

Motivation and Future Intentions of Dental Students in Karachi, Pakistan

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Abstract

Background: However, it is not enough to simply produce an influx of dentists. Therefore, it is of utmost importance to understand the motivates of young individuals into pursuing career in dentistry to map and explore avenues for dentistry career.

Objective: The objective was to assess the motivation of dental students in pursuing dentistry and to investigate the career choices of dental students immediately after graduation.

Study type and settings: The Cross sectional study was conducted at different government and private dental colleges in Karachi.

Subjects and Methods: All the participants were asked to fill a questionnaire. The questionnaire comprised of three parts; first part consisted of bio-data, the second and the third part consisted of questions related to study motives and future career choices of fresh dental graduates.

Results: One hundred and sixty five (165) dental house officers were approached, out of which, eighty five (n=85, 51.55%) participants expressed a preference to pursue post-graduate studies after completion of house job, twenty nine (n=29, 17.6%) chose private practice and nineteen (n=19, 11.5%) wanted to pursue a foreign licensure exam.

Conclusion: A significant effort needs to be made to encourage the graduates to pursue this field as a full time opportunity.

Key words: Motivation, dentistry, career, future, intention, Pakistan.

Introduction

With a rapidly expanding populace, poor awareness regarding oral health¹ and an existing shortage of trained professionals in the field of dentistry², the need for new dentists in Pakistan is prodigious. However, it is not enough to simply produce an influx of dentists. Although health care providers are generally given high regards in different culture³ and medical professions have long been hailed as noble and selfless professions, without adequate infrastructure and professional incentive this field cannot thrive, despite the best intentions of the professionals who dedicate their

lives to this career path.

Often, however, the career itself is not the root of the problem faced by young dentists. An inability to provide financial sustainability and poor working conditions often leads to even the most optimistic young professional looking elsewhere for further opportunities to enhance his or her career or maintain a certain standard of living⁴.

Various motivational factors can be demonstrated for those pursuing dentistry as their career choice^{5,6}. Therefore, it is of the utmost importance to understand not only what motivates young individuals into pursuing this career path but also to map which avenues they choose to explore upon completion of their goal of attaining a dental degree and whether they are satisfied with their choice of career.

The aim of this study was to assess the motivation of dental students in pursuing dentistry and to investigate the career choices of dental students immediately after graduation.

Subjects and Methods

A total of 165 dental house officers were included in this study. The sample size was calculated by WHO calculator with following formula;

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Authors Contribution

WY, SMRK & SQ conceptualized the project & did the drafting, revision and writing of manuscript. Data collection, statistical analysis & Literature search was done by WY & MK.

$$n = \frac{z^2 P(1-P)}{d^2}$$

The simple random sampling technique was used. Both male and female dental house officers aged between 22 years to 26 years working in different teaching institutions in Karachi, Pakistan were included. The undergraduate dental students were excluded from study.

There are over 400 dental house officers working in different institutions in Karachi, Pakistan, out of which, one hundred and sixty five (165) participants were included in this study. All the participants were asked to fill a questionnaire. The questionnaire comprised of three parts; first part consisted of bio-data, the second part consisted of questions related to study motives of dental students, and the third part comprised of additional questions associated with future career choices of the fresh dental graduates. Research assistant approached the recruited participants and had the questionnaire filled up on site. Participation was completely voluntary and a written, informed consent was obtained from all study participants. The confidentiality of participants and the data provided by them was maintained throughout the study. All the data was kept confidential.

Data was entered and analyzed using Statistical Package for Social Sciences (SPSS) Version 21. Mean and standard deviation were calculated for quantitative (age) variables. Frequency and percentages were calculated for qualitative (gender) variables. Chi-square test was used to test *p* value. Effect modifiers were controlled through stratification. No effect modifier was present in this study. Post stratification chi-square was applied by taking $p \leq 0.05$ as significant.

Results

A total of 165 participants from various dental colleges in Karachi, Pakistan were included in this study. Out of which, one hundred and twenty eight (n=128, 77.6%) were females and thirty seven (n=37, 22.4%) were males. The mean age of the participants was 23.37 years \pm 1.2. In males, the mean age was 23.78 \pm 1.54 and in females, the mean age was 23.25 \pm 1.1 respectively.

When asked why participants chose the dental profession, 26.4% (n=43) said they did so to fulfill their parent's wishes, 15.3% (n=25) attributed their desire to serve humanity as their primary reason and 9.2% (n=15) stated their passion for the profession as their reason (Figure-1).

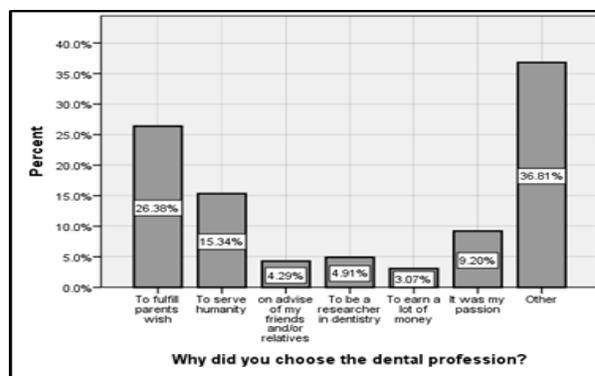


Figure 1: Reasons for choosing dentistry.

Out of the total sample, 54.3% (n=90) of the participants were the first among their family and friends to pursue this profession, 23.2% (n=38) had immediate family already involved in the profession, 11.0% (n=18) had other relatives who were dentists and 9.2% (n=15) had friends in the field.

A large majority, 70.9% (n=117) believed that they made the right choice choosing dentistry as their profession, 22.4% (n=37) showed ambiguity as to their career choice, whereas, eleven 6.7% (n=11) participants were not satisfied with their career choice.

Out of the total sample, 58.2% (n=96) participants expressed a desire to pursue full time practice, 38.2% (n=63) were in favor of pursuing only part time practice after their graduation, whereas, 3.6% (n=6) participants had no plan to practice in future.

Sixty nine (41.8%) new graduates expressed a desire to practice in Pakistan after graduation whereas twenty eight (17.0%) would ideally prefer to practice abroad. About 39% (65) have still not made a decision as to where they would ideally like to practice.

Participants preferring to move to abroad were also requested to give a reason; twenty two (n=22, 32.8%) believed that dentists can earn better working abroad as compared to Pakistan, twenty (n=20, 29.9%) believed that there are more jobs opportunities abroad. Sixteen (n=16, 23.9%) favored moving abroad as they had family and/or relatives in another country. Twenty two (n=22, 13.4%) participants didn't mention any reason to this question.

Out of the total sample, eighty five (51.5%) participants expressed a preference to pursue post-graduate studies after completion of house job, whereas, twenty nine (17.6%) chose private practice and nineteen (11.5%) wanted to pursue a foreign licensure exam. Nine (5.5%) participants expressed a desire to change their profession. The remaining

participants had not decided on a preference (Figure-2).

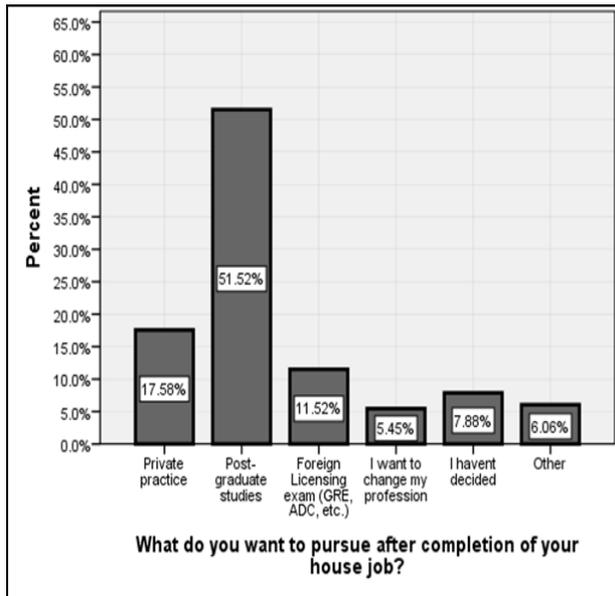


Figure 2: Career path following house job.

Amongst participants, who expressed an interest in pursuing private practice after their house job, 40.0% (n=12) expressed a desire to start their own private practice, 30.0% (n=9) preferred to work in an established practice, 10.0% (n=3) were looking forward to look their parents private practice and 17.5% (n=5) had not decided yet.

Table 1: Pursuing private practice after completion of house job.

		%
What are your plans for private practice?	I will start my own private practice	40.0
	I haven't decided yet	17.5
	I will take over my parents practice	10.0
	I will work with someone	30.0
	Other	2.5
	Total (n)	100.0
Have you done internships in any private clinic?	Done in past	32.5
	Doing currently	32.5
	Interested	15.0
	After house job	20.0
	Total (n)	100.0
Do you feel that you have a basic concept of practice management?	Yes	57.5
	No	42.5
	Total (n)	100.0
Do you have a basic concept of patient management?	Yes	77.5
	No	22.5
	Total (n)	100.0

A large proportion, 32.5% (n=9) of the participants have done internships at private practices in the past and 32.5% (n=9) are currently doing internships. When this subset of participants was asked about whether they felt that they had a basic concept of practice management, 57.5% (n=17) reported that they did. When asked, 77.5% (n=23) felt confident that they have a basic concept of patient management (Table-1).

When asked to rate how well their respective schools trained them about practice management, 39.5% (n=11) were very satisfied and 13.2% (n=4) were extremely happy with how their school prepared them for practice management.

Table 2: Pursuing post graduate education after completion of house job.

		%
Have you started looking into post graduation options?	Yes	56.7
	No	5.2
	I will start planning after completion of my house job	38.1
	Total (n)	100.0
In which subject do you want to do your post graduation?	Basic sciences	14.4
	Clinical sciences	75.3
	I haven't decided	10.3
	Total (n)	100.0
Where do you want to pursue your post graduation?	Pakistan	61.9
	Abroad	38.1
	Total (n)	100.0
Specify which post graduation program are you aiming?	FCPS	56.7
	DDS or DMD	7.2
	MCPS	6.2
	M.Sc	14.4
	PhD	2.1
	Mclindent	3.1
	Other	10.3
	Total (n)	100.0

Among the subset of participants who expressed a desire to pursue post graduate education after their house job, about 56.7% (n=48) had started looking into their options. Majority 75.3% (n=64) were interested in pursuing further education in the clinical sciences and only 14.4% (n=12) in basic sciences. Most of the (61.9%) (n=53) participants planned to continue their education within Pakistan.

FCPS proves to be the most popular post graduate education path by far, with 56.7% (n=48) of participants wishing to pursue this course, whereas 14.5% (n=12) would prefer to opt for an M.Sc (Table-2).

Among participants planning to take foreign licensure exams, 24.0% (n=6) planned to write the overseas registration exam (ORE). The reasons the participants primarily provided for their choice of

exam were; more job opportunities (n=10, 52.0%) and because their family/relatives were in that country (n=5, 28.0%) (Table-3).

Table 3: Pursuing licensure exam after completion of house job.

		%
Which licensure exam are you targeting?	Overseas registration exam (ORE)	24.0
	Australian dental council exam (ADCE)	20.0
	Canadian licensure exam (NDEB)	20.0
	Dubai health authority exam (DHA or MOH)	12.0
	Other	20.0
	American Dental exam (NBDE)	4.0
	Total (n)	100.0
Why have you opted for the above mentioned exam?	Comparatively it is an easier exam	4.0
	More job opportunities	52.0
	My family and /or relatives are there	28.0
	Obtaining visa is easier relatively	8.0
	Other	8.0
Total (n)	100.0	
Are you aware of general guidelines of the licensure exam which you are aiming for?	Yes	56.0
	No	12.0
	I will start looking into general guidelines after completion of my house job	28.0
	I am unable to find out general guidelines because of lack of guidance here	4.0
Total (n)	100.0	

Discussion

The female predisposition (77.58%) demonstrated in the current study is in accordance with various other studies conducted in this region of the world^{7,8}. However, the results are contrary to the studies conducted in the western world which demonstrates a male predisposition^{9,10}. There have been gender differences worldwide in the past with an apparent male predominance in the field of dentistry as demonstrated in various studies^{9,10}. However, female representation has improved significantly in the last two decades in the western world¹¹.

In the present study, 23.1% of the participants had immediate relatives in the field. The results were contrary to those reported by Sahab. F et al showing 40% having immediate relatives among those pursuing medical profession in Pakistan¹². Nevertheless, it still shows a significant family influence over one's career choice.

Amongst the powerful motivating factors to study dentistry, only 9.2% of the participants were passionate and chose dentistry as their career profession whereas 26.3% preferred this profession to fulfill parent's wish. The findings were similar to the other studies conducted in this region of the globe⁷. This strongly reflects strong influence of parent's decision on child's future career choice as most students live with their families in this region of the world. Vocational and economic reasons were also amongst the least rated reasons to pursue dentistry. These results were in agreement to other studies conducted in different regions of the world¹³. Dentistry being considered a haven of financial security has been denied by authors in previous literature¹⁴ and has also been observed in the present study.

About 22.17% of the fresh graduates included in this study weren't sure about their choice of dentistry as a career. The discontentment amongst the dental students reported in the present study was similar to other studies conducted in this part of the world⁷. Enforcement of parent's decision on child's career selection clearly reflects the discontentment among dental students as reported in various studies in this part of the world¹⁵. These findings also reflect the uncertainty observed amongst the dental students regarding their future prospects in terms of job opportunities and law and order situation of the country.

Only 38.2% of the participants were inclined towards pursuing only part time practice following graduation. Perhaps this figure can be explained by the large female predisposition of participants. While females gravitate heavily towards this field, they are often unable to pursue full time jobs due to traditional familial obligations and restrictions in this part of the world.

The current study demonstrated that 41.8% of the participants would prefer to stay in Pakistan following graduation. This brain drain from developing countries has also been demonstrated in various studies^{16,17,18}, however, the extent is much higher in Pakistan¹⁶. This can perhaps be attributed to various factors such as poor law and order situation, job insecurity, limited scope in career, rural/urban misdistribution of health workers, tenuous quality control and standardization of care etc. Participants who showed a preference to move abroad also cited greater earning potential, more job opportunities and presence of family abroad as major motivators for their preference.

In the present study, 51.5% of the graduates wanted to pursue postgraduate studies following their house job. The results are much lower compared to the study conducted by Aggarwal. M et al who reported 79.1% of the

graduates deciding to be a specialist in the Indian population⁷. Similar statistics were also stated in Iranian population^{8,19,20} and UK population²¹. The results were also contrary to the results by Shahab. F et al (Shahab, Hussain et al. 2013) reporting 84% of the medical students planning to pursue post graduate studies in Pakistani population¹².

A significant effort needs to be made to encourage graduates to pursue this field as a full time opportunity and empower women to have a more active role in the community following graduation. However, having a pool of valuable highly skilled professionals being produced locally but demanding to go abroad, especially when there is an astounding need for them domestically highlights systemic flaws in the existing architecture of the health care system. Significant efforts also need to be made to rectify structure of financial compensation of practicing dentists to encourage them to not only stay in Pakistan but to diversify into the rural environment from their urban focal points.

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