

FACTORS INFLUENCING CHOICE OF INTERNAL MEDICINE AND SUBSPECIALTIES BY POSTGRADUATE RESIDENTS IN A TERTIARY CARE TEACHING HOSPITAL

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Abstract

Objective: To determine the factors considered by postgraduate residents while choosing internal medicine and subspecialties in a tertiary care teaching hospital in Lahore

Study Design: Descriptive cross – sectional study.

Methodology: A two part self – administered structured questionnaire was designed and distributed to postgraduate residents in Mayo Hospital, Lahore during May 2013 to determine the factors they considered important while choosing internal medicine and subspecialties. The responses were graded on Likert scale which ranged from 1 to 3 (1 – great extent, 2 – some extent and 3 – lesser extent).

Result: The 78 respondent doctors included in the study comprised of 50 (64.1%) males and 28 (35.9%) females. 60 (76.9%) were enrolled in the FCPS program while 18 (23.1%) were enrolled in the MD and other programs. Among subspecialties, dermatology

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was most popular among females while cardiology and nephrology among males. The adoption of medicine and subspecialties was comparable across both genders (p-value > 0.05) and their reasons for this choice were also similar (p-value > 0.05). Research, national requirement, particular institution, private practice and work hours were significantly important (p-value < 0.05). Availability of training post and job after training remained the least important factors (p-value < 0.05). No significance was shown for aptitude, family pressure, mentors and work environment (p-value > 0.05).

Conclusion: In this study, work hours, private practice, good institutions, research and national requirement were considered most important. Less consideration was given to job and training vacancy while the role of mentors remained undefined.

Key Words: Internal medicine, subspecialties, postgraduate residents.

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Introduction

Internal medicine deals with the prevention, diagnosis and treatment of diseases primarily by medication. With the advancement in scientific knowledge, the spectrum of medicine has expanded tremendously. Intricate procedures have evolved over time and sufficient training is mandatory for their execution. From this, a number of subspecialties have stemmed, though

internal medicine is still the primary field. Studies performed in various parts of the world have shown that internal medicine is not the most popular career option.¹⁻⁵ Generally, the popularity of procedure based subspecialties is rising.³ A study performed in Karachi has corroborated this.⁶ This study also revealed that cardiology was the most popular subspecialty. Another study performed in Karachi demonstrated that dermatology was also gaining popularity.⁷ This might be due to better lifestyle that it ensures.

The purpose of health care system is to meet the demand of the population. For this, specialty distribution must be balanced. The selection of a specialty is a highly subjective process affected by factors ranging from aptitude to family problems. Understanding of these factors is important so as to allow the health care policy makers to influence specialty choice one way or the other.

This study was designed to evaluate the factors postgraduate residents (PGRs) consider while choosing internal medicine and subspecialties.

Methodology

This study was designed as a cross-sectional descriptive study to identify the various factors affecting choice of internal medicine and subspecialties by PGRs. Purposive non-probability convenience sampling was used to include the PGRs enrolled in FCPS and MD programs. Doctors who had already completed their training were excluded from the study.

A two part self administered questionnaire about choice and reasons for choice of internal medicine and subspecialties was designed and distributed among PGRs working in Mayo Hospital, a tertiary care teaching hospital in Lahore, Pakistan during May, 2013.

The first part of the questionnaire consisted of demographic characteristics i.e. age, gender, year of graduation, nationality, academic program (FCPS, MD) year of training and specialty of choice. The second part of the questionnaire comprised of reasons for choosing a particular specialty and included aptitude, research opportunity, national requirement, role model/mentor, particular institution, availability of training post, family pressure, availability of job after training, private practice, work hours and work environment.

The responses were graded on Likert scale which ranged from 1 to 3 (1 – great extent, 2 – some extent and 3 – lesser extent).

Out of 81 distributed questionnaires, 78 were returned completely filled and were included for analysis. Data were entered in statistical package for social sciences (SPSS) – version 13.0 software for analysis. Descriptive analyses were done for the data. Mean and standard deviation were calculated for age and frequency distribution and percentages for gender, nationality, postgraduate program, year of training and choice of specialty.

The subspecialties were then grouped together for comparison with internal medicine and gender distribution in each group was compared using Chi-square test and p -value < 0.05 was considered significant. The positive and negative impact of each factor was determined and compared by applying Binomial test. P -value < 0.05 was taken as significant. For each factor, male and female doctors were also compared. Chi-square test was used to determine statistical significance considering p -value < 0.05 as significant.

Results

A total of 78 respondent doctors were included in the study. The age distribution of the PGRs ranged from 26 to 43 years with mean of 29.79 years and SD of 2.55 years. 64.1% of the PGRs in medical specialties were male while 35.9% were female.

Regarding nationality 97.4% were Pakistani and 2.6% were foreigners.

88% PGRs had graduated within the last 8 years. Most of the PGRs (76.9%) were enrolled in the FCPS program while 23.1% were enrolled in the MD and other programs. 82% of the PGRs had completed 2 years of training and had already chosen the medical specialty they wished to work in.

The most popular specialties were internal medicine (42.3%), dermatology (21.8%) and cardiology (14.1%). Gender wise stratification revealed that while there was a healthy ratio in internal medicine (M:F = 2.3:1), the other specialties were heavily biased in favor of males, with the prominent exception of dermatology (M:F = 1:16). Gender wise distribution of PGRs in medical specialties is shown in Figure 1.

When the subspecialties were grouped together, the choice of internal medicine versus subspecialties was similar for male and female doctors (p -value 0.378) as shown in Table 1.

Table 2 shows that research, national requirement, particular institute, private practice and work hours were significantly important factors in the choice of

specialty while availability of training post and job after training were of no importance (p -value < 0.05). No statistical significance was obtained for aptitude,

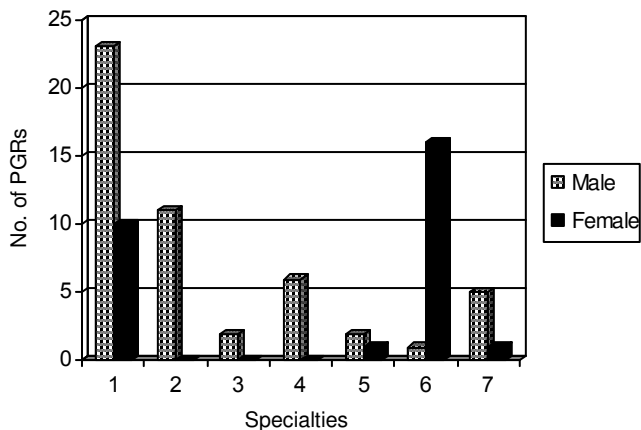


Figure 1: Gender Wise Distribution of PGRs in Medical Specialties.

Key

1. Internal Medicine
2. Cardiology
3. Pulmonology
4. Nephrology
5. Neurology
6. Dermatology
7. Gastroenterology

Table 1: Influence of Gender on Choice of Internal Medicine and Subspecialties.

	Male	Female	p-value
Medicine	23	10	0.378
Subspecialties	27	18	

Table 2: Impact of Various Factors on Choice of Specialty.

Factors	Yes (Great Extent)		No (Less Extent)		p-value
	N	%	N	%	
1	34	61	22	39	0.070
2	23	68	11	32	0.029
3	29	66	15	34	0.024
4	20	47	23	53	0.380
5	32	64	18	36	0.032
6	17	35	31	65	0.029
7	32	51	31	49	0.5
8	15	33	30	67	0.018
9	38	68	18	32	0.005
10	33	67	16	33	0.010
11	25	44	32	56	0.2135

Key:

1. Aptitude
2. Research opportunity
3. National requirement
4. Role Model/Mentor
5. Particular institution
6. Availability of training post
7. Family pressure
8. Availability of job after training
9. Private practice
10. Work hours
11. Work environment

role models, family pressure and work environment (p -value > 0.05).

Male and female doctors did not show any significant difference in reasons for choice of medical specialty (p -value > 0.05 for all factors) as shown in Table 3.

Discussion

Our study has demonstrated that there was no significant difference between male and female doctors regarding choice of internal medicine versus subspecialties grouped together (p -value 0.378). Similar result was observed in a study performed in Karachi which likewise demonstrated no significant difference among male and female doctors in choice of internal medicine versus subspecialty.⁶ These findings reflect a supportive environment towards female doctors in

pursuing the career of their choice side by side with their male colleagues.

In our study, the individual specialties demonstrated different popularity among male and female doctors i.e. dermatology was followed by females and cardiology, nephrology and gastroenterology by male

Table 3: Impact of Factors Influencing Choice of Specialty on Male and Female Doctors.

Factors	Male	Female	p-value
1	21	13	0.888
2	17	6	0.259
3	20	9	0.436
4	13	7	0.750
5	20	12	0.486
6	9	8	0.135
7	20	12	0.719
8	11	4	0.378
9	26	12	0.348
10	19	14	0.235
11	13	12	0.123

Key

1. Aptitude
2. Research opportunity
3. National requirement
4. Role Model / Mentor
5. Particular institution
6. Availability of training post
7. Family pressure
8. Availability of job after training
9. Private practice
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doctors (Figure 1). Similar attitude was observed in the study conducted by Horn et al.³ In this study gender was found to be an important determinant of specialty choice with 78% of positions occupied by men in procedure based specialty as compared to only 39% in non-procedure based specialties. Regarding factors influencing choice of internal medicine and subspecialties, we found that research, national requirement, particular institution, private practice and work hours were significantly important. Among these, work hours have been extensively discussed in the international literature. The lifestyle of a doctor is determined to a great extent by work hours. The term controllable lifestyle has been used to describe specialties that offer regular and predictable work hours thus providing more time for family and leisure activities.^{8,9} Controllable lifestyle has been observed to be one of the most important determinant of choice of specialties in various international studies.^{3,4,9-14,22}

The importance of private practice is understandable since, in our country, medical practitioners generate income primarily through private practice rather than through jobs. Similar attitude has been observed in international studies.^{3,4,8,12-14} Interestingly, different result was observed in a local study performed in a private university.⁶ In this study, high income potential

was considered important by only 22% of PGRs. This is probably because the respondents belonged to well – off families.

A healthy trend was observed regarding research and national requirement and it follows that young doctors can be motivated to participate in research programmes and to choose unpopular but important specialties. A particular institution was also a significant factor and importance of good institutions cannot be over – emphasized.

Among the factors considered in our study, availability of training post was one of the least important factors (p-value 0.029) while choosing a medical specialty. It appears that doctors pursue the career of their choice without any pressure to occupy vacant training posts.

Similarly, availability of job after training was also an unimportant consideration (p-value 0.018). This might be due to the fact that many of the young doctors plan to go abroad after completion of postgraduate studies. Moreover, they consider private practice to be more important as already discussed. Nonetheless every country has specific indigenous problems. As an example, job availability had assumed critical importance due to ongoing economic crisis among Spanish medical graduates.¹⁵

Studies, around the world have shown aptitude¹⁶⁻¹⁸ and role models/mentors^{3,10,19-21} as the major influencing factors in career decision but we were unable to obtain statistical significance for these factors in the current study. Thus we are unable to comment on the importance of these factors for our group. These queries may clarify if similar studies are conducted on a larger sample size.

Doctors from both the genders in our study had similar reasons for choosing their future careers. Dorsey and Lambert were also unable to demonstrate any difference among male and female doctors when similar questions were put forward.^{9,22}

Conclusion

On the basis of our study, we have concluded that controllable lifestyle, income and good institutions are the key factors considered by PGRs while choosing field of specialization. There is a need to provide better pay packages and incentives to the doctors so that they should prefer job opportunities over private practice. Moreover, facilities for research should be made available at national level so that those with aptitude for this field may avail the opportunity.

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