THE FUTURE CAREER CHOICES OF PRE-REGISTERED HOUSE OFFICERS AND HOUSE SURGEONS: A MULTICENTER STUDY

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ABSTRACT

OBJECTIVES

This study aimed to determine the future preferences of house officers when choosing a medical speciality.

METHODOLOGY

The cross-sectional study was conducted from January to June 2023 at three teaching hospitals in Abbottabad. 250 participants were selected as the study sample. The data was collected from house officers on a predesigned, self-structured written questionnaire. The data was analyzed using SPSS version 21.

RESULTS

Of 250 individuals, 224 met inclusive criteria; 65% (146) were male and 35% (78) were female. The mean age was 25 years ±1.01. The first preference of the house officer was medicine (44% (100), the second was surgery (31.5%) (70), and the third was obstetrics and gynaecology. Among medicine specialities, only 0.9% (02) opt endocrinology and gastroenterology, while among surgical specialities, 0.4% (01) opt urology and 0.9% (02) opt neurosurgery. 150 individuals (70%) planned residency in the future, among whom 47% (106) set a caveat for residency abroad. The most favourite place abroad was the UK, with 42% (45/106). 180 house officers (80%) are satisfied with their academic abilities.

CONCLUSION

The study revealed that house officers have no awareness of new specialities and are least interested in specialities like endocrinology, gastroenterology, neurosurgery, and urology. In contrast, no influence was noted toward specialities like haematology, public health and community medicine. Most students are satisfied with their medical education but plan to do their residency abroad.

KEYWORDS: *Carrier Choices, Medical Speciality, House Officer, Medical Students*

INTRODUCTION

Due to the increase in the world population, the need for medical doctors has risen. Around the globe, many countries are experiencing a shortage of doctors, especially in developing countries. Being the 6th most populous country, Pakistan faces many challenges, including a shortage of doctors, especially in remote areas.[1] According to Pakistan Medical and Dental Council statistics, Pakistan has a total of 109 medical colleges, among which 41 are public, and 68 are private, with a yield of approximately 15000 medical graduates annually.[2] The Khyber Pakhtunkhwa (KPK) province of Pakistan has a population of 30 million, and its ratio of rural to urban population is about 5:1.[3] The total number of medical colleges in KPK is twenty, with about 2000 doctors graduating annually. In Pakistan, MBBS is a 5-year program. After completing MBBS, there is a mandatory 1-year internship at a teaching hospital. In the final year of medical school and the 1-year internship, fresh graduates usually plan for the career they will pursue in their lives ahead. Choosing the right career affects the entire life of the graduate, as it is the most critical and thoughtful decision. Many students enter the medical field without thinking about their speciality choice. On the other hand, some students have decided on their future school careers. It has also been found that students change their choices during medical school.[4] Career choices are essential for the continuity of workflow and the development and survival of a speciality. There is a decreasing trend of physicians going into family practice. Although there is an urgent need for general physicians in our country, the students did not prefer family medicine even as a backup field for this career.[5] The need for primary care providers will increase because medical students prefer specialities related to hospitals. Previous studies show that doctors in Pakistan are continuously leaving their country in search of better opportunities.[6,7] Fulfilling the growing

national need for primary care physicians is challenging for our system. To meet these needs, our system should develop strategies to motivate medical graduates to choose primary care careers. Efforts to meet this challenge include understanding current trends in speciality choices. Our study aimed to determine the speciality choices of medical graduates, which fields the graduates prefer and the specialities in which the few are interested. A better understanding of choices and the motivation that leads graduates to choose a specific speciality can help provide career guidance and encourage young graduates to choose rare specialities. It will also inform policymakers about the specialist training needs of fresh graduates.

METHODOLOGY

This multicentered cross-sectional study was conducted in Abbottabad, Pakistan's government and private teaching hospitals. Institutions included were government hospitals like Ayub Teaching Hospital (Ayub Medical College) and private teaching hospitals like Shahina Jamil Hospital (Frontier Medical College) and Abbottabad Medical Complex (Abbottabad International Medical College). The duration of the study was six months, starting from January 2023 to June 2023. The approval for the study protocol and the questionnaire were obtained from the ethical committees of the respective hospitals with the code Approval Code" (Ref.No. RC-2022/EA-01/115) in August 2022. After the ethical committee approved the study, a list of house officers was obtained from the hospital director's office. A list of 252 house officers from Ayub Teaching Hospital, 74 from Shahina Jamil Hospital, and 60 from Abbottabad Medical Complex was provided. The data of all House officers from 03 respective hospitals, including college roll no and registration no, were entered in an Excel sheet according to rank provided by the administration. In an Excel sheet, all the data was reshuffled randomly. For convenience, the top 250 students were selected from 386 house officers working in three teaching hospitals in Abbottabad. The house officers who were suffering from mental illness, did not sign consent and were not available were excluded. The medical students doing internships or observer ships were also excluded from the present study. Data was collected from house officers (HOs) after receiving informed written consent. The data collection tool was a predesigned and pretested written questionnaire. Confidentiality was assured to participants, and the study's objectives were explained to them. All participants' data was anonymous except for the name of the medical institute. Statistical analysis was done via the Statistical Package for Social Sciences (SPSS, version 21). The chi-square test was used to analyze the difference in proportions. The p-value of less than < 0.05 was considered significant statistically.

RESULTS

In the present study, 250 house officers were enrolled, of which 26 students did not sign consent or did not meet the inclusive criteria. The 224 students participated in a short interview (n = 224), among whom 146 (65%) were male and 78 (35%) were female. The mean age of the sample was 25 years±1.01. Overall, the most common first choice of speciality was medicine 100(44.4%). Details are shown in Table 1.

Table 1: Shows the Frequency of Future Choices in Medical Specialities

Preference of carrier (n=224)	First choice (%)	Second choice (%)	Third choice (%)
Medicine	100 (44.4)	96 (42.7)	82 (36.4)
Surgery	70 (31.5)	38 (16.9)	49 (21.8)
Obstetrics and gynecology	20 (8.9)	20 (8.9)	05 (2.2)
Paediatrics	16 (7.2)	20 (8.9)	32 (14.2)
Radiology	10 (4.4)	20 (8.9)	26 (11.6)
Eye	04 (1.8)	00 (00)	04 (1.8)
Anesthesia	02 (0.9)	02 (0.9)	00 (00)
ENT	00 (00)	10 (4.4)	15 (6.7)
Undecided	02 (0.9)	18 (8.4)	11 (5.3)
Total	224	224	224

Both male and female house officers preferred general medicine as their first choice (p = 0.000), as shown in chart 1. The details of subspecialties are shown in Table 2.

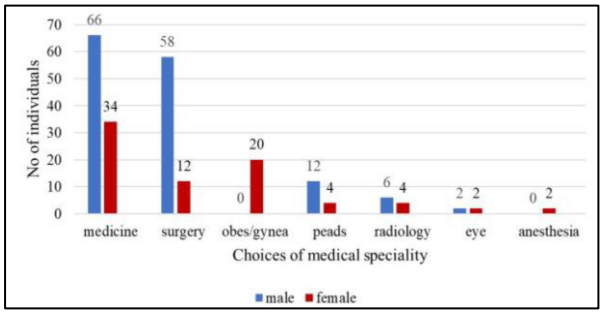

Figure 1: Shows Gender Influence on Future Carrier Choices (p=0.000)

A total of 150 (70%) individuals planned to reside. One hundred six individuals (47%) set a caveat to complete residency abroad, among which 56% (56/100) males decided to complete residency abroad while 76% (36/50) decided to complete residency in Pakistan, with a significance of 0.000. The most favourite place abroad to complete residency is the United Kingdom (45/106; 42%), followed by the United States of America (19%). Eighty per cent (180) of participants

were satisfied with their medical education. Forty-eight per cent (38/78) of females had academic abilities above average, while 65% (96/146) of males' academic abilities were just average, and 4% (6/146) had academic abilities below average with a significance of 0.000.

Table 2: Frequencies of Medical Subspecialties among House Officers

Major specialty	Subspeciality Group	Frequency (%)	Major Speciality	Subspeciality Group	Frequency (%)
Medicine	General medicine	43 (19)	Surgery	Orthopedics	18 (08)
	Cardiology	23 (10)		Cardiac surgery	15 (07)
	Dermatology	16 (07)		Thoracic surgery	09 (04)
	Nephrology	09 (04)		Plastic surgery	08 (04)
	Psychiatry	06 (2.7)		Pediatric surgery	07 (03)
	Oncology	05 (2.2)		General surgery	06 (03)
	Endocrinology	02 (0.9)		Neurosurgery	02 (0.9)
	Gastroenterology	02 (0.9)		Urology	01 (0.4)
Paediatrics	Pead's Cardiology	06 (03)	Gynaecology	General Gynae/Obstetrics	09 (04)
	General Pead's	09 (04)		Uro Gynae	06 (2.7)
	Pead's gastroenterology	02 (0.9)		Gynae oncology	03 (1.3)
Radiology	Interventional	03 (1.3)	Not decided		14 (6.2)

DISCUSSION

Medicine and allied got the first rank in preferences as a future career, followed by surgery, obstetrics and gynaecology, paediatrics, radiology, eye, anaesthesia, and ENT. This trend could be the advice of family members, doctor relatives, or motivation from a senior's lifestyle. A study done in Lahore by Sadaf Zia et al. and by Shaheen B et al. in Peshawar also reported the same finding.[8,9] The 1st and 2nd preferences reported by Noor AA et al. a multicenter study done in Kashmir, Islamabad, and Rawalpindi are consistent with our study.[10] A study done in Karachi shows that surgery is the most preferred field Jafrani S et al.[11] The reason for the difference could be the target sample; 84% of the sample size comprises medical students, while our study comprises house officers, who have more exposure and insight into working conditions abroad and locally compared to medical students. In the current study, males and females opted for general medicine as their first subspecialty choice. Cleland JA et al. state that income could be essential in choosing the medical field as a future career. Recently, another study in Karachi also stated that income and lifestyle are the main reasons for choosing career preferences.[12,13] Gender influences the second and third preferences. Males are more inclined towards surgery and females towards obstetrics and gynaecology. Hamid .S et al. Contrary, in the US, a recent study states that more than 80% of students chose surgery as a future choice during observer ship, most of whom are females.[14,15] In the present study, 47% of individuals planned to complete residency abroad, while a recent study done in Peshawar reported that 39% of final-year students would like to complete residency abroad.[16] Another study in Peshawar reported that 53% of individuals set caveats for postgraduation abroad.[9] Despite significant satisfaction from the medical profession and good academic abilities, females preferred to work inland compared to abroad. Cultural norms and inadequate exposure to international conferences could be reasons for this. The emigration percentage is relatively high compared to India, where 12.8% of students like to work abroad.[17] The reason for the difference could be adequate opportunities in future fields of interest and good interactive financial packages. 95.6% of Indian residents meet their financial obligations through stipends obtained during postgraduation, and 72% have adequate exposure to medical cases.[18] A study done in Lahore and Karachi also shed some light on the migration of trained doctors abroad, contributing to shortages in medical specialties.[8,13] It is also stated that various reasons, from financial constraints to the country's current law and order situation, contribute to this brain drain. Most house officers (>80%) are satisfied with their medical profession and education.[9,16] Moreover, career guidance should be provided to medical students regarding possibilities and speciality selection to satisfy the need for a particular specialization in the nation. The governing bodies should produce awareness regarding new advancements in medical specialities and provide interactive incentives to the least attractive specialities like pathology, haematology, community medicine, and emergency medicine so that the need for particular specialities can be fulfilled at the national level.

LIMITATIONS

The present study generalizes only the current thoughts of the house officers. It does not access career choices after a house job. Decisions made after the house job will be more reliable because, in the end, the house officers have gained experience in both surgery and medical rotation.

CONCLUSIONS

The pattern of choosing specialities slightly varies

according to different areas and states of the country. The study revealed that students lack awareness about new specialities. No student opts for haematology, community medicine, pathology, fetal medicine, rheumatology, neurology, or emergency medicine. In contrast, less than 1% of students opted for fields like neurosurgery, urology, and endocrinology. Most of the students are satisfied with the medical profession. Despite significantly good academic abilities, females preferred to work inland, while many males planned residency abroad.

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