Perception of Medical Students towards Career Choices in Pre and Paraclinical Subjects

Dr. Nida Nowreen
Department of Physiology, G.M.C. Srinagar, J&K, India

*Corresponding Author:
Dr. Nida Nowreen
Department of Physiology, G.M.C. Srinagar, J&K, India

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ABSTRACT
Choice of specialty is the sum of a complex interconnection of student expectations, department expectations and competition for available spots, and this choice begins with the preference of the student. Medical students’ choice of subspecialty is important to the maintenance of an adequate medical workforce and a balanced development of the healthcare system. The present study was conducted with an aim to find out the perception of medical students towards carrier choices in pre and paraclinical subjects. This cross sectional study was conducted for a period of three months. The study group consisted of 180 first and second year medical students. After giving a brief introduction on the study a self-administered, anonymous questionnaires consisting of two parts was distributed among them for assessing their preference of clinical, pre and para clinical subjects. Majority of students (75.55%) wanted to pursue a specialization in a clinical subject and only 24.44% of students preferred a career in pre or paraclinical subject. Pathology was the most preferred (8.33%) non clinical branch followed by community medicine (5.00%) and physiology (3.88%). Some students did not plan to pursue specialization at all, and wanted to change to some other profession like civil services. This study demonstrates the inclination of majority of students towards pursuing a specialization in a clinical subject. Only a quarter of students were interested in pursuing a specialization in a pre or paraclinical subject.

Keywords: Medical students, preclinical, paraclinical, specialization.

INTRODUCTION
Medical science and technology have become quite sophisticated these days; as a result the focus is now on specializations.¹ Choice of specialty is the sum of a complex interconnection of student expectations, department expectations and competition for available spots, and this choice begins with the preference of the student.² Studies have suggested that medical students’ choice of subspecialty is important to the maintenance of an adequate medical workforce and a balanced development of the healthcare system.³ A knowledge of career preferences can assist in curriculum planning too.⁴ Identifying the career preferences and factors that influence students’ choice of subspecialty will enable a better understanding of the current shortage/overload of physicians in specific fields and contribute to policy-building and decision-making to improve the training and recruitment of students in times to come.⁵ Throughout the world there is a shortage of teachers in medical colleges and the number of medically qualified teachers in preclinical subjects is continuously decreasing.⁶ Keeping this in mind the present study was conducted to find out the perception of medical students towards carrier choices in pre and paraclinical subjects.

MATERIALS AND METHODS
This questionnaire based cross sectional study was conducted in the Department of Physiology, SKIMS medical college, Srinagar for a period of three
months (from Feb to April 2017). The study group consisted of first and second year medical students. Participation was voluntary and only those willing to participate were included in the study. After giving a brief introduction on the study a self-administered, anonymous questionnaires consisting of two parts was distributed among them. The first parts was for collecting socio demographic data and the second part was for assessing their choice of specialization, preference for pre and para clinical subjects. The total number of students available for the study was 200, out of which 196 were present on the day of the study and participated. Data was collected and grouped using computer software MS Excel. Frequency tables were constructed and presented as percentages.

**RESULTS**

Out of the total number of students present on the day of study, 7 did not return the filled questionnaire. Among those who returned the filled questionnaire 9 students did not plan to pursue a specialization, and wanted to change to some other profession like civil services. So a total of 180 students were included in the final analysis. Table 1 shows the socio demographic characteristics of students.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>82(45.55)</td>
</tr>
<tr>
<td>Females</td>
<td>98(54.44)</td>
</tr>
<tr>
<td>Mean age in years</td>
<td>20.42±1.02</td>
</tr>
<tr>
<td>Doctor parent</td>
<td>17(9.44)</td>
</tr>
<tr>
<td>Personal interest in MBBS</td>
<td>165(91.66)</td>
</tr>
</tbody>
</table>

Majority of students (75.55%) wanted to pursue a specialization in a clinical subject and only 24.44% of students preferred a career in pre or paraclinical subject. (Fig 1)

![Fig 1: Distribution of students according to their preferences for specialization.](image-url)
Table 2 shows the distribution of those students who preferred a specialization in pre and paraclinical subject. Pathology was the most preferred (8.33%) non clinical branch followed by community medicine (5.00%) and physiology (3.88%).

**Table 2: Distribution of students according to their choice of pre and paraclinical subject for specialization**

<table>
<thead>
<tr>
<th>Subject choice</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>5(2.77)</td>
</tr>
<tr>
<td>Physiology</td>
<td>7(3.88)</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>2(1.11)</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>1(0.55)</td>
</tr>
<tr>
<td>Pathology</td>
<td>15(8.33)</td>
</tr>
<tr>
<td>Forensic medicine</td>
<td>2(1.11)</td>
</tr>
<tr>
<td>Microbiology</td>
<td>3(1.66)</td>
</tr>
<tr>
<td>Community medicine</td>
<td>9(5.00)</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Our study has shown a lack of interest among medical students for pursuing specialization in pre and paraclinical subjects. Majority of students (75.55%) wanted to pursue a specialization in a clinical subject and only 24.44% of students said that they would prefer a pre or paraclinical subject for specialization. Pathology was the most preferred (8.33%) non clinical branch followed by community medicine (5.00%) and physiology (3.88%). Similar findings have been reported by previously conducted studies who have shown a continuous disinterest among students for pre and paraclinical subjects. A possibility exists that students who end up joining these subjects do so out of a lack of any other options. They may not any admiration for, or commitment to the subject, which results in lowered standards and frustration. Career choices tend to change over time; however, if the disinclination towards these subjects persists, there is likely to be a dearth of teachers in pre- and paraclinical departments.

Some students did not plan to pursue specialization, and wanted to change to some other profession like civil services. Most were inspired by a senior who had topped the civil services exams a few years back. This failure of students to continue in the medical profession will lead to a wastage of resources and would deplete the pool of already scarce healthcare professionals.

There is a need to go into the details for such preferences, so that, if possible, some interventions can be planned to modify such career choices. There is a general assumption that those with specialization in non clinical subjects have a lower status in medical profession as compared to clinicians. This attitude towards pre and paraclinical subjects needs to change. The importance of pre and paraclinical subjects as the pillars of medicine has to be emphasized so that the usefulness of these subject is appreciated. This can be done by making students understand the importance and nobility of medical teaching. The preclinical and clinical training period itself can be utilized to influence these specialty preferences among students. Also the role models from faculty and residents can play an important role in career decisions as reported by previous studies.

Our study has certain limitations like small sample size and the factors influencing career choice and gender differences in career preferences were not studied separately.

**CONCLUSION**

The study demonstrates the inclination of majority of students towards pursuing a specialization in a clinical subject. Only a quarter of students were
interested in pursuing a specialization in a pre or paraclinical subject. This trend needs to change as it can have a very negative effect on the healthcare system in the long run.

REFERENCES