

# Specialty preferences of final year students studying physical therapy in Peshawar

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## ABSTRACT

**Introduction:** Choosing a specialty after graduation plays an important role in the life of a student.

However, little is known about students' preferences about selection of specialties in physical therapy students in developing countries. This study aimed to find out specialties' preferences and factors that influence students' choices of selection any specialty in physical therapy students studying in final year.

**Material & Methods:** This cross-sectional study was conducted on students of physical therapy institutes located in Peshawar, Khyber Pakhtunkhwa. The study was carried out from November 2018 to April 2019. Data was collected from final year students only. All students who were eligible, were included for this survey and a total of 185 students participated in this survey. Written informed consent was obtained from all participants and questionnaires were distributed amongst them. The data collection tool used for this study was a semi-structured questionnaire. SPSS version 22 was used for data analysis. The measure of frequencies was obtained for variables and chi-square test was applied to measure the association between variables

**Results:** A total of 185 students, 101 (54.6%) female and 84 (45.4%) male with a mean age of  $23.44 \pm 1.54$  years participated in this study. Among all the participants, 145 (78.3%) intended to specialize in the future. The most preferred specialty amongst these participants was Musculoskeletal Physical Therapy (n=80,43.2%). The least chosen specialty was Geriatrics Physical Therapy (n=2, 1.1%). Among male participants no one selected Gynecological Physical Therapy as specialty. Prestige within the profession was considered the most important factor for specialty preference (n=118, 81.4%).

**Conclusion:** Musculoskeletal Physical Therapy remained preferred choice of specialty amongst students of final year studying Doctor of Physical Therapy in Peshawar, Khyber Pakhtunkhwa. The most important reported factor effecting specialty preferences amongst physical therapy students is prestige within the profession.

**Key Words:** Perception, Physical Therapy, Specialty

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## INTRODUCTION

In the entire life of a student, selection of a career specialty is one of the most important thing. Specialties differ in many aspects such as mode of performing duties, professional interests, workload and skills. Normally, information from different sources are gathered to make a decision about a specialty selection.<sup>1</sup> The selection of a specialty by post graduate students plays an important role in the health care system. It has been reported that career counselling is one of the major contributing factors in specialty selection amongst students.<sup>2</sup> Knowledge about specialties can be useful which helps undergraduates students to set their priorities and future goals for which they have been struggling.<sup>3, 4</sup> With the passage of time, new advancements are becoming integral parts of medical field that leads to an increased demand of professionals who are specialized in their field of practice.<sup>5</sup> There are variety of choices in choosing a specialty for students learning medical education, however, many young health care practitioners cannot decide the area they want to specialize in due

to the lack of knowledge about the field.<sup>6</sup> During past years, physical therapy has emerged as a profession in health care system which intends to provide beneficial services to patients and to the community.<sup>7, 8</sup> In 1985, specialization in clinical physical therapy began which flourished with the passage of time due to varying needs of the society.<sup>9</sup> After the commencement of five years Doctor of Physical therapy program, physical therapy as a profession stands independent in its practice pattern.<sup>3</sup> Consistency has been required in order to become a specialized clinical physical therapist for the maintenance of which, residency and fellowship programs have emerged to provide more advanced knowledge and skills in the specialized area. American Physical Therapy Association had developed 'the description of specialty practice' used as a guide for the residency program which involves the whole spectrum of expert practices for certain specialty area.<sup>10</sup> After graduation when students select a specialty their choices are affected by some past experiences which they had during their

course of study. This might include interaction with other members, patients and different health care professionals.<sup>10, 11</sup> The specialties offered in Physical Therapy by different universities are Musculoskeletal Physical Therapy, Neurological Physical Therapy, Cardiopulmonary Physical Therapy, Sports Physical Therapy and some others.<sup>12</sup>

Different factors influence identification of chosen specialty by Physical Therapy students. Some of these factors are intrinsic like those related to personal preferences and attributes, while some are extrinsic factors related to the particular environment in which one works and spends time in. The factors which have impact on specialty preference are the students' personal interest, pressure of fellow students, self-inspiration, financial status and quality life styles.<sup>6, 13, 14</sup> Furthermore, other factors like students' academic record, personality traits, working hours and expected salary from the desirable field have also a strong influence on the specialty choice.<sup>15-17</sup> According to research studies, selection of a specialty by students is most of the time affected by the way they want their lifestyle to be in future for which they first think about a good income.<sup>18, 19</sup> Another study concluded that some other elements help in selection of career including income from that career, the personality of a student and gender.<sup>20</sup> There was many gender-based differences related to specialty choice which include family traditions, norms, values and expectations.<sup>21</sup> It was suggested that female students consider working hour and nature of work more while males consider challenging field, salary, future advancements in the field and personal life during choosing specialty.<sup>22, 23</sup> As Physical Therapy is an emerging profession, its advances in the education are still limited due to many reasons. Students are not aware of the choices regarding the specialties in the profession being offered which might be due to the limited specialties offered by universities. Therefore, the current study aimed to develop an understanding of perceptions regarding physical therapy specialties and investigating the influence of determinants which affect the specialty choice. This might help in future planning for some of the students along with policy makers. Moreover, it might be helpful in career counselling for undergraduates as most of them seem confused about their future plan for specialty selection. In addition, this study might help in providing information regarding some specialties which are not very well known to the students. The objectives of the study were to explore the specialty preferences of final year DPT students of Peshawar and to find out the factors which influence the choices of students in specialty preference.

## MATERIALS & METHODS

This cross-sectional study was conducted on the students of five physical therapy institutes of Peshawar, Khyber Pakhtunkhwa which included including Rehman College of Rehabilitation Sciences (RCRS), Institute of Physical Medicine and Rehabilitation (IPMR), Northwest Institute of Health Sciences (NWIHS), Mehboob Medical Institute (MMI) and NCS University System. The duration of the study was six months from November 2018 to April 2019. Only final years physical therapy students were included. Census sampling was performed, and a total of 185

participants were selected. All students' participation in this study was entirely on volunteer basis. After approval of research proposal from graduate committee, permission was obtained from head of physical therapy institutes i.e., RCRS, IPMR, NWIHS, MMI and NCS University System. Students meeting inclusion criteria were invited for participation and purposes of the study were explained to all the students and inform consents were obtained from all willing participants. Questionnaires were distributed and explained to each participant. The data collection tool used in this study was semi-structured questionnaire of closed ended questions which explored the preferred specialty of the students and the factors which influence their choices. SPSS version 22 was used to analyze the data. The measure of frequencies was obtained for variables and chi square test was applied to measure the association among the categorical variables. Data was analyzed descriptively using frequency distribution and graphically presented using chart. Gender, marital status, institution and preferred post graduate place were considered as variables.

## RESULTS

A total of 185 students were recruited for this study, among which 101 (54.6%) were females and 84 (45.4%) were males. The mean age of the participants was  $23.44 \pm 1.54$  years (mean $\pm$ s.d). Out of the total, 170 (91.9%) students were single, 4 (2.2%) were engaged and 11 (5.9%) were married. Most of the students 71 (38.3%) were from Institute of Physical Medicine and Rehabilitation, followed by NCS University System (n=43, 23.2%), Mehboob Medical Institute (n=30, 16.2%), Rehman College of Rehabilitation Sciences (n=26, 14.0%) and Northwest Institute of Health Sciences (n=15, 8.1%) (Table 1).

Table 1: Demographics detail of the participants

Variables		Frequency
Gender	Male	84 (45.4%)
	Female	101 (54.6%)
Age	mean $\pm$ s.d	23.44 $\pm$ 1.5459
Institutes	RCRS	26 (14.1%)
	IPMR	71 (38.4%)
	MMI	30 (16.2%)
	NCS	43 (23.2%)
	NWIHS	15 (8.1%)
Marital Status	Single	170 (91.9%)
	Married	11 (5.9%)
	Engaged	4 (2.2%)

Out of 185 participants, 145 (78.3%) students had decided to specialize after their DPT degree, a small number (n=16, 8.6%) was not interested to specialize and 24 (12.9%) were not sure about their decision.

Among students who decided to specialize after DPT program, Musculoskeletal Physical Therapy was the most preferred specialty (n=80, 43.2%), followed by sports Physical Therapy (N=21, 11.4%). Geriatrics Physical Therapy was the least selected specialty (n=2, 1.1%) among the included participants (Table 2).

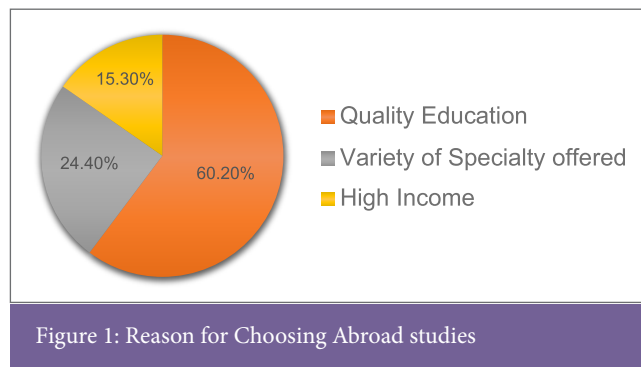
Specialty	Frequency
Musculoskeletal Physical Therapy	80 (43.2%)
Neurological Physical Therapy	16 (8.6%)
Cardiopulmonary Physical Therapy	14 (7.6%)
Sports Physical Therapy	21 (11.4%)
Pediatrics Physical Therapy	8 (4.3%)
Gynecological Physical Therapy	4 (2.2%)
Geriatrics Physical Therapy	2 (1.1%)

There was a positive association (p= 0.04) found between gender and the chosen specialty. Most preferred specialty among both male and female participants was Musculoskeletal Physical Therapy with a frequency of 34 (23.5%) and 46 (31.7%) respectively. Male students after Musculoskeletal Physical Therapy chose Sports Physical Therapy 16 (24.2%) while females' second priority was Cardiopulmonary Physical Therapy with frequency of 10 (6.9%). Furthermore, male participants did not choose Gynecological Physical Therapy 0 (0%) as their preferred specialty while only 1 (0.7%) male and 1 (0.7%) female participants chose Geriatrics physical therapy as a preferred specialty (Table 3).

Specialty	Males	Females	p-Value
Musculoskeletal PT	34 (23.5%)	46 (31.7%)	0.04
Neurological PT	8 (5.5%)	8 (5.5%)	
Cardiopulmonary PT	4 (2.8%)	10 (6.9%)	
Sports PT	16 (11%)	5 (3.4%)	
Pediatrics PT	3 (2.1%)	5 (3.4%)	
Gynecological PT	0 (0.0%)	4 (2.8%)	
Geriatrics PT	1 (0.7%)	1 (0.7%)	
Total	66 (45.5%)	79 (54.5%)	

There was a positive association between institution and preferred specialty (p= 0.01). Students of RCRS (n=12, 60.0%), IPMR (n=29, 56.9%), NWIHS (n=6, 54.5%) and NCS University System (n=21, 56.7%) preferred MSK Physical Therapy, while students of MMI chose Sports physical therapy (n=9, 34.6%) their first preferred specialty.

Among the 145 students who had decided a specialty, 98 (67.5%) students wanted to continue their studies and specialize abroad because of quality education (n= 59, 60.2%), wide range of specialties offer (n=24, 24.4%) and higher income (n=15, 15.3%) while those who wanted to continue within country were 47 (32.4%) (Figure. 1).



Closed ended questions were used to find out the factors which influence the choices of students, among which “prestige within profession” was considered as the most influential factor (n=118, 81.4%) for specialty selection. While ‘specialties that classmates or friends choose’ was the least chosen factor (n=32, 22.1%) (Table 4).

Factors	Yes	No
Challenging diagnostic problems	113 (77.9%)	32 (22.1%)
Specific interest in patient population seen	117 (80.7%)	22 (19.3%)
Good Income	100 (69%)	45 (31.0%)
Flexible working hours	83 (57.2%)	62 (42.8%)
Advice from mentor	80 (55.2%)	65 (44.8%)
Prestige within profession	118 (81.4%)	27 (18.6%)
Lack of overcrowding in field	54 (37.2%)	91 (62.8%)
Advice from parents	55 (37.9%)	90 (62.1%)
Clinical rotation experience	112 (77.2%)	33 (22.8%)
Your strengths in subjects related to a specialty	115 (80%)	29 (20%)
Specialties that classmates or friends choose	32 (22.1%)	112 (77.2%)
Research opportunities	95 (65.5%)	50 (34.5%)
A specialty that is rapidly advancing	118 (81.4%)	45 (31.0%)
Multiple job opportunities	100 (69%)	45 (31.0%)

No association was found between age and the factors upon which students decided their specialty (p= 0.91). Intention of respondents to specialize in future did not shown any association with gender (p= 0.73), institution (p= 0.51) and marital status (p= 0.34).

## DISCUSSION

The aim of this study was to identify specialties which is most preferred by students in Peshawar. A similar study conducted in Karachi had indicated that 51.7 % students were more interested in doing specialization from within the country which is contrary to our results. Findings of this survey showed that 67.5% students were interested in doing specialization from abroad. The difference might be due to the higher exposure of different specialties in

hospital setups which provide knowledge and clinical practice of chosen field.<sup>24</sup>

Regarding the preferred specialty, a study carried out in Islamabad demonstrated that the most preferred specialty among Physical Therapy students was Musculoskeletal Physical Therapy (40.0%) which is in accordance to the current study suggesting that the included participants preferred Musculoskeletal Physical Therapy (43.2%) as their chosen specialty. The similarity in the results is due to the advancements in the field of musculoskeletal physical therapy and also most of the clients in Physical Therapy clinics of Pakistan present with musculoskeletal problems.<sup>12</sup>

On the other hand, a study demonstrated that the least preferred specialties by male students was cardiopulmonary physical therapy (7.5%) and by females was sports physical therapy (8.9%). In contrast to our study, the least chosen specialty by male and female students was gynecological physical therapy (0.7%) and geriatrics physical therapy (0.7%). The economic factor and future income prediction were considered as the factors which affect the choices of students.<sup>12</sup> In a similar study conducted in Turkey, it was found that the reasons for choosing a specialty were good income and prestige which are reflected in the results of current study as well. Findings of this survey suggested that prestige within the profession (81.4%) is the most frequently reported factor in choosing specific specialty. The results of these studies suggested that the thought of future lifestyle and greater financial income helps in the decision making while choosing a specialty.<sup>25</sup>

A study conducted on junior doctors found that the least chosen factor for specialty preference was advice from parents or family member (16.1%). While in our study, chosen specialty of peers (22.1%) was suggested as a least chosen factor. The reason behind

these results may be due to the advancements in the field of health system which made the students to understand the area of interest better and encourages them to choose a preferred specialty by the prestige and value of particular field rather than taking advices from others.<sup>26</sup>

## CONCLUSION

This study concluded that both male and female respondents chose Musculoskeletal Physical Therapy as their first preferred specialty choice. Males did not prefer to specialize in gynecological physical therapy and females did not intend to specialize in geriatrics physical therapy. Majority of respondents wanted to continue their studies out of the country. This study suggested that students had related their specialty choices to prestige within profession and advancement of the field as the major contributing factors in choosing specific specialty.

## RECOMMENDATIONS

The policies of educational system should be formulated in a way that encourage students to pursue their careers within their own country. Career counseling shall be done in the medical institutions and students shall be given confidence for selecting field of their choice. The study helps to understand the fact that the choice of physical therapy specialties and location of practice is multidimensional and multifactorial. There is a need to aware the students, parents, universities and the government regarding the necessity of available and required fields.

## LIMITATIONS

Data collection was limited to final year students only which might be one of the limitations of this study. Moreover, data collection tool was semi-structured questionnaire which was not validated.

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