



# Becoming a doctor, what is behind this decision? A comparative study between governmental and private medical school in Saudi Arabia

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## ABSTRACT

**Background:** A large shortage of Saudi physicians has been observed in Saudi Arabia, and in response, a large number of public and private medical schools was launched over the last 15 years. However, the motives of Saudi students to join these medical schools have not been thoroughly studied. **Aim:** To highlight the reasons behind the choice to join the medical profession by senior medical students and whether these reasons vary between students from public or private medical schools. The choice of a future specialty among the senior students and factors affecting this choice were also investigated. **Subject and methods:** This comparative cross-sectional study was conducted at King Abdulaziz University and one of the private medical schools at Jeddah during the year 2014–2015 using a self-administered questionnaire distributed to all sixth year medical students in both schools. **Results:** The most common reason overall for selecting medicine as a profession was a willingness to help patients (51.9%), and this was also the most common reason among male students (56%), while an interest in the medical field (51.1%) was the most common reason among female students (52.4%). Having a high GPA was significantly more common ( $p < 0.001$ ) at the King Abdulaziz University (KAU) medical school compared to the private school. The most frequent future specialties chosen by KAU and private medical school students were medicine (27%) and surgery (26.2%), respectively. Personal interest was a factor rated significantly higher ( $p = 0.02$ ) regarding its effect on students' choices in the KAU medical school. **Conclusion:** Many efforts should be spent to improve the aids available to Saudi students in selecting their profession.

**KEY WORDS:** Medical; Profession; Specialty Choice; Motives; Medical School; Private; KAU.

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## INTRODUCTION

The medical profession is a standard career choice among students with excellent academic performances [1]. Sometimes, there is so much pressure from parents on their children to become a doctor in the future that it makes them sacrifice their own likeness to fulfil the dreams of their parents. This may result in an adverse outcome later in the life of the child [2]. Though some reports have shown that medicine is not among the top professions of choice of today's youth, many traditional families still believe that medicine is a good career option for their offspring [3].

Investigating the pattern of medical school enrolment, the demographic data of the students and their motivations for studying medicine affords a rough assessment of the future prospects of health care in a country and helps in providing guidelines for making improvements to medical schools [4]. On the other hand, career choice is as important to Saudi Arabian students as it is to any other student, and it is considered a complex decision-making process [5]. A previous study in Saudi Arabia reported a strong need for career advice during undergraduate programmes [6].

The proliferation of private and public medical schools was observed over the last 15 years in Saudi Arabia. This was a response from the government to compensate for the large

shortage of Saudi physicians in the country [7]. Only four medical schools existed in Saudi Arabia in 1983, and KAU Faculty of Medicine (FOM) in Jeddah was one of these schools. In 2005, the number of schools was tripled, as there were 13 public and one private [8]. Again, this number doubled by 2010, when the total number of medical schools reached 31 (24 public and seven private) [7]. A paucity of research conducted to study the motivations for pursuing the study of medicine in Saudi Arabia was observed. Therefore, this study aimed to highlight the reasons behind choosing the medical profession by senior medical students, as well as to answer the following queries: how do these reasons vary between governmental and private medical schools? As well, what factors helped senior medical students in making their career choice and what factors affected their choice?

## SUBJECTS AND METHODS

This study was approved by the biomedical research ethics committee of the Faculty of Medicine (FOM) at KAU. This comparative cross-sectional study was conducted in the FOM at KAU and one of the private medical schools at Jeddah during the academic year 2014–2015 using a self-administered questionnaire that was distributed to all sixth year medical students at both schools. The response rate was 55.2% (189/342) among KAU FOM students and 60%

(210/350) among private medical school students.

The used questionnaire was validated in previous studies [9, 10]. A pilot study was conducted among 30 students to enhance face validity. The modified questionnaire was examined by two experts for content validity. The tool of the study was tested for reliability, and the Cronbach's alpha was 0.815. It included demographic characteristics, such as gender, type of secondary school, mothers and fathers' levels of education and mothers and fathers' careers. The students were also asked about the reasons behind their choice of joining the medical profession, about their preferred future specialty and about the factors affecting their choice. The data collected were entered into and analysed by the SPSS software version 16. Data were presented in the form of the number and percentage or mean  $\pm$  standard deviation (SD). A student's t-test was used to compare the means of the two groups, while a chi-square test was used to compare the percentages of the two studied groups. A p value of less than 0.05 was considered significant.

## RESULTS

The total number of 6<sup>th</sup> year medical students who participated in this study was 399 from both KAU and the private medical school, and more than half of the respondents from each school were female (Figure 1). More than two thirds of the students of KAU and of the private medical schools came from public secondary schools, while a very small percentage came from international schools (1.1% and 2.4%, respectively) (Figure 2). It was observed that about 45% of the fathers and mothers of the participants of both KAU and the private medical school hold bachelor's degrees (Figure 3). A large percentage of the fathers of the participants from both medical schools were retired, and the remainder were employers and businessmen. About half of the mothers of the participants from both medical schools were housewives, while about one quarter were teachers or educationalists (Figure 4).

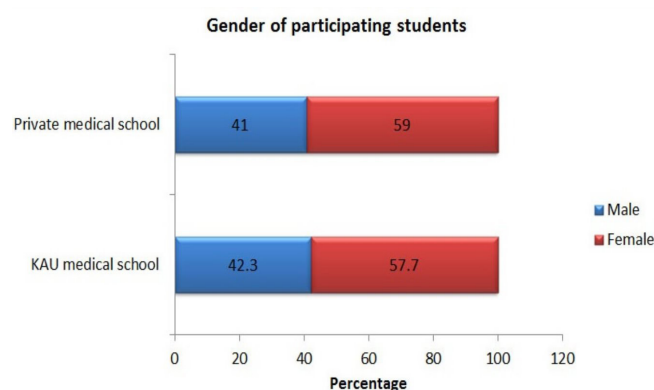


Figure 1. Shows the gender of the participants

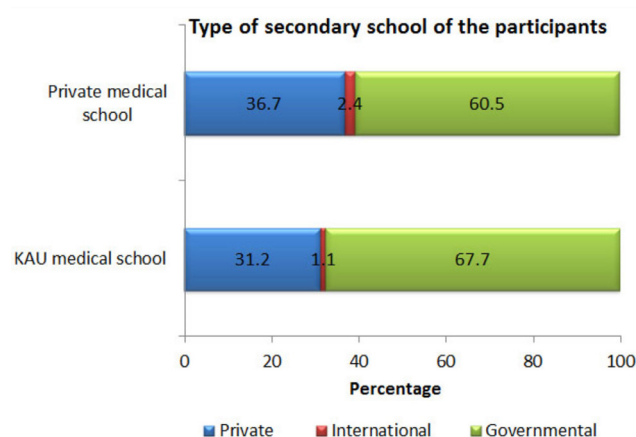


Figure 2. Shows the type of the secondary school of the participants

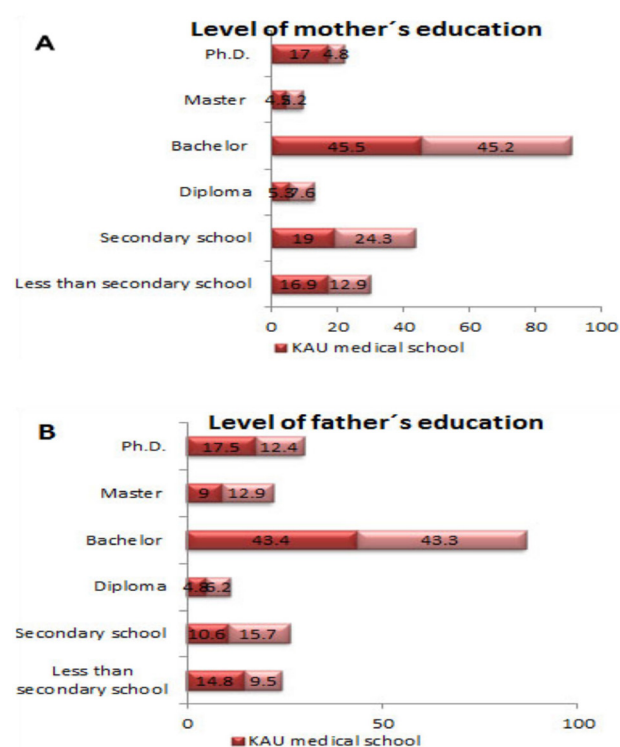


Figure 3. Shows the level of education of the participants mothers and father

Regarding the reasons that the senior students chose the medical profession, it was observed that "getting a high GPA" and "having a prestigious career" were rated significantly higher by the KAU medical school students compared to the private school students. "Like to help patients" and "Interest in the medical field" were the most common reasons for choosing the medical profession, although they represented a non-significant difference between the two schools (Table 1). An interesting finding is that a significantly higher percentage ( $p = 0.003$ ) of male students noted "getting a job easily" as the reason behind choosing the medical profession in comparison to female students (Figure 5).

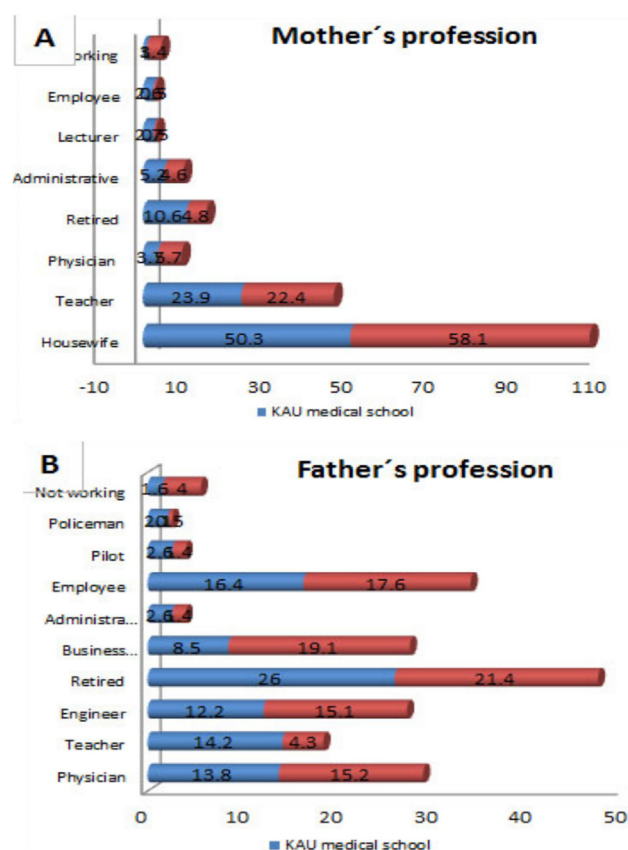


Figure 4. Shows the profession of the participants mothers and fathers

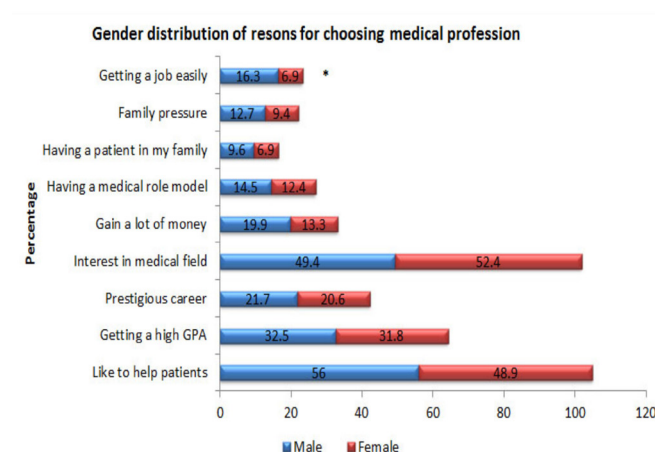


Figure 5. Shows gender distribution of reasons for choosing medical profession

The senior students of the private medical school rated three factors that helped them choose the medical

profession as significantly higher than those of students of the KAU medical school: groups interested in the medical field, career planning workshops and participation in extracurricular activities (Table 2). It was observed that all the factors that could help the students to choose and decide their future profession had a low score that did not exceed 2.

The most common future specialties that were chosen by the students and that showed a significant difference between both medical schools were: medicine, family medicine, dermatology, ENT, emergency medicine and radiology. Surgery was the most common specialty chosen by all the students, showing no significant difference between both schools. A significantly large percentage of the students of the private medical school had not yet decided their future specialty (Figure 6). Surgery and orthopaedics were significantly rated higher ( $p = 0.005$  and  $p = 0.002$ , respectively) by male students compared to female students, respectively. On the other hand, paediatrics, family medicine, emergency medicine and dermatology were rated significantly higher ( $p < 0.001$ ,  $p = 0.04$ ,  $p = 0.04$  and  $p = 0.03$ , respectively) by female students compared to male students, respectively (Figure 6).

When asked about factors affecting the selection of their future specialty, the 6<sup>th</sup> year medical students of the KAU FOM rated "personal interest" and "the duration of the postgraduate programme" significantly higher ( $p = 0.03$  and  $p = 0.04$ , respectively) than the students of the private school. The latter rated "geographical consideration, few responsibilities and effect of role model physician" as significantly higher ( $p = 0.005$ ,  $p < 0.001$  and  $p = 0.002$ , respectively) factors affecting their future carrier choice compared to students of the KAU FOM (Table 3).

## DISCUSSION

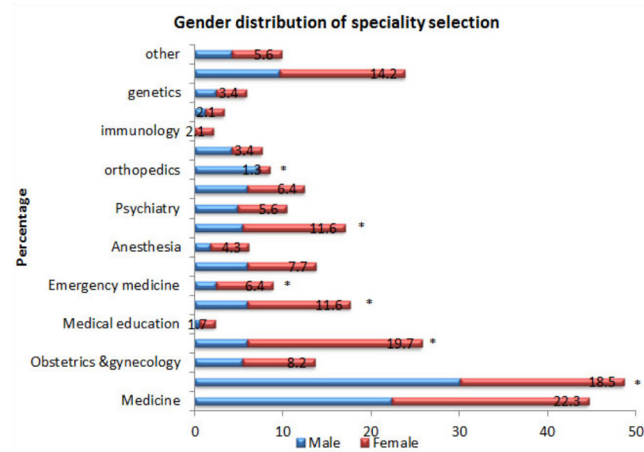


Figure 6. Shows gender distribution of specialty selection

**Table 1.** Reasons behind choosing medical profession by 6<sup>th</sup> year medical students in KAU and the private medical schools.

Reason behind choosing medical profession	KAU medical school Number (%)	Private medical school Number (%)	Total Number (%)	P value
Like to help patients	106 (56.1%)	101 (48.1%)	207 (51.9%)	0.067
Getting a high GPA	92 (48.7%)	36 (17.1%)	128 (32.1%)	<0.001***
Prestigious career	60 (31.7%)	24 (11.4%)	84 (21.1%)	<0.001***
Interest in medical field	90 (47.6%)	114 (54.3%)	204 (51.1%)	0.109
Gain a lot of money	37 (19.6%)	27 (12.9%)	64 (16%)	0.096
Having a medical role model	26 (13.8%)	27 (12.9%)	53 (13.3%)	0.453
Having a patient in my family	17 (9%)	15 (7.1%)	32 (8%)	0.31
Family pressure	22 (11.6%)	21 (10%)	43 (10.8%)	0.357
Getting a job easily	24 (12.7%)	19 (9%)	43 (10.8%)	0.156

Data was presented in the form of number and percentage.

\*p<0.05 is considered significant, \*\*p<0.01 is considered highly significant, \*\*\*p<0.001 is considered extremely significant.

**Table 2.** Factors helping 6<sup>th</sup> year medical students in KAU and the private medical schools in choosing the medical profession.

Factors	KAU medical school Mean±SD	Private medical school Mean±SD	P value *
Career planning program in school	0.29±0.846	0.41±0.940	<b>0.169</b>
Academic Counselling	1.22±1.534	1.36±1.404	<b>0.36</b>
Groups interested in the medical field	0.89±1.380	1.19±1.432	<b>0.036*</b>
Career planning workshops/ school courses	0.59±1.148	0.83±1.241	<b>0.044*</b>
Publications and internet sources	1.38±1.423	1.58±1.453	<b>0.166</b>
Participation in extracurricular activities	1.07±1.405	1.44±1.427	<b>0.010*</b>
Quorate and personality tests	1.16±1.276	1.22±1.206	<b>0.651</b>
University guidance program for career choice	0.97±1.368	0.94±1.257	<b>0.819</b>

Data was presented in the form of Mean ± Standard deviation.

\*p<0.05 is considered significant, \*\*p<0.01 is considered highly significant, \*\*\*p<0.001 is considered extremely significant.

**Table 3.** Factors affecting future specialty selection among the 6<sup>th</sup> year medical students in KAU and the private medical schools

Factors	KAU medical school Mean±SD	Private medical school Mean±SD	P value *
Family's expectations	1.37±1.172	1.58±1.135	0.467
Geographical consideration	0.78±1.097	0.91±1.001	0.005**
life style	1.65±1.118	1.58±1.038	0.197
Little responsibilities	1.07±1.113	1.12±1.094	<0.001***
Research opportunities	1.30±1.148	1.13±1.045	0.308
Duration of the residency program	1.33±1.162	1.28±1.090	0.041*
Availability of postgraduate programs in KSA	1.46±1.169	1.43±1.144	0.051
Rarity of the specialty	1.28±1.101	1.41±1.121	0.327
High income expectations	1.46±1.059	1.56±1.084	0.137
Personal interest	2.30±.956	2.06±1.026	0.024*
Competition	1.43±1.093	1.36±1.150	0.462
High cost of study	0.86±1.029	1.42±1.212	0.462
Plenty of subspecialty choices	1.41±1.110	1.62±1.105	0.521
Influence of a role model physician	1.33±1.087	1.72±1.107	0.002**
Dealing with patients	1.59±1.081	1.73±.995	0.441
The rapid progress of specialty	1.41±1.046	1.56±1.110	0.067
Occupational prestige	1.30±1.096	1.44±1.049	0.384
Qualification exams or selection exam	0.88±1.075	1.12±1.042	0.114
The college programs helping in specialty selection	0.84±1.070	0.86±1.014	0.358

Data was presented in the form of Mean ± Standard deviation.

\*p<0.05 is considered significant, \*\*p<0.01 is considered highly significant, \*\*\*p<0.001 is considered extremely significant.



A recent study declared that a career in medicine, which was once a preferred choice for every student upon completing study in secondary school leaver, has lost its appeal. The best students in school are no longer choosing the medical profession [3]. This study aimed to identify the motives of the senior medical students at both the public and private medical schools to study medicine, as well as to highlight their future specialty preferences and the factors affecting their choices. It was observed that about 69% of both medical school students' fathers hold a bachelor's degree or higher compared to about 55% of the students' mothers, and this finding was in agreement with that of Mukhtar et al. [11]. More than half of the mothers of the students in both medical schools were housewives (50.3% in the KAU FOM and 58.1% in the private school), while one fifth of the students' fathers were retired (26% in KAU and 21.4% in the private school), and the second most common careers of the parents of students in the KAU school (16.4%) and the private school were employers (16.4%) and businessman (19.1%), respectively. A considerable portion of fathers (13.8% in KAU and 15% in the private school) and mothers (3.7% in KAU and 7% in the private school) were doctors. A study conducted in Pakistan showed results consistent with this study [11].

When it came to the reasons for selecting medicine as a profession, in the current study, a willingness to help patients and an interest in the medical field were the most common among the senior students, and this was in agreement with some previous studies [12-14]. On the other hand, a medical professional's social status and financial allowances were listed among the top five reasons for selecting the medical profession [15]. Getting a high GPA was a significantly common reason for choosing the medical profession among the KAU medical school students compared to the private school students, and this is logical, as admission to the public medical school requires a high GPA.

Having a prestigious career is another important factor that draws the attention of students towards the medical profession, and this factor was significantly common among students of the KAU FOM compared to those of the private school (31.7% and 11.4%, respectively). In an Indian study, this factor affected 48.7% of the students in the studied sample [16]. Family pressure to attend medical school was reported by a relatively small percentage of students (11.6% in KAU and 10% in the private school) in contrast to what was reported in other studies worldwide. Parental pressure was a reason for choosing the medical profession among 58% of Pakistani students [11] and 84% of Nigerian students [12]. Gaining much money was a reason or the selection of medicine as a profession among a considerable percentage of students (19.6% in KAU and 12.9% in the private school) in contrast to what was observed by Puljak et al. [17] and Hypollo et al. [18], who stated that financial gains are the pivotal reason for choosing the medical field.

The only significant difference between male and female students was the "getting a job easily" reason, as male students were more concerned about job opportunities (16.3% among males versus 6.9% among female,  $p = 0.003$ ). Male students were more affected by a "medical role model", although there was an insignificant difference compared with the female students, and both of these findings were in accordance with those of Labiris et al. [14]. However, unlike what Labiris et al. [14] determined, male students in this study were more interested in helping patients than female students (56% of males versus 48.9% of females).

In this study, when it came to future specialty preferences, surgery and orthopaedics were rated as significantly higher by male students compared to female students. On the other hand, paediatrics, family medicine, emergency medicine and dermatology were rated significantly higher by female students compared to male students. This was in agreement with Mehmood et al. [6], who observed that male students rated specialties that are in less competitive fields, a shortage of specialists and the diversity of patients as high, while female students rated the prestige of the specialty and teaching opportunities as high. In this study, the senior students of the private medical school rated three factors that helped them choose the medical profession as significantly higher than those of the KAU medical school students: groups interested in the medical field, career planning workshops and participation in extracurricular activities. This finding was supported by AbouZaid et al. [19], who reported that attending educational activities and orientation sessions was significantly associated with career choice decisions, which differed from what was reported by Al-Dabal et al. [20], who included friends and relatives, reading and university visits as the main sources of information regarding choosing of profession.

In conclusion, the most common reasons overall for selecting medicine as a profession included interest in the medical field and a willingness to help patients, with the former reason being the most common among female students and the latter reason being the most common among male students. Having a high GPA was significantly more common among KAU medical school students compared to private school students. Publications and Internet resources were the most helpful in motivating students to choose the medical profession.

The most frequent future specialties chosen by KAU and private medical school students were medicine and surgery, respectively. Medicine was the most frequent specialty among female students, while surgery was the most common specialty among male students. Personal interest was the most common factor affecting the students' choices.

Available aids to help secondary school and university students in selecting their future professions, as well as

those available to help medical students in selecting their future medical specialty, should be revisited. Many efforts should be spent to improve both of these aids. There is an urgent need for a structured programme that guides students in secondary education, as well as during the university preparatory year, in choosing their proper future careers.

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