

Career Choices Among Medical Students of Rawalpindi Medical University, Pakistan: A Comparative Study

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Abstract

Objectives: To compare factors and preferences of career choice among first and final year medical students of Rawalpindi Medical University

Methods: A comparative analytical study was carried out between 1st and final year MBBS students of Rawalpindi Medical University in November 2019. A structured questionnaire was used to collect data from medical students after securing their informed consent. Data was gathered pertinent to their gender, intermediate qualification, the reasoning for becoming a doctor, the presence of a doctor in the family, and the specialty to be chosen as a career in the future. The Chi-square test was applied to verify the gender-based differences in career choice and to explore the association of discipline selection with the presence of doctors in the family. Data were analyzed by using SPSS version 25 and Microsoft Excel 2010. $P < 0.05$ was taken as significant.

Results: Of the total 575 medical students, 289 and 286 were from first and final-year MBBS classes. About 64.3 % of students were females. 98.4 % of students qualified by passing a Higher Secondary School Certificate (HSSC). About 74.1 % of students joined the medical field with self-interest while 17.6 % of students were enrolled in medical university by parents' will. Career preference reflected a statistically significant association ($P < 0.001$) with doctors in the family. Cardiology, Surgery, and Neurosurgery were the most wanted specialties among both 1st and final-year medical students. 1st year students were also interested to opt for Neurology, Oncology, Gynaecology & Obstetrics, and Psychiatry as careers. About 42 % of students were unsure about their career specialty. However, gender-based variations in career choice were statistically insignificant ($P > 0.2$).

Conclusion: Most medical students choose career specialties in accordance with their interests. Ambiguousness about medical specialties among medical students urges the need for career counseling.

Keywords: Career choice, MBBS, Cardiology, Neurosurgery, Oncology, Gynaecology & Obstetrics.

Introduction

Career choice is of paramount significance not only for a medical student but also for the community that has to attain varied prospects of healthcare services. Careers of healthcare professionals should be based on the healthcare needs of the population. But unfortunately, there is a scarcity of consultants in some subspecialties despite escalating demand and saturation in others [1].

Medical students begin their brainstorming pertinent to their career during their under graduation, but it is likely to change as they confront various medical specialties [2]. Numerous factors seem to influence the choice of specialty [3]. Demographics of medical students like gender in addition to personal medical experience and parental medical background is remarkable in this regard [4]. Most of the medical students change their specialty preference during the course of under graduation [5]. Career choices have also been attributed to the academic achievement of medical students [6].

Career choice is attributed to a multitude of factors like parents' profession, personal discretion, and social media. These elements directly and independently regulate the choice of profession among medical students [7]. Educational concern and professional abilities of medical

students greatly influence their interest in any subspecialty [8]. Similar research carried out by Goldacre MJ et al during 2010 revealed that approximately 50 % of medical students chose the same subspecialty as their career that was declared by them during their first year of medical school. Undoubtedly career choice among medical students depends on their academic interests, scholastic capabilities, and desires to serve humanity [9]; however departmental expectations and competition for trending subspecialties are also known to be persuasive [10].

Career choice was also acknowledged as an imperative aspect to ensure the adequacy of medical professionals and the aptness of the healthcare system [11]. Career preferences are likely to diversify enormously among medical undergraduates. The present study is therefore intended to determine career choices among medical students of Rawalpindi Medical University in relation to certain familial attributes. This study will not only enable us to perceive the preferences of medical students but will also facilitate the career counselors to guide undergraduate medical students in accordance with the healthcare needs of our population. Identifying the trends of career preferences will also enable the strategic planners to strengthen the respective departments of our teaching hospitals accordingly.

Subjects & Methods

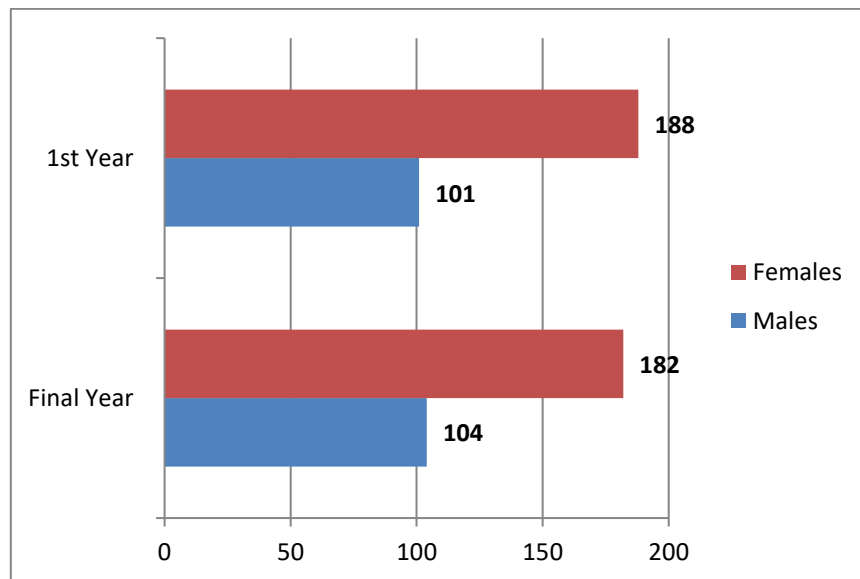
A comparative analytical study was carried out among a total of 575 medical students of Rawalpindi Medical University during November 2019. About 289 and 286 first and final-year MBBS students were enrolled in this study through consecutive sampling. Information was gathered from the students by means of a self-administered structured questionnaire regarding their gender, intermediate qualification, reasons for joining the medical field,

presence of a doctor in the family, and specialty to have opted as a career in the future. The Chi-square test was applied to verify the gender-based variations in career choice and to explore the association of medical field selection with the presence of doctors in the family. Data was entered and analyzed by using SPSS version 25 and Microsoft Excel 2010. P < 0.05 was considered significant.

Results

Of the total 575 medical students enrolled in this research, 289 and 286 students were studying in first and final year MBBS at RMU. The majority (64.3 %) was constituted by female students. Gender-based distribution of

1st and final year medical students at RMU are depicted below in **Figure 1**.



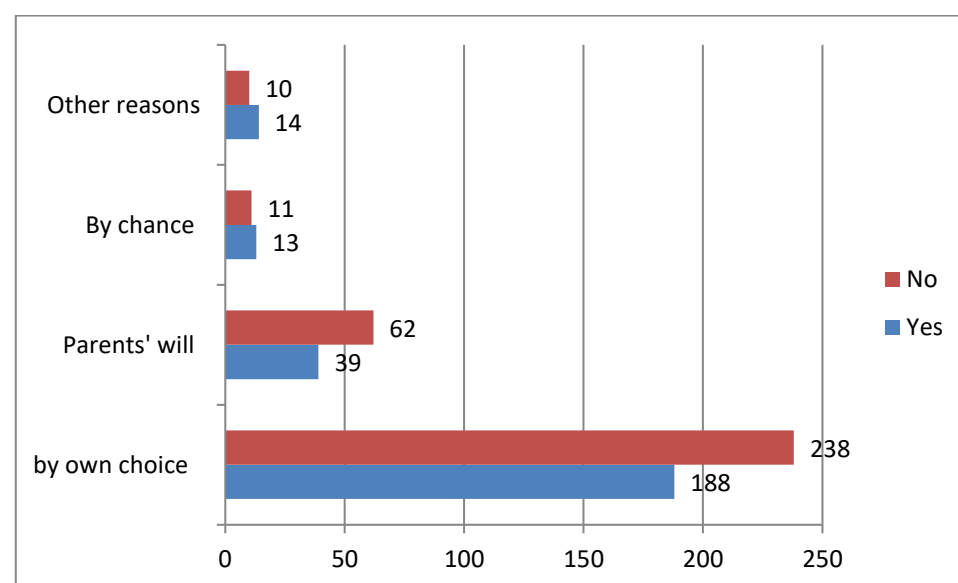
About 8 and 1 students from final and 1st year MBBS class respectively had done A level in intermediate while rest of the 566(98.4%) students qualified by passing Higher Secondary School Certificate (HSSC). The decision of our medical students to opt

medical profession as a career revealed a highly significant statistical association (P < 0.001) with the presence of doctors in the family as the first relation which is illustrated below in **Table 1**.

Table 1: Choice of medical field as career in relation to doctors in family as first relative

Doctors in family as first relative	Medical field chosen as career		Total
	Yes	No	
Yes	221	82	303
No	113	159	272
$\chi^2 = 58.06$		P < 0.001	

Most (41.4 %) of medical students in our study opting the medical profession did not have doctor as first relative in their family as reflected below in **Figure 2**.



Decision pertinent to future field as career among our medical students did not seem to have statistically significant association with

presence of doctor in family as first relative as depicted below in **Table 2**.

Table 2: Gender based differences in Career choice among medical students

Gender	Specialty chosen as career		Total
	Yes	No	
Males	118	87	205
Females	216	154	370
$X^2 = 0.04$ $P > 0.2$			

About 145 and 96 1st and final year MBBS students were not clear about the medical field to be chosen as career. The greatest magnitude

of our students was interested to serve the humanity as cardiologist followed by Surgeon as shown below in **Figure 3**.

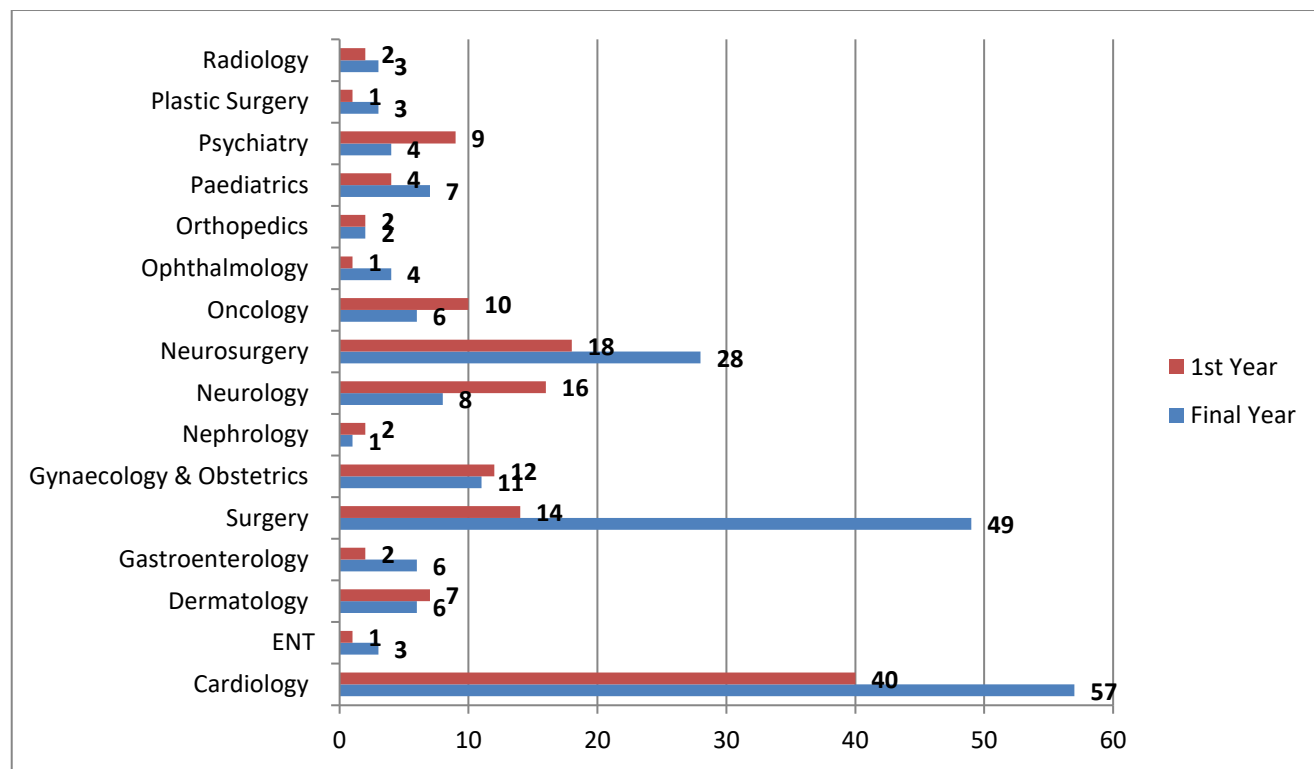


Figure 3: Career choice between 1st and final year MBBS students of RMU

Discussion

Choosing the right specialty for post-graduation is of paramount significance for our doctors' well-being and accomplishment [12]. However, their career choices should preferably be matched with special demands of any region for equitable fulfillment of healthcare essentials of a community [13].

About 74.1 % of medical students enrolled in our study opted medical profession by their own concern while only 0.2 % of students attributed their admission to a medical university for the gratification of their parents. A similar study done by Jothula KY et al in 2018 illustrated that 82.6 % of medical students joined medical college by their personal interest and only 1 student was pressurized by parents to become a doctor [14]. On the other hand, research by Ikram M et al among 1st and 2nd year MBBS students of Khawaja Muhammad Safdar medical college Sialkot explored that 26.32 % of medical students chosen medical profession to accomplish the desire of their parents whereas 18.13 % were personally intended to serve the humanity [15]. Likewise, qualitative research carried out in 2017 to assess the motivation among Dutch high school students pertinent to the opting medical field as a career concluded that parents' pressure was one of the major contributing factors in directing the professional field [16]. No doubt, respect towards parents and their desires is a

hallmark of Pakistani culture; a qualitative study should be designed to dig out the contributing factors congruously.

In the current study, the association of choosing a medical profession as a career seemed to be significantly associated ($P < 0.001$) with having doctors in the family. A retrospective observational research done by Polyakova M et al during 2020 by retrieving registry data of physicians from Sweden revealed that the parent of one out of 5 physicians was also a medical doctor. However, this occupational heritability was not remarkable with other professionals [17]. Undoubtedly every family or nation feels proud of its healthcare professionals who are destined to bring life and hope to humanity; However, opting for this life-saving profession should totally be based on the future goal and determination of the candidate.

On analyzing the professional fields to be opted by our medical students as a career, Cardiology was chosen by the highest propensity of our students, followed by General Surgery and Neurosurgery. First-year students were comparatively more inclined towards Neurology, Oncology, Gynaecology & Obstetrics, and Psychiatry than those of final-year students (**Figure 3**). However, 96 and 145 final and first-year students in our study were not clear about their career specialty. Contrary to our study, research by Huda N et al among final year MBBS students of Ziauddin Medical University

illustrated that specialties of Medicine, Surgery, and Paediatrics were highly prioritized [18]. Another multicenter research in Japan by Le K et al during 2018 elucidated that their medical students had a great interest in general practice for it amplifies the chances of diagnostic reasoning, community-oriented practice, and preventive care [19]. A systematic review by Levallant M et al during 2020 also elaborated that internal medicine and surgery were the most prioritized healthcare disciplines among medical students across the globe [20]. Although our medical students are more prone to clinical skills' acquisition and managing patients in healthcare facilities the strengthening of preventive medicine should be prioritized by our

strategic planners to reduce the burden of emerging infectious diseases. A paradigm shift in career preferences among our medical students is the need for time to tackle with evolving havoc of contagions.

Conclusion & Recommendations

Most of the medical students were indecisive about their career specialty. Focused group discussions with medical students as well as their parents can help a great deal to unveil the attributes of career choice meticulously.

References

- Querido S, Broek SVD, Rond MD, Wigersma L, Cate OT (2018) Factors affecting senior medical students' career choice. *Int J Med Educ.* 9: 332-339.
- Soethout MBM, Heymans MW, ten Cate OTJ (2008) Career preference and medical students' biographical characteristics and academic achievement. *Medical Teacher.* 30(1): e15-e22.
- Senf JH, Campos-Outcalt D, Kutob R (2003) Factors related to the choice of family medicine: A reassessment and literature review. *J Am Board Fam Prac.* 16(6): 502–512.
- Kuhnigk O, Strebel B, Schilauske J, Jueptner M (2007) Attitudes of medical students towards psychiatry. *Ad Health Sci Educ.* 12(1): 87–101.
- Xu G. Physician parents' influence over their children's choices of careers in generalist specialties. *Acad Med* 1998; 73: 913.
- McManus IC, Smithers E, Partridge P, Keeling A, Fleming PR (2003) A level and intelligence as predictors of medical careers in UK doctors; 20 year prospective study. *BMJ.* 327(7407): 139–142.
- Saleem N, Hanan MA, Saleem I, Shamshad RM (2014) Career Selection: Role of parent's profession, mass media and personal choice. *Bulletin of Education and Research.* 36(2): 25-37.
- Yang Y, Li J, Wu X, Wang J, Li W, et al. (2009) Factors influencing subspecialty choice among medical students: A systematic review and meta-analysis. *BMJ Open.* 9(3): e022097.
- Goldacre MJ, Laxton L, Harrison EM, Richards JMJ, Lambert T, et al. (2010) Early career choices and successful career progression in surgery in the UK: prospective cohort studies. *BMC Surg.* 10(1): 32.
- Reed VA, Jernstedt GC, Reber ES (2001) Understanding and improving medical student specialty choice: a synthesis of the literature using decision theory as a referent. *Teach Learn Med.* 13(2): 117–129.
- Al-Ansari SS, Khafagy MA (2006) Factors affecting the choice of health specialty by medical graduates. *J Family Community Med.* 13(3): 119-123.
- Dyrbye LN, Burke SE, Hardeman RR, Herrin J, Wittlin NM, et al. (2018) Association of Clinical Specialty With Symptoms of Burnout and Career Choice Regret Among US Resident Physicians. *JAMA.* 320(11): 1114–1130.
- Woodworth PA, Chang FC, Helmer SD (2000) Debt and other influences on career choices among surgical and primary care residents in a community-based hospital system. *Am J Surg.* 180(6): 570-575.
- Jothula KY, Ganapa P, Sreeharshika D, Naidu NK (2018) Study to find out reasons for opting medical profession and regret after joining MBBS course among first year students of a medical college in Telangana. *International Journal of Community Medicine and Public Health.* 5(4): 1392-1396.
- Ikram M, Maryam R, Khan RMS, Latif A, Butt M, et al. (2019) Choosing, regretting, and learning in medical education. *PPJMHS.* 13(3): 596-598.
- Wouters A, Croiset G, Isik U, Kusurkar RA (2017) Motivation of Dutch high school students from various backgrounds for applying to study medicine: A qualitative study. *BMJ Open.* 7(5): e014779.
- Polyakova M, Persson P, Hofmann K, Jena AB, Newhouse RL (2020) Does medicine run in family – Evidence from three generations of physicians in Sweden: Retrospective observational study. *BMJ.* 371.
- Huda N, Yousuf S (2006) Career preference of final year medical students of Ziauddin Medical University. *Education for Health.* 19(3): 345-353.
- Le K, Murata A, Tahara M, Komiyama M, Ichikawa S, et al. (2018) What determines medical students' career preference for general practice residency training? A multicenter survey in Japan. *Asia Pac Fam Med.* 17: 2.
- Levallant M, Levallant L, Lerolle N, Vallet B, Hamel-Broza J (2020) Factors influencing medical students' choice of specialization: A gender based systematic review. *E Clinical Medicine.* 28: 100589.