SHORT REPORT

Speciality preference with respect to gender among medical students of Pakistan

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Abstract

This research was conducted to determine the impact of gender and other factors in choosing a medical speciality.

This cross-sectional study was conducted from 5th February 2017 to 5th July 2017 at different Medical Colleges and Teaching Hospitals. Students from fourth, final year and House Officers were enrolled using a self-made questionnaire. Data was analyzed using SPSS 22.

Of the 314 participants, 171(54.5%) were males and 143(45.5%) were females. Majority chose Surgery 90(28.7%), and Internal Medicine 58(18.5%). Only 1(0.3%) participant chose Public Health as a career speciality. The main reason for choice for both genders was "Interest in Content" and "Good Salary".

Research shows a shift in trend of women towards Surgery and Internal Medicine rather than Gynaecology and Paediatrics, which indicates more competition in Surgery in near future. Main influencing factors for choice were personal interest and good salary. Students should be counselled regarding career in Public Health and Psychiatry.

Keywords: Medical Speciality, Gender Impact, Impact Factors.

Introduction

It is often thought that a medical student chooses his specialty after graduation.[1] But studies have shown that some medical college entrants and even some applicants have prioritized their medical speciality.[2]

A large amount of research has been done on speciality choices and the impact of gender and other factors on it.[3] Usually, women have a keen interest in paediatrics and gynaecology.[4] For females, family responsibilities usually plays a greater role in choosing a medical specialty.[5] Recent studies have shown an increased number of male surgeons and a great rise in number of female gynaecologists.[6]

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In developed countries an ample amount of research has been done regarding medical specialities.[7] However, very little literature accentuates the importance of influencing factors in choosing a medical specialty in Pakistan. This study can aid in modifying the direction of the curriculum at the initial level so that career choices can be made easily. A follow-up study in the near future will predict the outcomes and changing impact factors which can be beneficial for students and healthcare system of Pakistan.

This study was done to assess the importance of gender in choosing a medical specialty and to study the impact factors for choosing a medical specialty.

Methods

The cross-sectional study was initiated after ethical approval from Institutional Review Board (IRB) of Army Medical College. All participants were enrolled after taking a written consent, four private and three government medical colleges and eight teaching hospitals of Rawalpindi and Islamabad were included from 5th February 2017 to 5th July 2017. Sampling method was random and convenient, sample size calculated via WHO sample size calculator[8] was 314, of which 171(54.5%) were males and 143(45.5%) were females. Fourth and final year medical students and house officers were included.

The questionnaire included, Consent form;. Section for demographic data, and the question for preferred medical speciality. The last section had questions, which stated the reasons for choosing a particular medical speciality. The reasons were: "Minimum working hours, "Good Salary", "Direct Patient Interaction", "Former work experience", "Interest in Content", "Diversity of patients", "Lesser Competition", "Convenient On-call Schedule", "Inspired by Faculty", "Family Commitments", and "Shorter duration of Residency". The participant could give more than one reason for choosing a speciality.

The total number of specialities were 16 ; Surgery, Internal Medicine, Cardiology, Gynaecology, Dermatology, Radiology, Neurology, Paediatrics, Ophthalmology, Otorhinolaryngology, Oncology, Psychiatry, Anaesthesia, Public Health, Gastroenterology and Orthopaedics.

Statistical analysis was done via SPSS version-22. Tables

and Pi-Charts were made via Spread Sheet and SPSS-22. The "p" value was calculated to find any association between gender and speciality preference ($p<0.05$ is significant).

Results

Of the total 314 participants, 171(54.5%) were males and 143(45.5%) were females, with 192(61.1%) fourth year students, 70(22.3%) final year, and 52(16.6%) were house officers. The mean age of the participants was 22.63 ± 1.473 years.

Of the 314 participants, 11(3.5%) had not yet decided their specialty. The remaining 303 participants chose the following fields: 90(28.7%) Surgery, 58(18.5%) Internal Medicine, 31(9.9%) Cardiology, 24(7.6%) Gynaecology, 23(7.3%) Paediatrics, 12(3.8%) Radiology, Dermatology and Ophthalmology each, 9(2.9%) selected Neurology, 8(2.5%) preferred Gastroenterology, 7(2.2%) Otorhinolaryngology, 6(1.9%) opted for Orthopaedics, 4(1.3%) Oncology, 3(1%) Psychiatry and Anaesthesia each, and only 1(0.3%) chose Public Health.

Overall, Surgery was the favourite choice followed by Internal Medicine. Public Health was the least preferred choice among both genders. No males stated Public Health and no females stated Anaesthesia as their preferred specialty.

Overall, 53(31.0%) males and 37(25.9%) females chose

Table: Distribution of participants by their speciality in different clinical years as a function of gender.

Speciality	Female Students			
	4th Year Students	5th Year Students	House Officers	Total
Surgery	20	11	06	37
Internal Medicine	17	05	06	37
Cardiology	03	02	02	07
Gynaecology	11	03	01	15
Dermatology	09	0	01	10
Radiology	01	04	02	07
Neurology	04	0	01	05
Paediatrics	06	06	0	08
Ophthalmology	06	02	01	09
ENT	01	02	0	03
Oncology	03	0	0	03
Psychiatry	02	0	0	02
Anaesthesia	0	01	0	01
Gastroenterology	04	0	0	04
Orthopaedics	01	0	0	01
Undecided	02	0	01	03

Speciality	Male Students			
	4th Year Students	5th Year Students	House Officers	Total
Surgery	27	11	15	53
Internal Medicine	14	09	07	30
Cardiology	17	06	01	24
Gynaecology	08	0	01	09
Dermatology	02	0	0	02
Radiology	03	01	01	05
Neurology	02	0	02	04
Paediatrics	12	03	0	15
Ophthalmology	02	01	0	03
ENT	01	0	03	04
Oncology	01	0	0	01
Psychiatry	01	0	0	01
Anaesthesia	01	01	01	03
Gastroenterology	03	01	0	04
Orthopaedics	04	01	0	05
Undecided	04	04	0	08

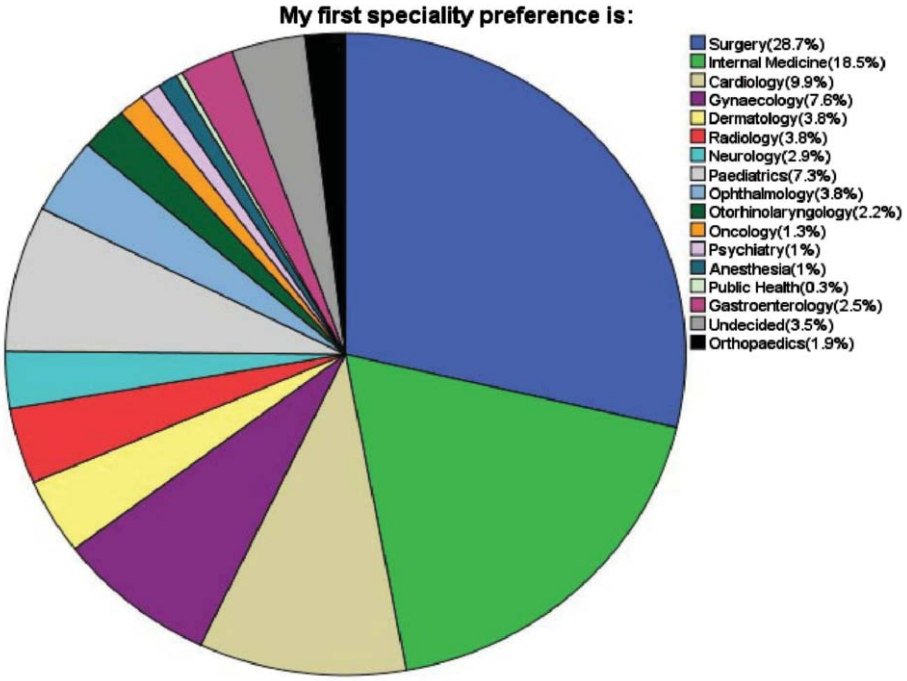

Figure: Chart showing the percentages of participants in each speciality.

Surgery, and overall, 30(17.5%) males and 28(19.6%) females chose Internal Medicine. In our study 9 out of 171(5.3%) males and only 15 out of 143(10.5%) chose Gynaecology as their preferred speciality, thus Gynaecology was not the most preferred speciality among females.

In our study there is an evidence of significant association between the gender and the medical speciality chosen. The "p" value obtained via Chi-Square test was 0.03 which is statistically significant ($p<0.05$ is significant).

The main reason for choosing the specialty in both males and females were "Interest in content" in their fields, followed by "Good Salary" and "Direct Patient Interaction".

Out of 72 people who chose "Convenient on-call schedule", 42(58.3%) were females and out of 42 people who gave "Minimum working hours" as reason 24(57.1%) were females. Thus, comparatively females preferred these two reasons more than males.

Following reasons showed statistically significant difference between the gender of participants ($p<0.05$ is significant): (1) Minimum working hours ($p=0.030$). (2) Shorter duration of residency programmes ($p=0.034$). (3) Direct interaction with the patients ($p=0.002$). (4) Interesting content of speciality ($p=0.021$).

Discussion

The main specialties chosen were Surgery and Internal Medicine, and least preferred were Public Health, Psychiatry and Anaesthesia.

The main impact factors for choice for both genders were "Interest in Content" and "Good Salary".

A greater number of females stated "Minimum working hours" and "Convenient on-call schedule" as their reasons as compared to males.

Surprisingly, in this study 9 out of total 171(5.3%) males and only 15 out of the total 143(10.5%) chose Gynaecology as their preferred specialty, in contrary to many other researches which show that females tend to opt more for Gynaecology and Paediatrics rather than Surgery.[9]

In general, males tend to show more interest for Surgical fields,[9,10] and females for Gynaecology and Paediatrics.[11,12] But in our study females have shown more interest in Surgery and Internal Medicine. Internal Medicine remains the major specialty for both genders according to many studies.[9,13]

Studies suggest that women are more inclined towards Paediatrics as compared to males.[14] However, in our study out of the total 23 participants choosing paediatrics, 15(65.2%) were males and only 8(34.8%) were females. Many previous studies revealed income as an important factor in selection of a medical speciality.[15] This trend was also seen in our study.

The limitation of the study was the limited number of medical students and house officers from a small number of medical colleges and hospitals. The results cannot be generalized. Due to eventful schedule of medical students, information bias is possible. But this research provides a baseline study for further research regarding this topic.

Conclusion

The findings from research indicate a changing pattern of women towards Surgery and Internal Medicine rather than Gynaecology and Paediatrics, which suggests more competition in Surgical fields in the near future as shown by some previous studies.[16] The interest in Public Health, Psychiatry and Anaesthesia was found to be very low among students. Students should be actively involved in

Community Medicine field visits because Public health sectors are mostly underused in our country due to a large number of factors.[17] A follow up study after this which covers broader aspects can be used to make a policy at a national level, so as to encourage students for pursuing careers in Public Health and Psychiatry.

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Conflict of Interest: None.

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