

Influence of Discipline Related Factors on Career Choice of Medical Students, Intern Doctors and Recent Graduates in Bangladesh

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Abstract

Background: The decisions made by graduates affect the workforce planning for the healthcare delivery system and higher education programs. This study sought to evaluate the elements impacting the career choices of MBBS final year medical students, intern doctors, and recent graduates in Bangladesh.

Methods: This cross-sectional study was conducted from July 2022 to June 2023 after getting institutional ethical approval. It was conducted upon 640 respondents from conveniently selected six medical colleges of Bangladesh. After taking consent from the college authorities and respondents, data were collected by administering a self-administered semi-structured questionnaire from 300 students, 200 interns and 140 recent medical graduates. Data were analyzed by SPSS 24.0 and presented by tables and graphs. Convenience sampling technique was used for selection of the respondents and medical colleges.

Results: This study showed that, (85.7%) MBBS final year students, (67%) intern doctors and all recent medical graduates wanted post-graduation qualification for their future career. On the other hand, (14.3%) MBBS final year students and (33%) intern doctors did not want post-graduation for their future career. The popular choice among respondents was physical medicine and rehabilitation (7.2%) as 1st choice and Ophthalmology (6.8%) as 2nd choice. After summing up all choices the overall first three ranked choices were Pediatrics, Pathology and Orthopaedic surgery. The leading reasons for selecting a future career were due to family influence (67.8%), influenced by practicing doctor (54.8%) and other senior medical students (53.1%). Majority of respondents expressed that they developed interest during enrolling in the subject in the respective field (mean score = 3.41 out of 5). Other contributing factors that influence respondents on choosing their future career due to high demanding career path (mean score = 3.36 out of 5) and availability of the course subject (mean score = 3.12 out of 5).

Conclusion: In this regard, the study stated that a variety of impacts and factors at various points in medical education may assist students and future doctors in selecting their career specialization in accordance with the requirements of the local healthcare delivery system.

Keywords: MBBS students, Intern doctors, Recent medical graduates, Career choice.

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Introduction

As a subject of medical education, career planning is still largely unexplored. In the modern world, career planning is acknowledged as a difficult and complicated process in all professions¹. It fundamentally represents the declaration of career-related objectives and decisions that supply the required drive for upcoming academic and professional accomplishment². Canadian Resident Matching Service (CaRMS) data indicate that 40% of Canadian medical school graduates select family medicine as their first choice in 1982. By 1996, the proportion had declined to 32% and by 2005 to 28%. Similar trends were observed in the United States, where there was decreasing interest in primary care and increasing interest in subspecialties³. With the increasing focus on technological development and quality of life, the preferences of medical students in Bangladesh have evolved over time⁴. While many students enter medical school with a clear idea of their desired specialty, it is common for early preferences to change. Some students hold misconceptions and preconceived notions about the medical field when they first start their medical education. Even those who are certain about their career

path at the beginning may change their minds as they progress through their undergraduate studies.

The medical education system in Bangladesh has undergone significant changes and challenges. It has traditionally followed a lecture-based, teacher-centered, discipline-based, examination-driven, and hospital-oriented approach inherited from colonial education. The curriculum generally encompasses basic sciences and clinical sciences. Understanding the career preferences and intended practice locations of medical students contributes to projections, needs, and distribution of doctors across different specialties and regions in the country. Choosing a career path is a complex decision influenced by numerous intrinsic and extrinsic factors⁵.

The perceptions and career preferences of medical students and interns are not well understood in developing country like Bangladesh. In an earlier study, the preferred specialties were ranked by final-year medical students, but motivational factors were not explored. It has also been observed that personal interest, interest due to exposure, the perceived reputation of the specialty, lifestyle, income potential, opportunities to

settle abroad, and career progression were some of the significant factors considered by students⁶. This study intended to learn more about the variables influencing the career preferences of medical students, interns and recent graduates in Bangladeshi medical colleges in order to fill the knowledge vacuum that currently exists. As a result, the purpose of this study was to analyze their preferences for specialties as well as the motivational variables that affect job inclinations.

Methods

This was a cross sectional study. The study was conducted for 12 months from July 2022 to June 2023. Convenience sampling technique was adopted to select the medical colleges and to collect data from the respondents. This study was conducted in six selected medical colleges of Bangladesh wherein four were from inside Dhaka (two were government and two non-government medical colleges) and two were from outside Dhaka (one government and one non-government medical colleges). A self-administered semi-structured questionnaire

were used as data collection instrument. Pretesting of the instruments were conducted and the result of pretesting was not included in the study. Prior the study, ethical clearance was obtained from the Institutional Review Board (IRB) of Center for Medical Education (CME). The study was carried after taking informed written consent from the respondents. After briefly explaining the purpose of the study, the questionnaires were distributed to the respondents to collect their opinions. A total of 300 MBBS final year students, 200 intern doctors and 140 recent graduates of selected medical colleges of Bangladesh were enrolled in the study.

After collection of all the required data, questionnaires were checked, verified for consistency and tabulated using the SPSS/PC 24.0 software. A five point Likert scale was used to measure responses of the respondents of each item. For each variable percentage was calculated. Data were presented by tables and graphs with necessary description for easy understanding and interpretation mostly with number of participants along with its percentage and means.

Results

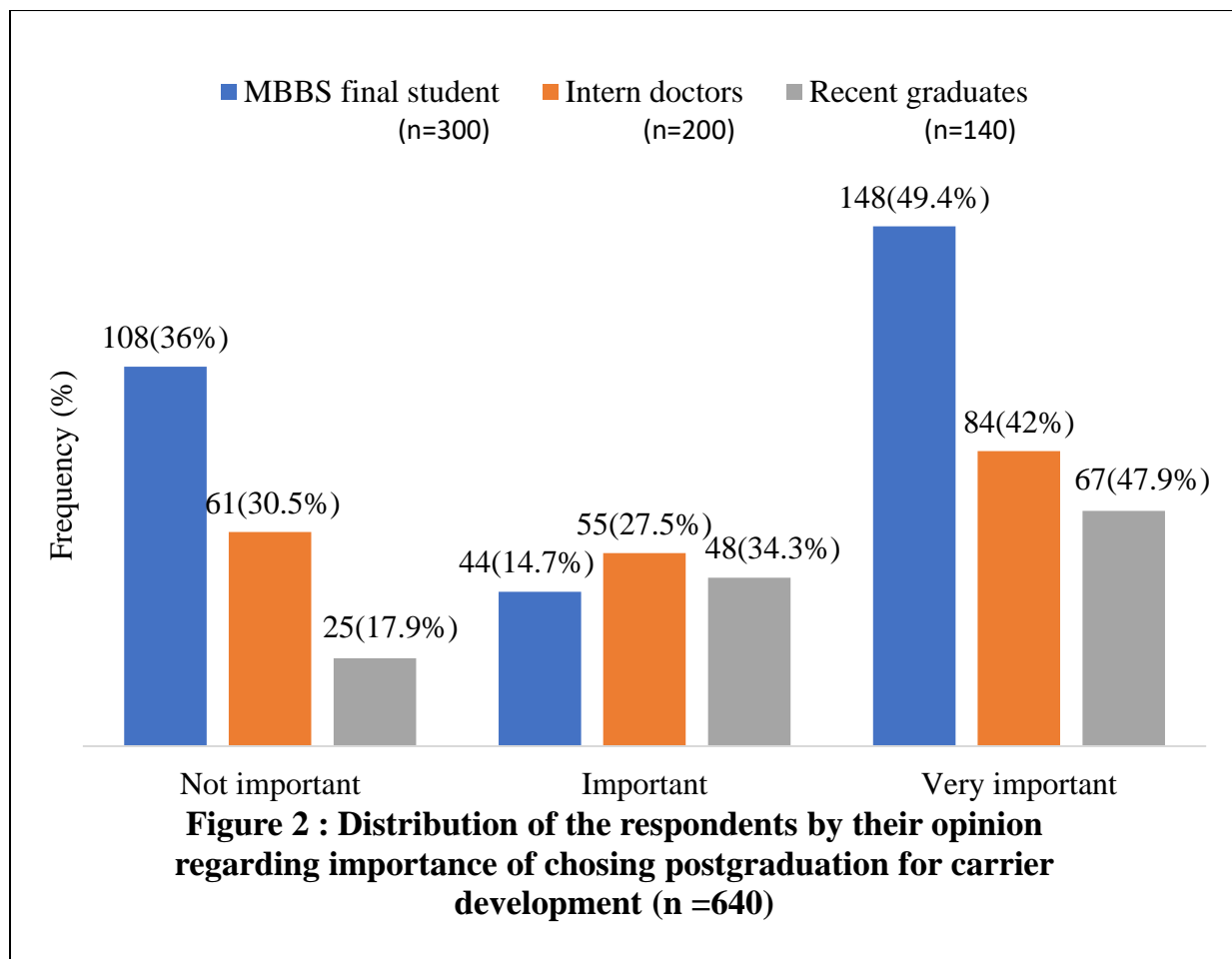


Table-1: Distribution of the respondents who want to choose post-graduation qualification of medical discipline as future career (n=640)

Variables	Yes	No
MBBS final year	257 (85.7%)	43 (14.3%)
Intern doctor	134 (67%)	66 (33%)
Recent graduate	140 (100%)	0
Total	531 (83%)	109 (17%)

Table-2: Distribution of the respondents by their choice of the disciplines (n=531)

Variables	1 st choice (%)	2 nd choice (%)	3 rd choice (%)	Overall (%)
Anesthesia	0.6			0.6
Basic medical subjects	3.0	5.3	5.1	13.4
Cardiac surgery	0.6			0.6
Dermatology	1.3	0.6		1.9
ENT	0.4	6.0	7.2	13.6
Emergency Medicine	5.8	5.7	5.1	16.6
Family and community Medicine	6.2	0.4		6.6
Forensic Medicine	4.5	1.1	5.5	11.1
General Surgery	3.4	6.2		9.6
Internal Medicine	6.2	5.7	5.7	17.6
Master's in Medical education	1.9	0.6		2.5
Medical administrative	3.8	5.3	4.0	13.1
Neurology	2.1	0.6		2.7
Neurosurgery	1.7	0.6		2.3
Obstetrics & Gynecology	4.0	5.5	4.3	13.8
Orthopedic surgery	5.7	5.8	7.2	18.7
Oncology	3.2	4.0	5.3	12.5
Ophthalmology	2.3	6.8		9.1
Pathology	5.3	6.0	7.2	18.5
Pediatrics	6.2	6.0	6.8	19
Physical Medicine and Rehabilitation	7.2	2.6	4.9	14.7
Plastic surgery	3.0	4.5	4.5	12
Preventive or social medicine	4.3	5.5		9.8
Psychiatry	5.8	5.8	6.2	17.8
Public health	4.5		4.9	9.4
Radiology	3.4	4.9	5.5	13.8
Urology	3.6	4.3	6.4	14.3

Table-3: Distribution of the respondents the factor that influences on choosing the specialities (n=640)

Variables	No. of participants	Percentage (%)
Family	434	67.8%
Friends	317	49.5%
Other medical student	340	53.1%
Senior colleague	293	45.8%
Faculty stuff	185	28.9%
Practicing doctor	351	54.8%
Graduate resident	252	39.4%
Intern	240	37.5%
Self-motivated	157	24.5%

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Table-4: Distribution of the respondents by their discipline related factors affecting the career choice (n=531)

Discipline related factors affecting the career choice	Frequency (%) of level of agreement					Mean (\pm SD)
	SDA=1	Dis =2	Nut=3	Ag=4	SA= 5	
Very much interested	93 (17.5%)	32 (6%)	102 (19.2%)	173 (32.6%)	131 (24.7%)	3.41 (1.382)
Easy to get admission for post-graduation	151 (28.4%)	161 (30.3%)	26 (4.9%)	118 (22.2%)	75 (14.1%)	2.63 (1.448)
Easy to pass post-graduation	134 (25.2%)	149 (28.1%)	97 (18.3%)	69 (13%)	82 (15.4%)	2.65 (1.386)
High demanding career path	94 (17.1%)	27 (5.1%)	110 (20.7%)	193 (36.3%)	107 (20.2%)	3.36 (1.342)
Easy to get patient	156 (29.4%)	60 (11.3%)	126 (23.7%)	101 (19%)	88 (16.6%)	2.82 (1.454)
Availability of course subject	107 (20.2%)	88 (16.6%)	111 (20.9%)	86 (16.2%)	139 (26.2%)	3.12 (1.474)

SA= Strongly Agree, Ag =Agree, Nut=Neutral, Dis=Disagree, SDA=Strongly Disagree

Discussion

A speciality choice involves moving from the undifferentiated undergraduate stage to a completely separate professional enterprise where all future efforts would be concentrated on a single specialized field of medical discipline⁷. Given the growing number of specializations and subspecialties available today, choosing a medical specialty to pursue can be a very difficult decision for the majority of medical students.

According to the study findings, the mean age (and its standard deviations) of the MBBS

final year students, intern doctors and recent graduates were 27.05 (\pm 1.914), 28.75 (\pm 2.568) and 33.06 (\pm 3.873) years respectively. Among MBBS final year participants mostly were male (55%), and among intern doctors and recent medical graduates majority were female (53.5% and 77.9% respectively). Similar study conducted in Saudi Arabia, showed there were 165 female and 55 male students with average age of 23 years⁷.

All recent graduate (100%) wanted to choose post-graduation course after MBBS in their

future career, and majority of the MBBS final year (85.7%) and intern doctor (67%) also wanted to do the same. In a study, majority (62%) of the respondent stated that if given another chance, they would again like to choose for post-graduation in medical science⁹. Similar findings have been reported that 80% and 97% students had decided their specialty choices during their undergraduate studies¹⁰.

All participants were asked to give their three choices on medical discipline. Majority of the participant's 1st choice was Physical Medicine & Rehabilitation along with Pediatrics, Internal Medicine, Obstetrics and Gynaecology. On the other hand, as 2nd choice, Ophthalmology was mostly mentioned, along with General Surgery, Pediatrics, Otolaryngology, Psychiatry and Dermatology. However, most popular 3rd choices were Orthopedic Surgery, Otolaryngology, Pathology Pediatrics and Urology. Summing up all choices the overall first three ranked choices were Pediatrics, Pathology and Orthopaedic surgery. In a study¹¹ conducted in Bahrain, the top three preferred specialty choices were Surgery (26.5%) followed by Internal Medicine (14.5%) and Paediatrics (13.3%). Similar

trends also reported in various earlier studies from India¹² and Pakistan¹³.

Family (67.8%) was the most mentioned influence for choosing the specialty among participants. Next practicing doctor (54.8%), other senior medical students (53.1%), friends (49.5%) and senior colleague (45.8%) also influenced over participants. In contrast, other study shows that students (29%) chose the profession because of their parents wished them to do so while (15%) chose it on the advice of their friends or relatives¹⁴. Similar study supported that, the most popular factor in determining specialty choice was interesting field (51.9%) followed by family and friends and observer-ship experience (12.3%). The least popular factor observed was the availability of Residency (32.1%)¹².

There were several discipline related factors that affected the participants to choose their respective discipline. Most of the respondents agreed that they were very much interested toward their discipline (mean=3.41 out of 5). Though, others agreed that, 'High demanding career path (mean=3.36 out of 5)' and 'Availability of course subject (mean=3.12 out of 5)' also contribute to choose their respective discipline. other studies also support this findings⁹. But 'Easy to pass post-graduation (mean=2.65 out of 5)', 'Easy to get

admission for post-graduation (mean=2.63 out of 5)' and 'Easy-to-get patients (mean=2.28 out of 5)' these three factors discourage them to choose their respective discipline.

Conclusion

The process of career choice in medical discipline is multifaceted and dynamic. Students and young doctors frequently experiencing changes in their preferences throughout medical collage and the early postgraduate period. This study showed that almost eighty-three percent participants wish to (choose post-graduation qualification of medical discipline) in future. Among them, the most popular choice for post-graduation was Pediatrics and Orthopedic surgery followed by Pathology. Family, other practicing doctors and senior medical

students influenced the participants mostly to choose the career path. These findings align with earlier studies conducted in different countries, highlighting the influence of medical education and perceived suitability to a specialty as important themes in career decision-making. This information will be helpful for the experts in medical education and curriculum development in order to develop a medical education system which is responsive and relevant to the needs of the country.

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