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Preclerkship medical students' perceptions of medical professionalism in the College of Medicine-University of Sharjah: A vision to sustain success in medical education

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Abstract:

INTRODUCTION: Professionalism is an essential theme in both undergraduate and postgraduate medical education. The current study aimed to assess the preclerkship medical students' perception on medical professionalism.

METHODS: A cross-sectional qualitative study using the critical incident technique was conducted at the University of Sharjah in the United Arab Emirates (UAE). An online survey was sent to 300 medical students (years 1–3). Participants were asked to describe an official doctor–patient encounter that they have experienced in a health-care setting and to highlight the professional behaviors in that encounter. They were then requested to list the top five characteristics of a professional doctor. Thirty (10%) medical students responded to the study; only 13 reported real incidents. The responses were independently reviewed by the authors. The descriptions of the professional attitudes were grouped according to the six domains of professionalism defined by the American Board of Internal Medicine (ABIM) Physicians Charter and then plotted against the nine domains of medical professionalism published in the UAE Consensus Statement.

RESULTS: The most common professional behaviors reported were patience, honesty, respect, and patient care. The participants addressed all six domains of professionalism described by the ABIM physicians charter (altruism, accountability, duty, excellence, honor and integrity, and respect for others) and all the domains of medical professionalism published in the UAE Consensus Statement, except for “commitment to advocacy” and “commitment to education” domains.

CONCLUSION: Preclerkship medical students had an insight about the professional behaviors needed from doctors before formal teaching about professionalism in the curriculum.

Keywords:

Professionalism, undergraduate, University of Sharjah

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Introduction

Professionalism in the medical profession, as defined by the American Board of Internal Medicine (ABIM) in 1990, composed of three commitments: high commitment to excellence, interest in patient welfare, and responsiveness to the health needs

of society. The definition also mentioned six elements of professionalism (altruism, accountability, duty, excellence, honor and integrity, and respect for others).^[1]

In the current era of competency-based medical education, teaching and acquisition of professionalism are considered a

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fundamental requirement for the physicians' ultimate societal responsibilities.^[2] The American Association of Medical Colleges have proposed professionalism to be considered as an essential part of the curriculum in medical schools.^[3] Furthermore, the CanMeds in Canada,^[4] the Accreditation Commission for Graduate Medical Education in the USA,^[5] and SaudiMeds in Saudi Arabia^[6] have included professionalism as one of the competencies in their graduate profiles. Accreditation standards, such as the Liaison Committee on Medical Education^[7] and the World Federation for Medical Education,^[8] have also incorporated professionalism as one of the critical competencies to be gained by students and health professionals.

To understand and plan for the development of professionalism, studies on perception and the latent traits of its concepts have been conducted in different countries. An excellent example of this type of study was performed in Taiwan. The 32-item questionnaire used to assess professionalism was derived from the definition of the ABIM. The three traits perceived as most important were accountability to patients, respect for patients and families, and integrity and prudence.^[9] A study conducted in Australia to measure students' perceptions of professionalism and the teaching of professionalism, students defined professionalism variously using ethics, communication skills, and excellent behavior as the central themes in their definitions.^[10] Some of the students viewed professionalism as a trait related to personal character and upbringing.^[10]

In another study by Mann *et al.*, that sought to determine the perceptions of professionalism by students, faculty, and residents, differing understandings of the concept were revealed among various groups. The qualitative data generated in the study through focus group discussions raised the following themes that were deemed essential for professionalism: knowledge and skills, trust and confidence, and compassion and maturity.^[11] Such variation in perception may lead to differences in teaching and the delivery of messages about professionalism.

Studies of future physicians' perceptions of professionalism could aid in the development and re-shaping of medical school curricula about professionalism.^[9] Most studies on professionalism have concentrated on ethics and ethical decision-making, whereas few studies have concentrated on the application of the study's results to improve teaching and assessment of professionalism.^[9]

The study of professionalism is not common in the Middle-Eastern region, and very few studies and

publications have explored professionalism within this regional context.^[12] A recent study in the Arab world to contextualize the concept of professionalism resulted in the validation of the ABIM domains of professionalism in the Arabian context and the addition of a seventh domain: professional autonomy.^[12] Another study led to the development of the Learner's Attitude of Medical Professionalism Scale.^[13]

In this study, the authors aimed to determine undergraduate medical students' perceptions of medical professionalism in the College of Medicine at University of Sharjah (UoS), United Arab Emirates (UAE) based on their real-life definitions before a formal study is conducted.

Methods

Study setting

The College of Medicine at the UoS, UAE, has a 6-year curriculum; foundation year, preclerkship phase (years 1–3), and clerkship phase (years 4 and 5). The formal teaching of professionalism starts in the clerkship phase.

Study population

The study recruited students from the academic years in the preclerkship phase (years 1–3) who were not exposed to formal teaching on professionalism; assuming that professionalism is a trait that can be extrapolated from daily life and that education can be directed toward supporting the existing good behaviors.

Study design

A cross-sectional qualitative study using critical incident technique (CIT) was conducted at the UoS in UAE. Approval for the study was obtained from the Research Ethics Committee at the UoS. Participants were asked to think of an incident that they had observed or heard about regarding a doctor dealing with a patient during official working hours in a hospital or clinic. Then, if the participants viewed the doctor's behavior as professional, they were asked to describe the incident and the professional behavior in one or two sentences. The participants were also asked to list the top five characteristics of a professional doctor according to their own opinions.

The data were collected electronically through an anonymous online survey using ©1999-2017 SurveyMonkey software. An invitation with a link to the study was sent to students in the designated academic years ($n = 300$) through their registered official e-mails by the academic coordinator of the college of medicine, the invitation indicated that participation in the study is optional. The web survey remained open for 2 months.

Thirty (10%) medical students responded to the study, but only 13 reported real incidents.

The responses were reviewed by the authors independently, and the students' descriptions of the professional behavior were compared to the registered incidents. Incidents were reported as they were given, with only the removal of names and some language editing or explanations.

Descriptions of the professional attitudes were grouped according to the six domains of professionalism defined by the ABIM Physicians Charter and then plotted against the domains of professionalism in the UAE context published by Abdel-Razig *et al.*^[14]

Results

Professional attitude description and categories

Incidents were reported from seven males and six females, including two from year 1, seven from year 2, and four from year 3. The most common professional behaviors reported were patience, honesty, care, and respect; the other professional behaviors described are listed in Table 1.

The described behaviors were grouped according to the six domains of medical professionalism described by the ABIM Physicians Charter. The students addressed all six domains of professionalism in the charter; the domains and associated critical incidents are listed in Table 2.

The incidents were then plotted against the domains of medical professionalism published in the UAE Consensus Statement, as shown in Table 3. All of the domains were covered except "commitment to advocacy" and "commitment to education" domains.

Discussion

In professionalism, no one size fits all, and the effect of culture is evident and should be considered.^[2] This study uses the CIT, which is a short narrative account describing a personal experience. This technique is used to study and explain values and attitudes because it reflects an honest expression by the respondent.^[15] The researchers chose this method to study the perceptions of students toward medical professionalism because the use of checklists of behaviors may not be able to capture behaviors associated with professionalism.^[2] Among the difficulties related to professionalism, there is conspicuous deficiency in its assessment procedure which is largely based on traditional methods. While students' achievements were measured by these old-style methods, few attempts have been made to assess students' attitude toward professionalism^[16] or

Table 1: Professional behaviors perceived by students

Empathy
Helping others
Dedication
Confidence
Cleverness
Attentiveness
Sincerity
Politeness
Including patients in health management

their perceptions of this competency.^[10] Many studies have found that assessments of professionalism are not genuine, are too narrowly focused, and reflect what teachers want to hear.^[10] In a study conducted in Australia, some students viewed the assessment methods used for professionalism as small and arbitrary.^[10]

In this study, students provided many descriptions of the professional behaviors needed by doctors, most commonly including honesty, patience, respect, and giving care. The responses described covered all aspects of the ABIM Physicians Charter. The behaviors mentioned by the students were plotted against the professionalism framework published in the UAE, which was the country where we performed our study.^[14] The incidents covered all areas of the framework except "commitment to advocacy" and "commitment to education." The reason for these omissions might be related to the fact that the participants were in the preclerkship phase of their medical school journey. The omission of these domains may raise the issue of a change in perception of professionalism among medical students at different levels and among practitioners. Of critical concern for professionalism is that students receive mixed messages about professionalism from the message that they are taught and the message that may be obtained in the absence of professional role models.^[1]

Another factor that has drawn attention to the issue of professionalism is the influence of sociocultural and economic factors on health. Professionalism is considered a sensitive social construct and is regarded as part of the contract between the doctor and society.^[12,17] In the publication investigating professionalism in the Arab world, Al-Eraky and Chandratilake mentioned professional autonomy as a seventh aspect of professionalism in addition to the six domains published by the ABIM physicians charter).^[12] In our study, professional autonomy was not mentioned, which might reflect the need for further research on the effect of culture on professionalism.^[2]

Table 2: Perceived professional behaviors, incidents and American Board of Internal Medicine physicians charter professionalism domain

ABIM physicians charter professionalism domain	Professional behaviors perceived by students and description of Incidents
Altruism (the best interest of the patients, not self-interest)	<p>Empathy</p> <p>I once accompanied my brother to the hospital. He was suffering from general body aches as well as some vomiting and nausea. The doctor dealt with him patiently and showed empathy towards my complaining brother and tried to calm him down and settle him down while explaining his situation</p>
Accountability (fulfilling the implied contract governing the patient/physician relationship)	<p>Helping others</p> <p>Not accepting money from a poor person for a check-up and paying for his medication</p> <p>Dedication</p> <p>When I was younger, I used to like when I had a throat ache because I would go to my doctor, and he would examine me sincerely and ask me to describe my illness, and he would actually listen to each and every word. He used to make me laugh and gave me a toy when I left the clinic</p>
Excellence (a conscientious effort to exceed ordinary expectations and to make a commitment to life-long learning)	<p>Confidence</p> <p>One time, a patient came in with a gangrenous foot. The doctor took a thorough history and then proceeded to perform the physical examination in an orderly fashion. The doctor showed good knowledge and confidence when speaking with the patient, and after reviewing his case, he told the patient his options</p>
Duty (the free acceptance of a commitment to service)	<p>Cleverness</p> <p>My sister had fallen ill, and we had taken her to the doctor to check what was wrong with her. The doctor was actually very young, and it was clear he was still fresh out from the residency program, so it was easy to see the similarities and the differences between him and me. What I noticed was that even though he seemed somewhat nervous, he took the history and physical examination confidently and as briefly as possible and was careful not to say anything that could be held against him (for example, he never gave us a diagnosis but did give us the possibilities). He was receptive, patient, and able to joke around to calm my sister and us down since we were all his age. I think that was the main striking feature about him, that despite his age, he managed to reassure us, and we saw him instead as a doctor, regardless</p> <p>Care</p> <p>I once saw this doctor who was very caring and thoughtful; he took the time every day to call each and every patient to check on them</p> <p>Attentiveness</p> <p>My sister had fallen ill, and we had taken her to the doctor to check what was wrong with her. The doctor was actually very young, and it was clear he was still fresh out from the residency program, so it was easy to see the similarities and the differences between him and me. What I noticed was that even though he seemed somewhat nervous, he took the history and physical examination confidently and as briefly as possible and was careful not to say anything that could be held against him (e.g., he never gave us a diagnosis but did give us the possibilities). He was receptive, patient, and able to joke around to calm my sister and us down since we were all his age. I think that was the main striking feature about him, that despite his age, he managed to reassure us, and we saw him instead as a doctor, regardless</p>
Honour and integrity (the consistent regard for the highest standards of behavior and the refusal to violate one's personal and professional codes)	<p>Honesty</p> <p>My mom went to a check-up for breast cancer. She (the doctor) was honest and tried to explain all the info clearly</p> <p>A doctor was talking to my mother, explaining to her the modes of management that she should undertake and what she was required to do on a daily or weekly basis</p> <p>I remember going to a dentist to fill a tooth, and the doctor in the clinic asked me my name, and he greeted me properly. At the end of the procedure, I asked him if I could contact him, and he gave me his email for communication. Also, I had some questions related to my father regarding a dental condition that he had, and the doctor answered those sufficiently</p> <p>Sincerity</p> <p>When I was younger, I used to like when I had a throat ache because I would go to my doctor, and he would examine me sincerely and ask me to describe my illness, and he would actually listen to each and every word. He used to make me laugh and gave me a toy when I left the clinic</p>

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Table 2: Contd...

ABIM physicians charter professionalism domain	Professional behaviors perceived by students and description of Incidents
Respect for others (respect for others (patients and their families, other physicians and professional colleagues, such as nurses, medical students, residents and subspecialty fellows) is the essence of humanism, and humanism is both central to professionalism and fundamental to enhancing collegiality among physicians)	<p>Respect</p> <p>My brother had to have a tonsillectomy procedure, and I was there when the doctor explained the procedure to him and my parents. My brother was young back then, and I found the doctor to be very patient and understanding when explaining to my rather scared brother. He did not push him, and he soothed him and explained very gently in words that he could understand</p> <p>I had an experience with a doctor who was very polite and respectful in his manner of talking and dealing with the patient, giving time for the patient to talk and explain her problem, listening carefully to the patient's complaints and cooperating with other doctors in making decisions</p> <p>Patience</p> <p>The doctor was so professional in dealing with the patient. The patient was trying to deceive the doctor that she was following his regulations about medications and diet. Obviously, the patient was not compliant because there was not even a single improvement, but the doctor did not want to simply tell the patient that she was lying. What he did was simply polite and clever: he told the patient, "The lab results in front of me are saying that the medications are not matching with me!! So do you want to say that the computer is lying, or it is correct?" The patient gave a loud laugh, and she said, at last, "the computer is telling the truth," and stated that she was like this and this until the end of the story</p> <p>I once accompanied my brother to the hospital. He was suffering from general body aches as well as some vomiting and nausea. The doctor dealt with him patiently and showed empathy towards my complaining brother and tried to calm him down and settle him down while explaining his situation</p> <p>My brother had to have a tonsillectomy procedure, and I was there when the doctor explained the procedure to him and my parents. My brother was young back then, and I found the doctor to be very patient and understanding when explaining to my rather scared brother. He did not push him, and he soothed him and explained very gently in words that he could understand</p> <p>Politeness</p> <p>A doctor wanted to do a breast examination for one of the ladies with a breast lump, but she was so shy and embarrassed; therefore, he gave her time to remove her top behind the screen and asked his assisting nurse to help her, and then he asked her if it was okay with her to invite the female students to watch how he performed the examination, and she agreed. When he started examining her, he only exposed the part that needed to be examined and covered it immediately after finishing and exposed the next part, and so on. He was quick, concise, and very professional</p> <p>Including patients in health management</p> <p>A doctor was talking to my mother, explaining to her the modes of management that she should undertake and what she was required to do on a daily or weekly basis</p>

ABIM=American Board of Internal Medicine

Professionalism is a conceptual issue that requires clarification.^[9] One difficulty is that professionalism is defined in the literature in many ways. Professionalism is sometimes described with vague terms, such as excellence, altruism, and humanism, or as a concept that can be understood through honesty and humanity.^[10,18,19] Tsai *et al.* reported that professionalism had more than one hundred definitions in the literature because the definition differed between professionals and across different sociocultural environments.^[9]

Although the study has limitations; mainly, the relatively small number of participants and the qualitative nature of the data. Yet, we believe the study is novel, shedding light on a gray area in medical education related to professionalism.

Conclusion and Recommendations

The results of this research concluded that medical students have insight into the professional behaviors needed from doctors even before the formal teaching about professionalism in the curriculum. Medical educators could direct the teaching in medical program to support the existing professional behaviors of students as they progress in their learning journey. Further research is needed to determine the effect of factors – other than the curriculum – that may shape the professional behaviors of doctors and health professionals. The results in this study need to be supported by similar studies in other institutions.

Acknowledgment

We are grateful for medical students at UoS for participation in this study.

Table 3: Incidents and the domains of the United Arab Emirates framework of medical professionalism

UAE professionalism domains	Incidents
Commitment to Ihsan and adherence to ethical practice	A doctor wanted to do a breast examination for one of the ladies with a breast lump, but she was so shy and embarrassed; therefore, he gave her time to remove her top behind the screen and asked his assisting nurse to help her, and then he asked her if it was okay with her to invite the female students to watch how he performed the examination, and she agreed. When he started examining her, he only exposed the part that needed to be examined and covered it immediately after finishing and exposed the next part, and so on. He was quick, concise, and very professional
Commitment to advocacy	
Commitment to communication	<p>I once accompanied my brother to the hospital. He was suffering from general body aches as well as some vomiting and nausea. The doctor dealt with him patiently and showed empathy towards my complaining brother and tried to calm him down and settle him down while explaining his situation</p> <p>When I was younger, I used to like when I had a throat ache because I would go to my doctor, and he would examine me sincerely and ask me to describe my illness, and he would actually listen to each and every word. He used to make me laugh and gave me a toy when I left the clinic</p> <p>My sister had fallen ill, and we had taken her to the doctor to check what was wrong with her. The doctor was actually very young, and it was clear he was still fresh out from the residency program, so it was easy to see the similarities and the differences between him and me. What I noticed was that even though he seemed somewhat nervous, he took the history and physical examination confidently and as briefly as possible and was careful not to say anything that could be held against him (e.g., he never gave us a diagnosis but did give us the possibilities). He was receptive, patient, and able to joke around to calm my sister and us down since we were all his age. I think that was the main striking feature about him, that despite his age, he managed to reassure us, and we saw him instead as a doctor, regardless</p> <p>A doctor was talking to my mother, explaining to her the modes of management that she should undertake and what she was required to do on a daily or weekly basis</p> <p>I remember going to a dentist to fill a tooth, and the doctor in the clinic asked me my name, and he greeted me properly. At the end of the procedure, I asked him if I could contact him, and he gave me his email for communication. Also, I had some questions related to my father regarding a dental condition that he had, and the doctor answered those sufficiently</p> <p>My brother had to have a tonsillectomy procedure, and I was there when the doctor explained the procedure to him and my parents. My brother was young back then, and I found the doctor to be very patient and understanding when explaining to my rather scared brother. He did not push him, and he soothed him and explained very gently in words that he could understand</p> <p>The doctor was so professional in dealing with the patient. The patient was trying to deceive the doctor that she was following his regulations about medications and diet. Obviously, the patient was not compliant because there was not even a single improvement, but the doctor did not want to simply tell the patient that she was lying. What he did was simply polite and clever: he told the patient, "The lab results in front of me are saying that the medications are not matching with me!! So do you want to say that the computer is lying, or it is correct?" The patient gave a loud laugh, and she said, at last, "the computer is telling the truth," and stated that she was like this and this until the end of the story</p>
Commitment to ITQAN and lifelong learning	<p>My mom went to a check-up for breast cancer. She (the doctor) was honest and tried to explain all the info clearly</p> <p>My sister had fallen ill, and we had taken her to the doctor to check what was wrong with her. The doctor was actually very young, and it was clear he was still fresh out from the residency program, so it was easy to see the similarities and the differences between him and me. What I noticed was that even though he seemed somewhat nervous, he took the history and physical examination confidently and as briefly as possible and was careful not to say anything that could be held against him (e.g., he never gave us a diagnosis but did give us the possibilities). He was receptive, patient, and able to joke around to calm my sister and us down, since we were all his age. I think that was the main striking feature about him, that despite his age, he managed to reassure us, and we saw him instead as a doctor, regardless</p> <p>A doctor was talking to my mother, explaining to her the modes of management that she should undertake and what she was required to do on a daily or weekly basis</p> <p>I had an experience with a doctor who was very polite and respectful in his manner of talking and dealing with the patient, giving time for the patient to talk and explain her problem, listening carefully to the patient's complaints and cooperating with other doctors in making decisions</p>
Commitment to education	
Commitment to empathy and compassion	I once accompanied my brother to the hospital. He was suffering from general body aches as well as some vomiting and nausea. The doctor dealt with him patiently and showed empathy toward my complaining brother and tried to calm him down and settle him down while explaining his situation
Commitment to integrity	Not accepting money from a poor person for a check-up and paying for his medication

Contd...

Table 3: Contd...

UAE professionalism domains	Incidents
Embodying a sense of responsibility	<p>One time, I was shadowing a cardiologist, and the patient came in with a gangrenous foot. The cardiologist took a thorough history, excluding any life-threatening symptoms, such as syncope or palpitations, and then proceeded to perform the physical examination in an orderly fashion. The doctor showed good knowledge and confidence when speaking with the patient, and after reviewing his case, he told the patient his options</p> <p>My sister had fallen ill, and we had taken her to the doctor to check what was wrong with her. The doctor was actually very young, and it was clear he was still fresh out from the residency program, so it was easy to see the similarities and the differences between him and me. What I noticed was that even though he seemed somewhat nervous, he took the history and physical examination confidently and as briefly as possible and was careful not to say anything that could be held against him (for example, he never gave us a diagnosis but did give us the possibilities). He was receptive, patient, and able to joke around to calm my sister and us down since we were all his age. I think that was the main striking feature about him, that despite his age, he managed to reassure us, and we saw him instead as a doctor, regardless</p> <p>I once saw this doctor who was very caring and thoughtful; he took the time every day to call each and every patient to check on them</p>
Commitment to respect	<p>When I was younger, I used to like when I had a throat ache because I would go to my doctor, and he would examine me sincerely and ask me to describe my illness, and he would actually listen to each and every word. He used to make me laugh and gave me a toy when I left the clinic</p> <p>I had an experience with a doctor who was very polite and respectful in his manner of talking and dealing with the patient, giving time for the patient to talk and explain her problem, listening carefully to the patient's complaints and cooperating with other doctors in making decisions</p> <p>The doctor was so professional in dealing with the patient. The patient was trying to deceive the doctor that she was following his regulations about medications and diet. Obviously, the patient was not compliant because there was not even a single improvement, but the doctor did not want to simply tell the patient that she was lying. What he did was simply polite and clever: he told the patient, "The lab results in front of me are saying that the medications are not matching with me!! So do you want to say that the computer is lying, or it is correct?" The patient gave a loud laugh, and she said, at last, "the computer is telling the truth," and stated that she was like this and this until the end of the story</p>

UAE=United Arab Emirates

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Conflicts of interest

There are no conflicts of interest.

References

- Shrank WH, Reed VA, Jernstedt C. Fostering professionalism in medical education. *J Gen Intern Med* 2004;19:887-92.
- Ho MJ, Al-Eraky M. Professionalism in context: Insights from the United Arab Emirates and beyond. *J Grad Med Educ* 2016;8:268-70.
- American Association of Medical Colleges. Learning objectives for medical student education – Guidelines for medical schools: Report I of the medical school objectives project. *Acad Med* 1999;74:13-8.
- Frank JR, Snell L, Sherbino J. CanMEDS 2015 Physician Competency Framework. Royal College of Physicians and Surgeons of Canada; 2015. Available from: [http://file:///C:/Users/sarra/Downloads/canmeds-full-framework-e%20\(1\).pdf](http://file:///C:/Users/sarra/Downloads/canmeds-full-framework-e%20(1).pdf). [Last accessed on 2019 Sep 20].
- Accreditation Commission for Graduate Medical Education. ACGME Core Competencies; 2012. Available from: <https://www.ecfmg.org/echo/acgme-core-competencies.html>. [Last accessed on 2019 Sep 20].
- Zaini RG, Bin Abdulrahman KA, Al-Khotani AA, Al-Hayani AM, Al-Alwan IA, Jastaniah SD. Saudi Meds: A competence specification for Saudi medical graduates. *Med Teach* 2011;33:582-4.
- Liaison Committee on Medical Education. Functions and Structure of a Medical School Standards for Accreditation of Medical Education Programs Leading to the MD Degree March; 2018. Available from: <https://lcme.org/publications/#All>. [Last accessed on 18 Sep 2019].
- World Federation for Medical Education. Basic Medical Education WFME Global Standards for Quality Improvement; 2015. Available from: <https://wfme.org/download/wfme-global-standards-for-quality-improvementbme/?wpdmdl=831&refres h=5def69f7529151575971319>. [Last accessed on 2019 Sep 19].
- Tsai TC, Lin CH, Harasym PH, Violato C. Students' perception on medical professionalism: The psychometric perspective. *Med Teach* 2007;29:128-34.
- Birden HH, Usherwood T. "They liked it if you said you cried": How medical students perceive the teaching of professionalism. *Med J Aust* 2013;199:406-9.
- Mann KV, Ruedy J, Millar N, Andreou P. Achievement of non-cognitive goals of undergraduate medical education: Perceptions of medical students, residents, faculty and other health professionals. *Med Educ* 2005;39:40-8.
- Al-Eraky MM, Chandratilake M. How medical professionalism is conceptualised in Arabian context: A validation study. *Med Teach* 2012;34 Suppl 1:S90-5.
- Al-Eraky MM, Chandratilake M, Wajid G, Donkers J, van Merrienboer J. Medical professionalism: Development and validation of the Arabian LAMPS. *Med Teach* 2013;35 Suppl 1:S56-62.
- Abdel-Razig S, Ibrahim H, Alameri H, Hamdy H, Haleeqa KA, Qayed KI, et al. Creating a framework for medical professionalism: An initial consensus statement from an Arab Nation. *J Grad Med Educ* 2016;8:165-72.
- Branch WT. Use of critical incident reports in medical education. *J Gen Intern Med* 2005;20:1063-7.
- Jha V, Bekker HL, Duffy SR, Roberts TE. Perceptions of professionalism in medicine: A qualitative study. *Med Educ* 2006;40:1027-36.
- Veloski JJ, Fields SK, Boex JR, Blank LL. Measuring professionalism:

- A review of studies with instruments reported in the literature between 1982 and 2002. Acad Med 2005;80:366-70.
18. Byszewski A, Hendelman W, McGuinty C, Moineau G. Wanted: Role models-medical students' perceptions of professionalism. BMC Med Educ 2012;12:115.
 19. Wagner P, Hendrich J, Moseley G, Hudson V. Defining medical professionalism: A qualitative study. Med Educ 2007;41:288-94.