Professionalism and its forms of assessment in medical students: An integrative review

O profissionalismo e suas formas de avaliação em estudantes de Medicina: uma revisão integrativa (resumo: p. 15)

El profesionalismo y sus formas de evaluación en estudiantes de Medicina: una revisión integradora (resumen: p. 15)

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With the objective of systematizing information on the assessment of professionalism among medical students, an integrative review was carried out in May 2018 in the databases EBSCOhost, LILACS and MEDLINE, via PubMed, from 2013 to 2018. Overall, 12 articles and three thematic axes were found: Professionalism: a multidimensional and undefined construct; The teaching of medical professionalism; and Assessing professionalism: multiple assessment strategies. Assessment through domains such as altruism, responsibility, care and teamwork is frequent, and simulated scenarios, standardized patients, online questionnaires or applications may be used. The importance of modeling in the teaching of professionalism is emphasized, as well as the use of feedback associated with other assessment methods. We concluded that there is not one single concept of professionalism and noticed that better assessments are produced when different methods are associated.

Keywords: Professionalism. Medical education. Medicine undergraduate course.
Introduction

Although there is not one single concept\(^1,2\), professionalism can be defined as a group of attitudes, values, behaviors and interactions that act as the basis of the health professional’s contract with society\(^3\). It represents a complex, dynamic and multi-dimensional construct that is difficult to define and encompasses multiple and varied concepts which, many times, are dissimilar. It also includes individual and behavioral factors that are learned throughout life and are influenced by sociocultural aspects\(^1,4\).

Due to this, establishing an ideal model to teach and assess professional attitudes can be quite challenging\(^1,2\). Likewise, conducting such an assessment among medical students, capturing lapses or inadequate attitudes, is not an easy task\(^5\).

The most recent version of the National Curricular Guidelines (DCN) for the Medicine Program, published in 2014, does not cite the term professionalism. The competencies that must be developed by the medical student, cited in the DCN, are: humanism, ethics, sensitivity, confidentiality, sense of social responsibility, non-verbal communication, commitment, empathy, decision-making, reflection and communication, which encompass the need to develop attitudes characterized as professional\(^6\).

Medicine embraces attributes that go beyond technical skills, such as humanism, integrity, accountability, altruism, teamwork, among others. Therefore, the doctor is expected to have developed non-cognitive skills, like communication, collaboration and self-improvement. Professional competency depends on the presence of all these characteristics\(^7,8\).

The final objective of medical education is to form competent professionals who have technical and clinical knowledge and capacity, who are capable of renewing their learning throughout life, and who have an ethical and moral behavior\(^9\). The art of providing care is a daily challenge that requires of the doctor a holistic view of the patient. This art must be taught and improved in a broad, universal, ethical and humanistic way during the doctor’s education\(^10\). Some changes undergone by Medicine throughout the years have caused the emergence of questionings about medical education and its forms of assessment and teaching inside universities\(^1,11\).

Students’ negative behavior during undergraduate education continues in professional life, influencing their conduct in their future career\(^7\). For this reason, there has been a great concern about the establishment of an ideal model for medical assessment focusing on interventions that aim at behavioral changes and enable new teaching models\(^2\).

In this process, it is necessary to raise the faculty’s awareness of their role as formative agents of behaviors and attitudes, and as influencers of good actions and changes in their students’ way of acting\(^4,11\). In addition, it is important that the assessment and teaching processes enable students to reflect on the importance of displaying professional behaviors\(^8\).

Assessment strategies that include, simultaneously, knowledge, moral attitudes, values and behavior are very limited; therefore, new approaches are needed. Due to this, the search for a definition and for an adequate form of assessment of medical professionalism has originated assessment instruments\(^12,13\).

Different models have been used to assess medical professionalism based on attributes called “domains”, which can be exemplified by altruism, honor, compassion, responsibility,
teamwork, self-control, ethical principles, and clinical excellence. Each domain must be adequately defined and adapted to the local reality. Furthermore, it must have a meaning of its own in undergraduate education, so that it has efficacy and can guide teaching methods.

In view of the fact that the concept of medical professionalism is not standardized and due to the importance of this theme for medical education, we developed this study in order to investigate definitions of medical professionalism present in the scientific literature and in what way this concept has been assessed among medical students. Thus, we propose, in this integrative review, to compile the information available in scientific productions about the definition of medical professionalism and its forms of assessment.

**Methods**

Aiming to synthesize the results of relevant and internationally recognized research, the method used was the integrative literature review. The integrative review is a very important tool in the area of health, as it synthesizes the knowledge that is available about a certain subject, improving the utilization of present evidence.

The search was guided by the question: What is defined as medical professionalism in the scientific literature and how has it been assessed among medical students? The research was carried out in May 2018 by means of searches in the following electronic databases: EBSCOhost, Latin American & Caribbean Health Sciences Literature (LILACS) and Medical Literature Analysis and Retrieval System Online (MEDLINE), via PubMed, in the period from 2013 to 2018. The descriptors used were obtained from Descritores em Ciências da Saúde (Health Sciences Descriptors - DeCS) or from Medical Subject Headings (MeSH). In English, they were: “Professionalism” (DeCS and MeSH), “Education, Medical” (DeCS), “Education, Medical, Undergraduate” (MeSH), “Internship and Residency” (DeCS and MeSH). The Boolean expression “AND” was used, always intersecting the first descriptor with one of the other three. In the MEDLINE database, the descriptors in English were used. In the other databases, the search was conducted with the descriptors in English and their correspondents in Portuguese. The research included observational studies (cohort, case-control and cross-sectional studies), indexed in the last five years in the selected databases, that answered the research question. Opinion articles, letters to editors, theses, dissertations and comments were excluded.

Overall, 85 articles were found, of which 13 were excluded due to duplicity with the use of the Mendeley platform. Of the 72 remaining articles, 35 were excluded because they did not answer the research question. Of the 37 articles selected through the reading of their abstracts, 8 were not fully available, 3 defined professionalism but did not cite its form of assessment, and 14 focused on forms of assessment in medical residency. The 12 articles that remained are presented in Table 1, which summarizes the definition of professionalism, its assessment methods and the domains assessed in each published study. The flowchart of the selection of the articles that composed the integrative review can be found in Figure 1. It was not necessary to obtain the approval of the research ethics committee (CEP) because this research does not involve human beings.
Figure 1. Flowchart of the excluded and selected articles.
### Table 1. Definition, domains and forms of assessment of medical professionalism among undergraduate students

<table>
<thead>
<tr>
<th>Title/Authors/Year</th>
<th>Target audience</th>
<th>Utilized instrument</th>
<th>Definition of professionalism</th>
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<tr>
<td>1. Quantitative and Qualitative Analysis of the Impact of Adoption of a Mobile Application for the Assessment of Professionalism in Medical Trainees&lt;br&gt; Juan C. Cendán; Analia Castiglioni; Tereza R. Johnson; Mike Eakins; Marcia L. Verduin; Abdo Asmar; David Metcalf; Candida Hernandez – 2017</td>
<td>Residents, students and teachers of the Medicine program&lt;br&gt; Department of Medical Education, University of Central Florida (USA)</td>
<td>PROMOBES – Professional Mobile Monitoring of Behaviors&lt;br&gt; Mobile Application (App)&lt;br&gt; Assessed by a Likert scale</td>
<td>Medicine’s contract with society. Dynamic and multi-dimensional construction, encompassing individual factors, learned behaviors, sociocultural aspects and norms</td>
<td>Reliability&lt;br&gt; Responsibility&lt;br&gt; Self-improvement&lt;br&gt; Adaptability&lt;br&gt; Relationships&lt;br&gt; Learning principles&lt;br&gt; Commitment&lt;br&gt; Honesty&lt;br&gt; Altruism&lt;br&gt; Empathy&lt;br&gt; Self-confidence&lt;br&gt; Response in conflict situations&lt;br&gt; Confidentiality</td>
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<td>2. Beyond Selection: The Use of Situational Judgement Tests in the Teaching and Assessment of Professionalism&lt;br&gt; Barbara D. Goss; Anna T. Ryan; Joshua Waring; Terry Juud; Neville G. Chiavaroli; MPhil, Richard Charles O'Brien; Stephen C. Trumble; e Geoffrey J. McColl. - 2017</td>
<td>Final-year medical students&lt;br&gt; University of Melbourne/ Australia</td>
<td>Situational judgement test (SJT)&lt;br&gt; Three 40-item tests with relevant scenarios&lt;br&gt; High execution cost&lt;br&gt; Students suggest ideas for the tests (co-participation)</td>
<td>Critical attribute of medicine students that includes technical knowledge, behaviors, moral attitudes and values</td>
<td>Resilience&lt;br&gt; Empathy&lt;br&gt; Behavior&lt;br&gt; Integrity&lt;br&gt; Autonomy&lt;br&gt; Patient focus/safety&lt;br&gt; Communication&lt;br&gt; Confidentiality&lt;br&gt; Reduction in self-interest&lt;br&gt; Recognition of limitations&lt;br&gt; Work-leisure balance&lt;br&gt; Response in conflict situations</td>
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<td>3. A qualitative thematic content analysis of medical students' essays on professionalism&lt;br&gt; So-Youn Park, Changwoo Shon; Oh Jovem Kwon; Tai Young Yoon; Ivo Kwo. - 2017</td>
<td>Medical students&lt;br&gt; Kyung Hee University/ South Korea</td>
<td>Case report on witnessed nonprofessional attitudes with reflections on them</td>
<td>Concept connected with respect, medical responsibility and trust that is a dynamic construction of culture</td>
<td>Interest in the patient&lt;br&gt; Trust&lt;br&gt; Altruism&lt;br&gt; Accountability&lt;br&gt; Peer relationships&lt;br&gt; Communication&lt;br&gt; Respect for patient’s autonomy&lt;br&gt; Honesty&lt;br&gt; Recognition of limitations/mistakes&lt;br&gt; Confidentiality&lt;br&gt; Justice&lt;br&gt; Competency</td>
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<td>4. An investigation of professionalism reflected by student comments on formative virtual patient encounters&lt;br&gt; Ting Dong; William Kelly; Meredith Hays; Norman B. Berman; Steven J Durning – 2017</td>
<td>Medical students&lt;br&gt; Bethesda University/USA</td>
<td>MedU Aquifer Platform - virtual Pediatrics, Family Medicine and Internal Medicine patients</td>
<td>Necessary competency for doctors, students and residents that can be summarized as honor, integrity, respect and responsibility</td>
<td>Honor&lt;br&gt; Respect&lt;br&gt; Accountability&lt;br&gt; Integrity</td>
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<td>5. Professional Identity Formation in Medical School: One measure reflect changes during pre-clerkship training Adina Kalet, Lynn Buckvar-Keltz, Verna Monson, Victoria Harnik, Seteven Hubbard, Ruth Crowe, Tavinder K. Ark, Hyuksoon S. Song, Linda Tewksbury, Sandra Yingling – 2018</td>
<td>Medical students New York University/USA</td>
<td>Professional Identity Formation (PIF) assessed by the Professional Identity Essay (PIE) Feedback</td>
<td>Reflection of an ongoing developmental process that is shaped by the beliefs and values of the individual as well as by the environment</td>
<td>Professional identity Self-improvement Reflection Socioemotional development Moral principles Resolution of problems Resilience</td>
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<td>6. Your professionalism is not my professionalism: congruence and variance in the views of medical students and faculty about professionalism Kamran Sattar, Sue Roff, Sultan Ayoub Meo – 2016</td>
<td>Medical students and teachers King Saud University/ Saudi Arabia</td>
<td>Questionnaire called Dundee Polyprofessionalism Inventory Answers through the Bristol Online Survey</td>
<td>Essential aspect in medical education that must be assessed taking into consideration the sociocultural context; it involves attitudes, values and behaviors that act as the basis of the health professional’s contract with society</td>
<td>Integrity Punctuality Responsibility Reliability Peer relationships Confidentiality Ethics Compliance with rules Behavior Moral principles Honesty Behavior</td>
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<td>7. Speaking up using OSTEs to understand how medical students address professionalism lapses Constance R. Tucker, Beth A. Choby, Andrew Moore, Robert Scott Parker, Benjamin R. Zambeti, Sarah Naids, Jillian Scott, Jennifer Loome, Sierra Gaffney – 2016</td>
<td>Fourth-year medical students University of Tennessee/ USA</td>
<td>OSTE (Objective Structured Teaching Encounter) using standardized patients with professionalism lapses, in which students give their opinion about the situation and about how they perceive unprofessional attitudes Feedback</td>
<td>A set of individual behaviors, skills, values, and attitudes in the interaction with patients, families, and other team members</td>
<td>Respect Responsibility Excellence Honor Integrity Altruism Leadership Culture Compassion Confidentiality Interpersonal communication Caring</td>
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<td>8. Defining Medical Professionalism Across the Years of Training and Experience at the Uniformed Services University of the Health Sciences Virginia F. Randall, Christopher W. Foster, Cara H. Olsen, Anne B. Warwick, Katrina A. Fernandez, Gary Crouch - 2016</td>
<td>Medical students and teachers Uniformed Services University of the Health Sciences/USA</td>
<td>Questionnaires sent by e-mail to students and teachers about what they understand by professionalism through three words</td>
<td>List of values, desired behaviors and beliefs of how to deliver medical care with ethics</td>
<td>Responsibility Communication Diligence Emotional maturity Ethical Honesty Integrity Patient-first Lifelong-learning Reliability Respect Service Interpersonal relationship Teamwork Compassion Empathy Humanism Selfless</td>
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<tr>
<td>9. Professionalism dilemmas, moral distress and the healthcare student: insights from two online UK-wide questionnaire studies</td>
<td>Undergraduate students from many health areas; Various universities in the United Kingdom</td>
<td>Online questionnaires about witnessed unprofessional behavior to assess moral distress; Assessed by a Likert scale</td>
<td>Concept guided by morality, empathy, integrity, respect for patient's dignity and safety</td>
<td>Confidentiality, Use of authority, Behavior, Ethics, Morality, Dignity, Safety, Empathy, Autonomy</td>
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<td>Lynn V Monrouxe, Charlotte E Rees, Ian Dennis, Stephanie E Wells</td>
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<td>10. How Do Medical Schools Identify and Remediate Professionalism Lapses in Medical Students? A Study of U.S. and Canadian Medical Schools</td>
<td>Deans of medical schools in the USA and Canada; Various universities in the USA and Canada</td>
<td>Questionnaire with 16 questions about the assessment of professionalism (identification and correction of lapses) administered by telephone to deans of medical schools</td>
<td>A complex, dynamic, and evolving process based on the competing demands placed on individuals in the context of the organizational environment, product of innate character traits</td>
<td>Responsibility, Self-improvement, Self-awareness, Communication, Interpersonal relationship, Honesty</td>
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<td>Deborah Ziring; Deborah Danoff, Suely Grossman; Debra Langer; Amanda Esposito; Mian Koupresch Jan, Steven Rosenzweig; Dennis Novack</td>
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<td>11. Professionalism in Plastic Surgery Attitudes, Knowledge, and Behaviors in Medical Students Compared to Surgeons in Training and Practice - One, But Not The Same</td>
<td>Fourth-year medical students, surgical residents and surgeons; University of North Carolina/USA</td>
<td>Forms with multiple-choice questions about scenarios that depict situations of unprofessional behavior through the program Survey Monkey; Assessed by a Likert scale</td>
<td>The ability and willingness to apply knowledge and skill to a greater social good</td>
<td>Communication, Behavior, Altruism, Engagement, Autonomy, Honesty, Confidentiality, Respect, Self-regulation, Self-improvement, Integrity, Morality, Ethics, Commitment, Teamwork, Responsibility, Competence</td>
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<td>Charles Scott Hultman; Ida Janelle Wagner</td>
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<td>12. Learning medical professionalism with the online concordance-of-judgment learning tool (CJLT): A pilot study</td>
<td>Third- and fourth-year medical students; University of Montreal/Canada</td>
<td>CJLT (Concordance of Judgement Learning Tool) with 20 clinical cases about professionalism situations that are judged by students; Feedback</td>
<td>Fulfilment of roles and competencies and its development involves judging different situations</td>
<td>Not mentioned</td>
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<td>Amélie Foucault, Serge Dubé, Nicolas Fernandez, Robert Gagnon, Bernard Charlin</td>
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Results and discussion

After the analysis of the texts, three thematic axes emerged: a) Professionalism: a multidimensional and undefined construct; b) The teaching of medical professionalism; and c) Assessing professionalism: multiple assessment strategies.

Professionalism: a multidimensional and undefined construct

Historically, professionalism has been associated with its relation to the personality traits, values, attitudes, and beliefs that compose an individual. A possible definition of professionalism is based on developed qualities that make the activities performed by a certain person be recognized as professional. It includes humanism, altruism, empathy, respect and honesty\textsuperscript{15}. Likewise, it has been defined as a group of attitudes, values, behaviors, and interactions that represent the health professional’s contract with society\textsuperscript{3}.

Throughout the years, Medicine and medical education have undergone modifications. The increment in the use of technologies and transformations in service provision forms have changed the relationship between doctor and patient, increasing the distance between them and enabling the emergence of unprofessional attitudes\textsuperscript{1,11}.

Students are admitted to medical schools as laypeople, bringing behaviors they have learned throughout their lives. They have ideals that, many times, are lost during the undergraduate course. Their behavior must be shaped during education and this approach cannot be neglected when the student is admitted into university. The student’s transformation process into a doctor is modified every year and depends on the context in which they are inserted. Professionalism will have different definitions and will encompass different experiences and attitudes as a result of the student’s practice and experience\textsuperscript{16}.

The concept of professionalism is hard to define, as it involves multiple and varied concepts that, many times, are different. Its definition is complex, without a unitary characterization, and includes medical ethics, science and humanity\textsuperscript{17}. Due to the lack of one definition, it is difficult to teach it, and there may be differences between the concept given by the curriculum and what really occurs in practice\textsuperscript{15}.

Professionalism is a fundamental aspect of medical practice and is directly related to culture. Due to this, curricular interventions inside the university must be adapted individually to meet the needs of students from each location, in their different social and cultural contexts\textsuperscript{1,3}.

For the assessment of professionalism, attributes called “domains” have been created and subdivided into specific attributes, which facilitates analyses based on characteristics. Examples of domains are empathy, altruism, self-improvement, competency, punctuality, responsibility, respect, confidentiality, secrecy and fairness\textsuperscript{1,4,10,15}. It should be emphasized that the process of teaching and assessing students must highlight the importance of displaying these behaviors\textsuperscript{8}.

The way in which students understand the importance of ethical values in their profession influences their action as doctors in the future. The uncorrected mistake made in university tends to repeat itself after the education period and favors the receipt of disciplinary actions in the workplace\textsuperscript{15,18,19}. The student must be conscious of their mistake, and the mistake must be corrected when it occurs\textsuperscript{19}.
The teaching of medical professionalism

The teaching of professionalism is one of the great challenges faced by university teachers. Understanding that technical improvement must be allied to humanistic values and being committed to putting this into practice are extremely important to the success of learning, as it is not possible to have a competent doctor without the fusion of technical skills and humanization⁷, ¹².

This teaching of a professional conduct encompasses many aspects and lasts from the beginning of education in the classroom until the first contact with the patient. In the great majority of medical schools, teaching focuses on technical education to the detriment of values such as humanization, respect, interpersonal relationship, and behavior¹⁰.

The teaching of professionalism is very important. Thus, the educator must be committed to providing orientation about behaviors and values during the student’s education. However, there is not a standard model for this process and each institution decides what will be used in it⁵. This orientation does not refer exclusively to adequate technical education; it approaches values like moral and ethical standards, commitment to excellence, development of new skills and interest in new information, knowing how to deal with uncertainties, demonstration of empathy, compassion, honesty, integrity, altruism and care, loyalty and respect for patients and colleagues, and capacity to reflect on one’s own actions. Unfortunately, many of these values are not approached during academic education and ethical problems are not corrected during the university period¹⁰.

In view of all these factors, it is considered that the teaching of professionalism must be explicit in the undergraduate curriculum; however, this is still a gap in medical education³⁻⁰. The domains of professionalism must be very clear to students, so that they understand what needs to be modified in their attitudes⁵.

In the University of Montreal, Canada, a pilot study published in 2015 employed a Concordance of Judgement Learning Tool (CJLT) in 20 clinical cases about professionalism situations. The cases are judged by students and discussed with teachers²¹.

It should be noted that the learning of professionalism is not instinctive and it is not adequate for it to be taught exclusively by modeling, as the student may have contact with negative attitudes only, which emphasizes the great importance of the faculty’s collaboration in this function⁷, ¹¹.

The lack of formative examples is a point that should be corrected in universities, as it is known that positive characteristics brought by students may be lost over the years through contact with inadequate behaviors, but, fortunately, can be improved through adequate training¹⁰.

We strengthen the importance of associating, with the disciplines of the undergraduate course, an informal curriculum involving the teaching of ethical conducts and professional attitudes in a longitudinal way. Students must be informed that this content is also part of their learning experience¹¹. If professionalism and ethics are not emphasized during medical education, students may infer that they are not important in their education¹⁵. Many
researchers consider that the teaching of professionalism must be explicit in the formal undergraduate curriculum, being clear to students, so that they understand what needs to be modified in their attitudes\textsuperscript{3,20}.

Thus, we emphasize, once again, the faculty’s role in the teaching of professional behavior, viewing it as a key element for attitude changes. The learning of professionalism is also structured on models presented by the teachers-professionals who teach classes during the undergraduate course\textsuperscript{4,11}. An educational model in which the faculty is aware of their function is likely to successfully promote positive attitudes in students\textsuperscript{3,4}. It is important to understand that the student repeats, unconsciously, attitudes witnessed during the undergraduate course. Due to this, teachers’ development has great validity\textsuperscript{2}.

**Assessing professionalism: multiple assessment strategies**

Based on the analysis of the articles, we noted different forms of assessment.

There is not an ideal and universal model. Many times, they are used in a joint way, aiming at a more reliable and complete assessment. Strategies like the application of PROMOBES (Professional Mobile Monitoring of Behaviors) facilitated the capture of behavioral attitudes in real time, as it is a mobile application for cell phones. Students modeled themselves because they knew they were being observed all the time and, through instantaneous feedback, were stimulated to reflect and change their attitudes. Likewise, teachers became aware of the importance of observing conducts, and interested in intervening whenever necessary\textsuperscript{5}.

The Situational Judgement Test - SJT, in which students are assessed through simulated clinical scenarios and receive feedback, is a tool that enables the evaluation of various professionalism domains in a real way, measuring behavior, empathy, integrity, resilience, teamwork, and technical skills. The method also allows students to participate in the discussion of cases and to suggest new situations based on their personal experiences\textsuperscript{12}.

In the United Kingdom, a study involving different health courses used two online questionnaires approaching ethical dilemmas and unprofessional attitudes experienced during the undergraduate course and concluded that the health professional’s education occurs in work environments where they frequently face dilemmas that result in distress\textsuperscript{22}.

In a South Korean university, students enrolled in ethics wrote an anonymous text about an example of professionalism (or of nonprofessional behaviors) they had witnessed and, based on this, reflected on their own attitudes. Words like respect, responsibility and reliability predominated\textsuperscript{1}.

In the United States, an institution used a tool called MedU, which assessed professionalism through comments written by students after assisting virtual patients. It was possible to capture negative and unprofessional behaviors during the simulation of clinical cases\textsuperscript{18}.

The Dundee Polyprofessionalism Inventory was developed in the University of Dundee, United Kingdom, and has been validated in several countries. It lists different professionalism lapses and requests appropriate sanctions. A study carried out in Saudi Arabia with this instrument found a series of unprofessional behaviors and a large
amount of students who considered a bad attitude as something natural, not amenable to correction. This revealed the need of an urgent intervention to help students understand these attitudes as something maleficent to their integrity and professional future.

The assessment through OSTEs (Objective Structured Teaching Encounter), or OST Exercise, promotes the inverse process. It shows cases, using a standardized student who presents various professionalism lapses, like missed hand hygiene, lack of attention to patient comfort, poor interpersonal communication, overuse of medical terminology, unprofessional attire, and assesses how students perceive and remediate these attitudes, complemented by feedback.

Feedback-associated modeling is cited as an efficient method, strengthening the importance of consciously teaching the domains of the professionalism construct. Other methods investigate what is understood by professionalism by sending e-mails to university teachers and students and requesting them to list the three most important characteristics of a professional.

At the New York University, the Professional Identity Essay is used as an instrument for reflection on issues related to professionalism and on the meaning of being a doctor, evaluated as the first stage of Professional Identity Formation.

In 2015, when Hultman and Wagner assessed a large number of students, residents and doctors, they cited as efficient forms: modeling, personal experience and 360 degree peer evaluations, and classified as less efficient instruments: lectures, written tests, portfolios and journals.

Assessment methods favor the identification of professional lapses, enabling the student to reflect, and this tends to generate behavioral changes. Examples of lapses are: being late for classes, obtaining illegal access to examination questions, legitimizing absences by false testimony, forging signatures, cheating in examinations, posting inappropriate material on social media, using drugs, drinking alcohol before medical visits, physically assaulted colleagues or employees, and falsifying or fabricating data in published works. It is necessary to develop methods that improve the teacher’s capacity to detect these signs and to remediate, as early as possible, negative attitudes.

The problem posed by the assessment instruments is that it must be analyzed if what is assessed by them really corresponds to what is experienced and performed by students in practice.

Thus, we found that the assessment by means of instruments, guided by domains, is the most frequent. In the reviewed studies, four universities used simulated scenarios or standardized patients, three employed online questionnaires, four highlighted the importance of feedback associated with other methods, and one used a cell phone application for instantaneous assessment. Modeling is highlighted and cited in almost all the texts. In two cases, the opinions of teachers and deans about professional attitude and correction of lapses were also evaluated, strengthening the great importance of modeling and of the training of professionals who act in student education in undergraduate courses.
Final remarks

The study showed that professionalism is still an undefined and dynamic concept, with variations in each institution, as there is not one single concept in the scientific literature. Professionalism is assessed, mostly, by the evaluation of domains that encompass various attitudes understood as professional. Different assessment strategies are used, mainly questionnaires, standardized patients and simulated clinical cases, feedback and modeling. We believe it is necessary to associate methods to achieve a better longitudinal assessment, adapted to the stage the student is at during the undergraduate course.

Authors’ contributions

Mariana Aroucha Carneiro conceived and outlined the article. All the authors participated in the critical review of the content and in the approval of the manuscript’s final version.

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References


Com o objetivo de sistematizar informações sobre avaliação de profissionalismo em estudantes de Medicina, foi realizada em maio de 2018, revisão integrativa nas bases EBSCO, LILACS, MEDLINE, via PubMed no período de 2013 a 2018, sendo encontrados 12 artigos e três eixos temáticos: profissionalismo: constructo multidimensional e indefinido; ensino de profissionalismo médico; avaliando o profissionalismo: estratégias múltiplas de avaliação. A avaliação por meio de domínios como altruismo, responsabilidade, cuidado, trabalho em equipe, é frequente, podendo ser utilizado cenários ou pacientes simulados; questionários online ou aplicativos. Ressalta-se a importância da modelagem no ensino de profissionalismo e o uso do feedback associado a outros métodos de avaliação. Não existe conceito único de profissionalismo. Percebe-se a necessidade de associação de métodos para uma melhor avaliação.


Con el objetivo de sistematizar informaciones sobre evaluación de profesionalismo en estudiantes de Medicina, en mayo de 2018 se realizó una revisión integradora en las bases EBSCO, LILACS, MEDLINE, vía PubMed en el período de 2013 a 2018, habiéndose encontrado 12 artículos y tres ejes temáticos: profesionalismo: construcción multidimensional e indefinida; enseñanza de profesionalismo médico; evaluación del profesionalismo: estrategias múltiples de evaluación. La evaluación por medio de dominios tales como altruismo, responsabilidad, cuidado y trabajo en equipo es frecuente, pudiendo utilizarse escenarios o pacientes simulados; cuestionarios online o aplicaciones. Se subraya la importancia del modelado en la enseñanza del profesionalismo y el uso del feedback asociado a otros métodos de evaluación. No hay concepto único de profesionalismo. Se percibe la necesidad de asociación de métodos para una mejor evaluación.

**Palabras clave:** Profesionalismo. Educación médica. Graduación en Medicina.

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