

Original Article



Exploring Postgraduate Specialization Preferences and Workplace Aspirations among Medical Students and Doctors in Bangladesh: Unveiling the Path to the Golden Dream.

Md Moniruzaman Khan¹, Satabdi Ghosh², A K M Shahidur Rahman³, Wakif Khan⁴,
Kapil Dev Sarker⁵, Md Arifur Rahman⁶, Rajan Dey⁷, Munmun Ghosh⁸

Abstract

Background: Determining postgraduate study preferences and the choice of a conducive work environment are crucial for the development of a country's healthcare system. As an overpopulated South Asian country, Bangladesh must assess the interests of medical students and doctors in specialized fields and plan to create sufficient job opportunities for healthcare professionals, maximizing the use of limited resources.

Objective: To assess the fascination of the medical students and doctors for post-graduation subjects and their preference for selection of future workplaces.

Materials and Methods: This observational study was conducted among MBBS students and doctors at Khwaja Yunus Ali Medical College (KYAMC), Enayetpur, Sirajganj, from July to December 2024. A total of 246 participants, aged 20 to 30, were randomly selected, including 119 males and 127 females. Data was collected through a self-reported questionnaire that included demographic information and questions about their interests, reasons for selecting postgraduate specialties, and preferred workplaces.

Results: The study found that 86.58% of participants were interested in postgraduate studies in clinical fields. Among them, 21% chose Internal Medicine, 17% selected Surgery, and 13% opted for Obstetrics and Gynecology. Other popular specialties included Radiology (16.66%), Endocrinology and Metabolism (13.82%), and Medical Oncology (10.16%). Regarding preferred workplaces, 56% favored the Government sector, while only 18.6% preferred the private sector.

Conclusion: This study explored the factors influencing the selection of postgraduate specialties and workplace preferences. In the future, the findings of this research will assist policymakers in developing new policies for the healthcare sector.

Key words: Post-graduation Subjects, Preference, Workplace, Medical students, Bangladesh.

Date of received: 17.07.2024

Date of acceptance: 29.11.2024

DOI: <https://doi.org/10.3329/kyamcj.v15i04.80133>

KYAMC Journal. 2025; 15(04): 163-168.

Introduction

According to the Bangladesh Economic Review (2022), the country faces a significant challenge with the unequal geographic distribution of physicians and a shortage, with only one physician for every 1,724 people.¹

Career choices of medical students and doctors significantly influence the workforce balance between different medical specialties.² Equitable healthcare service cannot be ensured

without an appropriate workforce balance.³ Dhaka medical college was established in 1948. It was the first medical education institution in Bangladesh.⁴ In Bangladesh all of the medical schools follow a curriculum which established by the Government of Bangladesh.⁵ In 1988, The Bangladesh Medical and Dental Council (BMDC) established first curriculum. Then it was updated in 2002 and again in 2012 and 2021.⁶ Currently, in Bangladesh there are about 113 medical colleges in Bangladesh (include 37 public government medical colleges,⁶ Armed Force

1. Associate Professor of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
2. Assistant Professor of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
3. Professor, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical college and Hospital, Sirajgonj, Bangladesh.
4. Lecturer, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
5. Lecturer, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
6. Lecturer, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
7. Lecturer, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh.
8. Assistant Professor, Department of Physiology, Bashundhara Ad-din Medical College, Dhaka, Bangladesh.

Corresponding author: Dr. Moniruzzaman Khan, Associate Professor, Department of Pharmacology and Therapeutics, Khwaja Yunus Ali Medical College and Hospital, Sirajgonj, Bangladesh. **Cell:** +8801709271196, **E-mail:** mzkhan58@gmail.com

Medical Colleges and 70 private non-government) Medical Colleges. To seek the MBBS (Bachelor of Medicine and Bachelor of Surgery) medical degree, annually more than 10,000 students are admitted into these respective medical schools.⁷

In Bangladesh medical education at the undergraduate level is overwhelmingly stressful.^{8,9} Medical education course takes about five years with a mandatory one year clinical internship.¹⁰ At the end of their course time in medical school, students are required to make an important choice about the area of medical science in which they want to practice. Students need exposure to medical specialization and move towards a focused study in a particular field of medical practice.¹¹

For the career selection process, students choice serve as the jumping-off point that interplays a major role between student expectations and competition for available places.¹² Leduc N et al. 2011 revealed that the right choice of career made by medical students is very critical for the preservation of a balanced expansion and to the upkeep of sufficient medical professionals within this medical system.¹³

The preference of workplace among the doctors is also an important issue to determine the health care policy of a country. Several studies in different countries have revealed the choice of workplaces by their doctors. In the present study we have also tried to detect the interest for different types of workplaces by our medical students and doctors.¹⁴

In order to attract the right person for the right choice of post graduation subject, it is important to know what factors (modifiable or non-modifiable) affect the choice of specialization. In addition to these, choices of work places and ways of teaching can also have a great impact. By taking right decision we can minimise or bridge the gap between demand and supply of medical practitioners and research scholars.¹⁴

Materials and Methods

This observational study was carried out among medical students and doctors in Khwaja Yunus Ali Medical College, Enayetpur, Sirajganj, Bangladesh from July 2024 to December 2024. A total 246 participants took part in the study aged between 20 to 30 years. Data collection process involved a self-reported questionnaire. The participants were asked to complete 13 items questionnaire, which consists of three parts. The first part collected demographic and other relevant information about participants like gender, nationality and address. The second part of the questionnaire consisted of 5-item questions about their interest in pursuing subjects for post graduation studies and reasoning them. The third part of questionnaire had 2-item questions including their choices of work places and preference of teaching method. Data analysis was done the software SPSS 24.0 version.

Results

Table I: Demographic data of participants

Demographic criteria	Number of participants	Percentage
Gender		
Male	119	48.37
Female	127	51.63
Nationality		
Bangladeshi	182	73.98
Foreigner	64	26.02
Year of study		
1 st year	19	7.72
2 nd year	5	2.03
3 rd year	67	27.24
4 th year	72	29.27
Final year	23	9.35
Intern	14	5.69
Lecturer	32	13.01
Medical officer	14	5.69

Table I shows among 246 participants 48% were male and 51% were female. Among them 73.98% were Bangladeshi and 26.02% were foreigner. Among participants most of them (29.26%) were 4th year students and 27.24% were 3rd year students.

Interest for post-graduation study

Choice of faculty: The majority of participants, 86.58%, expressed an interest in pursuing postgraduate studies in clinical fields, while 3.65% preferred non-clinical disciplines. Around 10% of participants had not yet decided on a specific discipline for their postgraduate studies.

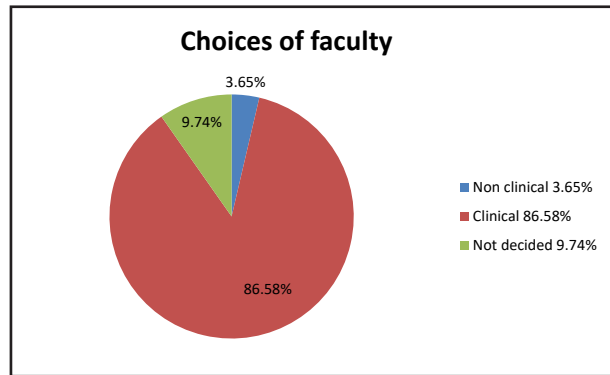


Figure 1: Choices of faculty

First Choice for Postgraduate Specialization: Figure 2 illustrates that, among 246 participants, 21% chose Internal Medicine as their first preference. Following that, 17% selected Surgery, 13% opted for Obstetrics and Gynecology, 4.8% chose Cardiology, and 4.06% preferred Neuro-medicine.

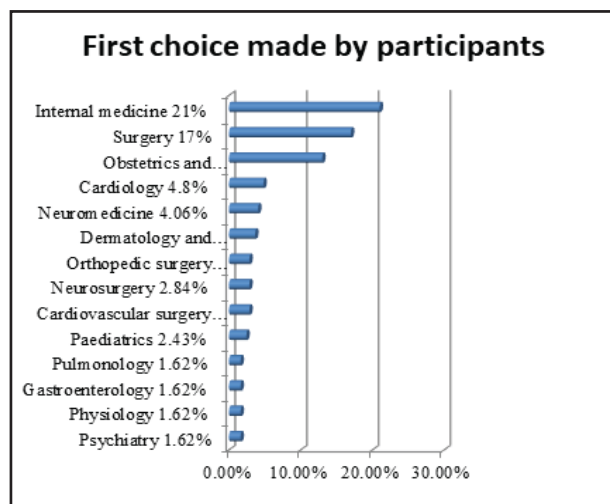


Figure 2: First choice made by participants for post-graduation study.

Table II: Gender wise preference of first choice for post-graduation subjects

Subjects	Gender with number of participants	Percentage
Medicine	Male = 26	52%
	Female = 25	48%
Surgery	Male = 21	50%
	Female = 21	50%
Gynaecology and Obstetrics	Male = 2	7.4%
	Female = 25	92.6%

Table III. Choice for other Specialties: Approximately 16.7% of participants expressed an interest in becoming Radiologists. Endocrinology and Metabolism was the preferred choice for 13.8% of participants. Additionally, 10.2% chose Medical Oncology, while 7.7% selected Anaesthesiology.

Name of subjects	Number of Participants	Percentage
1. Radiology and imaging	41	16.66%
2. Endocrinology and metabolism	34	13.82%
3. Medical oncology	25	10.16%
4. Anaesthesiology	19	7.72%
5. Anatomy	18	7.31%
6. Nephrology	17	6.91%
7. Pathology	16	6.50%
8. Urology	15	6.09%
9. Pharmacology	15	6.09%
10. Otolaryngology–Head and Neck Surgery	15	6.09%
11. Thoracic surgery	14	5.69%
12. Ophthalmology	14	5.69%
13. Hepatology	13	5.28%
14. Haematology	13	5.28%
15. Surgical oncology	11	4.47%
16. Microbiology	11	4.47%
17. Forensic medicine	11	4.47%
18. Reproductive Endocrinology and Infertility	9	3.65%

Reason behind the choice of subjects for post graduation: Figure 3 reveals that for 22.7% of participants, the primary motivation for choosing a postgraduate specialization was the intellectual challenges and interest in diseases. The second most common reason, cited by 21.13% of participants, was the potential for a good income and quality of life.

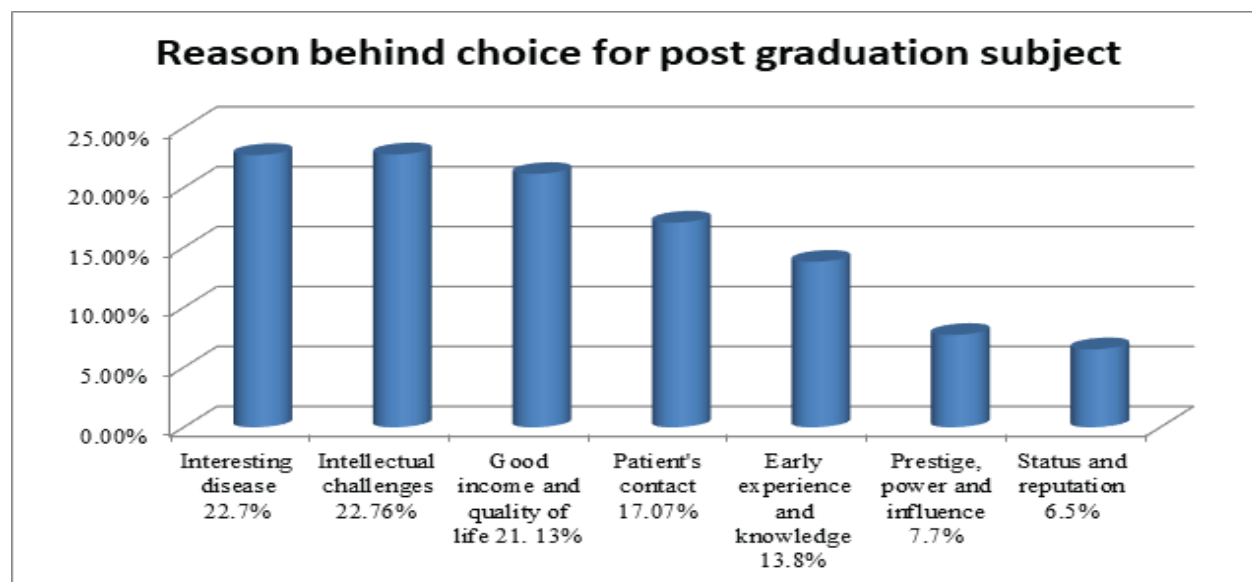


Figure 3: Reason behind choice for post-graduation subject

Preference for work places: Figure 4 illustrates that 56% of participants preferred to work in the Government sector, while only 18.6% expressed interest in the private sector, and 11.3% aspired to settle abroad.

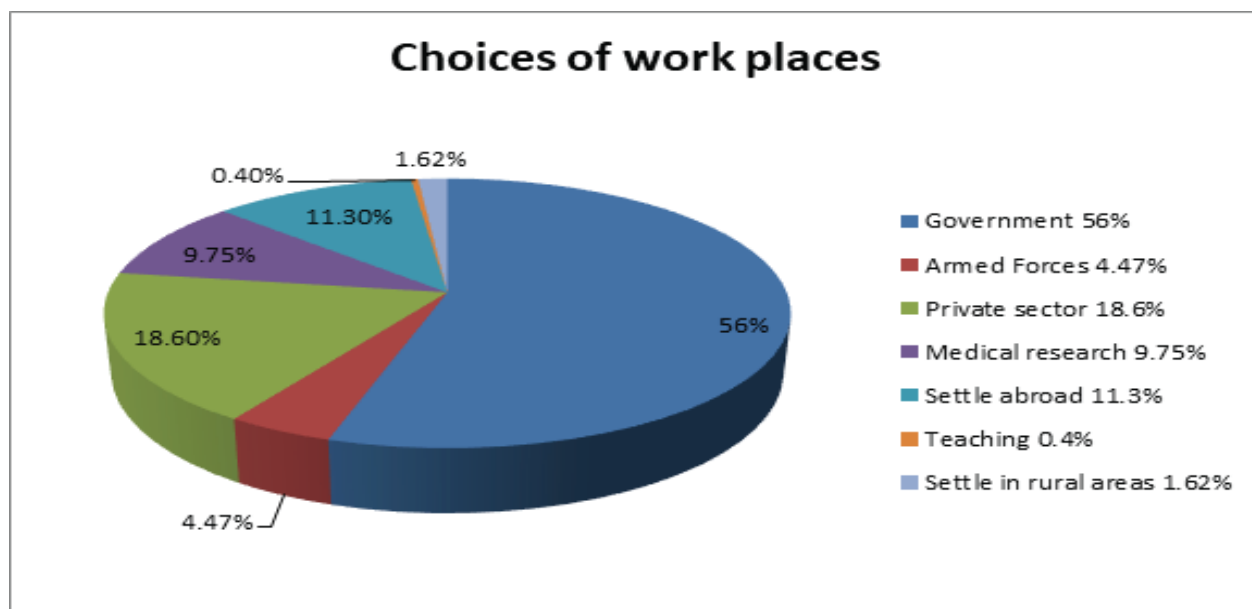


Figure 4: Preference of work places

Discussion

The study explored the interest in postgraduate specialties and workplace preferences among 246 medical students and junior doctors in Bangladesh. The majority of participants (86.58%) expressed a strong preference for clinical subjects. This contrasts with a similar study conducted in China, where 49% of participants showed a preference for clinical specialties.¹⁵ The current study observed the highest interest in Internal Medicine (21%) among all participants. In contrast, a similar study found that Surgery was the most preferred subject

(37.1%) among participants from China, Sri Lanka, India, Nepal, and Malaysia.¹⁶

Among the participants who chose Internal Medicine as their first preference, 52% were male and 48% were female. For Surgery, the gender distribution was equal, with both males and females making up 50% each. In contrast, for Obstetrics and Gynecology, only 7.4% of participants were male, while 92.6% were female. A similar study conducted at BSMMU found that 69.7% of male participants and 30.3% of female participants showed an interest in Internal Medicine. In the same study,

61.2% of males and 38.8% of females expressed interest in Surgery. As expected, the majority of participants interested in Obstetrics and Gynecology were female, accounting for 98.2%.¹⁷

The current study revealed that the top three reasons for choosing a postgraduate specialty were an interest in diseases (22.7%), intellectual challenges (22.7%), and the potential for good income and quality of life (21.13%). A similar study found that gaining early experience (57.6%) was the primary factor influencing the choice of postgraduate subjects. Another study conducted in India identified job satisfaction (45.2%), potential income (48%), and prestige (40%) as the top three factors shaping participants' decisions on postgraduate specialties.¹⁸

When asked about their preferred workplaces, the present study found that 56% of respondents preferred to work in the Government sector, while only 18.6% showed interest in the private sector, and 11.3% wished to settle abroad. A similar study conducted in India revealed that 38.2% of participants favoured the Government sector, 17.9% preferred the private sector, and 10% expressed a desire to settle abroad.¹⁴

Conclusion

The present study examined the factors influencing the choice of postgraduate (PG) specialties and future workplace preferences among medical students and doctors in Bangladesh. This research will assist policymakers and educators in various countries by providing insights into these factors, serving as the first step in developing policies to address the shortage of healthcare workers and improve the global status of human resources in health. Future studies on this topic will be valuable for creating more effective health policy measures.

Acknowledgement

We express our heartiest gratitude to the Honorable Principal of Khwaja Yunus Ali Medical College Prof. Dr. Md. saiful Islam for his kind cooperation. We also acknowledge the Doctors of different departments of the Medical College and Hospital and students of different Phases of MBBS studying at Khwaja Yunus Ali Medical College for their active participation in the study.

References

1. Bangladesh Economic Review 2022 [Internet]. Dhaka.; 2022 Jun [cited 2023 Apr 16]. Available from: <https://mof-portal.gov.bd/site/page/28ba57f5-59ff-4426-970a-bf014242179e/Bangladesh-Economic-Review-2022>.
2. Walsh S, Arnold B, Pickwell-Smith B, Summers B. What kind of doctor would you like me to be? Clin Teacher. 2016;13(2):98–101.
3. Zurn P, Dal Poz MR, Stilwell B, Adams O. Imbalance in the health workforce. Hum Resour Health [Internet]. 2004 Dec 17 [cited 2021 Aug 12];2(1):13. Available from: <http://human-resources-health.biomedcentral.com/articles/https://doi.org/10.1186/1478-4491-2-13>.
4. Amin MR, Islam QT: Undergraduate medical education in Bangladesh-urgency to explore current situation and future direction. Bangladesh Journal of Medicine. 2019; 30(2): 51–52.
5. Eva EO, Islam MZ, Mosaddek ASM, et al.: Prevalence of stress among medical students: a comparative study between public and private medical schools in Bangladesh. BMC Res Notes. 2015; 8: 327.
6. Bangladesh laws online. Bangladesh Penal Code, 1961.
7. List of government and private medical colleges in Bangladesh for 2020-21. [Internet]. 2022 Feb 1 [cited 2023 Jun 17] Available from: https://mofa.portal.gov.bd/sites/default/files/files/mofa.portal.gov.bd/page/f65406f5_b8be_4e1b_bbd1_27a0a346959a/Amended%20Circulate%20in%20the%20Websit.pdf
8. Hasan MT, Hossain S, Gupta R, Das, Podder V, Mowri NA, Ghosh A et al. Depression, sleeping pattern, and suicidal ideation among medical students in Bangladesh: a cross-sectional pilot study. Journal of Public Health (Germany) [Internet]. 2022 Feb 1 [cited 2023 Jun 17];30(2):465–73. Available from: <https://link.springer.com/article/https://doi.org/10.1007/s10389-020-01304-0>.
9. Safa F, Anjum A, Hossain S, Trisa TI, Alam SF, Abdur Rafi M, et al. Immediate psychological responses during the initial period of the COVID-19 pandemic among Bangladeshi medical students. Child Youth Serv Rev. 2021;122:105912.
10. Bangladesh Medical & Dental Council. Bachelor of Medicine & Bachelor of Surgery (MBBS) Curriculum in Bangladesh [Internet]. Dhaka; 2021 Dec [cited 2023 Apr 16]. Available from: <https://www.bmdc.org.bd/curriculum-2020>.
11. Al-Ansari SS, Khafagy MA. Factors affecting the choice of health specialty by medical graduates. J Family Community Med [Internet]. 2006 Sep 1 [cited 2023 Apr 16];13(3):119–23. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23012131>.
12. Reed VA, Jernstedt GC, Reber ES. Understanding and improving medical student specialty choice: a synthesis of the literature using decision theory as a referent. Teach Learn Med [Internet]. 2001 [cited 2023 Apr 16];13(2):117–29. Available from: <https://pubmed.ncbi.nlm.nih.gov/11302032/>.
13. Leduc N, Vanasse A, Scott I, Scott S, Orzanco M, Dogba M, et al. The career decision-making process of medical students and residents and the choice of specialty and practice location: how does Postgraduate Medical Education fit in? Commissioned paper for the project The Future of Medical Education in Canada. Postgraduate Environmental Scan; 2011.

14. Chawla J, Arora M, Datta K, Singh SP, Arora A. Factors affecting the choice of postgraduate specialty among undergraduate medical students: a prospective observational study from India. *South-East Asian Journal of Medical Education*. 2018 Dec 31;12(2):35-44.
15. She L, Wu B, Xu L, Wu J, Zhang P, Li E. Determinants of career aspirations of medical students in southern China. *BMC Medical Education*. 2008 Dec;8:1-7.
16. Kumar A, Mitra K, Nagarajan S, Poudel B. Factors influencing medical students' choice of future specialization in medical sciences: a cross-sectional questionnaire survey from medical schools in China, Malaysia and regions of South Asian Association for Regional Cooperation. *North American Journal of Medical Sciences*. 2014 Mar;6(3):119.
17. Alam EB, Haque MA, Towhid MI, Khan MM, Fatema K, Salwa M, Haseen F, Paul BK. Gender and other factors influencing the specialty choice among postgraduate medical students in Bangladesh, 2016-2020. *Bangabandhu Sheikh Mujib Medical University Journal*. 2023 Sep 27;16(3):152-159.
18. Bhat S, d'Souza L, Fernandez J. Factors influencing the career choices of medical graduates. *J Clin Diagn Res*. 2012 Feb;6(1):61-64.