A CROSS SECTIONAL STUDY ON THE CHOICES OF FEMALE MEDICAL STUDENTS IN SELECTION OF THEIR FUTURE SPECIALTIES

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ABSTRACT

Objectives: To find out the choices of female medical students in selection of their future specialties and to study the factors influencing their decision.

Methodology: This cross-sectional study was conducted among public & private sector medical colleges of Peshawar including Khyber Medical College (KMC), Rahman Medical College (RMC), Peshawar Medical College (PMC) & Kabir Medical College (KaMC). A semi structured questionnaire based on the objectives was distributed among the students to collect their responses. Frequencies were calculated for all the variables including demographic and objective specific variables for the study.

Results: A total of 300 female students gave their responses out of 333, who were given the questionnaire. Regarding the specialty of their personal interest, 90(30%) students answered surgery and allied, 110(36.67%) medicine & allied while 70(23.33%) females selected obstetrics & gynaecology as their specialty of choice. The choice was mainly driven by personal interest [n=189 (65.85%)] and inspiration from a role model [n=36 (12.54%)]. Out of these 300, 85 students were not sure if they will be working in the specialty of their personal interest or not, due to many reasons including whether they will be able to adjust work-life balance [n=21 (24.71%)] and difficulty in the exams of specialty of choice [n=18 (21.18%)].

Conclusion: A large number of female students selected medicine and allied as their choice specialty. The choice was mostly driven by personal interest. There were almost a quarter of students who were not sure whether they will be working in the specialty of choice due to various reasons.

Key Words: Specialty of choice, Female, Medical students

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INTRODUCTION

The multitude of fields available to specialize in is a unique attribute of the medical profession. However, the majority of fresh graduates cannot decide what field they want to specialize in until they have been through a year of house job, internship, or even later than that. There are a variety of factors that influence the decision making in choosing a medical specialty such as aptitude and skill, presence of a role model, personal interest, intellectual challenge, social and family pressures, the advice of relatives and friends, job opportunities, working hours, financial benefits, earning of respect, and lifestyle associations[1-3].

A significant change in the profile of medical professionals of today is the increasing number of females entering the field of medicine and consequently choosing to specialize[4]. In spite of this increase in the number of female medical graduates, the wide gender disparities that have existed amongst specialists in the past continue to be seen today[5,6]. A Swiss study highlights that the more inspiring specialties such as surgery and cardiology are filled by men while those that are considered less competitive are filled by women. The several reasons identified by them for this disparity are females needing to plan their careers around raising a family, placing a high value on patient interaction and being content in their current positions instead of desiring increased pay or a higher status[7]. There are other studies which contradict the existence of such disparities[8]. While this phenomenon may not be very prominent in developed countries; it is a very marked issue in Asian countries due to the numerous responsibilities and restrictions placed upon women in both a social and cultural context.

In an international study, it was concluded that 28%

of the respondents had considered but then not pursued a specialty of their choice. Issues of imbalance between hectic routine & personal life was the single most common factor, especially for women, in not pursuing the surgical specialties, emergency medicine, internal medicine, paediatric, obstetrics and gynaecology[9]. In 2010, a study published in University of Nairobi, in which researchers used a self-administered questionnaire to assess their specialty preferences and factors influencing these choices. There was an increased frequency of female students choosing specialties convenient with their lifestyle and gender distribution in that specialty[1].

According to a study conducted in Pakistan, the most considered factors regarding specialties chosen by 70% of the medical students were personal interest, prestige and respect of the specialty, international job opportunities, and time management. The moderately influencing factors included following role model, surgical-skills, availability of jobs, financial issues and academic performance. Environment at hospital, pressure from parents & peer-pressure were the least influential factors[10].

In a study conducted in 2010, the response was 72.6% & surprisingly a vast majority of students opted for non-surgical specialties accounting for about 63.1% of the total responses while remaining interested in surgical specialty. The most common criterion for medical specialty selection was "quality of life" (68.6%), while those who chose surgical specialties, the most common criterion for selection was "scientific challenge". Overall the study reflected a limited interest of Greek medical students for surgical specialties and particularly general surgery[11]. Students' career choices regarding specialties & general practice mostly result from the interplay among several factors. Career interest of students in general practice is low[12]. In another study in Bangladesh, their finding was that the first choice among males and females were internal medicine, surgery, obstetrics and gynaecology and general practice[13].

In a local study conducted in Peshawar, according to results obtained, 132 students said they chose the specialty of their own interest, while 129 had a doctor in their family. Majority students (56%) had not selected a specific field at the time of the study[14].

We think that it is imperative to identify the factors that influence female doctors in making the selection of future specialty and therefore we wanted to conduct this study on female undergraduate medical students to know the frequency of female medical students who have decided a specialty for themselves and to find out the factors influencing the female medical students in the selection of specialty.

METHODOLOGY

A cross-sectional study was conducted at public & private sector medical colleges of Peshawar, from January to March 2015. These include Khyber Medical College (KMC), Peshawar Medical College (PMC), Rahman Medical College (RMC) & Kabir Medical College (KaMC).

Three hundred and thirty three undergraduate female students of MBBS from fourth year & final year, present at the time of survey were included in the study. The students were selected on basis of convenient sampling. The students were informed about the nature of the study. Those willing to participate were asked to fill the semi-structured questionnaire which have demographic and study objective variables.

Permission was taken by the Head of Community Health Science Department, Peshawar Medical College as well as Principals of the concerned public & private sector medical colleges. The data collected was kept confidential & used solely for medical research purpose. Frequencies were calculated for different variables like demographic, specialty of choice, factors influencing their selection, confidence in working in the same specialty and reason behind those unsure of following their specialty of choice.

RESULTS

A total of 300 female students gave their responses. The details of demographic distribution of sample are given in table 1.

Regarding the choice of specialties, 90(30%) of the students chose surgery and allied, while 110 (36.677%) students chose medicine as a major field of interest. Thirteen (4.33%) students have not selected any specialty for themselves till the time of filling the questionnaire. The sub divisions are described in table 2.

The distribution of factors which influenced the students to choose the specialty of their personal interest is given in table 3.

Out of 287, there were students who were not sure whether they will be working in the specialty of choice or not [n=85 (29.62%)] compared to those who were sure to follow their specialty of choice [n=202 (70.38%)]. These 85 students who were not sure gave their reasons for that. These are described in table 4.

DISCUSSION

The pattern of specialty preferences in our study such as preferences for surgery, obstetrics and gynaecology is similar to findings in Nigerian studies. The common factor associated with these preferences is strong personal interest especially for gynaecology and obstetrics. This is also similar to pattern shown in other Pakistani

Table 1: Demographic details (n=300)

Variable		Number	Percentage
College	KMC	122	40.67
	PMC	60	20.00
	RMC	45	15.00
	KaMC	73	24.33
Year of Studies	4th year	191	63.67
	Final year	109	36.33
Marital Status	Single	241	80.33
	Engaged	39	13.00
	Married	20	6.67

Table 2: Specialties of choice (n=300)

Specialty		Frequency	Percentages
Obstetrics and Gynaecology		70	23.33
Surgery and Allied n=90(30%)	General Surgery	58	19.33
	Neurosurgery	12	4.00
	Cardiovascular	9	3.00
	Pediatric surgery	5	1.66
	Cardiothoracic	2	0.67
	ENT	2	0.67
	Anesthesia	2	0.67
Medicine and Allied n=110(36.67%)	Internal medicine	50	16.66
	Paediatric	29	9.67
	Dermatology	15	5.00
	Cardiology	11	3.67
	Nephrology	3	1.00
	Pulmonology	2	0.67
Others n=17(5.67%)	Radiology	10	3.34
	Psychiatry	3	1.00
	Basic Sciences	3	1.00
	Pathology	1	0.33
No Specialty decided		13	4.33
Total		300	100

study[15-17]. Students who thought that they will not be working in the specialty of their choice, mentioned work life balance, male dominance in specialty and difficult exams as major contributing factors in this regard. It is surprising that very few students indicated interest in specializing in basic sciences. It is probably due to weak role modeling of the specialist of this field[18,19]. Another key factor in carrier choice is presence of role model of same gender[20,21]. Females are discouraged from specialties like surgery and allied due to lake of female surgeon to look up to as role models[22,23]. Studies have also shown that female suffer more gender discrimination than males in male dominated specialties like surgery and allied[24, 25].

In another study, researchers stated that 28% of the respondents had considered but then not pursued a specialty of their choice. Issues of imbalance between hectic routine & personal life was the single most common factor, especially for women, in not pursuing the surgical specialties, emergency medicine, internal medicine, pediatrics, obstetrics and gynaecology[2]. In a study from Kenyan University conducted a research of specialty preferences among medical students in Universi-

Table 3: Factors influencing the selection of specialty (n=287)*

Factors	Frequency	Percentages
Personal Interest	189	65.5
Inspiration from a Role Model	36	12.54
Specialty is Considered Socially Appropriate for The Female	19	6.62
Charm of The Field	16	5.6
Easy Life Style in Future/Convenience of Working Hours	12	4.18
Job Prospects in Future	4	1.4
Prospect of Private Practice In Future	3	1.04
Pressure from Family/Friends	3	1.04
Availability of Training Slots	3	1.04
None in Particular	2	0.69
Total	287	100

*13(4.4%) have not selected their specialty

ty of Nairobi in which they concluded that most of the female students chose specialties convenient with their life style. The reason for not taking up the specialty of choice was unable to adjust a work-life balance[1]. Contrary to these studies , the results of our study suggests that at undergraduate level, female medical students are more oriented towards pursuing the specialty they are personally interested in despite various obstacles that they might be facing in near future. Engaged & married female medical students had a more practical approach towards career selection, keeping in view their work-life balance & healthy lifestyle. Those students who were of negative review claimed that hectic routine & inconvenient working ours including night shifts & duties on weekends & public holidays makes them doubtful in pursuing specialties like surgery & allied and emergency medicine. Gynaecology & obstetrics is a top trending specialty among the female medical students for reasons that it is not only considered socially acceptable for females but also they have minimal interaction with male colleagues & hospital staff.

LIMITATION

Specialty preferences were measured at one point in time. Literature review has shown that specialty choice does not remain stable over the entire course of medical education. Students mostly use their clinical years as well as their house job/ internship period to refine their specialty preferences. This study was a cross sectional study, more cohort studies are needed for following up the students from the early years of their medical education to the actual time, they choose the specialty.

CONCLUSION

A large number of female students selected Medicine and allied as their choice specialty. The choice was mostly driven by personal interest followed by inspiration from a role model. There were some students who were not sure whether they will be working in the specialty of choice due to various reasons including inability to adjust work life balance.

RECOMMENDATIONS

Level of awareness about fields of medicine and surgery should be improved. Most of the females prefer those fields in which there is minimum interaction with males so we recommend that there should be such rules and regulations in every hospital that females feel safe and secure while working in any field. Family should be supportive enough and should go for such future planning of their child which can also accommodate the professional interests of their child. In medical institutes along with studies career counseling should be done and students should be given confidence for selecting field of their choice.

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CONTRIBUTORS

ZUAS conceived the idea, planned the study, and drafted the manuscript. SA and HT helped acquisition of data and did statistical analysis. MI supervised the study and critically revised the manuscript. All authors contributed significantly to the submitted manuscript.