

ORIGINAL ARTICLE

Passion vs Parental pressure: Gender based motivations for choosing medicine or dentistry – A cross sectional study in a public sector institute in Karachi, Pakistan.

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ABSTRACT... Objective: To identify the factors influencing the choice of medicine or dentistry as a career among students of Jinnah Sindh Medical University [Sindh Medical College (SMC) and Sindh Institute of Oral Health Sciences (SIOHS)]. **Study Design:** Cross-sectional study. **Setting:** Medical and Dental students of Sindh Medical College (SMC) and Sindh Institute of Oral Health Sciences (SIOHS) respectively, Jinnah Sindh Medical University Karachi. **Period:** 1st March 2025 to September 2025. **Methods:** This study recruited 260 students via non-probability convenience sampling. A structured questionnaire assessed socio-demographics and motivations (passion or parental influence) using a five-point Likert scale. Data were analyzed using SPSS version 26.0, with descriptive statistics used for categorical variables and chi-square tests applied to compare passion and parental pressure across gender. **Results:** A total of 260 students participated, including 90 (34.6%) males and 170 (65.4%) females. Among them, 167 (64.2%) were enrolled in MBBS and 93 (35.8%) in BDS programs. Personal passion (81.5%), was reported as the leading factor influencing career choice followed by prestige and social status (55.7%) and financial stability (51.9%). External inspiration was noted by 47%, while parental pressure was least reported (23%). No significant gender differences were observed in these factors. Information Technology and Business/Management were the most common alternate career preferences if not medicine or dentistry. **Conclusion:** Students chose medicine or dentistry not only because of their passion but also because of social status, financial independence and other inspirations. Both genders have more or less the same desires to choose medicine or dentistry.

Key words: Aspiration, Prestigious, Stereotype.

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INTRODUCTION

Career choice is a defining milestone in a student's life. In Pakistan, many aspire to join medicine, motivated by the noble aim of serving humanity.¹ The process, however, complex, shaped by personal passion, abilities, and ambitions.² In a society where cultural and familial expectations hold considerable weight, personal preferences are often overshadowed by parental influence in choosing medicine or dentistry. Gender bias remains a prevailing issue in many fields, including medical education.³ Inappropriate career selection often results in dissatisfaction and high dropout rates.

Several studies demonstrate more about medical and dental career choices. Understanding student's motivations and expectations is important for designing strategies to recruit and retain the huge dental workforce.⁴ Some research constantly

shows that gender inequality negatively impacts female medical students compared to males.⁵ An Indian study highlighted that students frequently selected dentistry based on personal interest and altruistic values.⁶ Other findings emphasize that prestige, parental influence, and financial incentives increase the likelihood of pursuing a medical career.⁷ Work on stereotype threat in academic medicine also confirms that gender-based motivators and deterrents exist in career decisions.⁸ It is considered very exciting when females are called as "doctor brides" when in reality they are forced to choose medicine or dentistry as it was studied in a city in Pakistan.⁹ Some students choose medicine or dentistry either due to passion or parental pressure while some also choose due to prestige or financial independence or some other factors as well. Hence it is necessary to know the reasons that lead pupils to choose medicine or dentistry.

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Despite of knowing this there are some other unknown factors as well that lead students to join medicine or dentistry. This study will raise awareness among Pakistani families about the importance of allowing their children to pursue careers of their choices.

The objective of this study is to find and compare gender based motivational factors like parental pressure or personal passion whether they influence the selection of medicine or dentistry as a career among learners.

METHODS

It is a cross-sectional study that was undertaken at Jinnah Sindh Medical University in a time period of 6 months in 1st March 2025 to September 2025. where first and second year MBBS and BDS students were part of the study. To calculate the sample size, the prevalence of 50% was estimated, while maintaining a margin of error of 5% and a confidence level of 95%, a sample size of 260 participants was calculated by using the reputable online calculator of Open Epi. After getting consent from the students 260 MBBS and BDS learners were recruited through non probability convenience sampling. .

The students of Sindh Medical College (SMC) and Sindh Institute of Oral Health and Sciences (SIOHS) of 1st and 2nd year MBBS and BDS programs who agreed to participate were part of the research. Students of clinical years and also those students who didn't provide consent to participate were left out from the study. Students with any co morbid were excluded as well.

A questionnaire was used to assess students. The questionnaire was designed by authors following a thorough review of the relevant literature. Face validity was assessed by subject experts, and revisions were made accordingly. A pilot study was conducted on 26 participant (10% of the calculated sample size) to evaluate the clarity, reliability and validity of the instrument. The revised questionnaire demonstrated good face validity and acceptable internal consistency, with a Cronbach's alpha of 0.70. Data from the pilot study were not included in the

final analysis. The first section of questionnaire was about socio-demographic profile including age, sex, contact details, institution, academic program, study year, and ethnic affiliation, while the subsequent segment was designed to ask students, why did they choose to pursue medicine or dentistry either it was Personal interest or parental expectation. Participants were evaluated by using a structured questionnaire.

Likert scale was used in questionnaire extending from 1 to 5, where 1 signifies "Strongly Disagree" and 5 signifies "Strongly Agree".

The result was generated using SPSS version 26.0. Descriptive statistics included age, gender, ethnicity, program, year of study, inspiration etc. Fundamental analysis was conducted to ascertain the occurrence pattern of categorical factors. Chi square was used to compare the variables of passion and parental pressure with gender. The importance cutoff was $p < 0.05$ for statistical checks in the research. The work was allowed by the Review Board of Jinnah Sindh Medical University, Karachi (JSMU/IRB/2024/979).

RESULTS

260 participants were included in this study. Out of those, 90 (34.6%) students were male and 170 (65.4%) students were female. The students were registered in two programs MBBS and BDS. Out of which 167 (64.2%) were from the Bachelor of Medicine and Bachelor of Surgery (MBBS) and 93 (35.8%) from the Bachelor of Dental Surgery (BDS) program respectively .125 (48.1%) first year and 135(51.9%) second year students took part in this study.

About ethnicity, 16 (6.2%) of the partakers were non-Muslim, whereas the most (244, 93.8%) identified as Muslim. Participants comprised of two institutions: SIOHS, which had 93 (35.8%) students, and SMC, which had 167 (64.2%) students.

As Table-I demonstrates personal passion was selected the most (81.5%) among those affecting students' choice of medicine and dentistry, following financial stability (51.9%) and prestige and social standing (55.7%). 47% of participants said they

were inspired by someone, and 30.4% said their parent’s medical or dental experience helped them choose. Parental pressure (23%) had the lowest frequency. Regarding their ethnicity, most (244, 93.8%) identified as Muslims, whereas 16 (6.2%) were not. Students from two departments took part in the study: SMC, with 167 (64.2%) and SIOHS, with 93 (35.8%) students.

TABLE-I
Frequencies and percentages of factors associated with career choice (n=260)

Factors	Frequency	Percent
Personal Passion	212	81.5
Parental Pressure	60	23
Economic security	135	51.9
Reputation and societal standing	145	55.7
Parent’s Medical and Dental Background	79	30.4
Motivated By Someone	122	47

Chi-square tests were implemented to analyze the association among gender and factors influencing students’ choice of medicine and dentistry. Table 2 shows factors that were among both males and females, personal passion appeared as an important factor, with either agreement or strong agreement reported by 72 males and 140 females and the gender difference was not statistically significant (p=0.323). On the factor of financial stability, responses favored agreement more (Male: 50; Female: 85), while 56 females expressed uncertainty, signifying

some indecisiveness in its role (p = 0.488). Prestige and social status were another prominent motivator, especially among females, with 89 (81 agree + 8 strongly agree) supporting it compared to 56 males. However, 45 females also disagreed, demonstrating a differentiating trend (p = 0.511). For the factor “my parents’ medical or dental background,” an increased number of respondents strongly disagreed (Male: 25; Female: 75), suggesting that a majority of participants were first-generation healthcare students (p = 0.29). Lastly, influence by cousins or others had mixed answers. While many numbers of participants agreed (Male: 44; Female: 78), 80 females and 37 males disagreed or strongly disagreed (p = 0.526).

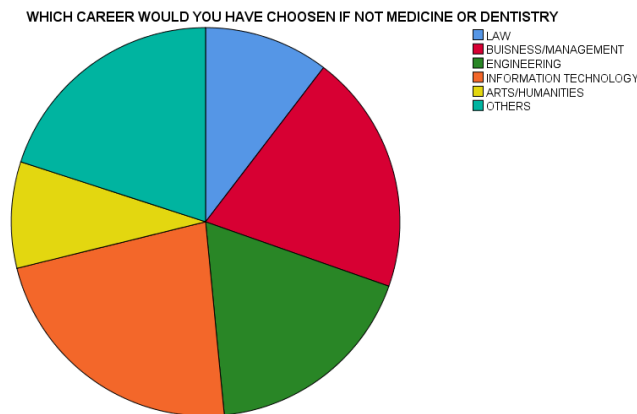
FIGURE-1 demonstrates the percentage distribution of different career choices among candidates if not Medical Sciences. Information Technology and Business/Management were the most often explored alternate fields, with some who chose both.

Engineering and Others was selected by some, indicating a broad spectrum of interests beyond the healthcare domain. Some of the participants chose Law and Arts/Humanities as well, portraying lesser inclination towards these options. This concludes that a significant number would have considered careers based on technology or simply business-oriented careers, highlighting the value of personal interests and aptitude in career decision-making.

TABLE-II
Association between gender and factors affecting career choice

	Strongly Disagree		Disagree		Uncertain		Agree		Strongly Agree		P. Value
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Personal passion	5	2	6	11	7	17	47	88	25	52	0.323
Parental pressure	22	35	31	49	29	43	12	37	5	6	0.403
Financial stability	9	18	16	27	14	40	46	76	4	9	0.488
Prestige and social status	9	19	12	33	13	29	53	81	3	8	0.511
My parents medical or dental background	25	75	20	42	7	12	31	32	7	9	0.29
Inspired by my cousins or others.	22	58	15	21	9	13	38	69	6	9	0.526

FIGURE-1
Proportional distribution of other career options apart from medicine or dentistry



DISCUSSION

Medicine and Dentistry are known to be the most prestigious professions in Pakistan which are dreamed by many. Some students with top scores, who miss out on general admission, might get in as 'government quota students' by scoring high and paying hefty tuition or capitation fees.¹⁰ Although many of the students don't choose their career on the base of their own particular choice. There is a need to instruct scholars about their selected career choices and its opportunities ahead.¹¹

In our present study, personal passion (81.5%) was the main factor driving students into the fields of medicine and dentistry which was least followed by parental pressure (23%) along with alternate interests shown in IT and Business. likewise, the association between gender and the factors impacting students' choice of medicine and dentistry was also assessed. Among the study participants (N=260; 90 MALES AND 170 FEMALES) personal passion was reported by 72 males and 140 females. Similarly, research was conducted in Pakistan to investigate how parental control and media exposure effect on gender roles and profession perceptions within students at the peripheral position in Pakistan. The findings disclosed that the field opinions of the students relied on their parents' preferences and they enjoy opinion regarding gender generalizations.¹² Additionally, when parents respect their children's career choice it doesn't only builds trust and strengthen parent- child relationship but it

also motivates them and allows them to work hard and perform better. In this regard, a study was carried out in Cuba that examined how shifts in family and community support affected students of medicines educational adjustment, particularly concentrating on their affiliation to the medicinal field and grade prospects. Advancements in community ties, former academic success, student aid experience, medical family background, and being female were all linked to stronger field belonging, while grade prospects were told mainly by family legacy, student aid, and gender.¹³

Similarly, many students are looking forward to getting professional doctors but not all of them wish to pursue MBBS, some are more passionate about dentistry yet they face challenges because unfortunately it's considered a alternate option whereas in reality it's equally precious because oral health is also important. This study shows that for undergraduate dental students, the main driver in choosing dentistry is the chance to give patient care and helping people really motivates them. Other factors include career security, financial aspects, and personal interest, but caring of patients tops the list.

It was also discovered that students wanted to perform hands on tasks and build a professional name as a dentist. students' choice of dentistry was mainly shaped by family influence, hands-on skill openings, childhood aspirations, professional prestige, philanthropic motives, and the chance to transfer after original enrollment.¹⁴ Additionally, a study examined how gender impacts students' career selections in dentistry, particularly in the field of endodontology. The evaluation brings out that gender is always studied as an alternative outgrowth in education of endodontics. Predicated on present validation, it becomes visible that more female students were practicing in endodontology because they feel more anxious and less confident than males.¹⁵ In research that was held in Kenya among dental students and interns to find the motivating factors for pursuing dental profession. Majority (76.1%) of the participants accepted that they join this field due to personal passion.¹⁶ A cross sectional study in Tehran was carried out which predicated the influence of career choice motivation on educational collapse in senior-level

dental students which revealed that students choose dentistry due to some reasons as high income bracket (90%), high social status (89.9%) and working independently (89.5%).¹⁷

In our study we also discussed that the students decided for medicine and dentistry based on other factors like financial stability (51.9%) and parents medical and dental backgrounds (30.4%). A research study took place at the University of Montenegro aimed at identifying the main motivational factors that encourage the medical students of Montenegrin to choose a medicinal field, and if these factors suffer changes throughout their studies. A total of 85.71% students stated that they independently choose to pursue a profession in medicine, whereas 9.05% indicated that their parents had the greatest influence on this decision. More than 40 % of the students (43.33%) had a medical background among their family members, but lower than 15% had their parents in the medical profession.¹⁸ also, A cross-sectional in 1984, research was executed in the City of Al Ain, United Arab Emirates, where students were notified about the study's purpose and assured that confidentiality would be maintained. Survey questions focused on motivations for pursuing a career in medicine and the limitations that assist in selecting medicine as a field of study. The believed elevated status of a doctors in society was cited by 19 students (9.3%) as their reason to choose Medicine.¹⁹

Despite the challenges faced by many students when they feel so burned out, they still stay motivated and focused because every struggle feels worthwhile when they realize the prestige and status of their profession. Medical seminars increase competitions and difficulties despite of helping students to cope with exam stress, financial difficulties.²⁰

Lastly, there are some limitations to this study. First of all, it's restricted to two institutions in a city so indigenous and cultural differences were not considered. Second of all, since the study design is cross-sectional it collects data at a single point in time.

CONCLUSION

Overall gender-based motivations were not

significantly observed in our study. Personal passion tends to be the highly opted factor for choosing medicine or dentistry followed by social status, financial stability and external inspirations. Apart from medicine or dentistry, Information Technology and Business Management were the most recommended career alternatives.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

1	Hina Shah: Interpretation, manuscript writing.
2	Areej Fatima: Data analysis.
3	Aamna Khan: Data collection.
4	Aiman Nadeem: Study design.
5	Areesha Sohail: Revisions.
6	Aneeba Memon: Data collection.