

Medical professionalism: teaching and assessment tools

Bahareh Bahmanbijari¹, Amin Beigzadeh^{2*}

¹Neonatologist, Department of Pediatrics, Medical School, Kerman University of Medical Sciences, Kerman, Iran.

²PhD Candidate of Medical Education, Research Center for Health Services Management, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

Received: 4 March 2015

Accepted: 12 April 2015

Published online: 20 April 2015

***Corresponding author:** Amin Beigzadeh, Research Center For Health Services Management, Kerman University of Medical sciences, Haftbagh Highway, Kerman, Iran. Email: a.beigzadeh@kmu.ac.ir

Competing interests: The authors declare that no competing interests exist.

Citation: Bahmanbijari B, Beigzadeh A. Medical professionalism: teaching and assessment tools. Report of Health Care 2015; 1(2): 69-72.

Abstract

Establishing a structured curriculum for professionalism by adopting new methods and evaluation tools within an educational environment is important in the light of the vicissitudes of changing world and medical profession. By incorporating such tools of teaching and assessing, medical students will be abreast and gain a mastery over competencies such as collaboration, communication, teamwork, and rapport skills to deal with doctors, patients, peers, and the healthcare team.

Keywords: Professionalism, Teaching tools, Assessment tools

Medical schools and postgraduate training programs around the world have strategies and plans for explicitly incorporating professionalism into their curricula. Licensing and certifying bodies also try to assess medical professionalism on a regular basis. As there is a necessity for the implementation and assessment of intangible skills and as doctors, patients, and students acknowledge the importance and significance of professionalism within their perspectives, it becomes evident that medical schools have professionalism as a component of practice and assessment. In a similar vein, the Warren Alpert Medical School of Brown University implemented a contemporary curriculum for preclinical medical students to teach professionalism. The results of this study showed an improvement and highlight the importance of the novel curriculum by students and faculty members. In this study, professionalism was taught by a series of methods such as role-playing, panels and discussions (1). Additionally, a study by the New York University School of Medicine found an improvement through implementing a course which taught: information gathering, patient education, rapport building, delivering bad news, and interdisciplinary respect. Statistically significant improvements were found in the domains of communication and professionalism (2). The purpose of this paper is to introduce more common and innovative methods of teaching and assessing professionalism during medical

students' training.

Teaching professionalism

Although there are contrasting views on how professionalism can be taught, but there are a series of methods that professionalism can be nurtured and developed. Some of these methods have been highlighted in the following sections.

Simulation-based training

One of the means of improving professionalism is through simulation-based training. The effectiveness of simulations as a central thread in fostering technical, social, and behavioral skills in medicine is without question and now it is considered as the fabric of medical education. In a study conducted in the Western campus of Tufts University School of Medicine in Springfield, Massachusetts; professionalism incorporated the use of manikin simulator within a simulated environment. Residents were rated in areas of medical knowledge, patient care, professionalism, diagnosis, management, and communication. Residents expressed that simulation-based training is a successful and beneficial method which helps them in real clinical situations (3).

Standardized patients

One of the other options for teaching professionalism in



a real practice setting is the use of standardized patients (SPs). This matter has been highlighted by Accreditation Council for Graduate Medical Education (ACGME) as some of the core competencies introduced by this organization are hard to teach and assess due to their complex and imperfect nature. The ACGME has considered the use of SPs to be extremely effective for teaching and evaluating some of the “so-called” light competencies such as communication skills, professionalism, and systems-based practice (4).

Experiential learning

Another vital component in professionalism education is experiential learning. The positive influence of clinical experience on professionalism is an area of attention which undoubtedly has a great impact. In a study with two hundred medical students from Australia, England, and Wales, findings indicated that providing chances of discussion on professional matters through early patient interaction in clinical settings assisted the learning of professionalism (5). In another study conducted in County Durham and Darlington Foundation Trust, over a six-month period, physicians and medical students completed a paper-based questionnaire based on the definition, importance and how professionalism is best taught. Results showed that among an array of options to be chosen, clinical experiences was identified as being the primary source of education on professionalism (6).

Television programs and movies

There are also some, let's say, innovative approaches which have been used to teach professionalism. These can be television programs and movies like medical dramas such as ER, Grey's Anatomy, and House that can be considered as alternative ways of teaching professionalism. Evidence has strongly supported and approved the use of medical drama to be incorporated into the professionalism curricula as the use of medical dramas in a teaching context captivates medical students' interest (7). Evidence shows that the American medical student clerkship teaches extremely emotional issues (including breaking bad news and communication skills) to medical students by using excerpts from “ER”. The scenes from this movie are included in classroom instruction to provoke group discussion and debate (8). Another usage of medical drama can be referred to the series of “Gray's Anatomy” used by the Californian family practice residency program to teach professionalism. The episodes of “Gray's Anatomy” focus on the lives of surgical interns and residents as they gradually evolve into seasoned doctors, while it contains a wide gamut of professional behavior and ethical issues (9). In a study, in order to promote professionalism in the medical ethics and critical thinking course, five movies were screened by students attending each session. After watching the screen, students were inquired to express what they had learned from the scenes. Results showed that students gained mastery over ethical issues such as

professionalism (7).

Virtual methods

Another strategy for teaching medical professionalism is through virtual methods. Social networking sites such as Facebook, media-sharing sites like YouTube, wikis and blogs are being used by the majority of students nowadays. As learning professionalism is based on socialization and interaction, these tools can be applied to teach professionalism. Regarding this matter, in a study an online wiki was made available to 32 students to post resources and ask their questions regarding professionalism in problem-based learning groups. To validate the findings of the study, the researchers used questionnaires and convened focus groups. The findings indicate to two ways in which wikis foster learning about professionalism. First, they served as a space for shared knowledge. Second, the wikis led an overwhelming majority of students view themselves as professionals in using the wiki-space. The findings also highlighted that students were more informal about collaboration through electronic means before the implementation of the study (10).

Assessment of professionalism

In line with implementing and developing professionalism into the formal curriculum, it is of sheer importance to assess professionalism on a regular basis. Thus, it is apparent that there must be some valid and reliable evaluation tools to explicitly assess professionalism to warrant its application. Some of these methods are explained in the following sections.

The Professionalism Mini-Evaluation Exercise

The Professionalism Mini-Evaluation Exercise (P-MEX) is one of the means which is used to assess professionalism. In a study by Cruess et al (11), P-MEX was developed based on the mini-Clinical Examination Exercise (mini-CEX) format. P-MEX tool was made after identifying 142 observable behaviors relevant to professionalism in a workshop at McGill and converting 24 of them into P-MEX valuation format. The instrument was tested on clinical clerks in surgery, medicine, gynecology, obstetrics, psychiatry, and pediatrics. The results of this study show content and construct validity and certify that P-MEX is a reliable and valid format for the assessment of professionalism in clinical training settings.

360-degree instrument

The use of 360-degree instrument for assessing professionalism has shown promise. This tool gathers the required information from a variety of sources such as patients, patient families, nurses, peers, superiors and supervisors. Although the ACGME has suggested that the 360-degree evaluation is a useful and potential method in evaluating interpersonal and communication skills, professional behavior, as well as some elements of patient care and systems-based practice, Rodgers and Manifold (12)

proposed that the most suitable competencies measured are professionalism and communication skills. In a study which was done in 8 hospitals in 4 provinces of southern china, 148 resident doctors took part in completing the 360-degree tool which was developed by the Education Outcomes Service Group of the Arizona Medical Education Consortium. The instrument was completed by residents, their peers, physicians, nurses, patients, and staff (13). In a similar vein, Higgins et al (14) developed and customized a 360-degree survey tool based on the six competency categories highlighted by ACGME. Totally 30 items were included in the survey and cardiothoracic surgery residents were rated on a scale of 1 to 7. Residents then met with the 360-degree feedback specialist and the program director to develop an action plan based on the feedback. All these studies show that the 360-degree evaluation approach is obviously one of the more promising approaches to evaluating professionalism and is easy to use, promotes feedback and its validity and reliability have been confirmed through multiple sources of respondents.

Objective structured clinical examinations

Additionally, Objective structured clinical examinations (OSCEs) and SPs are a matter of attention in evaluating professionalism. The assessment toolbox introduced by ACGME stresses the valid, reliable, and fair assessment of this method. SPs can be used in the domains of teaching and assessing medical students in history taking, interpersonal and communication skills, and clinical reasoning with a focus on increased patient satisfaction (15). In a study by Yudkowsky et al (16), a SP-based OSCE was developed to evaluate the communication and interpersonal skills of second- and third-year surgical residents across 6 challenging communication tasks. The study found the use of this technique reliable and efficient in assessing professionalism.

Peer assessment

Peer assessment has also been considered as a powerful tool to assess interpersonal skills and professional behavior of the people with the same level of knowledge and training such as medical students, residents, and practicing physicians. The information gathered through peer ratings can be effective in self-improvement and enhancing summative decisions in terms of promotion and retention (15). A study by Asch and colleagues (17) looked at peer assessment for year 3 students as part of a formal grading process which involved sharing peer feedback with students. The findings indicated that peer feedback was viewed more meaningful than feedback obtained from faculty and expressed that peer ratings played a pivotal role in helping students develop learning skills and a mastery over professional behaviors and attitudes. The findings suggest that peer assessment can be used in the measurement of interpersonal skills in medical training courses and that medical students are a source of giving and receiving constructive feedback.

Portfolio

Portfolios are considered a practical tool in provoking summative judgment as they efficiently assess daily performance and collate a complete range of information. In this regard, medical students can formatively analyze their own performance, reflect on and improve their practice by targeting realistic objectives for further learning (15). Evidence shows that the dynamic and flexible nature of portfolios is suitable for the assessment of the multifaceted and complex context of professionalism. By its application, skills such as self-assessment and reflection which are handy elements of professionalism can be achieved (18). One study at the Faculty of Medicine at the University of Sydney utilized portfolios and interviews to assess year 1 students in personal and professional development (PPD). Students were asked to provide a 20-page portfolio related to PPD objectives. Any evidence of progress was welcomed to be included in the portfolio as well. Students were also motivated in reflection and self-evaluation in the confidential interview. The findings acknowledged that portfolios have an impact on promoting a deeper understanding of students' PPD as it is essential in assisting physicians for a diversity of stresses that they encounter in medicine (19).

We highlight that as medical knowledge, technical skills, and patient care must be taught and assessed through systematic methods within the field of medicine in school-like settings, the same must be taken into consideration about those intangible competencies such as professional behaviors and attributes which are hard to teach and assess. With the changes in society in terms of claiming doctors to be honest, respectful, kind, and to do everything possible to help patients, professionalism finds its importance to be incorporated into the medical curricula. Based on these expectations, we believe that medical authoritative bodies should be constantly striving for and pursuing teaching and assessing tools into the curriculum to teach professionalism for better doctor-patient relationship and equipping medical students in the constant changes of the medical arena within their careers. The development in medical schools and training programs of structured curricula which explicitly include the teaching and assessing of professionalism is very important. Therefore, as there are methods of teaching and learning within the formal curriculum for a mastery over cognitive capacity and skills, there must be some teaching and assessing tools for the so-called "soft competencies" as well. The identified approaches in our paper are some ways of addressing professionalism in which medical schools can apply them in their curriculum.

Ethical issues

Not applicable.

Authors' contributions

Both authors equally contributed to the writing and revision of this paper.

References

1. Shield RR, Tong I, Tomas M, Besdine RW. Teaching communication and compassionate care skills: an innovative curriculum for pre-clerkship medical students. *Med Teach* 2011; 33(8): e408-e416.
2. Hochberg MS, Kalet A, Zabar S, Kachur E, Gillespie C, Berman RS. Can professionalism be taught? Encouraging evidence. *Am J Surg* 2010; 199(1): 86-93.
3. Fernandez GL, Lee PC, Page DW, D'Amour EM, Wait RB, Seymour NE. Implementation of full patient simulation training in surgical residency. *J Surg Educ* 2010; 67(6): 393-399.
4. Levine IA, Swartz HM. Standardized patients: The "other" simulation. *J Crit Care* 2008; 23(2): 179-184.
5. Monrouxe LV, Rees CE, Hu W. Differences in medical students' explicit discourses of professionalism: acting, representing, becoming. *Med Educ* 2011; 45(6): 585-602.
6. Riley S, Kumar N. Teaching medical professionalism. *Clin Med* 2012; 12(1): 9-11.
7. Lumlertgul N, Kijpaisalratana N, Pityaratstian N, Wangsaturaka D. Cinemeducation: a pilot student project using movies to help students learn medical professionalism. *Med Teach* 2009; 31(7): e327-e332.
8. McNeilly DP, Wengel SP. The "ER" seminar: teaching psychotherapeutic techniques to medical students. *Acad Psychiatry* 2001; 25(4): 193-200.
9. Pavlov A, Dahlquist GE. Teaching communication and professionalism using a popular medical drama. *Fam Med* 2010; 42(1): 25-7.
10. Varga-Atkins T, Dangerfield P, Brigden D. Developing professionalism through the use of wikis: a study with first-year undergraduate medical students. *Med Teach* 2010; 32(10): 824-829.
11. Cruess R, McIlroy HJ, Cruess S, Ginsburg SH, Steinert Y. The Professionalism Mini-Evaluation Exercise: a preliminary investigation. *Acad Med* 2006; 81(10): 574-8.
12. Rodgers KG, Manifold C. 360-degree feedback: possibilities for assessment of the ACGME core competencies for emergency medicine residents. *Acad Emerg Med* 2002; 9(11): 1300-1304.
13. Qu B, Zhao Y, Sun B. Evaluation of residents in professionalism and communication skills in south China. *Saudi Med J* 2010; 31(11): 1260-1265.
14. Higgins RS, Bridges J, Burke JM, O'Donnell MA, Cohen NM, Wilkes SB. Implementing the ACGME general competencies in a cardiothoracic surgery residency program using 360-degree feedback. *Ann Thorac Surg* 2004; 77(1): 12-7.
15. van Mook WN, Gorter SL, O'Sullivan H, Wass V, Schuwirth LW, van der Vleuten CP. Approaches to professional behavior assessment: tools in the professionalism toolbox. *Eur J Intern Med* 2009; 20(8): e153-7.
16. Yudkowsky R, Alseidi A, Cintron J. Beyond fulfilling the core competencies: an objective structured clinical examination to assess communication and interpersonal skills in a surgical residency. *Curr Surg* 2004; 61(5): 499-503.
17. Asch E, Saltzberg D, Kaiser S. Reinforcement of self-directed learning and the development of professional attitudes through peer- and self-assessment. *Acad Med* 1998; 73(5): 575.
18. Driessen E, van Tartwijk J, Dornan T. The self critical doctor: helping students become more reflective. *BMJ* 2008; 336(7648): 827-30.
19. Gordon J. Assessing students' personal and professional development using portfolios and interviews. *Med Educ* 2003; 37(4): 335-40.