

## Teaching and Assessing Professionalism in the Indian Context

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Developing professional values and behaviour is an indispensable part of training of medicine. Societal values have changed and there are increasing reports of unprofessional behaviour by physicians. It is now agreed that professionalism must also be 'taught' besides being 'caught'. Most regulatory documents in India mention professionalism in a cursory manner, and do not specify details of how it should be taught and assessed in the curriculum. Teaching-learning methods, assessment and the training schedule for professionalism need to be specified in the undergraduate and postgraduate curriculum for it to be taken seriously. This article discusses the concept of professionalism, its definitions and the various teaching and assessment methods that can be applied in the Indian context.

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Doctors are expected to consistently exhibit professional attitudes, behaviour, values and ethics in their practice. Professionalism is an important component of medicine's contract with society. The concept of the profession of a doctor has changed considerably with the times. Previously, doctors were granted autonomy by the community, with the belief that they would place the welfare of their patients before their own. However in contemporary society, this autonomy has been challenged by the altered public perception of the role of the doctor. Their behaviour is now observed and scrutinized more closely by the media. Doctors' own attitudes towards their vocation have also changed [1,2].

Though a small minority of professionals exhibit inappropriate professional behaviour, they end up receiving disproportionate attention, maligning the entire profession. Medical errors, adverse outcomes, malpractice and inappropriate behaviour result when doctors do not adhere to guidelines, have difficult workplace relationships, find themselves inadequate in communication, collaboration and transfer of information, or suffer from low morale [3].

Studies from the West have shown that students who demonstrate unprofessional behaviour during their undergraduate and postgraduate education are more likely to be found guilty of unprofessional actions by the monitoring boards after they graduate [3,4]. Thus, the need to include teaching and assessment of professionalism in the formal curricula for undergraduate

and postgraduate medical training has been globally acknowledged. The Medical Council of India (MCI), the custodian of medical education in the country, has not even explicitly mentioned professionalism in the Graduate Medical Education Regulations [5]. The Postgraduate Medical Education Regulations 2000 cursorily mention that their goal is to produce competent specialists "who shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy", but do not elaborate this further. The focus is on acquisition of theoretical knowledge, practical and clinical skills, communication skills, and research acumen [6]. Further, there is no consensus on what is meant by professionalism or how it should be integrated into the curriculum. Assessment of professionalism is an even more contentious territory as it is such an intangible entity.

### DEFINING PROFESSIONALISM

Professionalism is a theoretical construct, more easily described in lofty idealistic terms than by observable behaviours. There is also much variation in what 'professionalism' means across different countries. Epstein and Hundert, in 2002, defined professional competence as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served" [7]. The Royal College of Physicians, UK, defines professionalism as "a set of values, behaviours,

and relationships that underpin the trust the public has in doctors”[8]. The American Board of Internal Medicine identified the key elements of professionalism as: altruism, accountability, duty, excellence, honor, integrity and respect for others [8]. The medical educationists from Netherlands defined professionalism in terms of observable behaviours to make assessment feasible [8]. In an effort to make these elements more explicit, a faculty development initiative tried to build consensus by defining some of the core attributes of professionalism. Some of these are displayed in *Fig. 1* [9].

Evolving definitions of professionalism perhaps reflect the place it is accorded in medical training. The elements in initial definitions are easy to identify but difficult to measure as learning outcomes. The subsequent definitions include behaviours that are observable, to some extent measurable, and hence amenable to assessment and inclusion as a core curricular component.

The societal and cultural value system influences the perception and interpretation of professional behaviour of a physician. Naturally, while everyone agrees on the core elements of professionalism, a consensus on a culturally appropriate global definition appears to be lacking. Therefore, it is imperative for each country and every institution to develop its own definition of professionalism, according to the societal norms of the times, and identify its core elements.

Though no Indian publication dedicated to defining professionalism in Indian context could be found on literature search, there have been recent meetings and conferences addressing this issue. One of the authors (TS) was a keynote speaker at a deliberation on Professionalism held at Karamsad in April 2013 where these aspects were discussed in depth. Also, a workshop and meeting of the Indian physicians from all over the world (Global Indian Doctors) was held in Kolkata in January 2014 to address the worrisome decline in practice of professionalism and ethics. They noted the critical role of education and mentorship in inculcating right values from the start of medical training [10]. A welcome beginning was also made by the MCI in form of proposed new regulations for Graduate Medical Education 2012 that mentioned some aspects of professionalism as a core competency for Indian medical graduates.

#### TEACHING AND LEARNING PROFESSIONALISM

Professionalism is not a single skill, but a multi-dimensional competency construct with several component skills. A combination of teaching-learning methods is essential for imparting training in professionalism. It is worthwhile to address the ‘why,



FIG. 1 Core attributes of professionalism,

what, who, where, when and how' of teaching professionalism before incorporating it into the curriculum [11].

#### *Why does professionalism need to be taught and assessed?*

For years, the development of professional values in a doctor was taken for granted and it perhaps held true in the earlier apprenticeship model of physician training. With changing models of physician training, this view has changed. As professionalism is so intrinsic and integral to the medical profession, it should be an explicit part of the medical curriculum. It is now globally agreed that professionalism is a core competency for physicians and cannot be left to informal means to be imbibed [8,12]. It is well known that what is not assessed is not valued by students. Therefore, institutions need to develop written criteria about what needs to be taught and assessed.

#### *What should be taught and learnt?*

As mentioned earlier, it is important for each institution to define professionalism in its own context. The faculty as well as students should have a clear understanding of the traits, characteristics and qualities that contribute to professionalism. A written statement of curricular outcomes, content (such as ethics, decision making/moral reasoning, humanism, empathy, communication), and an explicit list of knowledge, skills and attitudes guards against delivering conflicting messages to students [13]. Developing an institutional curriculum for professionalism with a feasible and acceptable blueprint for teaching-learning and assessments is also likely to instil a sense of ownership in the faculty, and hence facilitate effective delivery of this curriculum [14].

**Who should teach and be taught?**

Without doubt, professionalism should be included in the formal curriculum of both undergraduate medical students and postgraduate trainees [9,13]. At the same time, the traditional place of professionalism in the hidden and informal curriculum deserves equal attention. The behaviour of faculty must reflect the attributes of professionalism as endorsed by the institution rather than be at conflict with it. For this, the sensitization and training of faculty in teaching learning and assessing professionalism is of key importance. The students' training will enable them to observe and imbibe appropriate attitude and behaviour.

**When and where should professionalism be taught?**

Teaching and learning of professionalism cannot be confined to a certain stage of medical training but has to be explicitly 'woven into the fabric' of entire undergraduate curriculum and also the postgraduate training [15]. Inculcation of professional values should begin at the time of entry into medical school. Cruess and Cruess suggest 'continuity' and 'incremental approach' in teaching-learning and assessing professionalism in medical schools [16]. They further propose that with an initial strong cognitive base, 'stage appropriate' educational activities (including assessment) should be devised. Faculty must also utilize the opportunities at workplace to reinforce the correct behaviour and allow the students to practice what they have learnt during the formal training sessions in professionalism. Thus training should focus not only on inculcating the core aspects of professionalism, but also on making the student a self-motivated and self-directed learner.

**How should professionalism be taught?**

Many of the core attributes of professionalism are related to soft skills. Some common aspects that contribute to bringing about attitudinal or behavioural changes and are integral to planning educational activities for professionalism are outlined below:

- (i) *Motivation* (self-driven; intrinsic): Students must imbibe the importance of the desired change in behaviour for it to be a driving force.
- (ii) *Observation of role models*: Teachers have always been role models for students and their positive as well as negative behaviour patterns are likely to be imbibed by the students (informal and hidden curriculum). The trainees need orientation and a cognitive base to be able to discriminate between good and poor role modelling [17].
- (iii) Continued stimulus to be thinking about these

aspects of being a physician rather than in spurts occasionally.

- (iv) *Feedback*: Timely and effective feedback on own behaviour received from friends, colleagues, peers, seniors with positive reinforcement of desired behaviour as well as corrective suggestions for improvement.
- (v) *Reflection and reflective practice*: Very simply expressed as 'mental processing with a purpose or anticipated outcome', this is the key to attitudinal change [8]. One could reflect on an experience or a behaviour or on feedback received. 'Reflection on action' is most important and can be well encouraged by providing situations and experiences during the course of training [15].
- (vi) *Extrinsic motivation*: Reward or appreciation related to behaviour. Assessment works by way of feedback as well as by providing an extrinsic motivation.

Teaching professionalism involves several intricacies (**Box I**). The teaching-learning methods that may be utilized are:

- *Interactive lecture and brainstorming*: These can help in initial sensitization and in introducing students to the concept. A good cognitive base with clarity on definitions and concept in the initial stages of training will enable the students to make the most out of experiences and other educational activities in later stages of training [18].
- *Clinical scenarios or case vignettes*: These could be designed to focus on various aspects of professionalism, such as, honesty with patients, patient confidentiality, maintaining appropriate behaviour with patients and their caregivers, active listening etc. Small group discussions or individual

**BOX I STRATEGIES TO TEACH PROFESSIONALISM**

- *Sensitization*: Orienting students to the concept of professionalism and its importance so that they recognize it as an essential component of physician training and subsequent practice.
- *Immersion*: Expose them to situations (hypothetical or real) that force them to think on these lines.
- *Provide time and opportunities for reflection*: Following exposure to situations or experiences, it is equally important to provide a conducive environment, create opportunities and provide dedicated time to reflect upon them.

exercises that involve responding to such scenarios compel the students to reflect on these aspects of a doctor's working [18].

- *Reflective exercises:* These could be discussions based on actual situations that arose during work, sharing of own experiences by the trainee or based on what they observed. Dedicated time needs to be put aside for this activity [15].
- *Feedback:* Provision of timely and effective feedback to the trainee is a powerful way of guiding the development of professional values. The feedback should be specific, based on an observed incident/behaviour and be given along with a feed forward for appropriate behaviour in future in such situations. The importance of observing in authentic workplace setting and providing feedback based on it cannot be overemphasised. Assessment methods such as mini-clinical evaluation exercise and directly observed procedural skills (DOPS) have 'feedback' built into the assessment process and are therefore excellent teaching methods as well.
- *Portfolios:* Student portfolios, in contrast to a log-book, include reflections of the student in his own words. This is another way of compelling the trainees to think-back about their observations and experiences, and thus inculcate a habit of self-development based on reflective thinking [19].
- *Role models:* Students knowingly or unknowingly imbibe the professional behaviour of teachers. So it is of utmost importance that teachers are sensitized to their role as a 'role model' to the students and that they are consciously aware of the same at all times [17].
- *Art-based interventions:* Use of arts in medical education to foster a better understanding of patients' perspectives is also being utilized as a strategy for developing professional values in some institutions. This approach not only develops trainees as better communicators, but also encourages them to explore own feelings [20]. The 'Theatre of the Oppressed' initiative by the medical humanities group of University College of Medical Sciences, New Delhi, India is an example of this effort in India.

In summary, a structured stepwise approach in planning a training program using a judicious combination of various methods in an appropriate sequential or simultaneous manner is desirable.

Faculty development in teaching and learning of professionalism serves two main purposes. One, faculty are sensitized to their role as 'role models' to students and

the imbibed curriculum. Second, it encourages them to consciously adopt one or more methods for imparting professional values to the students [9]. In India, it may be a good idea to include a module on professionalism in faculty training sessions by the Medical education units.

An obvious cognizance of professional behaviour by authorities (rather than appreciation of only clinical competence) can be an effective way of setting the expected standards [14]. Positive acknowledgement of exemplary professional behaviour and punitive action for unprofessional behaviour will drive home the message well.

#### ASSESSMENT OF PROFESSIONALISM

Assessment is said to be the driving force behind learning. It directs and guides learning, and provides a degree of importance to a given area. Professionalism is no exception. Without a system to assess professionalism, acquisition of professional values will be rated low in priority [13]. Furthermore, without assessment, teachers and students will have no yardstick to gauge the level of learning [21].

There are several impediments to the assessment of professionalism. The first is the common belief that "professionalism is caught and not taught". There is no evidence for or against this belief so far. However, by saying that professionalism is not taught, we accept the fallout of this idea that this learning is haphazard, not guided by any specific objectives and not amenable to assessment. This approach is likely to promote negligence of professionalism in assessment planning.

The second issue is the cultural acceptance (or non-acceptance) of unprofessional behaviour. In India, so far, unprofessional behaviour has been viewed rather leniently by society. In our society, it may be difficult to penalize a student on the basis of deviations from professional behaviour. Unless society demands strict professional behaviour from doctors, lapses in professionalism may be difficult to control. For this, to be effective, we need to identify and respond appropriately to each unprofessional behaviour [3].

The third issue is our obsession with objectivity in assessment. Given the present state of our understanding, we may not be able to objectively measure professionalism. However, we could take steps to blunt the effect of subjectivity (*e.g.* by increasing the number of tests and raters, or by faculty training).

Lastly, behaviour is greatly influenced by the local context and organizational factors. What is considered professional in one organization may be considered

unprofessional in another [22]. This explains why we have not been able to develop standardized tools to assess professionalism. Further, when an institution or a faculty member in an institution demonstrates unprofessional behaviour and goes unpunished, then it may really be difficult to penalize students for similar behaviour. Despite these odds, it is prudent to assess professionalism.

Many of issues of professionalism faced by doctors or patients relate to their conduct rather than to their competence. There is evidence to suggest that since professionalism is learnt, it can be moulded in a particular direction. This teaching - as argued above - cannot happen without a supportive assessment. Like assessment of knowledge and skills, assessment of professionalism has to be both, formative and summative. However, such assessment should be defensible [23].

**What should be assessed under professionalism?**

The best way to answer this question is to use Miller's pyramid and assess each level as appropriate to the stage of the training (**Table I**). Thus new students should be assessed to find out what they know about professionalism, while final year students and interns may be assessed at the 'shows' and 'does' levels [22]. It needs to be emphasized that the base of knowledge should not be undermined, because the students have to first know "what is professionalism", before they can demonstrate professional behaviours in different contexts. This is not to say that assessment should be limited only to written tests. Assessment should include behavioural aspects as well.

As far as possible, assessment of professionalism

**TABLE I: TOOLS USED FOR ASSESSMENT OF PROFESSIONALISM**

<i>Level of Miller's pyramid</i>	<i>Tools</i>
Does	Multi Source Feedback (MSF), healthcare outcomes, critical incident report
Shows	Observed real or standardized patient encounter (m-CEX; PMEX; OSCE)
Knows how	Reflective/narrative portfolio, Case based discussion
Knows	Multiple Choice Questions (MCQ)/ Short Answer Questions (SAQ)/ Vignettes with professional conflicts

*M-CEX-Mini clinical evaluation exercise; PMEX-Professionalism mini evaluation exercise; OSCE-Objective structured clinical examination.*

should take place in actual work settings i.e. Workplace-based Assessment (WPBA) rather than in the controlled artificial settings of formal examinations [19]. At this juncture, issues of reliability of workplace based assessment are likely to be raked. However, going by the experience of using individual tools of WPBA, as well as the composite program - it should be possible to get fairly reliable results by having 6-8 assessments per year by different assessors [24]. In the beginning, for several years, such assessments will happen only for formative purposes. This is useful, as here one does not aim for a very high reliability. Experience and faculty training will also help to improve the reliability of such assessments [25].

Vague definitions and lack of unanimous standards may make the assessment of professionalism challenging. Additionally, some teachers may be hesitant to give negative ratings, while others may tend to inflate summative ratings (like what happens with internal assessment now). However, these kinds of issues should not be taken against professionalism, as we happily accept the assessment of knowledge and skills by the same teachers, many of whom are likely to be as much influenced by the conflict in the role of a teacher and an assessor.

It may be worthwhile to relook at the concept of utility of assessment, which is a notional concept and is represented as a product of its validity, reliability, feasibility, acceptability and educational impact [26]. Assessments which are low on one parameter can still be very useful by being high on others. Even though numerical reliability of professionalism assessment might be low, its educational impact can be fairly high. Relative importance to various attributes of assessment should be guided by purpose of assessment rather than by a pursuit of objectivity.

**Tools for assessing professionalism**

Professionalism is a multi-dimensional concept and no single tool may be able to capture it in entirety. A number of tools have been developed for assessing professionalism (**Table I**). These include observing patient encounters (mini-CEX, professionalism mini assessment tool PMEX, standardized direct observation tool); simulations (OSCE using standardized patients); reporting of unprofessional incidents (critical incident method); paper and pencil tests (MCQs, critical incident reports); observer ratings (multi source feedback, global ratings); self-reported scales and patient satisfaction surveys [14,19]. We need to select the appropriate tools from this toolkit to suit our purpose.

**TABLE II** MODEL FOR TEACHING-LEARNING AND ASSESSMENT OF PROFESSIONALISM DURING MBBS IN THE INDIAN CONTEXT

Prof./Sem.	Learning Objectives (What)	T-L Methods (How to teach)	Time schedule (When)	Assessment methods* (How to Assess)	Weightage in Internal Assessment**
I Professional (I-II Semester)	<ul style="list-style-type: none"> <li>Develop an understanding of the concept</li> <li>Comprehend the institutional definition and the attitudes/behaviors that are consistent with it</li> </ul>	<ul style="list-style-type: none"> <li>Interactive lectures and brainstorming sessions</li> <li>Role play and discussion</li> <li>Observation of doctors at work followed by discussion in small groups</li> </ul>	<ul style="list-style-type: none"> <li>Foundation Course/ Orientation program - within 1-2 months of joining the course</li> <li>Follow-up sessions in I &amp; II Semester</li> <li>Full day or half day Hospital visits</li> </ul>	<ol style="list-style-type: none"> <li>Written test: MCQ, MEQ</li> <li>Oral: Viva/voce</li> <li>Group assessment: Role play &amp; feedback</li> <li>OSCE</li> </ol>	10%
II Professional (III-VI Semester)	<ul style="list-style-type: none"> <li>Develop reflective and critical thinking about observed interaction or own experience in clinical setting</li> <li>Demonstrate appropriate professional behavior during interaction with patients while history taking and examination</li> <li>Demonstrate appropriate professional behavior as a student of medicine</li> </ul>	<ul style="list-style-type: none"> <li>Observation of role models (complemented by sensitization of faculty members through Faculty Development Programs)</li> <li>Case-based discussions in small groups</li> <li>Reflective thinking through experience sharing and documenting - diary</li> </ul>	<ul style="list-style-type: none"> <li>During clinical posting: Out patient and inpatient setting</li> <li>Community visits - family adoption during Community Medicine postings</li> <li>Special half day feedback sessions once a month (small groups facilitated by senior faculty)</li> </ul>	<ol style="list-style-type: none"> <li>Observation and feedback during clinical postings</li> <li>Reflective diaries or portfolios</li> <li>Written test: Scenario based questions that address the ethical dilemma</li> <li>Case-based discussions in small groups</li> </ol>	10%
III Professional (VII-IX Semester)	<ul style="list-style-type: none"> <li>In addition to above:</li> <li>Develop an understanding of ethical dilemma faced by physicians</li> <li>Demonstrate team skills</li> </ul>	<ul style="list-style-type: none"> <li>In addition to above:</li> <li>Group discussions based on clinical scenarios and case vignettes</li> </ul>	<ul style="list-style-type: none"> <li>During clinical posting</li> <li>Continued once a month half-day sessions with the opportunity to share and discuss difficult situations and dilemma faced or observed.</li> </ul>	<ol style="list-style-type: none"> <li>Portfolio</li> <li>OSCE</li> <li>Standardized Patient</li> <li>Mini-CEX</li> </ol>	10%
Internship	<ul style="list-style-type: none"> <li>Demonstrate professional and ethical behavior at workplace</li> <li>Function as a member of a team of physicians and demonstrate managerial skills as a doctor of first contact</li> </ul>	<ul style="list-style-type: none"> <li>Observation of role models</li> <li>Reflective thinking based on own experience</li> <li>Portfolio</li> </ul>	<ul style="list-style-type: none"> <li>Internship Orientation Program</li> <li>During rotational posting</li> </ul>	<ol style="list-style-type: none"> <li>MSF</li> <li>Patient Satisfaction reports</li> <li>Portfolio</li> <li>PMEX</li> </ol>	Variable#

\*MCQ - Multiple Choice Questions; MEQ-Modified Essay Questions; OSCE-Objective Structured Clinical Examination, Mini-CEX-Mini Clinical Evaluation Exercise; MSF-Multi Source Feedback; PMEX-Professionalism Mini Evaluation Exercise; \*\*The existent marking based on observed behaviors such as regularity; punctuality may be further expanded to include other observable behavior patterns such as interaction with patients/ colleagues, communication skills, team work etc. #Existent scoring of internship during each posting. Include a qualifying score for professional attitudes based on MSF and portfolio.

Most of the tools mentioned above have been described in an earlier paper on WPBA [27]. However, PMEX needs some elaboration. It is a structured observation tool and consists of 21 items, each of which is rated on a 4 point scale (unacceptable, below expectations, met expectations and exceeded expectations) [28]. In addition, it has space for recording of an incident which has shown a clear breach of professional boundaries. The assessment is discussed with the trainee, who signs the form at the end of this discussion. The forms become a part of the learning portfolio and can be used to show the development of professionalism over a period of time [23]. Factor analysis has confirmed that it assesses four important factors viz. doctor-patient relationship, reflection, time management and inter-professional relationship. A generalizability coefficient of 0.82 (SEM 0.08) is attainable by 12 forms [28].

Assessment of professionalism needs to be linked to the overarching assessment of knowledge and skills. While it usually remains formative, it may need to be made summative, especially at decision points (e.g. graduation). Compilation of data over a period of time should help students to attempt to acquire professional values in areas found lacking and also help teachers to take remedial action. Irrespective of which tool is used for assessment of professionalism, the basic premise remains the same i.e. direct observation in authentic settings followed by feedback and an opportunity to reflect. While there may not be a consensus on the best tool for assessing professionalism, there is agreement on the fact that without solid assessment tools, questions about the efficacy of approaches to educating learners about professional behaviour will not be effectively answered [24].

A model blueprint for learning and assessing professionalism in the Indian scenario (for undergraduates) is proposed in Table II. It is possible to incorporate assessment of various elements of professionalism in the existent internal assessment programs, and its reliability can be improved by adopting the Quarter model of In-training Assessment [29].

## CONCLUSIONS

Professionalism is integral to the medical profession and it should be an explicit part of the medical curriculum. Each country and institution needs to develop its own definition of professionalism, according to the societal norms of the times and identify the core elements of professionalism. A judicious combination of teaching and learning methods need to be incorporated in a longitudinal manner using a stepwise approach to teach

professional values to students of all levels. Assessment of professionalism needs priority for it to be taken seriously. Assessment of professionalism is best done in authentic workplace-based settings, where supervisors have an opportunity to provide feedback after direct observation of students and allow them a chance to reflect on their behaviour.

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## REFERENCES

1. Sohl P, Bassford HA. Codes of medical ethics: Traditional foundations and contemporary practice. *Social Sci Med.* 1986;22:1175-9.
2. van Mook WK, van Luijk SJ, O'Sullivan H, Wass V, Zwaveling JH, Schuwirth LW, et al. The concepts of professionalism and professional behaviour: Conflicts in both definition and learning outcomes. *Eur J Intern Med.* 2009;20:e85-9.
3. van Mook WN, Gorter SL, De Grave WS, van Lujk SJ, Wass V, Zwaveling JH, et al. Bad apples spoil the barrel: Addressing unprofessional behavior. *Med Teach.* 2010;32:891-8.
4. Papadakis MA, Arnold GK, Blank LL, Holmboe ES, Lipner RS. Performance during internal medicine residency training and subsequent disciplinary action by state licensing boards. *Ann Intern Med.* 2008;148:869-76.
5. Regulations on Graduate Medical Education 1997. Medical Council of India website. Available from: [http://www.mciindia.org/Rules-and-Regulation/GME\\_REGULATIONS.pdf](http://www.mciindia.org/Rules-and-Regulation/GME_REGULATIONS.pdf). Accessed June 22, 2014.
6. Medical Council of India. Post Graduate Medical Education Regulations 2000. Available from: <http://www.mciindia.org/RulesandRegulations/PGMedicalEducationRegulations2000.aspx>. Accessed July 8, 2014.
7. Epstein RM, Hundert EM. Defining and assessing professional competence. *JAMA.* 2002;287:226-35.
8. O'Sullivan H, Van Mook W, Fewtrell R, Wass V. Integrating professionalism into the curriculum: AMEE Guide No. 61. *Med Teach.* 2012;34:e64-7.
9. Steinert Y, Cruess S, Cruess R, Snell L. Faculty development for teaching and evaluating professionalism: from programme design to curriculum change. *Med Educ.* 2005;39:127-36.
10. Madhok R. The Global Indian Doctor: Workshop on Promoting Professionalism and Ethics - Brief Notes and Next Steps. 2014 Jan 10; Kolkata, India. Available from: <http://leadershipforhealth.com/wp-content/uploads/2014/02/Event-report.pdf> Accessed September 29, 2014.
11. Hawkins RE, Katsufakis, Holtman MC, Clauser BE. Assessment of medical professionalism: Who, what, when, where, how, and ... why? *Med Teach.* 2009; 31:348-61
12. Cruess SR, Cruess RL. Professionalism must be taught. *BMJ.* 1997;315:1674-6.
13. Ponnampereuma G, Ker J, Davis M. Medical professionalism: Teaching, learning, and assessment. *South*

- East Asian Journal of Medical Education. 2007;1:42-8.
14. Wilkinson TJ, Wade Wb, Knock LD. A blueprint to assess professionalism: Results of a systematic review. *Acad Med.* 2009;84:551-8.
  15. Goldie J. Integrating professionalism teaching into undergraduate medical education in the UK setting. *Med Teach.* 2008;30:513-27.
  16. Cruess SR, Cruess RL. Teaching professionalism - Why, what and how? *Facts Views Vis Obgyn.* 2012;4:259-65.
  17. Jochemsen-van der Leeuw HG1, van Dijk N, van Etten-Jamaludin FS, Wieringa-de Waard M. The attributes of the clinical trainer as a role model: A systematic review. *Acad Med.* 2013;88:26-34.
  18. Cruess R, Cruess S. Teaching professionalism: General principles. *Med Teach.* 2006;28:205-8.
  19. Passi V, Doug M, Peile E, Thistlethwaite J, Johnson N. Developing medical professionalism in future doctors: A systematic review. *Int J Med Educ.* 2010;1:19-29.
  20. Perry M, Maffuli N, Wilson S, Morrissey D. The effectiveness of art-based interventions in medical education: A literature review. *Med Educ.* 2011;45:141-8.
  21. Arnold L. Assessing professional behaviour: Yesterday, today and tomorrow. *Acad Med.* 2002;77:502-15.
  22. Goldie J. Assessment of professionalism: Consolidation of current thinking. *Med Teach.* 2013;35:e952-6.
  23. Hodges BD, Ginsburg S, Cruess R, Cruess S, Delpont R, Hafferty F, et al. Assessment of professionalism: Recommendations from the Ottawa 2010 conference. *Med Teach.* 2011;33:354-63.
  24. Norcini J, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No.31. 2007;29:855-71.
  25. Adkoli BV. Assessment of Professionalism and Ethics. In *Principles of Assessment in Medical Education.* (Ed: Singh T, Anshu) Jaypee Brothers Medical Publishers. New Delhi. 2012.:p. 180-190.
  26. van der Vleuten CPM. The assessment of professional competence: Developments, research and practical implications. *Adv Health Sci Educ.* 1996;1:41-67.
  27. Singh T, Modi JN. Workplace-based Assessment: A step to promote competency based postgraduate training. *Indian Pediatr.* 2013;50:553-9.
  28. Cruess R, McLlroy JH, Cruess S, Ginsburg S, Steinert Y. The professionalism mini-evaluation exercise: A preliminary investigation. *Acad Med.* 2006;81:S74-8.
  29. Singh T, Anshu, Modi JN. The Quarter Model: A proposed approach for in-training assessment of undergraduate students in Indian medical schools. *Indian Pediatr.* 2012;49:871-8.
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