KFU Medical Students' Perceptions of Medical Professionalism

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ABSTRACT

Background: Transformation of medical students into medical professionals is a core competency required for physicians since training and practice of medicine focus upon character, personal integrity, academic and technical skills. Professionalism is associated with better clinical outcomes. Evidence shows that professionalism affects decision-making, medical errors, patient interactions, patient satisfaction, and health outcomes. Professionalism is taught at the Medical College in King Faisal University (KFU), but the importance is unclear for learners.

Aim: To understand if there is a difference between pre-clinical and clinical students' perception of professionalism among students at the College of Medicine, King Faisal University.

Method: A cross-sectional study was conducted at King Faisal University, College of Medicine. Data were collected through a Google electronic questionnaire involving 296 medical students. Data were analyzed using SPSS version 21.

Result: Of all pre-clinical-year, 97.1% of students had a good perception of personal characteristics that reflect professionalism compared to 85.5% of students during the clinical years. The internal motivation was the most essential characteristic of the personal characteristics at 77.3%, while personal appearance was ranked lowest at 48.6%. 90.9% of respondents rated professionalism regarding respect interactions with patients as extremely important, followed by confidentiality at 87.5%. Moreover, 83.8% of students considered respecting other team members is significant, while 51% agree that dishonesty should be reported.

Conclusion: The results of the analysis showed an increased insight of professionalism among students when it comes to treating members or working with colleagues during a clinical setting.

Keywords: Medical; Perception; Professionalism

INTRODUCTION

Medical doctors' competencies could be determined by several factors, including professionalism. Moreover, the overall outcome of healthcare services is influenced by poor professionalism [1]. Role modeling has been critical in transforming medical students into medical professionals [2]. Currently, medical schools develop medical curricula to explicitly ensure medical students develop competency and understand the attributes and values relating to the role [3]. However, there are divergent perceptions among young learners on the importance of a professional course. Although King Faisal University (KFU) medical college offers the course, there seems to be an unclear understanding among the students on its importance.

Addressing professionalism in medical education is challenging. [4.] Even though several definitions of professionalism in the context of medical education are described in the literature, it is difficult to identify one that is universally applicable, as it is 'context dependent' and includes several different culturally and socially determined qualities and competencies [5]. The American Board of Internal Medicine (ABIM) defines professionalism in three statements: highly committed to excellence, interest in patient welfare, and response to the society's health needs. These statements focus on the main six elements of professionalism: honor and integrity, accountability, altruism, excellence, duty, and respect for others [6].

The subject of professionalism is critically important because it can chart where healthcare has been and where it is headed [7]. Several studies suggest that pre-clinical years' students have different perceptions of professionalism than clinical years' students have, which is due to the application and observation of professional behavior among their senior doctors and consultants within the practice (transmitted by role models), rather than just learning it objectively. A study showed that residents' ideas at King Abdulaziz University Hospital about professionalism are formed in the clinical setting, both by input from seniors (consultants and senior residents) and by that from peers (hospital staff and fellow residents) [8].

Mentoring, role modeling, and exemplifying professionalism are critical in promoting the development of optimal professional behaviors for the next generation of clinicians [8]. This supports the findings of another study held at the College of Medicine in the University of Dammam (Imam Abdulrahman Bin Faisal University (IAU), now), which revealed deficiency in professional behavior among its participant. It was rooted in the concept of decreased number of role models as well as that the curriculum lacked exposing students to the clinical settings in order to enhance their professional behavior [9].

It has been previously argued that professional values are 'caught and not taught in the majority of students [5] and remained largely within the domain of the 'hidden curriculum,' which is defined as the process,

pressures, and limits that exist outside of the traditional curriculum and are frequently unarticulated or unexplored.[9] But, there is another argument that the purpose of teaching the values is to enable 'future doctors to avoid some of the failures of the profession to meet legitimate societal expectations [5].

Due to the importance and impact of teaching medical professionalism, and the fact that students' perception of medical professionalism at the KFU is unclear, this study aimed to check the perception of professionalism among KFU medical students. Also, this study aimed to evaluate the difference in perception of medical professionalism between pre-clinical (year 1-3) and clinical (year 4-5) students and what influences their view of professionalism.

Methods:

This was a cross-sectional study conducted at the KFU College of Medicine in Alahsa, Saudi Arabia, from June 2021 to September 2021 and included KFU students in the College of Medicine ranging from their first year (after the preparatory year) to their fifth year. The inclusion criteria were any student of any gender enrolled in KFU's College of Medicine who was in their first year (after the preparatory year) through the fifth year. The exclusion criteria were students who were not enrolled in the College of Medicine, all students in their preparatory year interns, or any questionnaire with unanswered questions. The sample size was 296 determined using the Richard Geiger equation, with a margin error determined as 5%, a confidence level of 95%, the population as 1270, and 50% for response distribution. The information was collected randomly using an electronic questionnaire made by **Morreale et al.'s study [10].**

Ethical Approval:

The subjects were involved in the study after giving informed consent. The research was submitted to and approved by the KFU College of Medicine Institutional Ethics Committee in Alahsa, Saudi Arabia. The students' confidentiality and the privacy of their data were maintained without any conflicts could lead to ethical issues. This work has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for studies involving humans.

Data analysis

The data were gathered, reviewed, and then inputted into Statistical Package for the Social Sciences v. 21 (SPSS: An IBM Company). The statistical methods adopted comprised two-tail with an alpha level of 0.05 considered significant if P value less than or equal to 0.05. Overall perception level for each domain was assessed by calculating the composite mean score for discrete domain items. Within each professionalism domain, students with a mean score less than 3 were considered to have poor perception levels, students with

a mean score of 3 to less than 4 were considered to have moderate perception levels. In contrast, students with a mean score of 4 to 5 were considered a good perception level. Descriptive analysis was done by prescribing frequency distribution and percentage for students' academic year, gender, and medical professionalism items. Cross tabulation for showing the distribution of students' perception level by their gender and academic year was carried out with Pearson chi-square test for significance and exact probability test if there were small frequency distributions.

RESULTS

A total of 296 medical students at the college of medicine, KFU, who fulfilled the inclusion criteria completed the study questionnaire. The distribution of the participating students according to their academic year and gender is shown in table 1.

Table 2 reveals the distribution of medical students' perceptions regarding professionalism in KFU, Saudi Arabia. As for personal characteristics, 77.4% of the students think that internal motivation is essential. This high perception was also for the importance of self-improvement (76%), avoiding abuse of power (75.7%), adhering to ethics (75.3%), and reliability inpatient care (74%), commitment to learning (69.3%), and punctuality (66.6%). The lowest rank of importance was for personal appearance (48.6%). As for interaction with patients' professionalism issue, As for interaction with patients' professionalism issue, 90.9% ranked respect for the patient as an essential item, followed by confidentiality (87.5%), respect for family (73.6%), and patient concerns first (66.6%), and patient involvement in the decision (87.5%). However, we do not have enough evidence to say that students can do better than guessing as the P value was 0.72.

Concerning social responsibility, 70.6% of the students ranked improving access to care as a critical issue. In comparison, 67.9% ranked high importance for treating the underprivileged, 61.5% said teaching and disseminating knowledge are essential. Only 56.1% considered the management of conflict of interest as necessary. Regarding interaction with the team, 83.8% of students think respect for other members is fundamental, while 51% believe they should report dishonesty.

Figure 1 shows factors that influenced students' view on professionalism at the college of medicine, KFU, Saudi Arabia. The most-reported factors among students were professional development (PD) line curriculum (51%; 151).

Figure 2 illustrates medical students' perception of medical professionalism in KFU, Saudi Arabia. The highest level of perceived medical professionalism (good perception) was for interaction with patients (97.3%) and as the P value not matched the personal characteristics became the highest significant (92.2%).

Table 3 shows the distribution of medical students' perception regarding medical professionalism by their

academic year, KFU. A good perception level regarding personal characteristics was detected among 97.1% of students at the pre-clinical academic years in comparison to 85.5% of clinical years' students with recorded statistical significance. Despite 98.8% of students in the pre-clinical years had good perceptions regarding interaction with patients compared to 95.2% of those in their clinical years we will not considered for aforementioned reason. Perception regarding social responsibility and interaction with the team was insignificantly better among students at pre-clinical years than clinical year students.

Table 4 reveals the distribution of medical students' perception regarding medical professionalism by their gender, KFU. Although good perception was higher among male students than among females, all domains were considered insignificant.

Table 1. Personal data of sampled medical students, KFU, Saudi Arabia

Personal data	No	%
Academic year		
1st	70	23.6%
2nd	57	19.3%
3rd	45	15.2%
4th	88	29.7%
5th	36	12.2%
Gender		
Male	85	28.7%
Female	211	71.3%

Table 2. Distribution of medical students' perception regarding medical professionalism in KFU, Saudi Arabia

|		Not important at all		Not important		Neutral		Important		Very important	
		No	%	No	%	No	%	No	%	No	%
Personal characteristics	Internal motivation	0	0.0%	0	0.0%	23	7.8%	44	14.9%	229	77.4%
	Punctuality	0	0.0%	2	0.7%	19	6.4%	78	26.4%	197	66.6%
	Attendance	1	.3%	0	0.0%	23	7.8%	76	25.7%	196	66.2%
	Appearance	0	0.0%	4	1.4%	30	10.1%	118	39.9%	144	48.6%
	Reliability in patient care	0	0.0%	4	1.4%	19	6.4%	54	18.2%	219	74.0%
	Commitment to learning	0	0.0%	1	0.3%	12	4.1%	78	26.4%	205	69.3%
	Knowledge of limits	0	0.0%	2	0.7%	20	6.8%	84	28.4%	190	64.2%
	Response to assessment	0	0.0%	2	0.7%	31	10.5%	91	30.7%	172	58.1%
	Self-improvement	0	0.0%	0	0.0%	14	4.7%	57	19.3%	225	76.0%
	Honesty	0	0.0%	0	0.0%	20	6.8%	61	20.6%	215	72.6%
	Avoiding abuse of power	0	0.0%	0	0.0%	27	9.1%	45	15.2%	224	75.7%
	Adhering to ethics	2	0.7%	0	0.0%	18	6.1%	53	17.9%	223	75.3%
	Accountability for decisions	0	0.0%	1	0.3%	22	7.4%	85	28.7%	188	63.5%
Interaction	Respect for patients	0	0.0%	0	0.0%	5	1.7%	22	7.4%	269	90.9%
	Patient's involvement in decisions	0	0.0%	1	0.3%	33	11.1%	102	34.5%	160	54.1%
	Confidentiality	0	0.0%	0	0.0%	9	3.0%	28	9.5%	259	87.5%
	Respect for family	0	0.0%	0	0.0%	16	5.4%	62	20.9%	218	73.6%
	Patients concerns first	0	0.0%	0	0.0%	15	5.1%	84	28.4%	197	66.6%
Social	Treating the underprivileged	0	0.0%	0	0.0%	26	8.8%	69	23.3%	201	67.9%
	Improve access to care	0	0.0%	1	.3%	16	5.4%	70	23.6%	209	70.6%
	Just distribution of resources	0	0.0%	1	.3%	51	17.2%	70	23.6%	174	58.8%
	Teach and disseminate knowledge	0	0.0%	2	.7%	15	5.1%	97	32.8%	182	61.5%
	Advocate for patients	0	0.0%	2	.7%	32	10.8%	81	27.4%	181	61.1%
	Manage conflicts of interest	0	0.0%	4	1.4%	32	10.8%	94	31.8%	166	56.1%
Interaction	Respect other members	0	0.0%	0	0.0%	12	4.1%	36	12.2%	248	83.8%
	Report dishonesty	4	1.4%	7	2.4%	42	14.2%	92	31.1%	151	51.0%
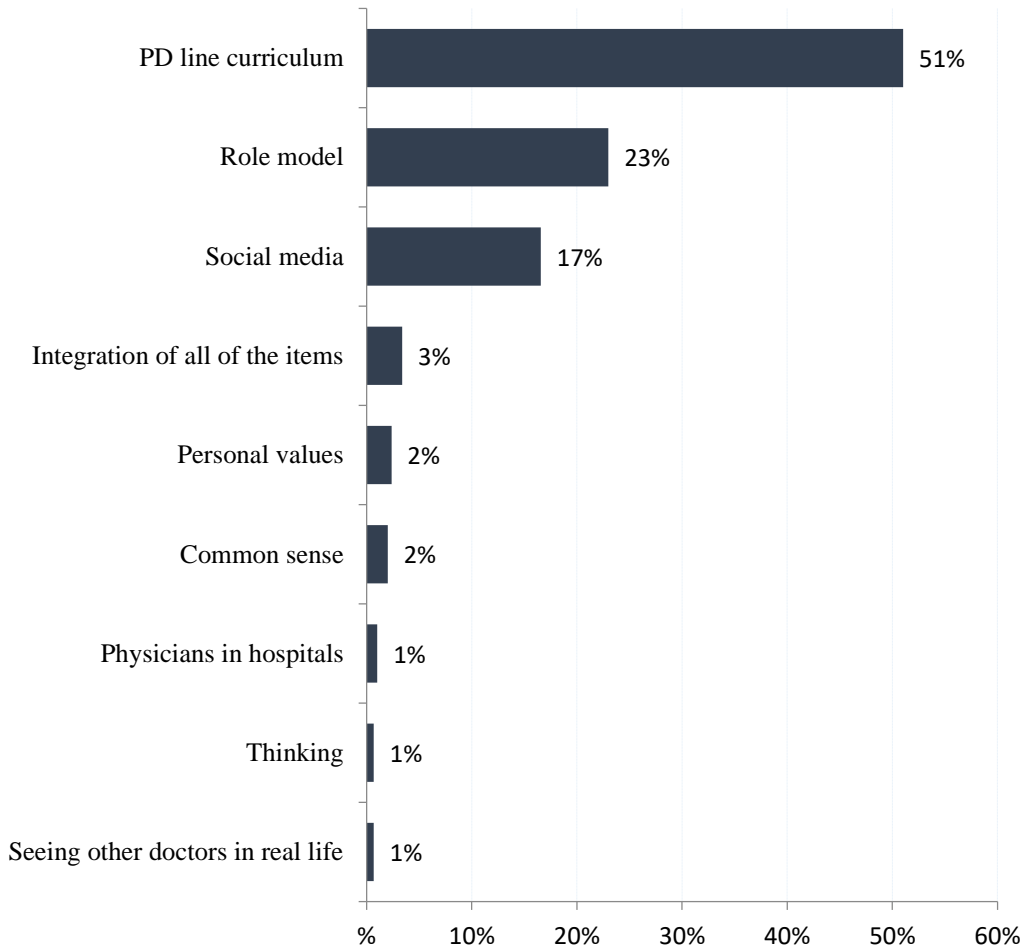
Figure 1. Factors that influenced students to view medical professionalism at the college of medicine, KFU, Saudi Arabia
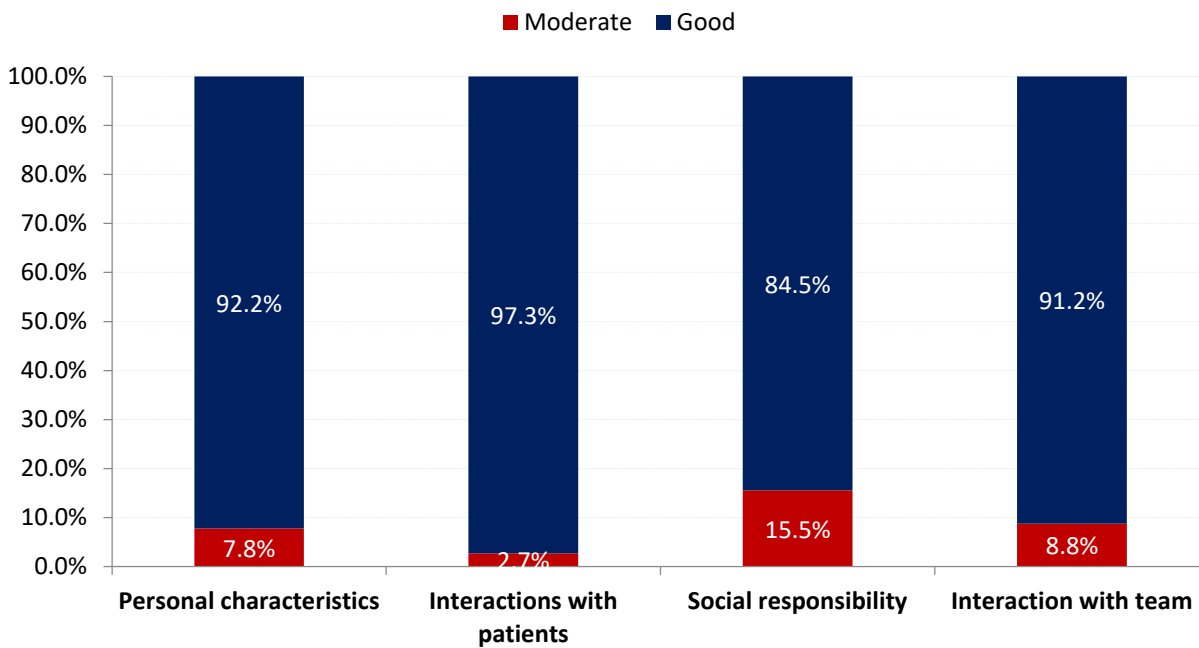

Figure 2. Overall medical students' perception regarding medical professionalism in KFU, Saudi Arabia

Table 3. Distribution of medical students' perception regarding medical professionalism by their academic year, KFU

| Professionalism domain | Academic year | | | | p-value |
| | Pre-clinical | | Clinical | | |
	No	%	No	%	
Personal characteristics					
Moderate	5	2.9%	18	14.5%	<0.001*
Good	167	97.1%	106	85.5%	
Interactions with patients					
Moderate	2	1.2%	6	4.8%	0.072
Good	170	98.8%	118	95.2%	
Social responsibility					
Moderate	25	14.5%	21	16.9%	0.574
Good	147	85.5%	103	83.1%	
Interaction with team					
Moderate	13	7.6%	13	10.5%	0.380
Good	159	92.4%	111	89.5%	

* Significant

Table 4. Distribution of medical students' perception regarding medical professionalism by their gender, KFU

| Professionalism domain | Gender | | | | p-value |
| | Male | | Female | | |
	No	%	No	%	
Personal characteristics					
Moderate	3	3.5%	20	9.5%	0.084
Good	82	96.5%	191	90.5%	
Interactions with patients					
Moderate	0	0.0%	8	3.8%	0.110
Good	85	100.0%	203	96.2%	
Social responsibility					
Moderate	12	14.1%	34	16.1%	0.668
Good	73	85.9%	177	83.9%	
Interaction with team					
Moderate	4	4.7%	22	10.4%	0.116
Good	81	95.3%	189	89.6%	

DISCUSSION

The necessity of professionalism in medical education and developing it in the successful curriculum have received much attention, considering it pivotal in medical education and practice.[5] According to previous research, medical students' understanding of professionalism develops over time [2].

The most important finding was that the source of medical professional development is the professional development line in 51% of 296 medical students at the college of medicine. The result contradicts the findings of a study in Pakistan where most young doctors in public hospitals perceived that the professionalism course in the medical curriculum was unnecessary [2].

Furthermore, at the College of Medicine-University of Sharjah, the pre-clerkship medical students understood the professional behaviors required for doctors even before formal education about professionalism in their curriculum[6]. In addition, some students in the Sharjah study believe that a good role model is the source of their medical professionalism, similar to **Byszewski et al.**'s study[3].

They found the most inspiring part of professionalism, according to the students, is role modelling [6,4].

This appears to confirm the mentioned role of poor medical professionalism among final year medical students, interns, and the residents in the University of Dammam and Pakistani young medical doctors, which was lacking role models[9,10]. Similarly, the University of California, San Francisco, created a long-term curriculum to encourage professional development reflection. By reviewing the reports, they discovered that exemplary and inadequate physician modeling of communication, accountability, and respect for

patients and other health care workers had a significant impact on students[11].

The current study found that internal motivation is the most important matter as a personal characteristic in medical students' perception regarding medical professionalism, followed by punctuality and attendance. In contrast to earlier findings, a previous study demonstrated honesty, adherence to ethics, and reliability in inpatient care to be the essential items[4]. In the social responsibility category, we found improving access to care to be an essential parameter that goes along with what **Rafique** *et al.* previously reported[4]. One exciting finding was to find the respect of other team members as the most ranked factor in interaction with the team.

Gender played a significant role in the perception of medical professionalism in some studies, including this study. Male students had a significantly higher good perception in all of the domains although were not significant. The **Eldeek** *et al.*'s study showed an insignificant difference between the genders [8]. On the other hand, **Spiwak** *et al.* concluded a significant difference between the two sexes; females compared to male learners were highly likely to recognize behavior as unprofessional [12]. **Midik** *et al.* clarified that the student's descriptions of medical professionalism differed by their gender[13].

CONCLUSION

The study aimed at determining the perceived level of medical professionalism among medical students at KFU and the factors that influence students' perceptions of professionalism. The results of the analysis showed an increased insight of professionalism among students when it comes to treating members or working with colleagues during a clinical setting.

This may be attributed to the professional development sessions held during education. Further similar studies may be necessary to determine the effectiveness of these sessions among students and know their impact after graduating medical school.

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