

## ORIGINAL ARTICLE

**Motivation and Attitude of BDS Students and House Officers in Their Postgraduate Career Selection**Mah Rukh Shahbaz<sup>1</sup>, Fatima Suhaib<sup>2</sup>, Aqib Sohail<sup>3</sup>, Momin Ayub Marath<sup>4</sup>, Herrah Ghaffar Satti<sup>5</sup>, Wardah Ishaque<sup>6</sup>**ABSTRACT**

**Objective:** The objective of this research was to explore the motivational factors among BDS students and house officers for post graduate career selection.

**Study Design:** Descriptive cross-sectional study.

**Place and Duration of Study:** The research was conducted from 3<sup>rd</sup> October to 19<sup>th</sup> December 2022 at Lahore Medical and Dental College.

**Materials and Methods:** A total of 226 participants (77 from third year BDS, 84 from 4<sup>th</sup> year BDS and 65 House Officers) were asked to fill a questionnaire in which the first part consisted of biodata and the second part was based on questions related to motivation of students for post-graduation and their preferred field of choice either clinical sciences or basic sciences. Descriptive statistical analysis was done and significance testing between the variables was done using chi-square test. Significance level was set at 0.05.

**Results:** Results of the study showed a significant difference ( $p=0.018$ ) between the groups in reasons for choosing dentistry as a profession where majority 51.3% were internally motivated. It was found that 61% students were motivated for post-graduation and majority (68.5%) wanted to choose clinical subjects as compared to 13.2% for basic sciences. There was significant difference between the groups ( $p=0.00$ ) as a clear majority (71.6%) believed that there were not enough options for post-graduation in Pakistan and 85.3% wanted the institute to conduct seminars for career counselling ( $p=0.048$ ).

**Conclusion:** The dental students were motivated to do post-graduation out of which a clear majority opted to pursue clinical studies. The students wanted the institute to conduct career counselling sessions to help them plan their career choices.

**Key Words:** Basic Sciences, Career Choices, Career Counselling, Dental Students, Motivation.

**Introduction**

Specialization and post graduate studies in dentistry have gained a lot of importance over the years. The competition created for a limited number of seats has led to saturation of all the key training posts therefore making the right career choice is one of the most important decisions in a dental student's life.<sup>1</sup> The motivation for pursuing post-graduation has been widely researched including the factors

contributing to the demographics of speciality choices.<sup>2</sup> There are many factors that have been identified as playing a key role in career selection by students including their academic performance, expected income from the speciality, social status, duty timings, personal preferences, awareness and helping the community.<sup>3</sup> According to the three dimensional framework theory of career selection, an individual may be intrinsically motivated due to personal choices or extrinsically motivated due to his environment or interpersonal dimension based on the social interactions with friends, family and peers.<sup>2</sup>

While career choices in dentistry have been widely researched, there are few studies that have researched the factors affecting the choice of specialization between basic sciences and clinical subjects. After graduating, students have two choices of a career path either in clinical subjects or basics sciences.<sup>4</sup> There is a clear majority of students who opt for clinical subjects rather than

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Received: June 20, 2023; Revised: December 14, 2023

Accepted: December 18, 2023

specialization in basic sciences.<sup>4</sup> In a study conducted in Nepal, it was found that students only considered specialization in basic sciences when they had failed their luck trying in clinical fields and it was necessary to highlight the role of good mentoring as the most ascertainable factor in career choice of young graduates.<sup>5,6</sup>

Shortage of teaching faculty in basic sciences has also been identified as one of the factors responsible for this trend as reported in a study in Japan, where there was a 24.5% rate of interest in basic sciences.<sup>7</sup> A study conducted in a private medical college in Karachi revealed that 91.1% students wanted to pursue post graduate studies of which Oral and Maxillofacial surgery was the most popular choice followed by Orthodontics and Restorative dentistry.<sup>8</sup> In another multi survey study conducted across different government and private dental institutes in Karachi, it was found that 51.5% students wanted to pursue post graduate studies out of which 75.3% opted for clinical subjects and only 14.4% for basic sciences.<sup>9</sup>

In Pakistan, Fellowship of College of Physicians and Surgeons (FCPS) has proved to be the most popular post graduate degree pursued by graduates even though there is a shortage of training posts in dental institutes.<sup>10,11,9</sup> Studies have shown that knowledge of basic sciences is a pre requisite to handle clinical scenarios and students should be motivated and guided to pursue research careers.<sup>6</sup> Therefore the reasons for this lack of inclination towards basic sciences must be explored in order to inspire students to make informed choices.

The aim of our study was to find the factors that lead graduates of Lahore Medical and Dental College in making career choices. The objectives of the study were to find the reasons for an inclination towards clinical training and what is the role of the institute in motivating their students to make these choices. The reasons for choosing dentistry and awareness of options for post-graduation were determined to understand the inclination of students towards clinical degrees.

## Materials and Methods

A cross sectional comparative study was conducted at Lahore Medical and Dental College (LMDC), Lahore, Pakistan, between October and December 2022. Permission was obtained from the Ethical

Review Board of LMDC to conduct the study, FD/1930/22, 24-5-2022. Non-probability convenience sampling was done and a total of 226 students were included in the study out of which 77 were from third year BDS, 84 were from 4<sup>th</sup> year BDS and 65 House Officers. First year and 2<sup>nd</sup> Year BDS students were excluded from the study based on their limited exposure to clinical work.

A questionnaire was prepared consisting of 13 multiple choices, close ended questions. The purpose of the study was stated, and confidentiality of the data was ensured. The first part of the questionnaire consisted of biodata and the second part was based on questions related to motivation of students for post-graduation and their preferred field of choice either clinical sciences or basic sciences. Each question had three options and two questions had five options stating the benefits of field of choice. The survey form was pretested and pre validated in a pilot study first. Participation was voluntary and out of 234 questionnaires distributed, 226 were filled and their responses were recorded.

Data was collected and analysed using Statistical Package for Social Sciences (SPSS) version 26.0. The data was subjected to descriptive statistical analysis and qualitative variables were described as percentages and frequencies. Pearson's Chi square test was used to compare the differences between the groups. The *p*-value < 0.05 was taken as significant.

## Results

A total of 226 participants were included in the study out of which 153 (67%) were females and 73 (32%) were males. The mean age of the participants was 20±2 years. Out of 226, there were 77 (34.1%) students from 3<sup>rd</sup> year BDS, 84 (37.2%) students from 4<sup>th</sup> year BDS and 65 house officers (28.8%). Table I shows the frequency of responses given to the questions asked about motivation for post-graduation and their associated *p* values. Table II shows frequency of responses to questions asked about preference for clinical or basic science subjects. There was a significant difference (*p*=0.018) between the groups in reasons for choosing dentistry as a profession where majority 51.3% were internally motivated. There was also a significant difference between the groups (*p*=0.012) for motivation for post-graduation after BDS. Third year

and 4<sup>th</sup> year students were more motivated, 68.8% and 64.2% respectively as compared to house officers (47.6%). There was a highly significant difference between the groups ( $p=0.00$ ) as a clear majority (71.6%) believed that there were not enough options for post-graduation in Pakistan and 85.3% wanted the institute to conduct seminars for career counselling ( $p=0.048$ ).

Results showed that the biggest hurdle faced by students in pursuing post-graduate studies was lack of career counselling (30.9%) and shortage of seats

for training (37.6%). A clear majority (68.5%) were more inclined towards choosing clinical sciences as compared to only 13.2% for basic sciences. There were however 18.1% who wanted to keep both options open. The benefits of clinical fields given by students as most appealing were better job prospects (25.6%) and better financial stability (29.2%). The benefits of basic sciences by majority of students were better job prospects (26.1%) and less training time (22.1%).

**Table I: The Results of the Responses to Questions Asked about Motivation for Post-Graduation and their Associated P-Value**

S.No	Questions asked in the survey	Responses	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	House officers	p-value
1	<b>Choice of Choosing Dentistry</b>	Influenced by parents	16	13	25	0.018
		Internally motivated	41	50	25	
		Chose as a second option	20	21	15	
2	<b>Choice of Continuing Dentistry</b>	Yes	63	77	52	0.279
		No	8	3	7	
		Not Sure	6	4	6	
3	<b>Motivation for post-graduation</b>	Yes	53	54	31	0.012
		No	12	11	22	
		Not Sure	12	19	12	
4	<b>Knowledge of post-graduation</b>	Yes	20	18	18	0.820
		No	36	42	33	
		Not Sure	21	24	14	
5	<b>Options of Post-graduation in Pakistan</b>	Yes	18	2	6	0.00
		No	46	64	52	
		Not Sure	13	18	7	
6	<b>Role of Institute in motivation</b>	Yes	27	24	26	0.179
		No	37	44	55	
		Not Sure	13	16	4	
7	<b>Role of Institute in choosing field</b>	Yes	32	28	27	0.202
		No	33	50	30	
		Not Sure	12	6	8	
8	<b>Need for Career Counselling</b>	Yes	62	76	55	0.048
		No	7	6	9	
		Not Sure	8	2	1	
9	<b>Hurdles of post-graduation</b>	Lack of Motivation	10	9	9	0.143
		Financial Barrier	13	4	8	
		Lack of Career Counselling	18	34	18	
		Shortage of Seats	32	28	25	
		Difficult to Pass Exam	4	9	5	
10	<b>Job Preference</b>	Academic	11	10	11	0.597
		Private Practice	32	35	32	
		Both	34	39	32	

**Table II: Comparison of Reasons and Frequency of Responses for Preference of Clinical and Basic Sciences**

Questions asked in the survey		Level of education			
		3 <sup>rd</sup> Year	4 <sup>th</sup> Year	House officers	p-value
Inclination	Clinical	55	60	40	0.682
	Basic	9	11	10	
	Both	13	13	15	
Benefits of Clinical Sciences	Better job prospects	18	23	17	0.738
	Better financial stability	24	25	17	
	Satisfaction of helping people	17	17	10	
	Work is not boring	16	13	17	
	Others	2	6	4	
Benefits of Basic sciences	Better prospects in academia	18	21	20	0.013
	Less training time	20	19	11	
	No Clinical Burden	20	17	9	
	Research work is more interesting	11	21	8	
	Others	8	6	17	

## Discussion

This study is done to document the motivation levels of dental students and house officers in LMDC and their choice of field after graduation. There is a significantly higher number of female participants in the current study reflecting the higher ratio of females choosing dentistry as a profession.<sup>12,13,14</sup> However the responses recorded did not show a significant difference in career choices and reasons for choosing any specific field are same for both genders. Both genders reported that the biggest hurdles faced in post-graduation are lack of career counselling and shortage of seats as even though

they are motivated but still struggled due to these issues. This trend is in line with similar studies conducted in this region<sup>9</sup> and also with a study conducted in Denmark.<sup>18</sup> In another study conducted in Nepal, the students were very motivated to do post-graduation but were discouraged by the high expenses of specialization.<sup>19</sup>

In our study the majority of students 51.3% are internally motivated for choosing dentistry as a profession out of which 85% want to continue dentistry after BDS and 61% are motivated for post-graduate studies.<sup>25</sup> This is in contrast to a study done in India where 74.4% students chose dentistry

because they failed to get admission in a medical college.<sup>15</sup> In our study there is a significant difference in the groups as undergraduate students of 3<sup>rd</sup> year and 4<sup>th</sup> year BDS are more motivated as compared to house officers. The reasons could be that as students the motivation levels are high but after graduation, the reality of post-graduate options available may be different. This contrasts with another study conducted in Karachi, where majority of students were pursuing dentistry to fulfil their parents desire.<sup>9</sup> In another study in India, the reasons cited most for choosing dentistry were good income and a respectable social standing. This study also showed an inclination towards clinical fields as compared to research and basic sciences.<sup>14</sup>

A clear majority (71.6%) of students believed that there are not enough options available for post-graduation in Pakistan and 85.3% want their educational institute to conduct career counselling seminars as only 24.7% had prior knowledge of post-graduate options. The importance of career counselling was highlighted in a study done in Army Medical College, Rawalpindi, in which questionnaires were given before and after the career counselling sessions. The participants were able to select their choice of speciality more effectively after the counselling session.<sup>20</sup> However these sessions must be an ongoing activity as a single session alone does not make a significant difference.<sup>11</sup>

A striking feature of our study is that most students 68.5% want to choose clinical subjects as compared to only 13.2% for basic sciences. This trend has been documented in numerous other studies as well.<sup>9,11,21,22,23</sup> Clinical subjects are preferred by the students because of better financial stability and job prospects. Likewise, better prospects in academia and less training time are the reasons given by students for choosing basic sciences. In a study conducted in 80 medical schools in Japan found that females were more inclined towards career development in basic sciences as the rationale for choosing this was an interest in research whereas in our study only 17.6% were interested in research work highlighting the role of making research more attractive for students.<sup>7</sup> In a study conducted in different dental colleges of Karachi, it was found that 84% students wanted to do post-graduation with

48.3% wanting to get an FCPS degree based on personal interest.<sup>10</sup> In separate studies done in United Kingdom, it was found that the majority (71%) students wanted to pursue dentistry with the most popular fields of choice for specialization were Restorative dentistry and Orthodontics.<sup>24</sup> A study done in Harvard School of Dental Medicine also showed Orthodontics to be the most popular choice<sup>5</sup> and Prosthodontics<sup>12</sup> in a Chinese Medical University reflecting the popularity of clinical sciences.

The importance of basic sciences cannot be ignored as basic science knowledge is critical to clinical decision making and students must be encouraged and inspired to pursue a research career and not just join as a second option.<sup>6</sup> The prospects of good earning and financial stability in the future are some of the factors that students look for when choosing a career field.<sup>4</sup> Our study showed that financial stability was the most popular choice for choosing clinical subjects as highlighted in another study in Karachi where financial reward and role models were considered the influencing factors for choosing any speciality.<sup>21</sup>

The authors propose that in order to encourage students to opt for basic sciences, career counselling at an institutional level must be done while at the same time highlighting the positive aspects of a career as an academician and the benefits of research work can all inspire students to pursue basic sciences. This will also reduce the burden of shortage of seats that many students face when applying for clinical training programs. The limitation of our study was that the results were collected from one institute only and they may be compared with other medical colleges of Lahore where career counselling sessions are being given.

## Conclusion

A majority of students were motivated to do post-graduation out of which a clear majority opted to pursue clinical studies instead of basic sciences. The students believed that the institute should provide career counselling sessions to help them make informed decisions when choosing a career path. The Department of Medical Education can play its part in strengthening basic science subjects and ensuring that students choose these specialities so that there is a balance in distribution of specialists.



## Acknowledgements

The author(s) would like to thank the students who participated in this study. There is no funding to be reported for this study.

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**CONFLICT OF INTEREST**

Authors declared no conflicts of Interest.

**GRANT SUPPORT AND FINANCIAL DISCLOSURE**

Authors have declared no specific grant for this research from any funding agency in public, commercial or nonprofit sector.

**DATA SHARING STATMENT**

The data that support the findings of this study are available from the corresponding author upon request.

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