

The Legacy of Teaching Medical Professionalism for Promoting Professional Practice: A Systematic Review

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ABSTRACT

Medical professionalism is a multi-dimensional construct. Teaching the culture-specific, context-based and societal characteristics of medical professional are challenging. This work identifies the teaching strategies for medical professionalism drawn from the published articles that have validated their effectiveness through some objective measures. In May 2016, the databases of ISI web of knowledge, Scopus, the Cochrane Library, and MEDLINE were searched for the full-text English-language articles published during 2005 through 2015 using the keywords "Medical professionalism" OR "Role modelling" OR "Teaching and learning" OR "Mentoring" OR "Hidden curriculum" OR "Reflective practice". This search showed 974 articles and further shortlisting and exclusion of non-relevant material selected 48 articles for detailed analysis in this systematic review. The published work that employed various pedagogies for teaching medical professionalism showed marked heterogeneity. The most powerful and effective strategies with profound impact has been imparted by role modelling, mentoring, hidden curriculum, reflective practice, and by effective communication. Medical faculty can exert positive and exemplary role by practicing with integrity, respect for patients, and altruism. Interactive lecture, vignettes, small group teaching, simulation and videotape reviews have been shown be effective teaching tools. There is no universally agreed model that can effectively integrate the teaching of professionalism in the medical curriculum. However, the professional performance of medical faculty by role modelling in hidden curricula and by delivering key principles of reflective practice and mentoring can potentially inculcate and promote a professionally rich culture among medical students.

Key words: Medical professionalism; Role modelling; Teaching and learning; Mentoring; Hidden curriculum; Reflective practice

INTRODUCTION

Academics have not succeeded in agreeing upon a standardised or a universal definition of medical professionalism due to its culture-specific and societal characteristics. Nevertheless, a working definition of medical professionalism is essential to its convey meaning, values, and core constructs to the medical fraternity¹.

DeWitt Baldwin defines professionalism as a "value-oriented ideologically based construct"², Hafferty considers professionalism as "abstractedness versus specificity"³, and van Mook describes professionalism as either an ethos or as a set of attributes to be mastered⁴. In addition, medical professional has been shown to be a complex construct based on behaviours⁵⁻⁶.

The qualities of altruism, honesty, accountability, duty, integrity, respect for others, autonomy, teamwork, and lifelong learning have been attributed to medical professionalism⁷. To inculcate these desirable qualities of medical professionalism in students, curriculum reforms need to be implemented that can incorporate a diverse and versatile educational contents such as professionalism⁸. However, Howeargues that “one of the most pressing requirements for contemporary medical education is to develop a framework for theory and practice of professional development which results in the attainment of professional competencies suitably robust for a lifetime’s practice”⁹. This high level of goal setting is compounded by findings of the research by Guraya *et al.* that explored the perceptions about lapses of academic integrity from a cohort of a Saudi and a UK medical school and showed that while there was some congruence, there were also substantial differences between ratings of the importance of poor professionalism¹⁰. These findings of variations in the perceptions towards professionalism under the influence of cultural and regional characteristics have been reported by other researchers as well¹¹⁻¹².

Teaching medical professionalism is challenging and complex¹³. Riley *et al.* have argued that, although professionalism can be nurtured and developed, learners must possess the generic quest that can motivate them to acquire the desired qualities of professionalism¹⁴. Literature is deeply divided as to when formal teaching of professionalism should begin and when should professionalism be embedded into the existing medical curricula¹⁵. A wealth of evidence has shown that role modelling and early clinical contact can engage the students in socialisation and thus allowing them to enter their community of practice¹⁶. Nevertheless, there is lack of convincing data that can support the implementation of a validated teaching and learning pedagogy for medical professionalism across the world.

The current research work attempts to systematically identify the published research that provides the best evidence for teaching medical professionalism. This work also draws upon the findings by the evidence-based studies about the instructional strategies for medical professionalism

with established effectiveness through validation and objective evaluation.

Study Design

Data Sources

The databases of ISI web of knowledge, Scopus, the Cochrane Library, and MEDLINE were searched for the full-text English-language articles published during 2005 through 2015. The process of selection of articles for this systematic review was structured by the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)⁽¹⁷⁾. Data Selection

Medical Subject Headings (MeSH) keywords ““Medical professionalism” OR “Role modelling” OR “Teaching and learning” OR “Mentoring” OR “Hidden curriculum” OR “Reflective practice” were used for the literature search. All qualitative and quantitative reports, empirical studies and papers with clear methodology were included.

Data Extraction and Data Synthesis

The bibliographic lists from all papers fulfilling the inclusion criteria were analysed and full-text of relevant papers were retrieved. These papers were then reviewed for inclusion in the final data synthesis. To eliminate search bias and for transparency and quality, two researchers independently reviewed every single article to matching qualifying criteria during data synthesis.

Search Results

Initial search showed 974 publications and when search was refined on the bibliographic list, it showed several non-relevant articles such as abstracts, conference proceedings, letters to editor, and short communications. Articles about professionalism in professions other than medicine were also excluded. In addition, the articles about any single aspect of professionalism, like communication skills or honesty, were also excluded. Finally, 48 articles about how to teach medical professionalism were selected for this systematic review.

Lack of A Unified Model for Teaching Medical Professionalism

There is a little evidence that can support

the existence of a universal theoretical or practical model that can conveniently integrate the teaching of professionalism in the medical curriculum¹⁸. This flaw in globalization of teaching medical professionalism is mainly driven by the regional perceptions and institutional and cultural approaches towards the understanding of professionalism. Although professional institutions across the world have established criteria for professionalism, there is scarcity of literature that can signal concerted efforts mounted by a group of leading institutions that can demonstrate a validated, consolidated, and replicable teaching framework for professionalism.

Place of Medical Professionalism in Curriculum

Coulehan has rightly stated that the traditional education of professionalism is 'too little, too soon, too late, too distant, and too countercultural'¹⁹. Its because professionalism is introduced too early in the medical curricula amidst other basic subjects that invariably demand rote memorization and the real essence of professionalism is overlooked. Its too distant from

reality as the case scripts reviewed in classrooms often bear little resemblance to real clinical practice. Its too countercultural as the primary aims and scopes of clinical training don't resonate well with the professional virtues. Cruess has proposed a pragmatic approach for the place of professionalism module in curriculum and has suggested that "the teaching of professionalism should start with the recognition that there is a cognitive base to professionalism which must be taught explicitly and then be reinforced and internalized by the student through experiential learning"²⁰.

Teaching Pedagogies for Medical Professionalism

The use of a myriad of insurrectional tools such as interactive lectures, small group discussions, case vignettes, role plays, simulations, videotape reviews, experiential learning, and dependent and independent learning play key roles in teaching professionalism²¹⁻²³. The induction of faculty development programs can be powerful tools in initiating and setting the direction for curricular reform and in promoting the faculty's

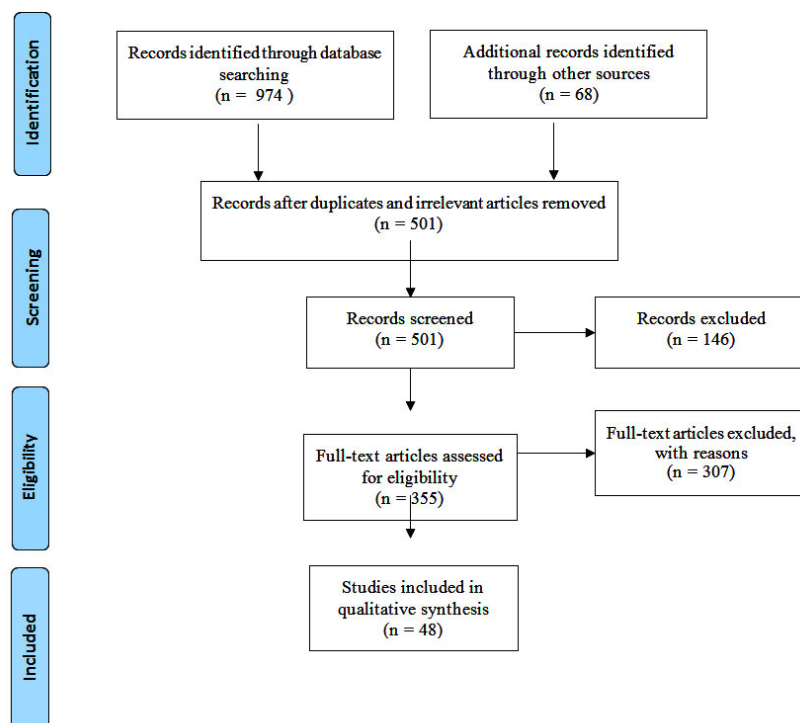


Fig. 1: PRISMA flow diagram showing the step-wise selection process of studies in this systematic review

knowledge and expertise about medical professionalism²⁴⁻²⁵. Al-Eraky *et al.* has introduced a three-step faculty development program that has been shown to carry great promise in the Arabian context; an orientation workshop for a full-day interactive workshop; vignettes development for constructing clinical scenarios about professionalism in the relevant disciplines; and teaching professionalism where teachers presented their written vignettes to students in classrooms and clinical rounds²⁴.

Goldie *et al.* conducted tutor interviews and students focus group discussions to probe the tutors' and students' perceptions about the delivery of professionalism in the early years of Glasgow's learner-centred, integrated medical curriculum¹⁶. This research developed themes about the nature and impact of medical professionalism and effective learning strategies such as small group teaching, curriculum integration, and portfolios. The profound impact of early clinical exposure inspired the students and fostered their contextual and integrated learning that promote their socialisation into the medical profession.

The Most Commonly Applied Strands for Teaching Medical Professionalism

Research has shown a scaffold of teaching pedagogies of individual traits of medical professionalism that can be customized to the needs analysis and goal setting set by different institutions. We have identified four individual strands of professionalism and each institution can formulate a teaching framework by selecting the most suitable strands of medical professionalism (Figure 2). Role Modelling

Role-modelling remains one of the most effective tools of teaching professionalism to undergraduate medical students²⁶. Role modelling refers to a process where "faculty members demonstrate clinical skills, model and articulate expert thought processes and manifest positive professional characteristics"²⁶. Role modelling has been shown to occur during forums of formal, informal and hidden curricula²⁷. The informal curriculum is a primarily ad hoc and interpersonal type of teaching among faculty and students. Role models differ from mentors as they teach and influence by example, while mentors have a formal relationship with students.

An effective role model must possess excellent level of clinical knowledge²⁸, superlative teaching skills, and can create exemplary rapport with learners in a positive, supportive educational environment. The physician role models are required to inculcate a role modelling consciousness in that they should be aware of being role models when interacting with patients in the presence of learners²⁹. The desired personal traits of role models include effective interpersonal skills, integrity; physician leadership qualities, polite and enthusiastic, and a commitment to excellence³⁰. Although Basco and Reigart proposed three-stage process (observation, reflection and reinforcement) of learning from positive role models³¹, role modelling can be more informal and unscheduled particularly when learners directly observe skilled doctors' performing procedures in real workplace environment³². Another dimension of doctors role modelling is its positive impact on career selection made by the learners as medical disciplines are so complex and current evidence identifies that the

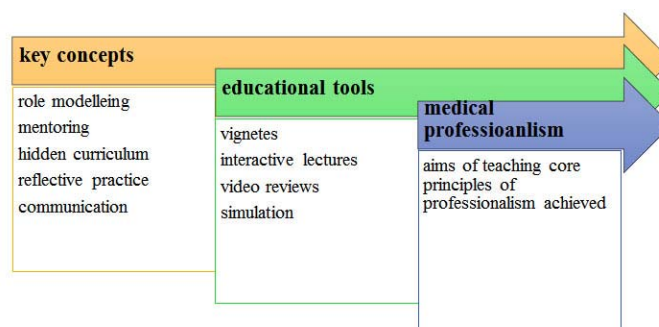


Fig. 2: Illustration showing the contribution of role modelling, mentoring, hidden curriculum, reflective practice and various educational tools for teaching medical professionalism

trainees' decisions change at different stages of undergraduate and postgraduate training³³. In contrast, role modelling has been shown to disappoint the learners as doctors displayed derogatory humour and unprofessional behaviours towards their patients³⁴.

Mentoring

Mentoring is a relationship where mentor plays the role of an influential person who significantly helps the learner in achieving major life goals³⁵. "Mentoring is a protected relationship in which learning and experimentation can occur, potential skills can be developed, and results can be measured in terms of competencies and attainments, rather than territory covered"³⁶. In contrast, coaching involves a set pattern where coach teaches or trains in a particular way. The main essence of mentoring predominantly relies upon self-directed, student-centred learning through a holistic approach.

Gibbs *et al.* have provided ten desired core competencies that would lead to an effective mentor³⁶: Strong command on the subject; easy to approach and not intimidating; show genuine concerns to the mentee's future; provide subtle judgments and don't impose their decisions; discuss in a non-threatening environment; argue and debate in a friendly manner; compassionate; stay neutral; compassionate; and provide constructive feedback. The creation of mentor-mentee dyads holds significant potential for developing and fostering professionalism. Mentorship has a crucial role in monitoring learners' behaviors that transcends routine assessments, as currently practiced in the majority of medical programs³⁷. Mentor's role of remediation of unprofessional behavior is offered in the spirit of helping, not punishing.

The Hidden Curriculum

A hidden curriculum is known as a group of "processes, pressures and constraints which fall outside the formal curriculum, and which are often unarticulated or unexplored"³⁸. The hidden aspects of the curriculum have been shown to be important in professional education that essentially includes prolonged periods of exposure to the predominant culture³⁹. Educators have pursued that hidden

curriculum is the most powerful tool in transmitting the values of the profession⁴⁰⁻⁴¹. As compared to what students listen in the classroom, the everlasting impression is created by what they witness in the daily practice of faculty members, peer, and residents. This experience ultimately strengthens their attitudes and perceptions about the real expectations of the medical profession. It is an irony that medical students witness contradictory experiences between the taught principles of professionalism and unprofessional practices⁴². To witness the life-long effects of true medical professionalism, medical institutions must maintain learning environments that reflect professional aspirations and values⁴³.

Reflective Practice

Reflective practice, a way of studying one own's experiences to improve the way his/her work, has also been shown to be instrumental in developing professionalism qualities, if introduced in the early in the medical education⁴⁴. It is perceived to be the preparedness of doctors to think critically and to immerse themselves in reflection upon their professional behaviours that would, in turn, promote their professional competence⁴⁵. The emerging landscape of medical professionalism emphasises the doctors to critically reflect upon their own decisions⁴⁶. Schon has argued that professionals' practice is largely based upon tacit knowledge, knowing-in-action rather than reflection-in-action, and this approach does not allow them to critically identify their initial understanding of the problem⁴⁷. Studies have shown that doctors who regularly reflect upon their professional practice and learn from their experiences and errors may ultimately serve their community better than those who do not^{44,48}. Teaching the medical students about the core principles of reflective practice has an important role in promoting the professional attributes of tomorrow's doctors.

Communication Skills

Traditionally, effective communication skills and professionalism are known to be crucial for the practicing physicians to maintain optimum care and win patients' confidence and trust⁴⁹. Effective communication during medical practice leads to profound benefits such as patients'

adherence to management plans, symptom resolution, and satisfaction of both patients and physicians⁵⁰. In contrast, physicians who exhibit negative communication behaviors are more likely to have been sued for malpractice than those with better doctor-patient relations⁵¹. A study has shown that in as many as 70% of malpractice law suits, poor communication between physicians and patients accounted for most of the problems⁵².

Recognising the importance of effective communication skills for physicians, academics have emphasized for a shift from biomedical to biopsychosocial and, recently, from patient-centered to relationship-centered care⁵³. In addition, research has shown that students' communication skills deteriorate during their clinical years⁵⁴ and, unfortunately, the delivery of these skills is grossly overlooked during these years of studies⁵⁵. Therefore, one of the major curricular reform should aim at embedding communication skills module during the clinical years of training.

The Impact of Teaching Professionalism on Medical Students

Several quantitative studies have shown a positive impact of embedding and teaching medical professionalism to the undergraduate medical students. A study by Boenink *et al.* compared the professionalism of medical students before and after the introduction of professionalism programme in the Netherlands⁵⁶. The researchers reported a positive impact on students' ability to correctly analyse and judge a scenario given as an example of professional or unprofessional behaviour. Another study by Roberts *et al.* showed that medical students were more satisfied by the clinical teaching of medical professionalism than the formal didactic lectures, videos, and grand rounds presentations⁵⁷. Other studies have also endorsed the effectiveness of embedding medical professionalism modules in medical curricula that can potentially improve the quality of professional

practice in the long run⁵⁸⁻⁶⁰. A growing body of qualitative research has also shown a positive impact of teaching critical reflection⁶⁰, role modelling⁶¹, and communication skills⁶² to the medical students. These reports may encourage the educators for immersing medical professionalism courses in the undergraduate medical curricula. Educators can embed individual traits of medical professionalism in congruence with the societal and cultural values and institutional policies.

CONCLUSION

Current literature fails to reflect a clear consensus definition of professionalism. The lack of a consensus definition of professionalism hampers the development of an agreed teaching pedagogy. The educational strands for individual traits of medical professionalism that can be embedded in courses are role modelling, mentoring, hidden curriculum, reflective practice, and effective communication. However, the professional conduct of medical faculty by role modelling in hidden curricula and by teaching core principles of reflective practice and mentoring can potentially encourage and enhance a professionally rich culture among medical students. Academics are urged to collaborate worldwide to share ideas in developing excellence in role modelling and reflective that will, in turn, establish high standards of patient care and professional excellence. Future research is needed to explore the association between culture, versatility and gender while recruiting physician role models and mentors.

Authors' contributions

SYG conceived the idea, conducted literature review and wrote the first and final draft. SSG verified the search findings and reviewed the final draft. HHA reviewed the final draft and all authors approved final manuscript.

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