

FACTORS AFFECTING NEWLY GRADUATED HOUSE OFFICERS TO SELECT THEIR SPECIALTY IN THEIR FUTURE LIFE

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Abstract

Background: The transition from medical college to a specialized medical field is a crucial step in the career of a medical graduate. However, limited guidance often leaves the new house officers stressed and confused regarding this decision of choosing the right specialty. Understanding these factors is vital for aligning young doctor's career goals with national healthcare needs.

Objectives: To find the factors affecting the specialty selection among newly graduated house officers.

Material and Methods: This cross-sectional study was conducted at the Department of Medicine, PAF Hospital, Islamabad, from January 2023 to April 2023. A total of 237 house officers who had just completed their house job within last 3 months and taken decision for their future specialty were contacted through social media. A structured questionnaire comprising of 9 distinct factors were sent on their e-mail addresses and 104 doctors who sent back complete response were included in the study. The data were analyzed using SPSS version 26. Descriptive statistics were used to present the factors affecting the selection of future medical specialty.

Results: The mean age of participants was 24.94±1.08 years. The females comprised of 59 (57%) while males comprised of 45 (43%) of study population. The details of factors affecting the selection of specialty showed that career growth was the most frequent factor 30 (28.8%), followed by expected income/financial security 20 (19.2%), convenient availability of postgraduate training 18 (17.3%) and house job experience 11 (10.6%). Most of the factors were common, however, the ratio varied among gender.

Conclusion: Career growth, financial security, convenient availability of postgraduate training and house job experience significantly influence specialty selection among newly graduated house officers.

Keywords: Career choice, Internship, Medical specialty, Pakistan, Professional development.

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Introduction:

The transitional phase of medical students from medical college to a professional practicing doctor is the most consequential decision for their future carrier. The decision not only directs their own professional lives but also shape the future healthcare force of the system.^{1,2} Despite the importance of this step, there is limited guidance available for these young professionals and many newly graduated house officers (HOs) feel stressed, confused, or burdened by the process of choosing a medical specialty.² The situation is not specific to a certain country and the challenge is reported at the global healthcare landscape. The shortage of health care professionals are especially felt in primary care, psychiatry, and rural medicine, while certain other medical specialties are oversubscribed.³ The situation arises the need for

understanding the factors that drive specialty selection not only as an academic need but also to effectively plan the future healthcare force and develop the policies.⁴

Research on specialty selection has undergone a transition over last decade, with evolution from reductionist economic theories of career planning to sophisticated conceptual models. These models account for a dynamic interaction between individual priorities, workplace environments, and societal influences. Previous discussion predominantly focused on extrinsic motivators such as income potential and professional status, whereas modern guidance also include the intrinsic drivers like work-life balance, mentorship opportunities, and individual's aspirations.⁵

These discussions and guidance are, however, done in

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context of developed nations, and mostly have limited with social, professional and economic constraints. Moreover, medical field is undergoing rapid transformation with growing representation of women as healthcare professionals. There are trends of giving importance to work-life balances and use of advanced medical technologies. HOs are now observed to strategically weigh lifelong career goals and navigate evolving professional dynamics during the process of specialty selection.⁶ Studies have also indicated the impact of COVID-19 pandemic on the decisions making during last few years.⁷

The existing literature on this subject highlights multiple determinants of medical specialty selection. Both the intrinsic motivating factors like personal interest, perceived competency, influence of a role model and extrinsic factors, like financial

Despite these critical issues influencing the healthcare workforce distribution, limited research exists on the topic. This research was therefore planned to determine the factors affecting newly graduated HOs to select their specialty for their future career. The results of this research will help senior doctors to evaluate these factors and guide their juniors accordingly. This will also help these young doctors to decide their careers in a broader perspective.

Material and

Method:

Study design and setting: This cross-sectional study was conducted at the Department of Medicine, PAF Hospital, Islamabad, from January 2023 to April 2023 over a period of 4 months, after getting approval from the ethical committee of the hospital. IH/76046/1/Med

Sample Size: The sample size was calculated taking the prevalence of 19.8% (selection of specialty as per influenced by the relatives), a confidence interval of 95% and a margin of error 8%. The estimated sample size (n) using WHO sampling size calculator was 96 participants.¹¹

Sampling technique: A non-probability convenience sampling technique was used. A total of 237 HOs who had completed their house jobs in hospitals located in the cities of Rawalpindi and Islamabad were contacted through social media. The responses of 104 participants fulfilled the inclusion criteria and were selected for the study.

Inclusion criteria: The inclusion criteria was set as participants who had just completed their house job within last 3 months and taken decision for their future specialty.

Exclusion criteria: The participants who had sent incomplete responses were excluded from the study. The HOs who refused to share their data in this study were also excluded.

A structured questionnaire comprising of 9 distinct factors (extracted from the previous work done on the topic) was sent and received to each HO on their e-mail addresses. Each question was about a certain factor where the participant had to

applicability to the healthcare systems of developing nations, incentives, job market trends, work-life balance, and specialty prestige, are found to play their role in this process.⁸

The healthcare landscape in Pakistan is characterized by low health budgets, resource disparities and high disease burden. The selection of specialty by the HOs faces unique challenges, where socio cultural dynamics and familial expectations significantly influence their career decisions. Economic constraints and limited training opportunities further complicate this process. The country also struggles with significant medical brain drain which has shown a drastic increase during last decade, as physicians can avail better opportunities abroad and can tackle the challenge of career limitations domestically.^{9,10}

answer Yes or No. The participants also shared their required demographic details and their decision regarding choice of specialty. The primary outcome of the study was to determine the factors affecting newly graduated HOs in selecting their future specialty.

Data Analysis: The data were analyzed using SPSS version 26. Descriptive statistics were used to summarize demographics and the response of study participants to each question. Quantitative variables were presented as mean $\pm$ standard deviation, while qualitative variables were expressed as frequencies and percentages. The factors influencing specialty selection were also separately analyzed for male and female house officers and visualized through pie charts illustrating the proportional distribution of decisive factors for each gender.

Results:

The mean age of participants in this study was 24.94 ± 1.08 years. The details of demographics are shared in Table-I.

Table-I: Demographic profile of study participants n=104		
Demographics		
Age (Mean $\pm$ SD) years		24.94 $\pm$ 1.08
Gender	Male n (%)	45 (43.0)
	Female n (%)	59 (57.0)
Marital status	Married n (%)	10 (9.6)
	Unmarried n (%)	94 (90.4)
Residential status	Urban n (%)	65 (62.5)
	Rural n (%)	39 (37.5)
Close family member is a doctor	Yes n (%)	21 (20.0)
	No n (%)	83 (80.0)

The details of specialty selected by these HOs showed that internal medicine was the most selected specialty, followed by surgery, gynecology/Obstetrics, pediatrics, and others, as shown in Table-II.

Table-II: Specialty selected by the House officers n=104		
	Specialty	Frequency (%)
1	Internal medicine	22 (21.0)
2	Surgery	19 (18.0)
3	Gynecology/Obstetrics	17 (16.0)

4	Pediatrics	12 (11.0)
5	Cardiology	7 (7.0)
6	Ophthalmology	6 (6.0)
7	Dermatology	6 (6.0)
8	Radiology	5 (5.0)
9	Orthopedics	4 (4.0)
10	Psychiatry	2 (2.0)
11	Anesthesiology	2 (2.0)
12	Family medicine	1 (1.0)
13	Others	1 (1.0)

The details of factors affecting the selection of specialty by these HOs showed that career growth was the most frequent factor, followed by expected income/financial security, convenient availability of postgraduate (PG) training, house job experience, and others, as shown in Table-III.

Table-III: Factors affecting the selection of specialty n=104

	Decisive factors	Frequency (%)
1	Did the opportunities for career growth make the decision?	30 (28.8)
2	Did the expected income/financial security influence your decision?	20 (19.2)
3	Was the convenient availability of PG training factor in decision?	18 (17.3)
4	Did your house job experience shape your specialty choice?	11 (10.6)
5	Did the alignment of your personal interests/passion make this decision?	7 (6.7)
6	Did family expectations/pressure play a role in specialty selection?	7 (6.7)
7	Did opportunities for international migration influence this choice?	5 (4.8)
8	Did a specific role model/mentor has impact in your decision?	4 (3.8)
9	Did the expected maintenance of work-life balance lead this decision?	2 (1.9)

The factors affecting the specialty selection by the newly graduated HOs were further analyzed as per gender which showed that most factors were common, however, the ratio of these factors varied among gender.

The factors like career growth 14 (31.0%), expected income/financial security 11 (24.0%), convenient availability of PG training 10 (22.0%) and possibility of international immigration 4 (9.0%) had prominent place among male HOs as shown in Figure-I.

Factors affecting the specialty selection among male house officers (n=45)

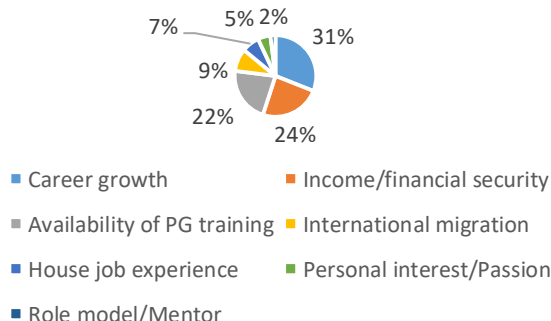


Figure-I: Factors affecting the specialty selected in male HOs

For female HOs career growth 16 (27.0%), expected income/financial security 9 (15.0%), convenient availability of PG training 8 (14.0%), house job experience 8 (14.0%), family expectations/pressure 7 (12.0%), personal interest/passion 5 (8%) and role model/mentor 3 (5.0%) got good proportion as factor, as shown in Figure II.

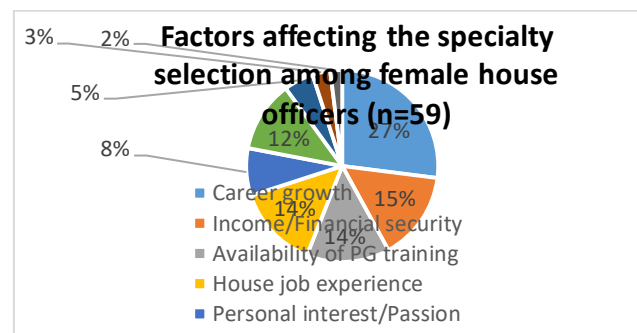


Figure-II: Factors affecting the specialty selection in female HOs

Discussion:

The mean age of participants in this research was 24.94 ± 1.08 years. The females comprised of 57% of the total study population while males comprised of 43% population. The data regarding specialty selected by these HOs showed that internal medicine (21%) was the most selected specialty, followed by surgery (18%), gynecology/Obstetrics (16%), pediatrics (12%) and others.

The details of factors affecting the selection of specialty by HOs showed that career growth was the most frequent factor (28.8%), followed by expected income/financial security (19.2%), convenient availability of PG training (17.3%), house job experience (10.6%), personal interest (6.7%), family expectation/pressure (6.7%), opportunities for international migration (4.8%), role model/mentor (3.8%) and maintenance of work-life balance (1.9%).

Work on this topic has been done during past few years in different countries which share some common factors influencing this decision with varying proportions.

A cross-sectional study was conducted among 138 medical students in Saudi Arabia, to explore the factors influencing their choices for PG specialties. The results showed that the internal medicine was the most preferred specialty (19.8%), followed by general Surgery (18.5%) and family medicine (14.8%). The students gave rankings to different factors influencing their specialty choice, where a future career prospect was recorded as the most prominent factor (82.7%). The other factors given weight age by these young doctors were, the challenge of the specialty (49.3%), motivated by senior doctors (79.0%) and influenced by the family (66.7%).¹¹

Malik I et al. conducted a cross-sectional study of 105 junior doctors (57.1% females) in Punjab, Pakistan. Internal medicine and general surgery were the most preferred specialties by these HOs. Key factors affecting their choice included future prospects (55.2%) and senior doctors' attitudes (60%).

¹²Khamees A et al conducted this research with 1556 Jordanian

medical students and found that 42.7% preferred surgery while 32.5% chose medicine. Surgery was most popular among males and medicine among females. Key attraction factors included interaction opportunities with the patients (76%), and expected high income (64%).¹³ A study conducted in Oman examined the factors influencing the specialty choice of junior doctors and medical students. The most popular specialties were Pediatrics (14.6%), followed by family Medicine (10.9%), psychiatry (9.3%), and general medicine (8.5%). Factors influencing specialty choice included work-life balance after training (77.3%), positive experiences with senior clinicians (72.5%), and income potential (70.9%).¹⁴ Michalik B et al. in a study conducted in Poland revealed that financial matters, work-life balance, flexibility in working, motivation in the work and working conditions were primary determinants in specialty selection. Key barriers in the process included limited residency slots and insufficient knowledge about daily practice.¹⁵ Al Ajmi A et al. carried out this research with 459 medical interns where majority opted for internal medicine. The study reported that professional prestige and a supportive environment were key factors in driving the selection of specialty.¹⁶

We also analyzed these factors as per gender which showed that most factors were common, however, the ratio of these factors varied among gender. The factors like career growth (31%), expected income/financial security (24%), convenient availability of PG training (22%), possibility of international immigration (9%) and house job experience (7%) had prominent place among determinant factors for male HOs. For female HOs career growth (27%), expected income/financial security (15%), convenient availability of PG training (14%), house job experience (14%), family expectations/pressure (12%), personal interest/passion (8%) and role model/mentor (5%) got good proportion as factors.

Al Ajmi A et al. mentioned that decisions by men were based on aptitude for the specialty and work-life feasibility, whereas women prioritized workplace environment. Role models also had a significant influence on career decisions in this study population majorly by females.¹⁶ Study by Malik I et al. also worked on gender based priority and shared that work-life balance was a significant priority by the female HOs (20/27, $p=0.039$).¹²

The findings of our study aligned with other regional and international literature give a good insight of the factors affecting the selection of specialty among HOs. Moreover, the work done on gender based priorities also emphasized the need for tailored career counseling and training opportunities.

This study was conducted with the HOs of a limited geographical area which is the major limitation of this study, as the data may not represent the national wise opinion. Moreover, the binary (yes/no) questionnaire design may had restricted the depth of insight into factors influencing specialty choice.

Conclusion:

Diverse factors influence the specialty selection among newly graduated HOs. Career growth, financial security, and convenient availability of PG training are the key determinants, with gender-based variations in decision-making. Males primarily considered career growth, financial security,

convenient PG training opportunities, and international immigration prospects when selecting their specialty whereas, female HOs were influenced by career growth, house job experience, family expectations, personal interest, and mentorship while making their specialty decisions.

Understanding these influences can help improve career guidance and ensure a well-balanced healthcare workforce aligned with both individual aspirations and national needs.

Conflict of interest:

No

Disclaimer:

No

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