



Career Intentions and Future Work Plan of Intern Doctors at a Private Medical College in Northern Zone of Bangladesh: A Cross-Sectional Study

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ABSTRACT

Background: The career decisions of intern doctors critically influence the future distribution of medical specialists in Bangladesh, a country facing significant healthcare workforce shortages. With limited postgraduate training slots, understanding specialty preferences and their determinants is essential for national health workforce planning. This study aimed to assess the career intentions, specialty choices, and influencing factors among intern doctors at a private medical college in northern Bangladesh. **Methods:** A cross-sectional study was conducted in 2017 among all 61 intern doctors at Prime Medical College, Rangpur. Data were collected using a self-administered, semi-structured questionnaire. Descriptive statistics were used to analyze socio-demographic characteristics, specialty preferences, future practice intentions, and factors influencing career choice. **Results:** All 61 intern doctors participated (male: 34, female: 27). All intended to pursue postgraduate training. Surgery was the most preferred specialty (34.4%), followed by Internal Medicine (24.6%), and Obstetrics & Gynaecology (19.7%). Notably, among those who chose Surgery, 85.7% were male. For female interns, Obstetrics & Gynaecology was the most preferred specialty (33.3%). The most influential factor on career choice was personal interest and enjoyment (93.4%). Most interns (86.9%) intended to practice in major cities, primarily Dhaka. **Conclusion:** Interns in this setting show a strong preference for surgical and medical specialties and urban practice, driven by personal interest and job market perceptions. These trends may worsen existing workforce imbalances. Targeted interventions, such as early career counseling and incentives for underserved specialties and regions, are recommended to align career choices with national health needs.

Keywords: Intern Doctors, Career Choice, Physician Maldistribution, Specialty Choice Determinants, Private Medical Education, Bangladesh, Urban-Rural Imbalance.

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INTRODUCTION

In Bangladesh, the compulsory one-year internship after MBBS is a critical period when doctors solidify their career paths [1]. Their specialty choices directly impact the future composition and equity of the

national healthcare workforce [2-8]. With approximately 8,000–9,000 medical graduates annually competing for only about 2,000 government postgraduate seats, understanding the factors that shape these choices is vital for effective policy and planning. Existing research in

Bangladesh indicates a persistent preference for hospital-based clinical specialties like Surgery and Medicine, alongside a reluctance to pursue careers in basic sciences, primary care, or rural practice. This trend risks exacerbating the maldistribution of doctors. While recent studies have explored career preferences among medical students and interns in Bangladesh, there is a paucity of focused data from private medical colleges, particularly in regions outside Dhaka [9-12]. Furthermore, while public sector preferences are well-documented, the career trajectories of graduates from private medical colleges who often face different financial pressures and educational investments remain under-researched in the North Bengal region. This study therefore aimed to investigate the career intentions, specialty preferences, and key influencing factors among intern doctors at a private medical college in northern Bangladesh. The findings are intended to inform stakeholders in medical education and health policy.

METHODS

Study Design and Setting

A descriptive cross-sectional study was conducted over the year 2017 at Prime Medical College, Rangpur, a private institution in northern zone of Bangladesh.

Study Population and Sampling

The study population included all intern doctors undergoing their compulsory rotatory internship at the affiliated hospital. A complete enumeration (census) method was used, including all 61 interns present during the study period, yielding a 100% response rate. By utilizing a complete enumeration (census) approach, this study eliminates sampling bias within the institution, providing a high-fidelity snapshot of the entire intern cohort for that academic year.

Data Collection Tool and Technique

Data was collected using a pre-tested, self-administered questionnaire adapted from relevant literature. The tool covered: (1) Socio-demographics, (2) Postgraduate intentions and specialty preferences (first, second, third choice), (3) Factors influencing career choice (multiple responses selected from a list, and Likert-scale items), and (4) Future practice intentions regarding sector and location.

Data Processing and Analysis

Descriptive statistics were used to summarize the collected data. Frequencies and percentages were calculated to describe the demographic characteristics of the participants and the distribution of specialties. Due to the small sample size (N=61), inferential statistics (e.g., Chi-square tests for gender-specialty associations) were not performed to avoid over-interpretation of the data; however, observed percentage differences provide a baseline for future large-scale studies. All data were processed using IBM SPSS Statistics (Version 24.0).

Ethical Considerations

Verbal informed consent was obtained from all participants. The study was approved by the local academic authorities of Prime Medical College.

RESULTS

Socio-Demographic Profile

All 61 intern doctors participated. The mean age was 25.4 years (± 1.8). Slightly more than half were male (55.7%). Most were unmarried (91.8%) and Muslim (95.1%) (Table 1).

Table 1: Socio-Demographic Characteristics of Participating Intern Doctors (N=61)

Characteristic	Category	Frequency (n)	Percentage (%)
Age (Years)	Mean (\pm SD)	25.4 (± 1.8)	-
Gender	Male	34	55.7
	Female	27	44.3
Marital Status	Unmarried	56	91.8
	Married	5	8.2
Religion	Islam	58	95.1
	Others	3	4.9
Family Residence	Urban	41	67.2
	Rural	20	32.8

Postgraduate Intentions and Specialty Preference

All respondents (100%) intended to pursue postgraduate specialization. Surgery was the most preferred first-choice specialty (21, 34.4%), followed by Internal Medicine (15, 24.6%) and Obstetrics &

Gynaecology (12, 19.7%). Gender-based differences were prominent. Among the interns who chose Surgery, 85.7% (18 out of 21) were male. Conversely, among those who chose Obstetrics & Gynaecology, 75.0% (9 out of 12) were female.

Table 2: Postgraduate Intentions and Specialty Preference (N=61)

Specialty	Overall, n (%)	Male (n=34), n (%)	Female (n=27), n (%)
Surgery	21 (34.4%)	18 (52.9%)	3 (11.1%)
Internal Medicine	15 (24.6%)	10 (29.4%)	5 (18.5%)
Obstetrics & Gynaecology	12 (19.7%)	1 (2.9%)	9 (33.3%)
Paediatrics	6 (9.8%)	2 (5.9%)	8 (29.6%)
Para-Clinical Subjects	6 (9.8%)	3 (8.8%)	3 (11.1%)
Others	1 (1.6%)	0 (0.0%)	1 (3.7%)

Factors Influencing Specialty Choice

Participants could select multiple influencing factors from a predefined list. The most cited factors were "Personal interest and enjoyment"

(93.4%) and "Perceived wide job opportunities" (75.4%). "Influence of a practicing doctor" (49.2%) and "Family advice" (45.9%) were also notable (Table 3).

Table 3: Factors Influencing Specialty Choice among Intern Doctors (N=61)

Influencing Factor	Frequency (n)	Percentage (%)
Personal interest and enjoyment in the field	57	93.4
Perceived wide job opportunities	46	75.4
Influence of a practicing doctor	30	49.2
Advice from family	28	45.9
Perceived high social prestige	25	41.0
Advice from senior colleagues/peers	22	36.1
Perceived less stressful lifestyle	15	24.6
Ease of postgraduate admission	10	16.4
Multiple responses allowed.		

To further understand the strength of agreement on discipline-related factors, respondents rated several statements on a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree). The highest mean agreement was

for "I am very much interested in this specialty" (Mean=4.2, SD=0.8), followed by "It is a high-demand career path" (Mean=3.9, SD=1.0). Factors such as ease of admission or passing exams scored lower (Table 4).

Table 4: Level of Agreement on Discipline-Related Factors Affecting Career Choice (N=61)

Response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (SD)
I am very much interested in this specialty.	0 (0%)	2 (3.3%)	4 (6.6%)	32 (52.5%)	23 (37.7%)	4.2 (0.8)
It is a high-demand career path.	3 (4.9%)	5 (8.2%)	8 (13.1%)	30 (49.2%)	15 (24.6%)	3.9 (1.0)
The subject was available during internship.	4 (6.6%)	6 (9.8%)	10 (16.4%)	28 (45.9%)	13 (21.3%)	3.7 (1.1)

It is easy to get admitted for PG in this field.	10 (16.4%)	12 (19.7%)	15 (24.6%)	18 (29.5%)	6 (9.8%)	3.0 (1.2)
It is easy to pass PG exams in this field.	11 (18.0%)	14 (23.0%)	13 (21.3%)	17 (27.9%)	6 (9.8%)	2.9 (1.3)

Finally, when asked to identify who most influenced their career decision, the majority pointed to family (78.7%) and practicing doctors (57.4%), underscoring the important role of personal networks and professional mentorship, as highlighted in the literature on internship experiences (Table 5).

Table 5: Persons Influencing Career Decision-Making (N=61)

Influential Person/Group	Frequency (n)	Percentage (%)
Family	48	78.7
Practicing doctor	35	57.4
Senior medical students	28	45.9
Friends	26	42.6
Senior colleagues	22	36.1
Faculty members	18	29.5
Self-motivated	15	24.6
Multiple responses allowed.		

Future Practice Intentions

Regarding practice location within Bangladesh, 68.9% preferred Dhaka city, 18.0% other divisional cities, and only 13.1% considered district towns or rural areas. A

total of 86.9% intended to practice within Bangladesh, while 13.1% were considering abroad. Most (70.5%) preferred government service for their future careers (Table 6).

Table 6: Future Practice Intentions of Intern Doctors (N=61)

Intention Domain	Category	Frequency (n)	Percentage (%)
Preferred Practice Location in BD	Dhaka City	42	68.9
	Other City Area	11	18.0
	District Town / Rural Area	8	13.1
Intended Country of Practice	Bangladesh	53	86.9
	Abroad	8	13.1
Intended Sector of Practice	Government Service	43	70.5
	Private Practice	13	21.3
	Abroad / Other	5	8.2

DISCUSSION

This study provides insights into the career aspirations of intern doctors at a private medical college in northern Bangladesh. The unanimous desire for postgraduate training reflects the competitive landscape of medical careers in Bangladesh [9, 11]. The strong preference for Surgery and Internal Medicine, and the minimal interest in para-clinical and community-based specialties, aligns with findings from both national studies and broader Asian contexts [9-11]. This trend threatens workforce balance, potentially creating surpluses in

competitive specialties while essential fields face shortages [12]. The gendered nature of specialty choice with males dominant in Surgery and females in Obstetrics & Gynaecology and Paediatrics echoes global and regional patterns, often shaped by societal expectations and perceived work-life balance [4, 6]. The predominance of "personal interest" and "job opportunities" as driving factors is consistent with international literature [2,7]. However, the significant influence of family and practicing doctors (Table 5) underscores the collectivist cultural context of career decision-making in Bangladesh, as noted

by Al Mujahid *et al.* [9]. This aligns with the meta-ethnography by Zhao *et al.*, which highlights the critical role of "relationship with supervisors" and "family" in shaping career intentions during internship [8]. The high rating for "interest in the specialty" and "high-demand career path" (Table 4) further reflects interns' pragmatic approach, seeking both personal fulfillment and job security [8]. The overwhelming preference for urban, particularly Dhaka-based, practice mirrors findings from Ahmed *et al.*, and highlights a critical challenge for equitable healthcare delivery in rural Bangladesh [3, 11, 12]. This urban-centric intent may be linked to perceptions of better training facilities, career advancement, and lifestyle, as well as the desire to secure a return on substantial educational investments [7]. The overwhelming preference for Dhaka (68.9%) among private medical graduates may also be a strategic response to the high cost of private medical education. Interns likely perceive urban centers not only as hubs for superior training but as necessary environments to secure a faster return on their educational investment through lucrative private practice opportunities alongside government service. The high levels of stress documented among junior doctors in Bangladesh and globally may also indirectly steer preferences towards specialties perceived as offering greater control and stability [13, 14].

Limitations

Sample Size: The study is limited to a single private medical college with a relatively small sample size (N=61), which may limit the generalizability of the findings to all medical interns in Bangladesh.

Temporal Context: Data collection occurred in 2017; therefore, these intentions represent a pre-pandemic baseline. Future studies should investigate how the COVID-19 pandemic has shifted perceptions of specialty risk and work-life balance.

Self-Reporting: As a questionnaire-based study, responses represent "intentions" rather than guaranteed career placements, which are subject to the availability of postgraduate slots and government posting policies.

CONCLUSION

Intern doctors in this study predominantly intend to pursue specialized clinical practice in urban settings.

These choices are driven by personal aptitude, market perceptions, and social influences. The findings highlight a significant gap in interest toward para-clinical fields and rural practice, necessitating targeted interventions to ensure a balanced healthcare workforce that meets national needs.

Recommendations

To better align medical career choices with national health priorities, the following actions are recommended:

Structured Counseling: Implement impartial career guidance and mentorship programs during undergraduate years to expose students to diverse specialties and rural practice realities.

Targeted Incentives: Offer financial packages and preferential postgraduate admission for under-represented fields such as Pathology, Forensic Medicine, and Community Medicine.

Curricular Reform: Increase clinical and non-clinical integration within the MBBS curriculum to foster interest in diverse health sectors early on.

Enhanced Training Environment: Improve internship conditions through better supervision, resource allocation, and supportive workplace relationships to positively influence long-term career satisfaction.

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