Desired Future Specialty and Influential Factors Among Medical Students in Al-Ahsa in Saudi Arabia: A Perceptual Study

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Abstract

Background: Future medical specialties must be chosen carefully by medical students. Several motivational and influential factors play a role during the career choice process. Appropriate choice of the medical specialty by students has an influence on the future healthcare delivery and workforce. Medical schools and practicing doctors have an important role for guidance and mentorship for students. This is the first study of its type to be done in College of Medicine, King Faisal University, Saudi Arabia. So, the aim of this study is to assess the desired future medical specialties and what are the motivational and influential factors for such decisions.

Methods: This is a cross-sectional questionnaire based study. The data was collected in a period between January – February 2021, through an online questionnaire. The questionnaire was composed of biographical data, desire of future medical specialty, and the underlying motivational and influential factors.

Results: This study enrolled 301 medical students with nearly two-thirds (65.8%) males. It was found that the most commonly indicated perceived specialty was pediatrics (8.3%), followed by internal medicine (8%), orthopedic (6.6%) and general surgery (6.6%). The most commonly mentioned source of advice regarding specialty was family (38.4%), followed by practicing doctors (33.5%) and friends (18.4%). It is found that the top 5 most common reasons for choosing future specialty were; good outcomes on patients, followed by having a good social life, high income, good reputation and prestige, and a challenging specialty.

Conclusion: College of Medicine in King Faisal University needs to engage the practicing doctors with students for better guidance and mentorship. The extra-curricular mentorship programs need to be implemented from the first year of college, so students have a wider range of exposure towards different specialties.

Key words: Influential, medical students, specialty, King Faisal University, Saudi Arabia.

Introduction

Medical students are in continuous confusion regarding what future specialty they need to choose; it is considered a disconcerting experience. It is necessary to go through a good career choice process, to shape up a good career. Medical schools worldwide involve graduate and undergraduate students getting acquainted with different medical specialties, which can be an influencing factor when applying for a residency training program. Thus, medical schools play an important role to guide students to their proper pathways (1, 2). With that being said, a number of medical students already have a strong preference for a specific specialty, even prior to enrolling in medical schools (1-3).

Choosing the desired specialty and residency program has a strong impact on the future healthcare delivery as well as on the future workforce in the healthcare system, particularly in times of oversupply or shortage of physicians in different specialties (1-3, 5). Moreover, in the 1980s, "career counseling" specialty was introduced to guide students in setting the priorities and plans for their future concerning their career paths, which might be helpful to medical students (2).

Furthermore, the decision-making process of medical students to choose their specialty is supposed to be filled with passion and enthusiasm, in contrast, studies have found that this process was imposing stress and pressure on students (4). The 2020 report of The Association of American Medical Colleges (AAMC) on Residents, reported that only 26.1 percent of medical students have manifested the same interest in the specialties that they have chosen before the completion of medical school (6).

There are multiple factors that play an important role in making that decision, such as, controllable lifestyles, job vacancies, social status or even the expected income (2, 3, 4, 7). Furthermore, gender usually influences the decision process when choosing the specialty (5, 8).

Studies have shown and classified a number of specialties with controllable lifestyle, where physicians are in control of their working hours, such as "radiology, neurology, pathology, psychiatry, ENT, and dermatology" (2). In contrast, it was explored that "surgery, internal medicine, family practice, pediatrics, orthopedic surgery, and obstetrics & gynecology" are non-controllable lifestyle specialties (8).

The lack of realizing what are the medical students' desired specialties and their underlying motivations by the medical schools could influence the future workforce in the healthcare system and healthcare delivery significantly. This is the first study of its type to be done in the Eastern region in King Faisal University, Saudi Arabia. So, the aim of this study is to assess the medical students' future specialty career and what are the influencing factors in King Faisal University, Saudi Arabia.

Methodology

This is qualitative cross-sectional questionnaire based study, that was performed among medical students and interns in College of medicine, King Faisal University, Saudi Arabia, as an example of a single medical institute. The data was collected through an online questionnaire, in the period between January – February 2021. The total number of students who filled in the questionnaire was 301. The questionnaire used in this study was obtained from a previous study in the literature with similar research objectives (13). Informed consent was obtained stating the demands of the study before doing the questionnaires with those who agreed to participate and who were enrolled. There were no exclusion criteria.

Statistical Analysis

Descriptive statistics were presented using numbers and percentages. The relationship between clinical exposure to general, orthopedic and plastic surgery in regards to the different clinical scenarios was conducted using Chi-square test. P-value of 0.05 was considered statistically significant. A multivariate regression was also performed for selecting plastic surgery based on prior clinical exposure to plastic, orthopedic and general surgery where the odds ratio as well as 95% confidence interval were also reported. All data analyses were carried out using Statistical Packages for Software Sciences (SPSS) version 21 Armonk, New York, IBM Corporation.

Results

This study enrolled 301 medical students to evaluate their perception regarding desired future specialty. Table 1 presents the socio demographic characteristics of the medical students. The most common age group was 22 – 24 years old (48.5%) with nearly two-thirds (65.8%) males. With respect to their academic year level, 21.3% were in the fifth year level, 19.9% were fourth year and 19.6% were third year level. Furthermore, nearly 60% obtained grades between 4.5 – 5 GPA. In addition, 61.5% received advice regarding future specialty. The most commonly mentioned source of advice regarding specialty was family (38.4%), followed by practicing doctors (33.5%) and friends (18.4%).

Figure 1, shows the perceived specialty choices by the medical students. It was found that the most commonly indicated perceived specialty was pediatrics (8.3%), followed by internal medicine (8%), orthopedic (6.6%) and general surgery (6.6%) while histopathology (0.7%) and psychiatry (0.7%) were the least chosen.

Table 1: Socio demographic characteristics of medical students (n=301)

Study Variables	N (%)
Age group	
• 18 – 21 years	141 (46.8%)
• 22 – 24 years	146 (48.5%)
• 25 – 27 years	14 (04.7%)
Gender	
• Male	198 (65.8%)
• Female	103 (34.2%)
Current academic year level	
• First year	51 (16.9%)
• Second year	51 (16.9%)
• Third year	59 (19.6%)
• Fourth year	60 (19.9%)
• Fifth year	64 (21.3%)
• Internship	16 (05.3%)
GPA	
• <4.0	64 (21.3%)
• 4.00 – 4.49	62 (20.6%)
• 4.50 – 5.0 0	175 (58.1%)
Received advice for future specialty	
• Yes	185 (61.5%)
• No	116 (38.5%)
Source of advice (n=185)	
• Family	71 (38.4%)
• Practicing doctors	62 (33.5%)
• Friends	34 (18.4%)
• Faculty staff	14 (07.6%)
• Others	04 (02.2%)

Figure 1: Percentage of perceived specialty choices by the medical students

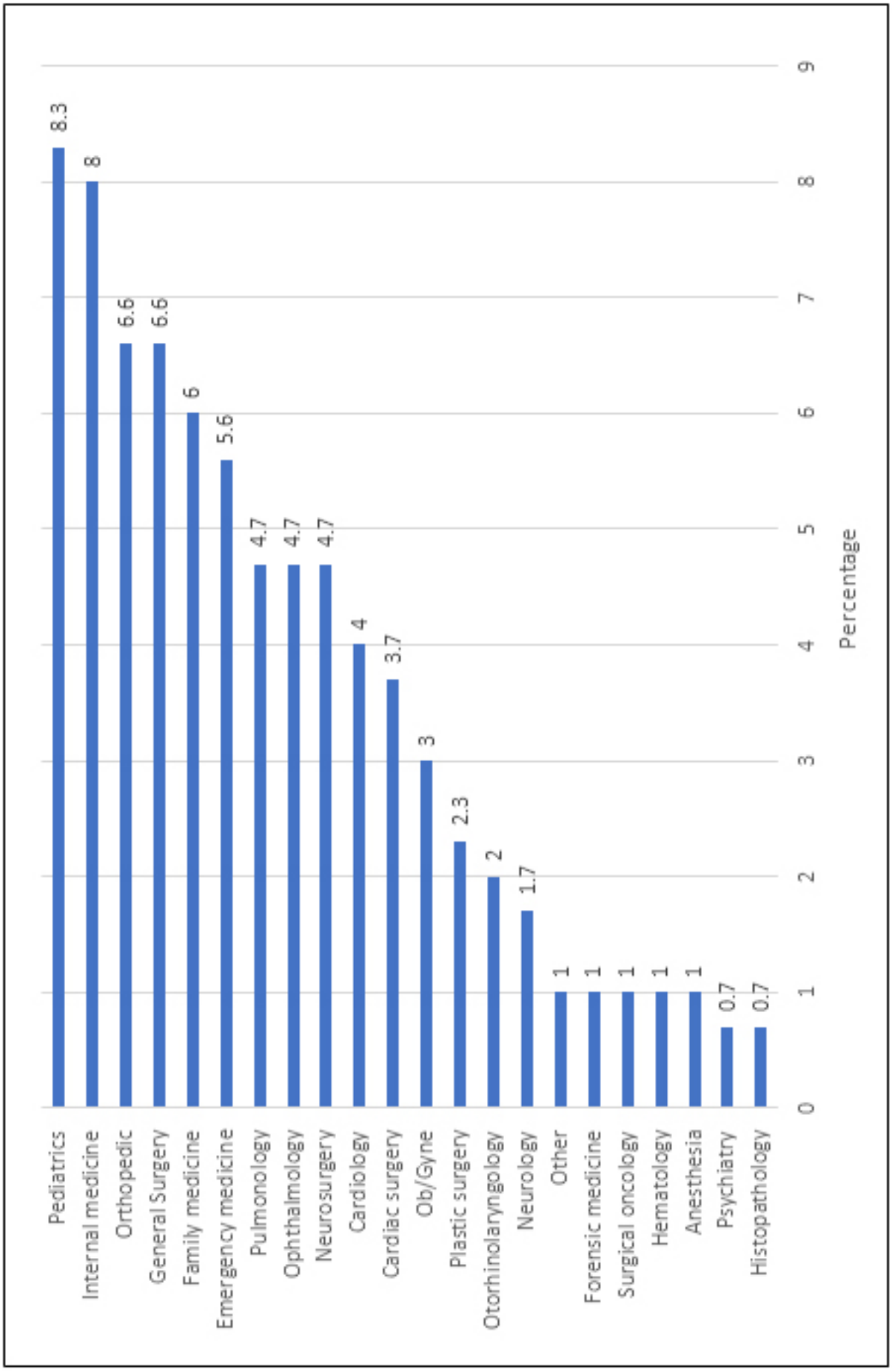

Table 2: Reason for choosing a future specialty of medical students

Reasons		N (%)
1.	I would like to see good treatment outcomes on my patients	131 (43.5%)
2.	I want to have a good social life	118 (39.2%)
3.	I want a high income	97 (32.2%)
4.	I'm looking for specialty with good reputation and prestige	89 (29.6%)
5.	I'm looking for a challenging specialty	85 (28.2%)
6.	I'm looking for a specialty with acceptable working hours	80 (26.6%)
7.	I would like to see a wide variety of patients with different conditions	71 (23.6%)
8.	I had a personal experience that stimulated my interest in this specialty (me/family member had a condition related to the specialty stimulated my interest)	61 (20.3%)
9.	I prefer to treat non-urgent cases	58 (19.3%)
10.	I'm looking for a specialty with acceptable on-call duty	49 (16.3%)
11.	I prefer to treat emergency cases	45 (15.0%)
12.	I'm trying to become like a doctor known to me	42 (14.0%)
13.	I would like to focus on treating patients in clinics (outpatients)	39 (13.0%)
14.	I will have better opportunities in the private sector	38 (12.6%)
15.	I would like to have a long-term relationship with my patients	36 (12.0%)
16.	Lack of specialists in this specialty in my country	35 (11.6%)
17.	I would like to focus on treating patients in the ward (inpatients)	34 (11.3%)
18.	I would like to see a narrow group of patients with specific problems	32 (10.6%)
19.	I want to treat less complicated patients	30 (10.0%)
20.	The specialty I want offers more research opportunities	29 (09.6%)
21.	I'm looking for a specialty program with a short duration	23 (07.6%)
22.	I do not want to have a direct interaction with patients	20 (06.6%)
23.	Other reasons	06 (02.0%)

In Table 2, the top 5 most common reasons for choosing future specialty were; "I would like to see good treatment outcomes on my patients" (43.5%), followed by "I want to have a good social life" (39.2%), "I want a high income" (32.2%), "I'm looking for specialty with good reputation and prestige" (29.6%) and "I'm looking for a challenging specialty" (28.2%) while "I do not want to have a direct interaction with patients" was the least mentioned (6.6%).

Discussion

We have enrolled a total of three hundred and one students as well as interns from college of medicine in King Faisal University, Saudi Arabia. This is the first study to be done to assess the students' perception of their future desired specialty and what are their motivational and influential factors to choose this specialty.

It is found as in figure 1 that the most common desired specialty is pediatrics, followed by internal medicine, orthopedics, general surgery and family medicine. This is opposite to what is found in the literature, where the internal medicine was the most common chosen specialty in Saudi universities (9, 10). Moreover, studies in Pakistan and Germany showed similar results as well (11, 12). However, a study conducted in Kuwait found a similar result as in our students (13). These results could be attributed due to high exposure to these specialties when compared to others as in the case of our university. However, although efforts are made by Saudi Arabia's vision 2030 to increase family medicine's number of physicians, it came as the 5th desired specialty by our students and interns (14). This can be attributed to the fact that family medicine's clerkship in King Faisal University is taught to final year students only, so by that time students may already have chosen other specialties that they have been exposed to and prepared for them well.

Students were asked about whether they were advised for their chosen desired specialty, and 61.5% of students were advised as shown in Table 1. Moreover, the most common source of their advice was from their families, followed by practicing doctors and friends. This is different from a study conducted in Kuwait, in which less than half of participants were advised and the most common source of their advice was from their practicing doctors, followed by families (13). The point of families being the most common source of their advice needs to be highlighted more with our students, as this can be attributed due to parental pressure, family's income, family background. However, this can influence the student's process to choose their desired specialty, and follow the commands of their family members instead, which can lead to unwanted consequences when they proceed with their specialties. However, practicing doctors play an important role in terms of guidance and mentorship for students to help them choose the future specialty, as seen in a study conducted in the United States (15), so they must be more involved with students in King Faisal University to help the students choose the proper future specialty.

It is observed in Table 2 the most common reasons behind their choice of the selected desired future specialty. It is found that the top 5 most common reasons for choosing future specialty were; good outcomes on patients, followed by having a good social life, high income, good reputation and prestige, and a challenging specialty, while avoiding interaction with patients was the least to be mentioned. Two studies conducted in Pakistan and Saudi Arabia, found that the most common influential factor was personal interest, followed by having a role model and the need of the region (11, 16). Another study conducted in Germany, found that students' top motivational factors were the reconciliation between work and family, career goals and workload (12). In Kuwait, the top most common reason was similar to our study, which is having good outcomes for patients (13).

Conclusion

Faculty in College of Medicine in King Faisal University needs to be more involved with students to guide and mentor them throughout their journey to choose their proper specialty, instead of the random assignment of students with the faculties and for a short period of time. Moreover, students need to be enrolled in extra-curricular activities for mentorship from the start of the first year so that they can be exposed to different specialties, which will allow them to build up their experience and preferences.

Limitations:
Although the study achieved its aim, there are several limitations that need to be considered. First, this study was conducted in a single medical institute and does not represent all medical students in Saudi Arabia. Thus, other institutes need to conduct such studies for their own students. Furthermore, this study is a cross-sectional study with small sample size.

References

1- Khader Y, Al-Zoubi D, Amarin Z, Alkafagei A, Khasawneh M, Burgan S, El Salem K, Omari M. Factors affecting medical students in formulating their specialty preferences in Jordan. BMC medical Education. 2008 Dec;8(1):1-7.
2- Vaidya HJ, Emery AW, Alexander EC, McDonnell AJ, Burford C, Bulsara MK. Clinical specialty training in UK undergraduate medical schools: a retrospective observational study. BMJ open. 2019 Jul 1;9(7):e025403.
3- Wright B, Scott I, Woloschuk W, Brenneis F. Career choice of new medical students at three Canadian universities: family medicine versus specialty medicine. Cmaj. 2004 Jun 22;170(13):1920-
4- Aboshady OA, Zenhom MS, Nasr AA. What should medical students do to choose their specialty? Pan African Medical Journal. 2015;22(1).
5- Alawad AA, Khan WS, Abdelrazig YM, Elzain YI, Khalil HO, Ahmed OB, Adam OA. Factors considered by undergraduate medical students when selecting specialty of their future careers. Pan African Medical Journal. 2015;20(1).
6- 2020 Report on Residents Executive Summary [Internet]. AAMC. 2020 [cited 2021Jan28]. Available from: https://www.aamc.org/data-reports/students-residents/interactive-data/report-residents/2020/executive-summaryÂ
7- Scott IM, Matejcek AN, Gowans MC, Wright BJ, Brenneis FR. Choosing a career in surgery: factors that influence Canadian medical students' interest in pursuing a surgical career. Canadian Journal of Surgery. 2008 Oct;51(5):371.
8- Yoshida A, S. Koike HI, Y. Fukuda TH, AK. Boulis JAJ, Riska E, MJ. Goldacre RG, et al. Gender difference in preference of specialty as a career choice among Japanese medical students [Internet]. BMC Medical Education. BioMed Central; 1970 [cited 2021Jan28]. Available from: https://link.springer.com/article/10.1186/s12909-016-0811-1Â

9- Mehmood SI, Kumar A, Al-Binali A, Borleffs JC. Specialty preferences: trends and perceptions among Saudi undergraduate medical students. Medical teacher. 2012 Apr 1;34(sup1):S51-60.
10- Alshahrani M, Dhafery B, Al Mulhim M, Alkhadra F, Al Bagshi D, Bukhamsin N. Factors influencing Saudi medical students and interns' choice of future specialty: a self-administered questionnaire. Advances in medical education and practice. 2014;5:397.
11- Imran S, Khola N, Nadia K, Nehra RA, Khan KA, Qureshi FM. Reasons for choosing specialty after graduation among students of a private medical college in Pakistan. Pakistan Journal of Public Health. 2017;7(2):90-4.
12- Grasreiner D, Dahmen U, Settmacher U. Specialty preferences and influencing factors: a repeated cross-sectional survey of first-to sixth-year medical students in Jena, Germany. BMC medical education. 2018 Dec;18(1):1-1.
13- Al-Fouzan R, Al-Ajlan S, Marwan Y, Al-Saleh M. Factors affecting future specialty choice among medical students in Kuwait. Medical education online. 2012 Jan 1;17(1):19587.
14- AlShamlan NA, Al Shammari MA, Darwish MA, Sebiany AM, Sabra AA, Alalmaie SM. Evaluation of multifaceted assessment of the fifth-year medical students in family medicine clerkship, Saudi Arabia experience. Journal of multidisciplinary healthcare. 2020;13:321.
15- Boyd JS, Clyne B, Reinert SE, Zink BJ. Emergency medicine career choice: a profile of factors and influences from the Association of American Medical Colleges (AAMC) graduation questionnaires. Acad Emerg Med 2009; 16: 544-9.
16- Jamal AA, Al-Furaih IM, Binsufayan SA, Jamalaldeen MR, Abunohaiah IS, Alhuzaymi AM, Alduhaim AA, Alfaris E. Factors Determining the Choice of Medical Specialty and Work Environment Among Saudi Physicians: Results from A National Cross-Sectional Survey. International Journal of Pharmaceutical Research & Allied Sciences. 2018 Apr 1;7(2).