Post Graduate Career Preferences Among Medical Students

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Abstract

Background: Medical students start making up their minds regarding which field they are going to pursue in the last years of their medical education and various factors influence these choices. Exploration of the trends and choices of future career preferences of medical students of a Public Medical College of Rawalpindi was the main purpose of our study.

Material and Methods: This cross sectional study was conducted in 2016 and 200 Medical students of Fourth and Final Year of Rawalpindi Medical College were included through stratified random sampling technique. A structured questionnaire with closed and partially open questions regarding future preferences was administered and comparison was made between preferences based on gender.

Results: Out of 200 students, 196(98%) wanted to pursue their medical professional after graduation. Only 29% had made up their minds regarding future specialty to follow. The most preferred fields were Internal medicine (46%) followed by Surgery (22.5%), Gynaecology & Obstetrics (8%), Pediatrics (6.5%) and Ophthalmology (4%). The factors which played the major roles in influencing students’ choices were personal interest, followed by feasibility with future family, demand for specialist in that field and a good pay package. 54% students wanted to go abroad for studies after graduation. More male students (68.3%) as compared to female students (47.8%) intended to go abroad for future studies (p-value 0.01)

Conclusion: Almost all students intended to pursue in future the medical profession whereas only one third had already made decision regarding the specialty to practice in. Majority of the students wanted to specialize in Internal medicine after graduation while a large number of students showed interest in settling abroad permanently after their graduation.

Keywords: Medical Specialty, Medical Students, Preference, Male, Female, Internal Medicine, Surgery, Obstetrics, Gynecology.
Rawalpindi and to assess the factors influencing their choices. It also assessed the proportion of students planning to go abroad after and also enormity of female students who plan to pursue their career after their marriage. Comparison of the career preferences based on gender of medical students was also made.

Subjects and Methods
The cross-sectional study was conducted from April - August, 2016 at Rawalpindi Medical College (RMC), a public medical college of Rawalpindi, Pakistan and the study population comprised of fourth year and Final Year Medical students. Institutional and Ethical approval was taken from the Institutional Research Forum of RMC. With the help of WHO sample size calculator, the minimally required sample size was calculated to be 32, keeping confidence level 95%, absolute precision 5% and anticipated population proportion 97.89%. However, we included 200 students in our study. Stratified random sampling technique was adopted based on academic year and gender, by using the attendance sheets of both academic years as our sampling framework. 100 students were included from each academic year. Since the proportion of female students was more than double as compared to male students, in both academic years, therefore 70 female students and 30 male students were selected from each academic year. The data was collected by using structured Questionnaire after informed verbal consent of selected students. The questionnaire comprised of mostly closed and semi closed questions and was administered after an academic session. Data was entered and analyzed in Statistical Package of Social Sciences version 22. Frequencies and percentages were calculated for categorical variables. Pearson’s Chi square test was applied at 5% level of significance to compare the preferences amongst male and female students.

Result
200 students participated in the study amongst whom 100 were selected from fourth year and 100 from final year. 70 female and 30 male students were included from each class with a total of 140 (70%) females and 60 (30%) males.
Out of the 200, 196 (98%) wanted to pursue their career as doctors after graduation. All the female participants 140(100%) intended to pursue their careers as practicing medical professionals while 56 (93.2%) male students were affirmative about it, with a highly statistically significant difference (P value= 0.007).

197 (98.5%) students had plans to proceed with studies as post-graduation in specialized fields. Out of the total students, 108 (54%) informed that they had plans to go abroad for further post-graduation studies, the proportion of males amongst these 108 students was higher, that is, 41 males (68.3% of the total male students) as compared to 67 females (47.8% of the total female students). The gender difference regarding this preference was highly statistically significant (P value 0.012). The remaining 89 (45.2%) students had decided to continue post-graduation here in Pakistan. 90 (45%) students, including 25 male students (62.5% of the males) and 65 female students (46.4% of the females), mentioned their intentions that if given the chance, they would like to settle permanently abroad. The difference was not statistically significant when observed based on gender with a p-value of 0.507.
When asked if the students had made up their minds regarding the field they would choose in future, only 58 (29%) confirmed that they had made up their mind, 126 (63%) had an idea but they weren’t sure and 16 (8%) had no idea yet. Students were asked to give the topmost medical specialties or fields they would prefer to opt for after graduation. Majority opted for Internal Medicine 92 (46%) followed by Surgery 45 (22.5%), Gynecology & Obstetrics 16 (8%), Pediatrics 13 (6.5%), Ophthalmology 8 (4%), Dermatology 8 (4%), Radiology 5 (2.5%), Ear Nose & Throat 4 (2%) and finally Psychiatry 3 (1.5%) and others 6 (3%). This has also been displayed in Figure 1 based on gender distribution.
Majority of students identified the major factors in their decision for choosing a specific future specialty as Personal interest, that is, 174 students (87%), followed by Feasibility with family life in future, selected by 77 students (38.5%) and a high demand for specialists in that field, selected by 66 students (33%). Table 1 shows the distribution of these factors amongst all study participants, as they were asked to rank each factor according to the major, minor or insignificant role it played in their selection of that specific specialty as their top most preference.
When the female students were asked whether they wanted to pursue their career after marriage, 120 (85.7%) students were affirmative, while 20 (14.3%) said that it depends on the condition at that time. These female students were also asked about their anticipation regarding who would be the decision maker whether they would continue medical profession after their marriages and the results are shown in Figure 2.
Discussion

Career preference of the medical students is an important point to be focused upon, in the field of medical education. However, there is a scarcity of such studies in the public sector medical colleges of Pakistan. Our study is the first of its kind conducted in Rawalpindi Medical College (public sector). We studied the career preferences of the fourth and final year medical students, and the factors which influence their choices. We included these two years because they are the only ones who have sufficient clinical exposure to almost all of the medical fields. The interesting aspect of our study was that we also explored the proportion of students who planned to go abroad for further studies and settle there. The female students were also inquired about their decision to pursue a career after marriage, and the decision-maker in this respect.

Table No. 1: Factors Influencing the Choice for Future Fields

<table>
<thead>
<tr>
<th>Factor</th>
<th>Major Role</th>
<th>Minor Role</th>
<th>No role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Interest</td>
<td>87.00%</td>
<td>11.00%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Good Pay Package</td>
<td>28.00%</td>
<td>39.50%</td>
<td>32.50%</td>
</tr>
<tr>
<td>My Family Wants Me To Choose This Field</td>
<td>18.50%</td>
<td>25.00%</td>
<td>56.50%</td>
</tr>
<tr>
<td>Role Model In This Field</td>
<td>15.00%</td>
<td>20.00%</td>
<td>65.00%</td>
</tr>
<tr>
<td>Society Shows Great Respect For This Field</td>
<td>24.00%</td>
<td>39.00%</td>
<td>37.00%</td>
</tr>
<tr>
<td>Close Friends Are Choosing This Field</td>
<td>5.50%</td>
<td>9.50%</td>
<td>85.00%</td>
</tr>
<tr>
<td>Working Hours Are Easy To Manage</td>
<td>22.50%</td>
<td>21.50%</td>
<td>56.00%</td>
</tr>
<tr>
<td>High Demand For Specialists In This Field</td>
<td>33.00%</td>
<td>38.50%</td>
<td>28.50%</td>
</tr>
<tr>
<td>Feasible With Family Life In Future</td>
<td>38.50%</td>
<td>29.50%</td>
<td>32.00%</td>
</tr>
<tr>
<td>Most Of The Doctors In This Field Belong To My Gender</td>
<td>13.00%</td>
<td>18.00%</td>
<td>69.00%</td>
</tr>
</tbody>
</table>

Majority of the students wanted to pursue their career as doctors after graduation. However, 2% of the students did not, and all of them were male. The reasons might be the same as found out by a study in India, because of a similarity in the socio-cultural setup, and the same geographical area. These include the desire to join the civil services, or the job does not pay well enough. A striking result was the large percentage of students (54%) planning to go abroad for postgraduate studies after graduation. This is in contrast with a study conducted in Karachi 5 years ago, which showed that the majority preferred Pakistan. This difference in our study may be due to the fact that a lot has changed in Pakistan over the last 5 years. Factors like terrorism, political and economic instability, poor government policies regarding the pay packages and less number of seats for postgraduate trainees may be responsible. On top of that, 45% students said that if given the chance, they would settle abroad. This is an alarming feature, because it would mean that almost half of the students will leave the country after graduation, creating a large vacuum in the health setup. There are around 50,000 to 60,000 medical practitioners against the demand of 600,000 in the country. The doctor to patient ratio in Pakistan in 2014 was 1:1300. We can
imagine how disastrous it would be if even more doctors leave the country. We asked the students to choose two most favoured fields among the various specialties. The first preference followed the same trend observed elsewhere, in different parts of the world, that is, internal medicine, followed by surgery. Considering the large proportion of female students in our sample, Gynecology and Obstetrics got way less preference than was expected. The fields like radiology, pathology, dermatology and psychiatry were the least preferred, although a slight increase in the percentage of students showing interest in them was observed, as second preferences.

There were different factors which were influencing the choices for a future field. Among them, personal interest was ranked first, similar to other studies. Personal interest in a field, is a factor which can be moulded during house-job, so there are chances that the career preference may change after that. Other factors were feasibility with future family life, and the high demand for specialists in that field.

In Pakistan, we observe a shortage of working female doctors in almost all the clinical fields, as compared to the large number of female graduates. Almost 50% of women who graduated from medical colleges never worked. When the female students were asked whether they planned to pursue their career after marriage, most of them said yes, while the rest said that it depends on the conditions at that time. Majority of them said that the decision-maker regarding their job after marriage will be both the ‘husband and myself’. But considering the small number of working women, the matter needs to be dealt with, through governmental, social and cultural reforms.

The strength of our study is that it is one of the pioneer studies in this regard ever conducted in a public medical college of Pakistan with an ample size of study participants. The weakness of our study is that due to time constraint we used the technique of administering questionnaires comprising mostly of closed ended or partially close ended questions. We need to further explore the issue and reasons, using qualitative approach i.e. through in depth interviews and focus group discussions so that the perceptions and reasons could be understood and brought into focus in detail. Only then focused and effective interventions and steps can be taken to address the issues successfully.

The study focuses on the preferences of the students regarding the future field. The fields which are least preferred call for the attention of the authorities, so that people can be encouraged to choose those fields too. As regard the plans of large proportion of students to leave the country, this is really alarming. The reasons need to be looked into and incentives should be provided, so that people are willing to stay and practice here. The fact that female students do not pursue their careers after marriage demands for some serious reforms, through governmental policies as well as a change in the social mindset of our nation.

**Conclusion**

Our study concluded that almost all medical students intended to pursue in future the medical profession whereas only one third had already made decision regarding the speciality to practice in. Majority of the students wanted to specialize in Internal medicine after graduation while a large number of students showed interest in settling abroad permanently after their graduation.

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**References**