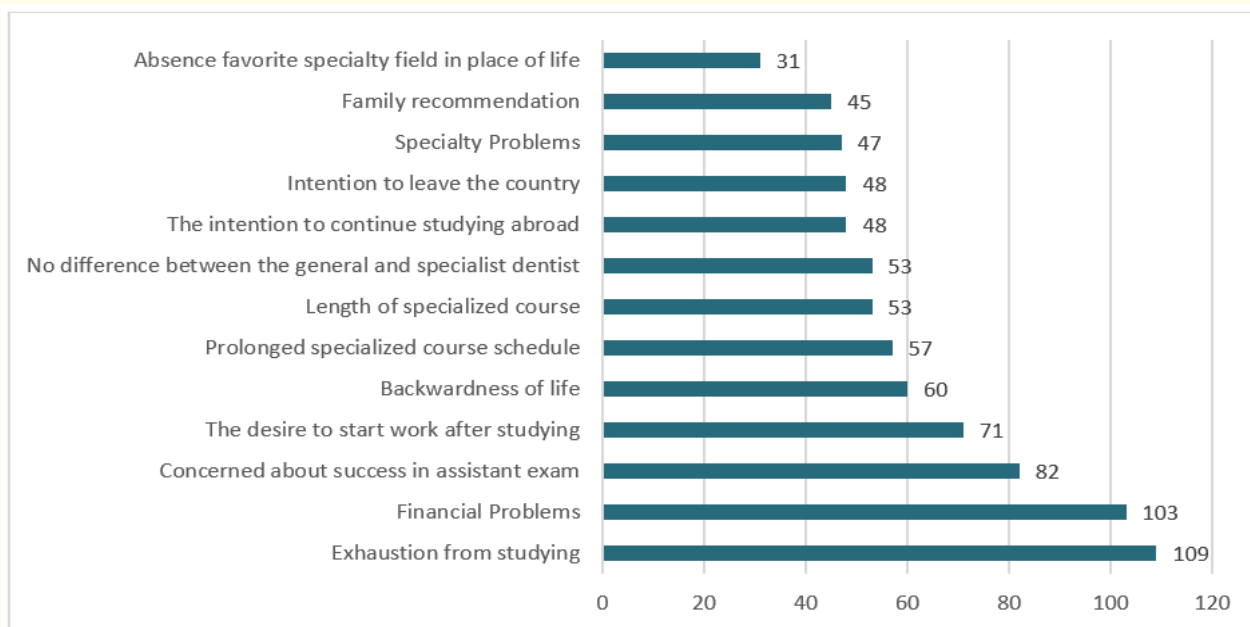


Figure 2: Causes of lack of interest in continuing education according to importance.

The results showed that Radiology (29%) was the most popular specialty choice, followed by Orthodontics (14.9%), Social dentistry (14.9%), Pediatric (11.9%) and Endodontics (11.3%). The least field of interest was periodontics (1.1%). The greatest percentage of respondents ranked “more serving patients” as the factor that most influenced their choice. The least important factor for choosing a field was “the ethics and character of the professors of the field” (Figure 3).

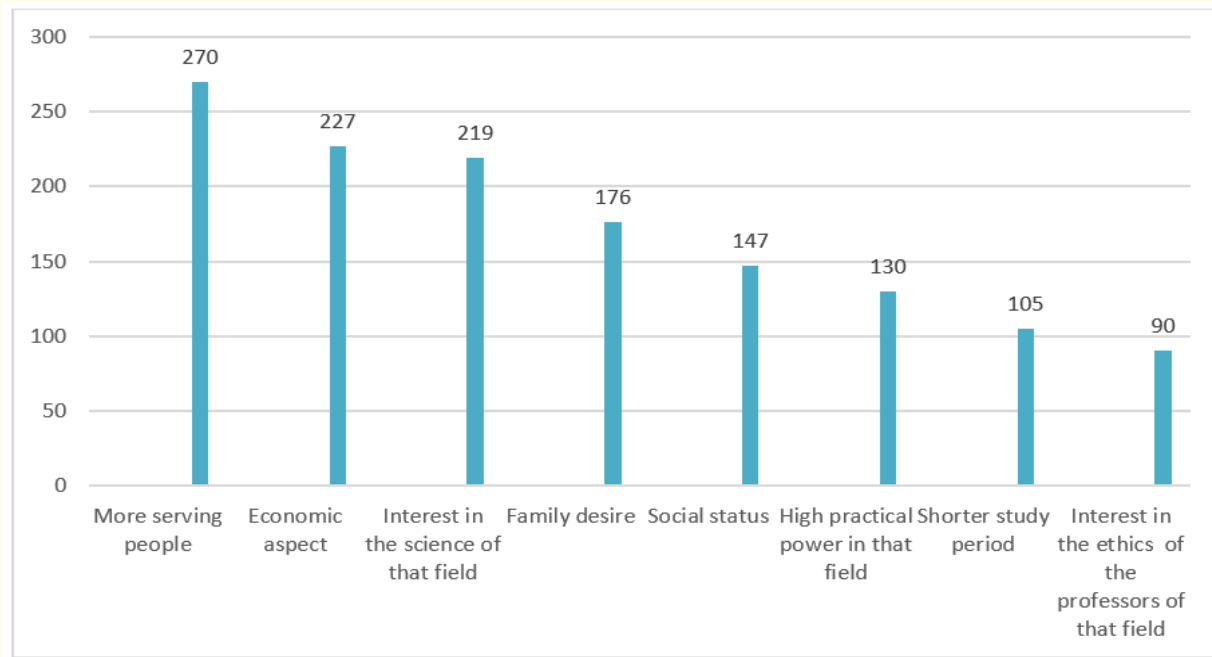


Figure 3: The cause of interest in the specialized field.

Chi-square test did not show a significant difference between the interest or the lack of interest in continuing education with the students’ gender ( $p = 0.561$ ). The third year students were more interested in continuing their education than those in the fourth and fifth year ( $p = 0.0001$ ). Those who wish to continue to study significantly wanted to increase admission to specialized fields ( $p = 0.0001$ ). Chi-square test did not show a statistical significant correlation between marital status and willingness to continue education ( $p = 0.551$ ).

There were no significant correlation between age and year of education disinclination to study in specialty field.

The linear regression test showed a significant difference between the age and academic with interest in education. As the age and academic year increased, interest in continuing education was reduced. There was no statistical significant correlation between students with one or both of their parents as a doctor or a faculty member with the rest of the students.

### Discussion

Research on student motivation and Professionals expectations can help dental professionals and health authorities to create a better model for recruiting and retaining professionals for the benefit of society and the profession [2,3]. In the current research, 137 (49.6%) were willing to continue their studies and specialization. According to the American Association for Dental Education (ADEA), 38.6% of the graduates were seeking to pursue their studies in an orthodontic, pediatric, prosthetic, surgical, pathological, radiological,

endodontic and dental health clinics [5]. In Khami, *et al.* (2008), the first job preference 70% of dental students was studying in specialized fields [6]. The results of this study are more than American studies. Who reported 38.6% of students were willing to continue their studies and specialization. But less than studies conducted by Khami, Vahid Dastjerdi (90.9% of the first priority of dental students continuing education) and Sadeghi in Rafsanjan (87.6% of the first priority of dental students continued education).

As can be seen, a significant percentage of the desire to continue studying in dentistry students has been reduced by over 9 years after a Khami study and 5 years from Vahid Dastjerdi study. The reason for this can be due to environmental differences and the presence of students with better grades in the faculties studied by Khami and Dastjerdi. Among the people interested in continuing education, the main factor was their interest in improving information and social status. It seems that educational and cultural factors are involved in this subject. The major reason for students in Hashemi, *et al.*'s research to continue their studies was to increase knowledge and academic rankings [11].

Achieving a better economic position is also a very important factor in the motivation to continue education. Given the fact that the community generally has a more positive view of the service provided by professionals and therefore more costs for specialized services, this aspect has been important for students. It has been pointed out that those who worked in government centers, if they had a higher degree of education or had a higher level of professionalism, would have had a better career and could seek more income [14].

The exhaustion of study was a very important factor (77.4%) who did not want to continue to study in the current research. The results were consistent with the study by Sadeghi, *et al.* That fatigue was a major contributor to unwillingness to study [13]. It has been shown that the highest environmental stress in students of Kerman dental school was in the field of academic efficiency and in the examination and obtaining a score [15]. Stress causes fatigue and burnout. Therefore, it can be said that these people do not tolerate the onset of another period. Among the factors that did not tend to continue to study, the least important was the lack of a field of interest at the place of residence. Due to the vast acceptance of specialized courses at the Kerman College, this is a less important issue in the pursuit of specialized study. In this research, most students (29%) were interested in continuing their studies in Radiology followed by orthodontics and social dentistry. The results of study conducted by Saeed, *et al.* showed that 31% of American Dental Graduates in the years 2005 - 2007, want to continue studying in the field of Orthodontics. The lowest percentage of them (7.5%) intending to continue their studies in Periodontics and prosthetic fields [4]. In our study, also the lowest selection of students for continuing their studies was Periodontics. In the study of Zarchy, *et al.* 44% of students were interested in continuing their studies in prosthetic field. The effects of the faculty and the duration of the program were significant factors [9].

In this study, the three courses with the least interest were periodontics (1.1%). Pathology (2.2%) and prosthesis (3.3%). It seems that the cause of the reluctance of the prosthetic course, may be due to the volume of the prosthetic thread, the difficulty of the course, and the lack of positive experience in the prosthetic sector. Also, That's probably that the reason for the low interest in pathology is the difficulty of the course and the lack of the possibility of private work. It can be said that the periodontology department has not been able to positively influence the students for their interest in studying in this field. In Hashemi's research, orthodontics was the most popular specialty choice, followed by oral and maxillofacial surgery, Endodontics, Restoration, Pediatric dentistry, Prosthodontics, Periodontics, Pathology, Oral Diseases and Radiology [11]. In Hashemipour, *et al.* (2011), orthodontics, surgery, restoration, pediatric dentistry had the highest demand, and none of the students had a desire to continue their education in oral disease and social dentistry [12]. The study by Shin, *et al.* showed that the most interesting subjects were orthodontic and surgery in 2007 - 2011. However, these courses changed to surgery, pediatric dentistry and post-doctoral general dentistry in 2008 - 2013 [8]. In a study by Shetty, *et al.* a large percentage of students in India were interested in continuing their studies in endodontics [10]. Also in another research in India the first field of interest was surgery and then Orthodontics [16]. There was no significant statistical difference between the gender and the desire to continue education in the present study, which is consistent with Sadeghi, *et al.* [13]. But this finding was not consistent with the study of Hashemipour and colleagues that in which women tended to study more than men [12]. The reason for this can be the changes that have taken place in the community over the years and the uncertainty in reaching what they deserve.

In the current study, there was a statistically significant correlation between the age of people and the higher educational level with interest in studying. Students with higher education and older were less interested in continuing their studies. The reason for this is the change in their view of expertise over time. Jarosz., *et al.* showed that dental students' perceptions of facial or jaw surgery have changed over time [17].

Students with one or both of their parents as a doctor or a faculty member, did not significantly differ in their interest in continuing education. The reason for this can be greater freedom for children to choose their career prospects.

No significant statistical relationship was found between marital status and the interest in continuing education, although married students can participate directly in the assistant exam.

It seems that specialized training programs based on the real needs of the community should be although dentists need to improve their skills to provide better services.

## Conclusion

The results of this study showed that the interest in studying in Iran has decreased in comparison with previous studies. The most important factor in the interest in continuing education was to obtain of information. Students with one or both of their parents, as a doctor or a faculty member, did not significantly differ in their interest in continuing education. The losing interest of studying was a major factor in the reluctance to continue to study and serve the people as the main factor in continuing education.

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