**International Journal of Biology, Pharmacy
and Allied Sciences (IJBPAS)**
'A Bridge Between Laboratory and Reader'

www.ijbpas.com

SUDANESE GRADUATES PERCEPTIONS: WILL THE METHODS OF TEACHING PROFESSIONALISM STRENGTHEN AND FOSTER LEARNING?

MOHAMMED IESA^{1*}, HUSSEIN S. E², MOHAMEDANI A. A³ AND SALAH E. T⁴

1: (PhD, JMHPE), Assistant Professor, Medical education center, Faculty of Medicine, Umm Al-Qura University, Al Qunfudhah, Makkah, Saudi Arabia, [P.O.Box: 715]

2: Professor of community medicine, University of Gezira, Faculty of Medicine., Sudan,
salwasanousi@yahoo.com

3: Professor of pathology, Department of Pathology, University of Gezira, Gezira, Sudan.
amohamedani@gmail.com

4: Professor of Pediatric and child health, National Ribat Ribat University,
almuntasirtaha@yahoo.com

*Correspondence Author: mohamedovi1@gmail.com, maiesa@uqu.edu.sa; [Phone: 00966-1-77461197, Fax: 00966-1-77461197]

Received 25th March 2019; Revised 21st April 2019; Accepted 24th August 2019; Available online 1st Nov. 2019

<https://doi.org/10.31032/IJBPAS/2019/8.11.4875>

ABSTRACT

Medical professionalism is context-specific; however, most studies on professionalism were conducted in Western countries. This study aimed to assess medical students' perceptions of professionalism and to determine whether the teaching of professionalism has been introduced in Sudanese medical schools. Additionally, it aimed to determine how medical students conceptualize professionalism and how appropriate and effective they judge the teaching of professionalism to be, based on their experience. To meet these objectives, questionnaires were distributed to medical students enrolled in 23 medical schools across Sudan. Of the 483 students surveyed, 257 (51.3%) reported receiving lectures on professionalism during their training. Of these, 83 had received lectures on professionalism during their training but in an informal way.

Approximately 6% of the participants who had formal lectures on professionalism during their training were not satisfied with the course. Among 174 graduates who received lectures on medical professionalism during their training, only 29% had clinical experience. The participants reported that their clinical experiences in health centers was useful in that they encountered real cases and directly interacted with health professionals. Overall, while most Sudanese medical schools seem to recognize that explicit learning experiences were necessary to promote professional values and behaviors in medical students, these students found the strategies used to achieve those goals to be inadequate. Thus, there is a dire need to improve the teaching of professionalism in Sudanese medical schools.

Keywords: Professionalism, Sudanese, Quantitative Study, Sudanese Medical School

INTRODUCTION

Professionalism demonstrates the predictable actions and characteristics of medical practitioners (Poole *et al.* 2010). Medical professionalism has several elements, including altruism, accountability, excellence, duty, integrity, and respect. In its widest logic, scope, medical professionalism includes all features of the advanced traits of being a physician, but it could be understood differently by graduates as a profession. Even leading medical organizations have different interpretations and attitudes towards the elements contributing to medical professionalism (Escobar-Poni & Poni 2006). Medical professionalism is a blend of moral commitment (American Board of Internal Medicine 2002)– ABIM) and core attributes (Boudreau *et al.* 2008) demonstrated in explicit behaviors (Greenhalgh *et al.* 2009). Six fields of professionalism were approved

by the American Board of Internal Medicine ABIM in 1995: altruism, accountability, duty, excellence, integrity, honor, and respect. Recently, the assessment of medical professionalism has been at the top of the agenda of the Sudan Medical Council (Karrar 2009).

ABIM's outline (or guidelines) were used in this study because they have been used in several studies in diverse nations to study the characteristics of professionalism during the last decade. It was used not only in the USA—the setting in which it was first established (Robins *et al.* 2002; Lypson & Hauser 2002; Roberts *et al.* 2004; Ratanawongsa *et al.* 2006; Blackall *et al.* 2007; Quaintance *et al.* 2008; Symons *et al.* 2009)—but also in other non-Western nations, such as Taiwan (Tsai *et al.* 2007), Iran (Aramesh *et al.* 2009), and Japan (Suzuki

2009). Adjustable model sizes were enlisted, fluctuating from recording the speeches of only two students (Krych & Vande Voort 2006) up to those of hundreds and sometimes thousands of participants. Researcher's cast-off dissimilar approaches of data gathering. Questionnaires were stated as the most common instrument to self-evaluate medical students' opinions on professionalism (Boudreau *et al.* 2008). Albanese *et al.* (2003) examined students' journals, and Stark and his colleagues (2003) identified subjects of professionalism over directed consideration. Green *et al.* (2009) suggested a respected recommendation to enable dialogue and demonstrate professionalism together in medical education and a clinical setting.

Medical students have different attitudes towards professionalism, and these attitudes have altered over time (Hilton & Slotnick 2005). Accordingly, the final model of perception about professionalism is acquired during the schooling process. Chard (2006) states that medical students and naive doctors see medical practice as a profession that is knowledgeable over internship and well-defined by accountability to patients, and that necessitates virtues such as altruism, self-effacement, and humility. Students' expectations for the characteristics of the

perfect supervisor indirectly reflect their opinions (Albanese *et al.* 2003). Professionalism, for medical students, is linked to not only performances but also to appearance (Finn & Garner 2011). Dressing up as a doctor is powerfully perceived by students as a distinction of being proficient. This perception is specifically significant in the Middle East, where the media presents doctors in the complete uniform, white coats, and glasses. This image is powerfully associated with socialization; medical students copy the appearance and behaviors of their medical teachers. Several studies reported no gender-based variation in attitude toward professionalism in undergraduate medical students (Shah *et al.* 2008; Hauer & Papadakis 2010; Finn & Garner 2011) or postgraduates (Hofmeister *et al.* 2009). Others verified some dissimilarities related to altruism (van Tongeren-Alers *et al.* 2011) and sympathy (Rentmeester 2007). Nath (2006) stated that the teaching of professionalism differs between medical schools and is strongly tied to students' perceptions of the concept of professional. Thus, this factor should be taken into consideration in the curriculum planning process. In another study (Cruess *et al.* 2006), students rated the faculty's

professionalism teaching higher than the faculty rated it.

It is of paramount importance to promote professional attitudes and behaviors in medical schools. Cruess (2006) acknowledges that reasoning and cognitive base are fundamental for teaching professionalism. Fortunately, Hafferty (2006) and Steinhart *et al.* (2007) show that faculty development is an influential instrument for achieving that agreement, and they guarantee that teachers recognize the role they embody in teaching professionalism. However, the bottom line is students' perceptions, and no program can be developed to successfully teach students about professionalism without the faculty acknowledging students' perceptions of this concept. To prepare staff for the above roles, it is necessary to research medical students' perceptions of professionalism. Two schools can be recognized in teaching and learning professionalism in the medical field based on the perception of medical students (Cruess *et al.* 2004). The first school believes that professionalism must be considered principally as a moral obligation, highlighting services, altruism, and the significance of role modeling, self-consciousness, and awareness. The second believes in teaching professionalism using a

clear method by defining professional actions and behaviors (Cruess *et al.* 2004).

Previous findings (Quaintance *et al.* 2008) reveal a difference in the interpretations of professionalism between students with respect to their perception. Other studies (Cruess *et al.*, 2006; Quaintance *et al.*, 2008) have concluded the same result, but they were all conducted in a Western context, not in Sudan. Teachers must acquire cumulative experience in teaching professionalism with relevance to their ethics, their core values, and the Sudanese culture in a Sudanese context. All these ideas about methods for teaching professionalism can be modified and guided by graduates' perceptions, which is the topic of this study.

This study is a situational analysis of teaching professionalism in different faculties of medicine to ultimately design a guideline to teach professionalism to undergraduate medical students in Sudan. To the best of our knowledge, no study has been conducted in Sudan to explore the perceptions and attitudes of Sudanese students toward medical professionalism. The main objective of this study was to assess graduates' perceptions of professionalism. The secondary objectives included the following:

- To determine whether the teaching of professionalism had been introduced in Sudanese schools of medicine and in what form.
- To determine how current graduates conceptualized professionalism and how appropriate and effective they judged the teaching of professionalism to be, as they had experienced it.
- To determine the effectiveness of the methods used in teaching professionalism on students' behavior.

METHODS

Study Design and Participants:

Every year, the Sudan Medical Council, in collaboration with the Ministry of Health, arranges a compulsory one week orientation for all Sudanese medical graduates before they start their internships. This study attempts to validate the six elements of professionalism according to ABIM in the Sudanese context based on the graduates' perceptions. A situational analysis was performed through two questionnaires representing a quantitative study. The questionnaires were distributed to all participants (n, 500) who attended the orientation course in August 2015. **Figure 1** shows the study design.

In this study, ABIM elements were chosen and defined and then validated in the

Sudanese context based on the perception of Sudanese medical graduates. According to ABIM, the framework of professionalism includes altruism, accountability, duty, excellence, integrity, honor, and respect (Table 1).

Questionnaire 1 separated participants into two groups:

- A. Those who answered "YES" had received course(s) on professionalism during medical school training.
- B. Those who answered "NO" had not received lectures course(s) on professionalism during their training in the medical school.

On the second day of the orientation week, questionnaire 2 was distributed to group A participants—those who had taken courses in professionalism through formal and informal learning methods. Questionnaire 2 included questions designed to analyze curriculum material according to the undergraduates' perceptions. This questionnaire had been tested and validated as a tool to assess professionalism (ACGME, 2011). The questionnaire had also been tested by ABIM (1995) and confirmed to be valid as a tool to assess professionalism. Questionnaire 2 was intended to collect general information about the school's

activities related to the teaching of professionalism, which includes four professionalism core values:

1. Reduction of one's self-centeredness in the interest of patients
2. Obeying a high moral and ethical standards
3. Returning to social needs
4. Demonstrating core humanistic standards (e.g., empathy, integrity, altruism, honesty)

The authors selected these four aspects because they have been documented as vital fundamentals of professionalism and because they were believed to be the attributes most likely to be addressed officially by schools and have been applied in Sudan medical council workshops (Karrar 2009).

Data Management and Analysis:

The Statistical Package for the Social Sciences (SPSS Inc., IBM, Chicago IL, US), version 11 was used. Simple descriptive statistics were used to compute percentage values across the data set. Questions were written in English and translated into Arabic to improve students' understanding of the sentences.

RESULTS

A total of 500 participants were targeted, representing twenty-three Sudanese medical schools of these, 483 responded to

questionnaire 1, representing a response rate of 96%. Twelve participants were excluded from the analysis either because they did not graduate from Sudanese faculties or failed to mention their faculties?? (**Table 1**). Females were heavily represented in the sample (68.9%). Among the participants, 257 (51.3%) reported receiving courses on professionalism during their training.

Questionnaire 2 was distributed to the 257 graduates who answered "Yes". Of these, 83 had received lectures on professionalism during their training but in an informal way. Fifty-eight of the 83 participants assumed professionalism was very important, important, or useful to apply during medical school (**Figure 2**). Conversely, among those who had a formal course on professionalism during medical school training (n = 174), 6% were not satisfied with the course while the rest thought the course equipped them with basic knowledge of professionalism. The analysis showed that approximately 16% of the participants strongly agreed that the curriculum of their faculty equipped them with the basic knowledge of medical professionalism (**Figure 3**).

Professionalism Curriculum

Among the 174 graduates who had received courses on medical professionalism

during their training, only 29% had training in professionalism during the clinical phase. The participants reported that their clinical experience regarding the teaching and learning of professionalism in health settings was useful in that they encountered real cases and directly interacted with health professionals. A small proportion of the participants (0.6%) reported that their experience with teaching and learning of professionalism in health settings was not useful (**Figure 4**). Medical students, in general, showed a very high interest in clinical learning, and professionalism (**Figure 5**), reflecting their perception of clinical learning for teaching the concept of medical professionalism. Approximately 64% of the respondents felt that their medical school curricula provided them with major professionalism concepts and encouraged them to work in a team (**Figure 6**).

The survey showed that most of the graduates identified the requirement of reporting professionalism as a critical component of their teaching and some of them described professionalism as “medical ethics”. Even schools that did not offer

formal materials or a course on medical professionalism had a short course on medical ethics that was appreciated by most of the students (73.5%). However, 95% of the respondents who filled out questionnaire 1 responded that they were prepared to acquire or practice professionalism. Even participants from medical schools that did not include professionalism in their curricula believed that professionalism could be taught directly or indirectly.

Table 3 shows how medical graduates perceived the teaching methods used to teach various aspects of professionalism. **Table 4** shows a consensus on student misconduct or behaviors among the participants. In most cases, students considered behaviors such as skipping a class or laboratory session (whether attendance was required or not), leaving lectures before the end, and repetitively arriving late to class as unprofessional. Approximately 55.9% of the surveyed students thought it was unprofessional for a student to leave a class if the quality of the lecture was lower than expected.

Table 1: Description of medical professionalism as recommended by the American Board of Internal Medicine

Element	Simple Description
Altruism	It is the core of professionalism. The best concern of patients, not self-concern, is the rule.
Accountability	It is compulsory at many altitudes - patients, culture and the profession - for satisfying the indirect bond leading the patient/physician connection.
Excellence	It involves careful work to go beyond ordinary prospects and to be committed to life-long learning.
Duty	A self-promise to service patients.
Honor and integrity	A constant concern for the uppermost values of behavior and the rejection to disrupt one's personal and professional codes
Respect for others	Respect the environment; don't blame the environment. Respect for others (patients and their families, other doctors and proficient colleagues, such as nurses, medical students, residents and subspecialty fellows) is the spirit of humanism, and humanism is both vital to professionalism and essential to improving collegiality among all medical professions.

Table 2: Distribution of participants by university

University/College	Frequency	Percent
Al-Imam Elmahdi	39	8.1
Nile College	7	1.4
Khartoum College of Applied Studies	2	0.4
Gadarif University	21	4.3
Gezira University	2	0.4
Omdurman Islamic University	122	25.3
National Ribat University	107	22.2
Elrazi College	3	0.6
Red Sea University	69	14.3
Bahry University	42	8.7
Alfasher University	30	6.2
University of Medical Sciences and Technology	2	0.4
University of Science and Technology	2	0.4
Khartoum University	3	0.6
Sennar University	4	0.8
Al Zaeem Al Azhary University	1	0.2
Kasala University	2	0.4
Bakht Al Reza University	3	0.6
Outside Sudan (Ukraine)	3	0.6
International University of Africa	3	0.6
Shendi University	4	0.8
Sudan International University	1	0.2
National University	2	0.4
Not mentioned	9	1.9

Table 3: Comparison of methods to teach professionalism, social mission and communication skills based on the students' opinions

Teaching methods	Professionalism				Social Mission				Communication Skills			
	Strongly agree	Agee	Agree to some extent	Don't agree	Strongly agree	Agee	Agree to some extent	Don't agree	Strongly agree	Agee	Agree to some extent	Don't agree
Seminars	21.1%	25.5%	9.9%	5.2%	16.8%	29.6%	15.3%	6.4%	9.7%	19.9%	20.5%	17.6%
Assignments	13.0%	20.7%	16.8%	10.8%	13.0%	24.4%	16.4%	13.9%	17.0%	28.2%	16.6%	6.4%
Field visit	24.6%	21.1%	12.2%	3.9%	22.4%	25.5%	12.6%	7.5%	35.2%	23.4%	8.3%	1.7%
Group presentation	28.8%	24.0%	7.2%	1.0%	29.6%	28.8%	7.2%	2.5%	30.0%	28.4%	8.3%	1.7%

Table 4: Distribution of responses to the question, "Are these behaviors considered professional for a medical student?"

Behavior	Yes	No	Don't know
Repetitive late arrival to class	5.4%	85.7%	7%
Checking email, sports, MSN, or news on a laptop during a lecture	6.2%	83.2%	8.3%
Leaving lecture before its conclusion	7.7%	86.3%	3.3%
Leave class if the lecturer's quality is lower than expected	28.2%	55.9%	14.5%
Skip a class or lab in which attendance is required	5.4%	86.5%	6.6%
Skip a class or lab in which attendance is not required	7.5%	81.4%	7.9%
Skipping required school events (e.g. orientation, retreat)	11.8%	71.6%	13.7%
Not filling out the student questionnaire	11.0%	66.5%	19.9%

Figure 1: Schema of the study design

Figure 2: Distribution of responses regarding the importance of introducing a course on medical professionalism in their faculties

Figure 3: Students' agreement or disagreement regarding the question that the curriculum taught at their institution equipped them with the basic knowledge of medical professionalism

Figure 4: Students' grading of the benefit of working health professionals in health centers

Figure 5: Students' agreement or disagreement on the utility of using field visits to teach the concepts of medical professionalism

Figure 6: Medical school curricula provided them with major professionalism concepts and encouraged

DISCUSSION

This study is novel in that it offers a comprehensive description of Sudanese graduates' perceptions of medical professionalism based on elements that reflect the characteristics of medical professionalism defined by ABIM. It focuses not only on graduate's perception of professionalism but also on whether Sudanese medical schools are still lagging in teaching this competency. Additionally, the results revealed that the teaching of

professionalism in undergraduate medical education varies considerably among Sudanese medical schools and the approaches and strategies used to teach professionalism are not always perceived as satisfactory by students. These results suggest that the best teaching approach is the mixed method (student- and teacher-centered) plus educational planning and preparedness.

Most of the participants thought that both the student and educator shared roles in

contributing to the learning and teaching of medical professionalism. The research questions (“What are medical graduates’ perceptions of professionalism in the Sudanese context?” and “How can we teach professionalism?”) seem quite simple, but the answers to these questions remain elusive. Many Sudanese medical schools have endeavored to define professionalism; however, a consensus definition or even a working definition suitable for framing curriculum teaching modules remains elusive. There is no identified teaching method or set of rules that has been shown to be successful in helping students develop a higher standard of professionalism. If professionalism in medical practice cannot be adequately defined, how can it be taught? If professionalism is approached as a set of attributes, as many medical educationists and professional bodies have approached it, then it can be taught as such. Nevertheless, by focusing on component aspects, medical professionals run the risk of losing sight of the “comprehensive concept” that Baldwin and Daugherty (2006) find both elusive and impossible to measure.

Doctors do not become excellent and do not exhibit the characteristics of “professionals” through formal, didactic learning as set by a curriculum. Rather, they

achieve professionalism through experience and reflection on that experience. Medical colleges believe that the best way to train future doctors is to give medical students intensive, long-term clinical experience (i.e., a one-year internship) or offer placements in different teaching hospitals (Rose *et al.* 2005). Certainly, this idea applies to all faculties of medicine in Sudan. In this survey, the graduates perceived professionalism to be most related to clinical practice—that is, when interacting with patients as a doctor and when working with colleagues and other professionals. However, the association of these themes was not equally exclusive. The famous medical educationist Hafferty (2006) interviewed medical students using an informal technique and found a variety of themes that were invariably identified by these students. He reported that the students had a strong individualistic sense of the medical professional, refusing to accept the concept of subservience of self-interest and commitment (through taking an oath) to the profession, although they acknowledged it was important for them to look the part. Because they were already enrolled as medical students, with oath swearing not being a requirement for admittance, they felt eligible by virtue of this approval. They also

felt privileged because they had already been admitted into medical school, with swearing allegiance not being part of the admissions process. For these students, “all values and principles lie in the individual” (F. Hafferty, 2006). Hafferty’s students did not think it was worth adhering to professional standards. His students also did not appear to know the meaning or understand the importance of altruism. Thus, Hafferty (2006) determined that incoming medical students at his college were ill-equipped to understand the key traits of professionalism.

Similar to the study conducted by Hafferty (2006), Wear and Zarconi (2008) explained the cause of dismay and hope among students. The investigators reviewed capstone essays, which were a requirement for students to join training programs and found that students were wary of professionalism and described it as “being pushed down their throats”. The students believed they valued compassion and altruism when they got into medical school, but as they began clinical practice, they found that these virtues were challenged. In practice, competence and productivity were of utmost importance, while sympathy and compassion were meaningless. Thus, Wear and Zarconi (2008) suggested training more competent individuals who can uphold strong

values and ensure that students are offered opportunities to debrief and reflect on their positive and negative experiences with faculty members that they can trust.

Jha (2006) and Monrouxe (2011) reported that medical students valued looking the part of the professional. Conversely, they dissented on the importance and practicability of altruism. Wagner and his team (2007) conducted a study that assessed medical students’, residents’, academic faculties’, physicians’, and patients’ understanding of the meaning of professionalism. As the investigators expected, students just beginning to mentally visualize the patient relationship shared mental models more similar to the patients’ than that of residents or academic staff. This mindset manifested in a focus on the patient-doctor relationship itself, with an emphasis on respect and character virtues. Compared to the other groups investigated, students were more worried than residents and academic staff that they could potentially hurt a patient (Wagner *et al.* 2007). Furthermore, Wagner *et al.* (2007) found that participants’ knowledge and attitudes improved across all the groups assessed. Students and patients concentrated on the quality of the relationship between the patient and their physician, whereas residents

and university staff focused on knowledge and skills.

Egnew and Wilson (2010) reported that faculty who gave lectures on professionalism in lecture rooms were absent in the clinical setting, and students perceived that these lecturers were uninformed about typical patient-doctor interactions. Clinical educators thought that professionalism had to be taught in a clinical setting where students had the opportunity to interact with patients, and not in a classroom. Although general practitioners were responsible for providing criticism and feedback to students regarding professionalism competencies, they did so inconsistently and inefficiently. The informal feedback from general practitioners and junior staff was considered beneficial. In another report (Fehser 2002), medical students were found to be mostly critical of the teaching of professionalism. Additionally, based on personal accounts and that of other medical students, Brainard and Brislen (2007) reported that the main issue was the divide between what was taught in the curriculum and how lecturers behaved. Additionally, they found that students felt that medical staff and faculty members were protected by the hierarchy while the students were humiliated by their superiors and

emerged jaded after graduating from medical school.

This study has all the limitations inherent to cross-sectional surveys. However, the results of this study can serve as preliminary data for researchers aiming to assess the teaching of medical professionalism in Sudanese medical schools. Future studies should consider exploring faculty development and curricular interventions, which may be useful for promoting an institutional culture that supports professionalism.

CONCLUSION

Sudanese graduates perceive professionalism as a social contract with the general public, which recognizes doctors as professionals by their good behavior, high values, and positive attitudes related to clinician ship, workmanship, and citizenship. These students learn professionalism first from formal, structured, traditional didactic sessions (lectures) and then move into real clinical environments where learning is both formal and informal. While most Sudanese medical schools seem to recognize that explicit learning experiences are necessary to promote professional values and behaviors in medical students, their graduates found the strategies used to achieve those goals to be inadequate. Therefore, there is a dire need to

improve the teaching of professionalism in Sudanese medical schools.

Practice Points

- Sudanese medical schools need to take major steps to impart professionalism in students.
- Steps should be taken to offer real cases that can help medical students learn about professionalism.
- Strategies are required to improve and discuss ways in which students can continue to progress. Thus, it is crucial to develop a supportive institutional culture.

ACKNOWLEDGMENTS

The authors wish to acknowledge the Sudan Medical Council and Ministry for providing access to medical students across all Sudanese medical schools.

Declaration of Interest

The authors report no declaration of interest to report in relation to this work.

REFERENCES

- [1] Albanese MA, Snow MH, Skochelak SE, Huggett KN, Farrell PM. 2003. Assessing personal qualities in medical school admissions. *Acad Med J Assoc Am Med Coll.* 78:313–321.
- [2] American Board of Internal Medicine. 2002. Physician Charter. ABIM Found [Internet]. [cited 2019 Jun 1]. Available from: <https://abimfoundation.org/what-we-do/physician-charter>
- [3] Aramesh K, Mohebbi M, Jessri M, Sanagou M. 2009. Measuring professionalism in residency training programs in Iran. *Med Teach.* 31:e356-361.
- [4] Baldwin D, Daugherty S. 2006. Using Surveys to assess Professionalism in Individuals and Institutions. In: Stern DC Ed *Meas Med Prof.* USA: Oxford University Press; p. 95–117.
- [5] Blackall GF, Melnick SA, Shoop GH, George J, Lerner SM, Wilson PK, Pees RC, Kreher M. 2007. Professionalism in medical education: the development and validation of a survey instrument to assess attitudes toward professionalism. *Med Teach.* 29:e58-62.
- [6] Boudreau JD, Jagosh J, Slee R, Macdonald M-E, Steinert Y. 2008. Patients' perspectives on physicians' roles: implications for curricular reform. *Acad Med J Assoc Am Med Coll.* 83:744–753.
- [7] Brainard AH, Brislen HC. 2007. Viewpoint: learning professionalism: a

- view from the trenches. *Acad Med J Assoc Am Med Coll.* 82:1010–1014.
- [8] Chard D, Elsharkawy A, Newbery N. 2006. Medical professionalism: the trainees' views. *Clin Med Lond Engl.* 6:68–71.
- [9] Cruess R, McIlroy JH, Cruess S, Ginsburg S, Steinert Y. 2006. The Professionalism Mini-evaluation Exercise: a preliminary investigation. *Acad Med J Assoc Am Med Coll.* 81:S74-78.
- [10] Cruess SR, Johnston S, Cruess RL. 2004. "Profession": a working definition for medical educators. *Teach Learn Med.* 16:74–76.
- [11] Egnew TR, Wilson HJ. 2010. Faculty and medical students' perceptions of teaching and learning about the doctor-patient relationship. *Patient Educ Couns.* 79:199–206.
- [12] Escobar-Poni B, Poni ES. 2006. The role of gross anatomy in promoting professionalism: A neglected opportunity! *Clin Anat.* 19:461–467.
- [13] Fehser J. 2002. Teaching professionalism: a student's perspective. *Mt Sinai J Med N Y.* 69:412–414.
- [14] Finn GM, Garner J. 2011. Twelve tips for implementing a successful peer assessment. *Med Teach.* 33:443–446.
- [15] Green M, Zick A, Makoul G. 2009. Defining professionalism from the perspective of patients, physicians, and nurses. *Acad Med J Assoc Am Med Coll.* 84:566–573.
- [16] Greenhalgh T, Potts HWW, Wong G, Bark P, Swinglehurst D. 2009. Tensions and paradoxes in electronic patient record research: a systematic literature review using the meta-narrative method. *Milbank Q.* 87:729–788.
- [17] Hafferty F. 2006. Measuring Professionalism: A Commentary. In: Stern DT Ed *Meas Med Prof.* USA: Oxford University Press.; p. 392.
- [18] Hafferty FW. 2006. Definitions of professionalism: a search for meaning and identity. *Clin Orthop.* 449:193–204.
- [19] Hauer KE, Papadakis MA. 2010. Assessment of the Contributions of Clinician Educators. *J Gen Intern Med.* 25:5–6.
- [20] Hilton SR, Slotnick HB. 2005. Proto-professionalism: how professionalisation occurs across the

- p>continuum of medical education. Med Educ. 39:58–65.
- [21] Hofmeister M, Lockyer J, Crutcher R. 2009. The multiple mini-interview for selection of international medical graduates into family medicine residency education. Med Educ. 43:573–579.
- [22] Jha V, Bekker HL, Duffy SRG, Roberts TE. 2006. Perceptions of professionalism in medicine: a qualitative study. Med Educ. 40:1027–1036.
- [23] Karrar K. 2009. Professionalism and good medical practice: the role of Sudan Medical Council. Sudan Med J. 45:1–4.
- [24] Krych EH, VandeVoort JL. 2006. Medical students speak: a two-voice comment on learning professionalism in medicine. Clin Anat N Y N. 19:415–418.
- [25] Lypson ML, Hauser JM. 2002. Talking medicine: a course in medical humanism--what do third-year medical students think? Acad Med J Assoc Am Med Coll. 77:1169–1170.
- [26] Monrouxe LV, Rees CE, Hu W. 2011. Differences in medical students' explicit discourses of professionalism: acting, representing, becoming. Med Educ. 45:585–602.
- [27] Nath C, Schmidt R, Gunel E. 2006. Perceptions of professionalism vary most with educational rank and age. J Dent Educ. 70:825–834.
- [28] Poole P, Moriarty H, Wearn A, Wilkinson T, Weller J. 2010. Medical Student Selection in NZ: Looking to the Future. N Z MedicalStudent J. 123.
- [29] Quaintance JL, Arnold L, Thompson GS. 2008. Development of an instrument to measure the climate of professionalism in a clinical teaching environment. Acad Med J Assoc Am Med Coll. 83:S5–8.
- [30] Ratanawongsa N, Bolen S, Howell EE, Kern DE, Sisson SD, Larriviere D. 2006. Residents' Perceptions of Professionalism in Training and Practice: Barriers, Promoters, and Duty Hour Requirements. J Gen Intern Med. 21:758–763.
- [31] Rentmeester CA. 2007. Should a good healthcare professional be (at least a little) callous? J Med Philos. 32:43–64.

- [32] Roberts LW, Green Hammond KA, Geppert CMA, Warner TD. 2004. The positive role of professionalism and ethics training in medical education: a comparison of medical student and resident perspectives. *Acad Psychiatry J Am Assoc Dir PsychiatrResid Train Assoc Acad Psychiatry*. 28:170–182.
- [33] Robins LS, Braddock CH, Fryer-Edwards KA. 2002. Using the American Board of Internal Medicine’s “Elements of Professionalism” for undergraduate ethics education. *Acad Med J Assoc Am Med Coll*. 77:523–531.
- [34] Rose GL, Rukstalis MR, Schuckit MA. 2005. Informal mentoring between faculty and medical students. *Acad Med J Assoc Am Med Coll*. 80:344–348.
- [35] Shah N, Anderson J, Humphrey H. 2008. Teaching Professionalism: A Tale of Three Schools. *Perspect Biol Med*. 51:535–546.
- [36] Stark P. 2003. Teaching and learning in the clinical setting: a qualitative study of the perceptions of students and teachers. *Med Educ*. 37:975–982.
- [37] Steinert Y, Cruess RL, Cruess SR, Boudreau JD, Fuks A. 2007. Faculty Development as an Instrument of Change: A Case Study on Teaching Professionalism: *Acad Med*. 82:1057–1064.
- [38] Suzuki N. 2009. How ought to be the specialists of neurology certified by Japanese Society of Neurology. *Rinsho Shinkeigaku*. 49:745–746.
- [39] Symons AB, Swanson A, McGuigan D, Orrange S, Akl EA. 2009. A tool for self-assessment of communication skills and professionalism in residents. *BMC Med Educ*. 9:1.
- [40] van Tongeren-Alers M, van Esch M, Verdonk P, Johansson E, Hamberg K, Lagro-Janssen T. 2011. Are New Medical Students’ Specialty Preferences Gendered? Related Motivational Factors at a Dutch Medical School. *Teach Learn Med*. 23:263–268.
- [41] Tsai T-C, Lin C-H, Harasym PH, Violato C. 2007. Students’ perception on medical professionalism: the psychometric perspective. *Med Teach*. 29:128–134.

- [42] Wagner P, Hendrich J, Moseley G, Hudson V. 2007. Defining medical professionalism: a qualitative study. *Med Educ.* 41:288–294.
- [43] Wear D, Zarconi J. 2008. Can Compassion be Taught? Let's Ask Our Students. *J Gen Intern Med.* 23:948–953.