Specialty Preference and the Factors Affecting it among the Junior Doctors of Wah Medical College.

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ABSTRACT

OBJECTIVE: To identify the specialty preferences of junior doctors and understand the factors that affect the choice of specialty.
STUDY DESIGN: Descriptive cross sectional study
PLACE AND DURATION: The study was conducted in Wah Medical College from 10th to 20th July 2018
METHODOLOGY: Convenience sampling was used to include junior doctors' i.e. Demonstrators, house officers (HO) and post graduate students (PG). A 17 items questionnaire with Likert based close ended questions was developed. The participants were required to choose a specialty from the given list and to select their response regarding the factors influencing their choice that include aptitude, better understanding of the subject, respect for particular specialty in family, personal satisfaction, role model, higher income, better job opportunities and lifestyle.
RESULTS: Out of 118 doctors, 72.9% were females and 27.1% were males. Among all the participants, 19.5% chose Pediatrics as their specialty, followed by medicine (17.8%) and obstetrics and gynecology (16.1%). Among the females, 16.1% preferred obstetrics and gynecology as a field of choice whereas 28% males preferred medicine (p value 0.001). There was also statistically significant difference between preclinical and clinical group of doctors when choosing a specialty as preclinical doctors preferred basic sciences (28%) and clinical group chose pediatrics (22.5%) (p value < 0.001). Among the total participants, 87% preferred their specialty because of aptitude and personal satisfaction while 82% of junior doctors choose their specialty due to better understanding of the subject.
CONCLUSION: Medicine, paediatrics and gynaecology are main specialties chosen by junior doctors while other subspecialties were not preferred. The results showed that the factors influencing the choice of specialty were aptitude, personal satisfaction and better subject understanding.
KEY WORDS: Specialty, Career choice, Medical education, Medical students, Decision making

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INTRODUCTION

In medical education, a student is exposed to a wide variety of disciplines and specialties. Medical students may develop their preferences for any specialty during studies and sometimes do not choose their specialty until they have graduated from a medical college[1]. Choosing a medical specialty is a complex task. Understanding the trends going on in any society to choose the medical specialty is important as it ultimately affects the provision of healthcare facilities to that community[2]. With population growth and emergence of new health needs, health systems are faced with increasing challenges. The situation is made worse if there are limited number of medical personnel and their non uniform distribution in different fields[3]. Thus the choice by young doctors not only affect their own future and lifestyle but it also affects the standard and availability of healthcare system of the country[4]. If the specialist doctors in any specific field are not according to the requirement of the society, this may lead to an imbalance of supply of physicians and their need in some of the specialties in government or private sector[5].

Multiple factors affecting the career choice by the medical students and junior doctors have been identified in studies. These factors comprise gender, economic status, personality, personal interest, mentoring from professor, clinical experience during the clerkship, expected income, family influence, lifestyle, and the influence of public media[6]. There may also be some career-related beliefs, values and attitudes concerning any medical specialty. Similarly, the curriculum may also play role in the preferences among the doctors joining the basic and clinical sciences as the medical students in our curriculum are exposed to basic sciences in early years and exclusively to clinical sciences and patient care in later years of medical education. This eventually leads to decreased interest in basic sciences by the medical graduates[7]. In some countries, it is mandatory for the final year medical students to choose their specialty before they are graduated but, in our country, still we are deficient in providing proper career counselling to the medical graduates. They usually choose their fields after house job or after one or two years of clinical practice.

In this study, our hypothesis was that the new trends and the career counselling sessions of fresh graduates has led to a change in specialty choices. The doctors may now be interested in minor specialties also. It was conducted to understand the factors that influence the specialty preferences by the junior doctors including the lecturers of basic sciences and preclinical departments as well as the house officers and post graduate students in Wah Medical College and the affiliated tertiary care hospital. Our objective was to identify the specialty preferences of junior doctors and understand the factors that affect their choice of specialty.

METHODOLOGY

This Descriptive cross sectional study was conducted in Wah Medical College from 10th to 20th July, 2018. Convenience sampling was used to include junior doctors' i.e. demonstrators, house officers (HO) and post graduate students (PG). As the working environment may influence the choice of specialty by a doctor, all the doctors were divided into two groups i.e. preclinical and clinical groups. Preclinical group included demonstrators whereas clinical group included PG and HO. A 17 items questionnaire with Likert based close ended questions was adopted after literature search[4]. The reliability of the questionnaire by Cronbach alpha was 0.795.

At the time of distribution of the questionnaire each doctor was briefed about the study, any queries raised were solved and verbal consent was taken. Doctors were asked to mention their gender and category i.e. whether demonstrator, HO or PG. They had to choose a specialty among the list which included medicine, pediatrics, psychiatry, dermatology, pulmonology, cardiology, emergency medicine, surgery, urology, obstetrics and gynecology, orthopedics, ophthalmology, ear, nose, and throat (ENT), anesthesiology, radiology, public health, family practice, pathology/ laboratory medicine and basic sciences and to add the specialty if not included in the list.

The list of most probable factors influencing specialty choice included in the questionnaire were formed on the most likely reasons for career choices based on multiple specialist opinions. These included aptitude for specialty, better understanding of the subject, respect for this specialty in family, will enjoy and feel satisfied while working in this field, high respect for this specialty in the community, role model in the field, higher income, impressed by the lifestyle of a specialist, better job opportunities, more practical experience during training period, few doctors available in the field, friends joining the field, field looks very attractive in media/TV, preference to work with a specific community group, illness related to this specialty to myself or in family and parents working in the specialty.

Data Analysis: SPSS version 19.0 was used for data analysis. Chi square test was used to analyze difference in the proportions and P value less than 0.05 was considered significant.

RESULTS

A total of 118 completely filled questionnaires were returned by the junior doctors and thus included in the study. Out of 118 doctors, 86 (72.9%) were females and 32 (27.1%) were males. Among 118 doctors, 81 (68.6%) were post graduate trainees, 25 (21.2%) were demonstrators and 12 (10.2 %) were house officers.

Majority of the doctors chose Pediatrics (19.5%) as their specialty, followed by medicine (17.8%) and obstetrics and gynecology (16.1%). Females preferred obstetrics and gynecology (16.1%) as a field whereas males preferred medicine (28.1%) (p value 0.001) (Table-I). There was also statistically significant difference between preclinical and clinical group of doctors when choosing a specialty as preclinical doctors preferred basic sciences (28%) and clinical group chose pediatrics (22.5%) (p value < 0.001).

Table-I: Frequency of specialty choice by doctors (N=118)

	Male (n-32)	Female (n-86)	Total (N-118)
Surgery	7(21.9%)	7(8.1%)	14(11.9%)
Gynecology Obstetrics		19(22.1%)	19(16.1%)
Pediatrics	7(21.9%)	16(18.6%)	23(19.5%)
Medicine	9(28.1%)	12(14.0%)	21(17.8%)
Psychiatry		2(2.3%)	2 (1.7%)
Orthopedics	1(3.1%)		1(0.8%)
Ophthalmology		1(1.2%)	1(0.8%)
Dermatology	1(3.1%)	1(1.2%)	2(1.7%)
Radiology	1(3.1%)	10(11.6%)	11(9.3%)
Pathology		5(5.8%)	5(4.2%)
Basic Sciences	2(6.3%)	5(5.8%)	7(5.9%)
Urology	1(3.1%)		1(0.8%)
Cardiology	1(3.1%)	1(1.2%)	2(1.7%)
Pulmonology	1(3.1%)		1(0.8%)
ENT	1(3.1%)	1(1.2%)	2(1.7%)
Emergency Medicine		5(5.8%)	5(4.2%)
Neurosurgery		1(1.2%)	1(0.8%)

Table-II: Frequency of different factors influencing specialty choice by doctors (N=118)

Reason	Total	P value
I have an aptitude for the specialty	103(87.3%)	.040
I have better understanding of the subject.	97(82.2%)	.001
There is much respect for this specialty in family	74(62.7%)	.440
I will enjoy and feel satisfied while working in this field.	102(87.2%)	.482
There is higher respect for this specialty in the community.	83(70.3%)	.024
I had very good teacher/ role model in this field	81(68.6%)	.029
I anticipate higher income in this field.	54(45.8%)	.707
I am impressed by the lifestyle of a specialist in this field.	63(53.4%)	.680
I can foresee better job opportunities in this field.	84(71.2%)	.147
I can control the working hours.	61(51.7%)	.778
I will have more practical experience during training period.	96(81.4%)	.377
Few doctors are available in this specialty.	47(39.8%)	.110
My friends are joining this field.	46(39.3%)	.280
This field looks very attractive in media/TV	39(33.1%)	.003
I prefer to work with a specific community group/ gender.	43(36.4%)	.049
I have an illness related to this specialty to myself or in family.	35(29.7%)	.049
My parents are already working in this specialty.	19(16.1%)	.044

While choosing a specialty top three reasons given by the doctors were aptitude for the specialty, feeling of satisfaction and better subject understanding whereas the least attributed factor was the parents working in the specialty (Table-II).

DISCUSSION

To understand the factors affecting the specialty preferences among the junior doctors in any community is important as it reflects the availability of health facilities and helps in identifying the future needs. In our study, 28% male doctors showed preference for internal medicine. Our result is similar to the specialty preference observed by Ann and Lee in which they studied specialty choice by medical students before and after clinical attachment[8]. Medicine was the chosen specialty by junior doctors in a recent study done by Spooner et al[9]. Internal Medicine was the career of choice in medical students of Nigeria in a study done by Ossai et al in which they highlighted the importance of career guidance in medical students and showed that the students select their specialty during or after clinical rotations as no structure for career selection guidance is available[10]. The studies by Khader et al and Guraya et al showed surgery as a chosen specialty by medical students of Jorden and Saudi Arabia[11,12]. In study done by Rehman et al, again surgery was the chosen specialty by the medical students of four medical colleges of Karachi[13]. In the cross sectional study done by Sajjad M et al, internal medicine was the specialty of choice by final year MBBS students followed by surgery and Gynaecology[4]. Surgery, medicine and Gynecology were the top specialties chosen by students of all five academic years in a study done by Alawad et al in Sudan[14].

In this study, the female students showed preference for pediatrics (19%). A number of studies were designed to observe the difference in specialty preference according to gender. Our results for female students were similar to the study conducted by Kawamoto et al in which female doctors chose pediatrics as career choice[15]. Surgery and orthopedics were the choices in this study by the male doctors. In the study by Diderichsen et al that was done on Swedish students, similar career choice patterns were seen in males and females irrespective of gender[16]. In our study the second choice by female doctors was internal medicine and obstetrics/gynecology was the third choice. In study done by Sajjad et al, obstetrics/gynaecology was top career choice among the female students[4]. Among the least chosen specialties, neurosurgery and emergency medicine are on the top in our study. In study conducted by Alawad et al, Anesthesia was the least chosen specialty[14]. Psychiatry was also the least popular field chosen by junior doctors in a study by Ebmeier et al[17]. Female residents tended to choose obstetrics/Gynaecology, pediatrics, and anaesthesia, while males preferred surgical specialties in study conducted by Buddeberg et al[18]. They showed gender as the strongest significant influence on the specialty choice.

The junior doctors participating in the study were divided into preclinical and clinical departments. The results show differences in career choices in the two groups as the lecturers of the preclinical departments showed preference of basic sciences (28%) and house officers showed preference for paediatrics (22.5%). This supports a study done in Korea that clinical attachments have influence on career choice by the junior doctors[8]. As the doctors undergo clinical rotations in house jobs and residency, they gradually develop interest in a particular specialty and mostly make career choices after these clinical attachments.

Among the factors that influence the career choices by junior doctors, in our study the top three were the personal interest, better understanding of the subject, enjoyment and satisfaction in a particular field. Male doctors make career choice mostly by better understanding of the subject while females are more inclined towards personal interest and satisfaction. Respect for the specialty in a community and good

opportunities also play role in career choices. In study by Alawad et al the most important factor was similar to our study that is personal interest[14]. Idea of a better lifestyle is an important factor in our study that is similar to the financial reasons and personal time as influencing factors for specialty choice observed in study by Takeda et al[19]. Prestige, role models and financial rewards after training are considered important by the British medical students in a study conducted by Ibrahim et al, similar to the role model inspiration found in our study[20]. Personal ability and good opportunities were the factors as observed in study done by Chang et al[21].

Our study shows that the preferred specialties by fresh graduates and junior doctors are two or three major fields like medicine, pediatrics and gynaecology. This emphasizes the need to encourage the junior doctors to join other less preferred specialties in order to serve the community. This also helps us to understand the importance of good incentives that should be provided to the freshly appointed doctors in any field.

CONCLUSION

Medicine, paediatrics and gynaecology are main specialties chosen by junior doctors while other subspecialties were not preferred. The results showed that the factors influencing the choice of specialty were aptitude, personal satisfaction and better subject understanding.

CONTRIBUTION OF AUTHORS

Jabeen A: Manuscript writing, designed methodology, literature search & review
Ashraf S: Conceived idea, statistical analysis, literature search
Mahmood T: Conceived idea, data collection, manuscript review
Shah SA: Data collection
Riaz F: Data Collection

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