

Motivational factors for pursuing dentistry as a profession in colleges of Karachi, Pakistan

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Abstract

Objective: To determine the reasons that motivated students to seek admission in dental colleges, and to assess differences in the reasons between students studying in private and public dental colleges.

Methods: The cross-sectional analytical study was conducted at two public-sector and four private-sector dental colleges in Karachi from June to September, 2018, and comprised students of first to final year of studies. Data was collected using a self-administered questionnaire. Students were asked to mark all reasons that they considered had been an influencing factor on their decision to opt for dentistry. Data was analysed using SPSS 21.

Results: Of the 900 forms distributed, 814(90.4%) were collected with complete data; 182(22.4%) males and 632(77.6%) females. The overall mean age was 20.8 ± 1.3 years. Of the total, 324(39.8%) students were from the public sector, while 490(60.2%) were at private colleges. A statistically significant difference was noted in professional and personal reasons cited by the two groups of students ($p < 0.05$).

Conclusion: It is of utmost importance that students shall be very clear regarding their expectations from a career to minimise chances of abandoning it midway or being professionally dissatisfied even after completing a degree.

Keywords: Dental students, Profession, Motivational factors. (JPMA 70: 1393; 2020).

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Introduction

Selection of a profession is a crucial decision that generally has major repercussions on future life patterns of a student irrespective of the field of study.¹ Reasons behind pursuing a certain career have a great impact on the effort, attention and enthusiasm that the students would put into their studies to excel. This in turn shapes their future professional life and helps them in being successful in their chosen career.

Over the recent years, dentistry has grown in popularity

and has a decent position in society as a professional career. Opportunities to study dental sciences in many countries, particularly in the less-developed, are restricted to a select proportion of society. Pakistan, a developing country, has an estimated population of more than 210 million with only about 25,000 registered dentists. Keeping these statistics in mind, Pakistan has an approximate dentist-to-population ratio that exceeds 1:8,500.² This places a huge obligation on dental colleges to admit only those candidates who they deem socially and professionally suitable, so that they can be beneficial to serving the community in the long run. It is of utmost importance that the reasons of students that made them pursue dentistry as a profession are clear.^{3,4}

Educators have tried to study and understand the reasons for motivation of students to select a career in health professions.^{5,6} In Pakistan, the Bachelors of Dental Surgery (BDS) is a four-year programme, followed by one year of clinical work. It is imperative for students to get admission in dental colleges with realistic prospects about the

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profession they are about to pursue. With unrealistic expectations, by the time they might realise that dentistry may not meet their prospects, it may be too late to change their chosen profession. This apprehension may cause students to drop out midway or abandon the profession after completing the degree. Pursuing a career in this frame of mind may cause professional discontent, resulting in dentists practising inefficiently and without interest.⁶

As with any career path, there can be a multitude of reasons as the deciding factor.^{5,7} These may be related to personal, financial, professional or vocational reasons. Several studies have been done in developed countries to ascertain the reasons of dental students to proceed with a career in dentistry, either by choice or because of certain circumstances.⁸⁻¹¹ Relatively less research has been carried out in the developing countries to ascertain the motivation behind this line of work.^{3,5,12} A search involving Google Scholar, PubMed and Pak Medi Net databases from 1999 to 2019 could not find any studies assessing the motivational factors of students enrolled in dental colleges of Pakistan to opt for dentistry as a profession. As such, the current study was planned to determine the reasons that had motivated students of public and private dental colleges of Karachi to pursue a career in dentistry, and to assess if there were any differences in the motivational factors of the two groups of students.

Subjects and Methods

The cross-sectional analytical study was conducted from June to September, 2018, at six dental colleges in Karachi, and comprised students of first to final year of studies. After approval from the ethics review board of Jinnah Sindh Medical University (JSMU), students were approached in two public-sector institutions, namely, Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences and Sindh Institute of Oral Health Sciences, and four private-sector colleges, namely, Jinnah Medical and Dental College, Ziauddin College of Dentistry, Sir Syed College of Medicine for Girls, and Altamash Institute of Dental Medicine. We estimated the total number of students enrolled in dental colleges of the city to be approximately 3,500. This estimate was obtained by adding the total number of students allowed by Pakistan Medical and Dental Council (PMDC) to be enrolled in the recognized dental institutions of Karachi.¹³ The sample size was calculated using OpenEpi 3.01 for epidemiological statistics.¹⁴ As we had no specific outcome target, the

sample size was calculated on the assumption that the anticipated maximum frequency of outcome factor was 50%.¹⁵ The required sample size at 99.9% confidence level was 828. Inflating this by 10% to keep the non-responders and incomplete forms in consideration, the final sample size targeted was 900 students.

Data was collected using a self-administered questionnaire adapted from literature.^{6,7} As the questionnaire had never been carried out in local setting, a pilot study was done with 13 female and 7 male dental students. The students were questioned directly to gather their feedback on the administered questionnaire. After assessing their feedback regarding clarity and contextual appropriateness of the questions, relevant changes were made in the questions concerned. All ambiguous or unclear items were rephrased. The forms were then distributed using convenience sampling to students of all the four years enrolled in the six dental colleges. Students were given the option of only mentioning their college as a public- or private-sector institution for maintaining anonymity if they desired. Moreover, to maintain confidentiality, names of participants were also not recorded. Students who refused to give consent were excluded.

After obtaining written informed consent, the questionnaire was disseminated by the researchers. These forms were distributed at the end of one of their mandatory lectures and were collected right afterwards. Ample time was given to the students to understand and fill out the form. Any ambiguities that the students had when filling the forms were addressed and cleared by the researcher present there. This helped in maximising the response rate and minimising the chances of missing data. Part one of the questionnaire included sociodemographic details of the students, and part two inquired about the reasons that made them opt for dentistry as a profession. The reasons were divided into four major categories: economic, professional, vocational and personal. Students were asked to mark all the reasons that they considered had been an influencing factor on their decision to pursue dentistry.

Data analysis was done using SPSS 21. Descriptive statistics of baseline characteristics, like age, gender, type of college, career choices etc., and their responses to the questions asked were computed. To assess difference of choices among public and private dental college students, chi-square test was used. $P < 0.05$ was considered statistically significant.

Results

Of the 900 forms distributed, 814(90.4%) were collected with complete data; 182(22.4%) males and 632(77.6%) females. The overall mean age was 20.8 ± 1.3 years. Of the total, 324(39.8%) students were from the public sector, while 490(60.2%) were at private colleges; and 460(56.5%) said there had been career counselling in their schools prior to their decisions of choosing their careers.

Dentistry was the first and foremost choice of profession for 559(68.7%) students (Table 1). Out of the 255(31.3%) students who did not opt for dentistry by choice, 188(78.3%) had sought a career in medical sciences (MBBS) as the first choice. This inclination towards medicine was equally evident in both genders; 49 males (74%); 139 females (80%). Few of the other career preferences included business administration 09 (3%), armed forces 06 (2.5%), arts 05 (2%) and engineering 05 (2%).

In terms of the motivating factor, 438(53.8%) said dentistry offered a stable job, 361(44.3%) had the will to help people, 331(40.7%) said encouragement of friends and family to

Table-1: Studying Dentistry by choice or chance.

Dentistry by	Public n (%)	Private n (%)	Total n (%)	p-value
Chance	140 (43.2)	115 (23.5)	255 (31.3)	0.00*
Choice	184 (56.8)	375 (76.5)	559 (68.7)	

Chi square test was applied; *p-value of <0.05- as statistically significant.

Table-2: Motivational factors of students for choosing dentistry.

Motivational Factors		Public n (%)	Private n (%)	Total n (%)	p-value
Economic reasons	It is easier for dentist to find a job	40 (4.9)	83 (10.2)	123 (15.1)	0.073
	I want to make a lot of money	65 (8.0)	111 (13.6)	176 (21.6)	0.379
	Dentistry offers stable work	178 (21.9)	260 (31.9)	438 (53.8)	0.599
	Dentistry pays better than other available professions	81 (10.0)	99 (12.2)	180 (22.1)	0.107
Professional reasons	I can have a flexible work schedule	112 (13.8)	160 (19.7)	272 (33.4)	0.571
	I can be my own boss	56 (6.9)	128 (15.7)	184 (22.6)	0.003*
	I can earn money every day	14 (1.7)	47 (5.8)	61 (7.5)	0.005*
	I will not be on a salary	13 (1.6)	26 (4.4)	49 (6.0)	0.05*
	Dentistry is a challenging and interesting career	118 (14.5)	191 (23.5)	309 (38.0)	0.461
	There are no "on calls" in dentistry	105 (12.9)	115 (14.1)	220 (27.0)	0.005*
	I can work in several fields of dentistry after graduation without a specialty	92 (11.3)	111 (13.6)	203 (24.9)	0.064
Vocational reasons	I like to interact with others	61 (7.5)	112 (13.8)	173 (21.3)	0.169
	I like helping people	143 (17.8)	218 (26.8)	361 (44.3)	0.921
	I have good hand/ manual skills	97 (11.9)	135 (16.6)	232 (28.5)	0.460
	I like to treat people to improve their appearance	119 (14.6)	174 (21.4)	293 (36.0)	0.723
Personal reasons	Dentists in my family encouraged me	36 (4.4)	100 (12.3)	136 (16.7)	0.001*
	Family and friends encouraged me	137 (16.8)	194 (23.8)	331 (40.7)	0.444
	Not able to enter medical school	74 (9.1)	47 (5.8)	121 (14.9)	0.000*
	My family dentist encouraged me	26 (3.2)	84 (10.3)	110 (13.5)	0.000*
	I heard a talk about dentistry in high school	64 (7.9)	120 (14.7)	184 (22.6)	0.114

Chi square test was applied; *p-value of <0.05 considered statistically significant; Note: More than one option in each group could be selected.

pursue the career was the reason, and 309(38%) said dentistry was a challenging and interesting career (Table 2).

Discussion

The current study is presenting the first comprehensive data on reasons that led undergraduate dental students of Karachi to pursue dentistry as a profession. Among the students in the current study, there were more females, which is comparable to results reported in other studies.^{6,10,16-18} It reflects the increasing global trend of females opting for professional careers, including dental surgery, compared to males. The most frequently cited motivation for studying dentistry by women was their belief that dentistry offers stable work and it will help them to serve the community. Encouragement of family and friends and flexibility in determining their work hours so as to keep a balance between their personal and professional lives were also major reasons cited by females to pursue dentistry. A highly significant difference was seen between the two genders ($p < 0.001$) whereby more females agreed to the fact that not having much 'on-call' work was one of the reasons for them to choose a career in dentistry.

In the present study, 31.3% students opted to pursue dentistry only because they were unable to attain the

required marks for admission into their preferred first choice of career, which in our study was medicine. Similar results were seen in studies carried out in both developed and developing countries.^{7,10,19} This situation may lead to dissatisfaction, resulting in dentists who practise inefficiently because their only reason for pursuing dentistry in the first place was inability to attain admission into medical college. Admissions process in dental colleges needs to be altered so as to ensure that students who are passionate about the dental profession manage to get admissions, as opposed to getting admission because of not being accepted in medicine. The reason behind choice of career is significant because it may affect one's contentment and satisfaction with their career over the years. It might lead to students dropping out during the undergraduate years or not practising dentistry after graduation.

Among economic factors, dentistry offering a stable job (53.8%) and the fact that dentistry pays better than other professions (22.1%) were two major reasons for students to select dentistry. These findings are similar to Aguiar et al.,⁶ who reported that stable work (51.6%) and the belief that lots of money can be made in the dental profession (12.3%) were the major economic factors for students of Brazil. In contrast, Karibe et al.²⁰ reported that a very small number of Japanese (11.4%) and Swedish (25.6%) students considered money as a reason to choose dentistry. Being a developing country, it is not surprising that the notion of earning well after graduation can be a major driving force for our students to opt for dentistry as a profession.

Comparable to studies by Aggarwal et al.⁷ and Bernabe et al.²¹ the yearning to help society and bring about an improvement in their appearances were the most cited vocational reasons by participants of our study too. In the present study, dentistry being a challenging career (38%) was the most stated professional reason for pursuing dentistry followed by the fact that dentists can have flexible working hours (33.4%) with no 'on-call' emergency shifts as in medicine (27%). Contrary to our findings, Aguiar et al.⁶ concluded that being answerable to their own selves (30.5%) was the most cited reason along with flexibility of deciding their own hours. Aggarwal et al.⁷ said Indian students gave primary importance to being able to control their working hours (44.4%), and, secondly, to being their own boss (36.6%).

Encouragement by family and friends to pursue dentistry (40.7%) was a major personal reason to take up dental

sciences for our study participants. This may in large be due to the fact that in our culture, families play an important role in making decisions for their children as majority of them still live with their parents at the time of deciding a career. This is comparable to studies conducted on other populations with similar cultural norms, where families also had strong influence on students deciding their career paths.^{7,20,22,23} These students might just have got admission in dental school because of family pressures and may not be very keen on practising dentistry once they graduate.

While our study encompassed a large number of students studying in private and public dental colleges of Karachi, the results cannot be generalised to the sub-urban regions or other major cities of Pakistan. A study shall be conducted in the future to evaluate if there is any difference of factors and opinions of dental students in the rest of the country. Studies shall also be directed to see if the motivational factors to choose the career had an impact on their professional life, including their interest in pursuing dentistry and doing specialisation after graduation.

Conclusion

Professional and vocational were the foremost reasons for students of both public and private dental colleges of Karachi to pursue dentistry. It is critical that the students were very clear in their expectations.

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