

Career Preferences and Choices Among Medical and Dental Students: A Study from a Public Sector Medical College in Rawalpindi

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ABSTRACT

Objective: To investigate reasons for choosing medical profession, preferences among different specialties as career choice, and willingness to choose medical profession again, if given another chance, among medical (MBBS) and dental (BDS) students at a public sector medical college.

Study Design: Analytical cross-sectional.

Place and Duration of Study: Army Medical College, Rawalpindi, Pakistan, from Dec 2022 to Feb 2023.

Methodology: A total of 1117 (925 MBBS and 192 BDS) students were included in this study. They answered a questionnaire about their motivations for choosing medicine and their preferred specialty out of a provided list (22 specialties for MBBS and 10 for BDS). Data was analyzed using IBM SPSS version 22.0.

Results: Majority of students (340, 30.4%) chose medical professional for better lifestyle, high financial gains (204, 18.3%), and respect in society (182, 16.3%). There was a statistically significant relationship found between the reasons for joining medical professional and students of MBBS and BDS (p -value<0.001).

Conclusions: These findings highlight the prominent role of extrinsic rewards and perceived social status in shaping career preferences among medical and dental undergraduates. The most frequently cited determinant of specialty selection among students in this cohort was the expectation of lucrative financial prospects and a secure future, with respect and social prestige also serving as important motivating factors.

Keywords: Career Preferences, Dental Students, Medical Students.

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INTRODUCTION

Doctors are highly respected, making medicine a popular career choice for many high school graduates.¹ In 2021, 194,133 students attempted the MDCAT in Pakistan, with only 68,680 passing, highlighting the intense competition and high interest in pursuing medicine in the country, despite the limited number of available seats.² While medicine is seen as a noble profession, but some students choose it just for good grades or parental pressure. This can lead to problems later if their true interests lie elsewhere.³ After graduation, students face the challenge of choosing a specialization without full awareness of the available options or the number of seats in different specialties.⁴ Limited research exists on the motivations of Pakistani medical students and their preferences for specialization, thus, study aims to explore the factors influencing students' decisions to

pursue medicine and their future career aspirations, including specialty choices and post-graduation plans.⁵ The decision to enter the medical profession is complex and influenced by various factors and understanding these dynamics can provide insights into the nation's future healthcare workforce and inform strategies for improvement.^{6,7} Academic performance, program reputation, and personal interests all play a role in selection of specialty.⁸ Health professionals can face many challenges after graduation beginning from choice of postgraduation residency here in Pakistan under CPSP,⁹ or move abroad. Ultimately, this research can inform workforce planning and educational strategies, fostering excellence and innovation in healthcare delivery in Pakistan.

METHODOLOGY

After gaining approval of Ethics Committee via letter number ERC/ ID/ 245, this cross-sectional survey began in December 2022 and continued until February 2023. A sample of 1117 (925 MBBS and 192

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BDS) students was enrolled by using non-probability consecutive sampling after taking informed written consent from participants.

Inclusion Criteria: All students, belonging to either gender, in Army Medical College undergraduate medical (MBBS) and dental (BDS) degree programs, were included in the study.

Exclusion Criteria: Students in other undergraduate programs were excluded from the study.

The questionnaire used was validated in previous studies,⁸ however a pilot study was done among 30 students to enhance face validity of the data collection tool along with being examined by two experts for content validity with a Cronbach alpha of 0.715. All the data recorded was kept anonymous with no personal identifiers used. All collected data was analyzed by using IBM Statistical Package for Social Sciences version 22. Difference between categorical variable for statistical significance was assessed by Chi-square test, *p*-value of <0.05 being considered significant.

RESULTS

A total of 1117(925 MBBS and 192 BDS) students were included in this study. Out of total students 629(68%) were male and 296(32%) were female. Majority of students (340, 30.4%) chose medical professional for better lifestyle, next most frequently reported was to serve humanity (240, 21.5%), high financial gains (204, 18.3%) and respect in society (182, 16.3%). There was statistically significant found between the reasons of joining medical professional among MBBS and BDS i.e *p*-value <0.001 shown in Table-I.

Table-I: Reasons of joining medical professional (n=1117)

Reasons	MBBS (n=925)	BDS (n=192)	Total (n=1117)	<i>p</i> - value
High Financial Gains	120(13.0%)	84(43.7%)	204(18.3%)	<0.001
Better Life Style	296(32.0%)	44(22.9%)	340(30.4%)	
Top Students in their Class	130(14.0%)	21(10.9%)	151(13.5%)	
To Serve Humanity	231(25.0%)	9(4.7%)	240(21.5%)	
Respect in Society	148(16.0%)	34(17.8%)	182(16.3%)	

Although Cardiology 209(22.6%), Internal Medicine 182(19.7%) and Gynecology & Obstetrics 102(11.0%) higher choice of MBBS students as compare to other specialty. In BDS

students, Oral surgery 97(50.5%) and Endodontics 35(18.2%) were higher choice as compare to other specialty. Detail of Future specialty selection by the participants shown in Table-II.

Lastly, one question was asked from MBBS and BDS students to explore their inclination towards pursuing a career in the medical profession if given another opportunity. The study aimed to examine the response patterns of students across various academic grades, with an emphasis on their perseverance in maintaining consistent preferences. The results revealed that among the MBBS students, 73.9% (684 respondents) expressed a desire to rejoin the medical profession, while 26.1% (241 respondents) indicated otherwise. Conversely, in the BDS program, 67% (130 respondents) affirmed their willingness to pursue a career in medicine, whereas 33% (62 respondents) stated otherwise.

Table-II: Future specialty selection by the participants (n=1117)

Type	Specialty	n (%)
MBBS	Cardiology	209(22.6%)
	Internal Medicine	182(19.7%)
	General Surgery	80(8.6%)
	Gynecology & Obstetrics	102(11.0%)
	Dermatology	55(5.9%)
	Radiology	75(8.1%)
	Oncology	88(9.5%)
	Neurology	65(7.0%)
	Ophthalmology	29(3.1%)
	Pulmonology	25(2.7%)
BDS	Public health	15(1.6%)
	Oral surgery	97(50.5%)
	Periodontology	27(14.1%)
	Public Health Dentistry	20(10.4%)
	Endodontics	35(18.2%)
	Oral Pathology	13(6.8%)

DISCUSSION

The choice of medical specialization is a crucial decision for scholars, impacting both individual career trajectories and the broader healthcare system. Motivations guiding students into medicine also influence their eventual specialty selection. Governments and healthcare institutions are increasingly focused on ensuring a balanced distribution of medical professionals to meet regional healthcare needs. Efforts to incentivize careers in primary care reflect global challenges in healthcare provision.¹⁰

The racial, societal and ethnic environment in Pakistan is different from other nations. Students in Pakistan exercise their choice of occupation at a much younger age (18 years), where normally parents and family associates have a bigger impact on their verdicts. In countries such as the USA, students are obligatory to complete a few years of premedical course and they are more self-governing by the time

they make their choices. Harth *et al.*, paralleled mature age contestants to medical school with usual age entrants in Queensland.¹¹ While it may be predicted that older entrants would have exercised more recognized and considered choices while selecting the medical career, it is interesting that the authors found that inspirations to study medicine encompassed family inspirations and parental prospects though these were more so in normal age entrants. In our study, we find that family prejudiced a large number of students in shaping their choice of career.

In the perspective of Pakistan, student choice of private situations for practice, preference for clinical subjects and their selection of Pakistan as the primary state for practice were the significant findings. The proclivity of Pakistani scholars toward the private subdivision is not surprising.¹² In current years, Pakistan has perceived a drop in the quality of the public health care system because of a insufficiency in funding,¹³ overcapacity of patients, pitiable governance,¹⁴ and insufficient health care providers. The overall milieu of community health care settings as well as students' own scholastic involvement in a private university hospital may have prejudiced their preference.¹⁵

Across all classes, nearly 80% of scholars chose a profession based on 'personal interest'.¹⁶ Other factors that were evaluated as important by at least half the respondents included those relating to profession stability, lifestyle/prestige, reputation, career progression, income and independence.¹⁷ These factors were not very different from those reported by students in other countries in Asia and in the West.¹⁸ There is a necessity to continue such studies to perceive the changes in trends, and to search for the causes to guarantee undeviating dissemination of health staff in all fields.

LIMITATIONS OF STUDY

The analytical cross-sectional design conducted at a single public sector institution limits generalizability to private colleges or other regions with diverse socioeconomic contexts. The use of a self-reported questionnaire may introduce response bias, particularly regarding sensitive motivations like financial incentives. Additionally, the study did not assess longitudinal changes in career preferences or actual career outcomes, and the fixed list of specialties may have constrained responses.

CONCLUSION

These findings highlight the prominent role of extrinsic rewards and perceived social status in shaping career preferences among medical and dental undergraduates. The

most frequently cited determinant of specialty selection in this cohort was the expectation of lucrative financial prospects and a secure future, with respect and social prestige also serving as important motivating factors. Taken together, these observations suggest that students' career choices are strongly influenced by anticipated socioeconomic advantages rather than intrinsic interest alone, underscoring the need for career counselling that balances financial and status-related expectations with personal aptitude, professional satisfaction, and workforce needs.

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Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

FS & AR: Study design, data interpretation, drafting the manuscript, critical review, approval of the final version to be published.

KF & HGK: Conception, data analysis, drafting the manuscript, approval of the final version to be published.

TN: Data acquisition, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Ayuob NN, Sindi AH, ElDeek BS. Medicine as a career choice: A cross-sectional study on undergraduate medical students at King Abdulaziz University. *Int J Res Med Sci* 2016; 4: 593-601. <https://doi.org/10.18203/2320-6012.ijrms20160322>
2. Pakistan Medical Commission. Pakistan Medical Commission announces the final result of the MDCAT 2021 after the conclusion of the post-exam analysis [press release]. 2021 Nov 10.
3. Mukhopadhyay K, Singh R, Manna CK. Why choose medicine as a career: a cross-sectional survey among undergraduate medical students. *Asian J Med Res* 2015; 1(1): 16.
4. Fein ML. Redefining higher education: How self-direction can save colleges. New York: Routledge; 2022.
5. Wen C, Lyu X, Zhang Q. Factors affecting career decision-making of stomatology undergraduate students in China at graduation: A cross-sectional study on selection dilemmas. *BMC Med Educ* 2024; 24(1): 1087. <https://doi.org/10.1186/s12909-024-06050-5>
6. Matorin AA, Venegas-Samuels K, Ruiz P, Butler PM, Abdulla A. U.S. medical students' choice of careers and its future impact on health care manpower. *J Health Hum Serv Adm* 2000; 22(4): 495-509.
7. Rouprêt M, Hupertan V, Chartier-Kastler E. [The choice of a medical career in a population of 600 second-cycle French medical students preparing the national-ranking exam]. *Presse Med* 2005;34(11):786-790. [https://doi.org/10.1016/S0755-4982\(05\)84042-4](https://doi.org/10.1016/S0755-4982(05)84042-4)
8. Dason ES, Maxim M, Gesink D, Yee M, Chan C, Baxter NN, et al. Medical students' perspectives on family planning and impact on specialty choice. *JAMA Surg* 2024; 159(2): 170-178. <https://doi.org/10.1001/jamasurg.2023.6392>

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9. Akhtar N, Hashim R, Khan AA, Ayyub A, Ayaz SB. Searching the research or re-searching the search: Where to start from? A post-graduate medical trainees perspective from Rawalpindi/Islamabad. *Pak Armed Forces Med J* 2015; 65(4): 515-519.
10. Lee RL, West S, Tang AC, Cheng HY, Chong CY, Chien WT, et al. A qualitative exploration of the experiences of school nurses during COVID-19 pandemic as the frontline primary health care professionals. *Nurs Outlook* 2021; 69(3): 399-408. <https://doi.org/10.1016/j.outlook.2020.12.016>
11. Harth S, Biggs J, Thong Y. Mature-age entrants to medical school: A controlled study of sociodemographic characteristics, career choice and job satisfaction. *Med Educ* 1990; 24(6): 488-498. <https://doi.org/10.1111/j.1365-2923.1990.tb02439.x>
12. Huda N, Yousuf S. Career preference of final year medical students of Ziauddin Medical University. *Educ Health* 2006; 19(3): 345-353. <https://doi.org/10.1080/13576280600937893>
13. Akram M, Inayat S, Hussain M. Analysis of the health care delivery system in Pakistan and Nepal. *Indep J Allied Health Sci* 2021; 4(1): 22-28.
14. Ghafoor Y, Yaqoob A, Bilal A, Ghafoor M. Impact of nurse shortage on patient care. *Saudi J Nurs Health Care* 2021; 4(4): 114-119.
15. Zhu M, Zhang Y. Medical and public health instructors' perceptions of online teaching: A qualitative study using the Technology Acceptance Model 2. *Educ Inf Technol* 2022; 27(2): 2385-2405. <https://doi.org/10.1007/s10639-021-10711-8>
16. Liu Y, Li J, Zhu Y, Chen T. A study on main factors influencing major choice of Nanjing Audit University students. *J Higher Educ Res* 2021; 2(5): 281-287.
17. Angel GAG, Gámez-Gutierrez J, Calvo RE. Values and administrative practices for generations associated with organizational innovation. In: *Entrepreneurial innovation for securing long-term growth in a short-term economy*. Hershey, PA: IGI Global; 2021. p.193-222.
18. Nallala S, Swain S, Das S, Kasam SK, Pati S. Why medical students do not like to join rural health service? An exploratory study in India. *J Family Community Med* 2015; 22(2): 111-117. <https://doi.org/10.4103/2230-8229.155390>

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