

# Evaluating ethics teaching in medical education

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## Abstract

Ethics is a key aspect of society, presenting a critical view of cultural concepts and standards and indicating a distinction between right and wrong. In medical education, its teaching encompasses ways to care for human lives and address social relations pertaining to the profession responsibly. In Brazil, the number of ethical-professional lawsuits against physicians is increasing, and the issue may have its origins in medical school. Thus, this integrative review seeks to investigate how ethics, bioethics, and medical education are addressed by medical literature, focusing on aspects of medical ethics teaching such as methodology, course load, main topics discussed, and deficient aspects or those that require adaptation. Active methodology with the use of textbook literature emerges as the preferable teaching model, while insufficient course load and need to adapt ethics teaching to current social demands are the main deficits observed.

**Keywords:** Ethics, medical. Bioethics. Education, medical.

## Resumo

### Avaliação do ensino de ética no curso médico

A ética se insere em diversos segmentos da sociedade, apresentando uma visão crítica sobre concepções e padrões culturais e indicando uma distinção entre certo e errado. Na formação médica, seu ensino engloba a forma de lidar com a vida humana e com relações sociais pertinentes à profissão de maneira responsável. No Brasil, é crescente o número de processos ético-profissionais contra médicos, e o problema pode ter origem na graduação. Este estudo busca mostrar o que consta na literatura médica sobre ética, bioética e curso médico por meio de pesquisa bibliográfica do tipo revisão integrativa, que aborda segmentos do ensino de ética médica como metodologia, carga horária, principais temas abordados e aspectos deficitários ou passivos de adaptação à atualidade. Destaca-se metodologia ativa com uso de literatura paradidática em disposição transversal como preferível forma de ensino, além de déficits como carga horária insuficiente e necessidade de adaptação do ensino às atuais demandas sociais.

**Palavras-chave:** Ética médica. Bioética. Educação médica.

## Resumen

### Evaluación de la enseñanza de la ética en la carrera de medicina

La ética está en varios segmentos de la sociedad, con una visión crítica de conceptos y normas culturales que distinguen el bien y el mal. Su enseñanza en medicina abarca cómo afrontar responsablemente la vida humana y las relaciones sociales propias de la profesión. Brasil registra un aumento en las demandas ético-profesionales contra médicos, y el problema puede estar en la graduación. Este estudio busca identificar lo que hay en la literatura médica sobre ética, bioética y carrera de medicina, mediante una investigación bibliográfica, del tipo revisión integradora, que aborda segmentos de la enseñanza de la ética médica, como metodología, carga de trabajo, principales temas abordados y aspectos deficientes o pasivos de adaptación actual. Destacan la metodología activa con el uso de literatura paradidáctica en disposición transversal como forma apropiada de enseñanza, y debilidades como insuficiente carga horaria y necesidad de adaptar la enseñanza a las demandas sociales actuales.

**Palabras clave:** Ética médica. Bioética. Educación médica.

The authors declare no conflict of interest.

In current society, ethics permeates the most diverse spheres of knowledge and figures in philosophical, political, and economic issues, in addition to professional training and performance. Ethics stands as a critical view on conceptions and cultural standards to maintain the difference between right and wrong, based on precepts that benefit everyone without distinction, especially in medical practice, which contemplates different situations and possibilities of interpretation<sup>1</sup>.

In all professions, ethics is a set of positive values and behaviors related to the work environment that helps in executing tasks in an adequate manner and values a healthy atmosphere among the team, whether uni- or multiprofessional. Daily health care situations are permeated by social, political, behavioral, cultural, and technological factors. Thus, it constitutes a routine with a constant exercise of morality that directly impacts people's lives. Hence, health professionals must be prepared to take up position and act for the common good<sup>2,3</sup>.

In this context, medical education goes beyond teaching medical and biological sciences, including ethics and bioethics as disciplines that address issues related to a responsible way of dealing with human life, both in scientific research and in the physician-patient relation<sup>4</sup>.

In 1957, medical ethics teaching was instituted in Brazilian medical schools by guidelines of the Federal Council of Medicine (CFM). Currently, the National Curricular Guidelines (NCG) for undergraduate medical education states that *the medical graduate will have a general, humanistic, critical, reflective and ethical education, with the ability to act at different levels of healthcare*<sup>5</sup>. These NCGs are responsible for organizing, developing, and evaluating medical programs in Brazil.

Compulsory theoretical teaching of medical ethics and human rights is recommended by the World Medical Association<sup>6</sup> for all medical schools, as these themes are considered essential to the work, structure, objectives, history, and culture of the medical profession. Class discussions about dilemmas or situations in which students may have doubts become

of great importance given the possibility of questioning whether their positions would be ethically acceptable or not, as assessed by the ethical knowledge of the professor. At that moment, they can present points of view and "get it wrong," which would be unacceptable in professional practice<sup>7</sup>.

Research shows that students and professors consider ethics an important discipline in medical education. Students expect that undergraduate ethics teaching contribute to moral competence in their professional practice<sup>8,9</sup>. However, there seems to be a discrepancy between what these professionals think and the reality of care when the physician is present, especially regarding the quality of service and humanization.

In the current scenario of medicine in Brazil, the number of ethical-professional lawsuits against physicians is growing. From 2003 to 2013, there was a 302% increase in the number of complaints, all related to alleged violations of the Code of Medical Ethics (CME). Most of them are associated with the dehumanization of care, appearing disinterest in relation to the rules that should be followed<sup>10-14</sup>. These are facts frequently exposed by the media, which cause discredit to the physician's image and insecurity to patients during consultations or procedures, damaging the health care process in the country<sup>15,16</sup>.

Studies also point out that the problems that professionals face during this period justify the inclusion of teaching ethical processes in undergraduate courses, and likewise highlight the need for physicians who are more ethically prepared to deal with the demands presented by the population<sup>1,7,17</sup>. Colleges and universities are the education centers for individuals and are thus responsible for the quality of the professionals they form<sup>18</sup>. Studies that evaluate the current ethical training in medical courses are thus relevant, contributing to improve the current scenario of medicine in Brazil.

### Objectives

The objectives of this research were to verify how ethical and bioethical aspects are present in

medical education in Brazil, to investigate what is discussed in medical literature regarding research involving ethics, bioethics and the medical course, and to identify ethical challenges posed in medical training.

## Method

This is an integrative bibliographic review, a method that allows synthesizing knowledge and aggregating the usefulness of significant study results in practice<sup>19</sup>. The Medline and SciELO databases were searched and the following descriptors were used: medical ethics, bioethics, and medical education. The inclusion criteria were articles in Portuguese, with full texts were available at the time of the search. Editorials, manuscripts, and letters to the editor were excluded. The articles were initially selected from the title, then the abstracts were evaluated, and finally full texts were read to examine the variables: type of study, sample, analyzed variables, and results. All data from the selected articles were catalogued in tables and the analysis was performed by means of frequencies of responses to the current investigation.

## Results and discussion

A total of 3,103 articles were found in Medline through the association of the selected descriptors. After applying the exclusion criteria, the number of studies was reduced to 524 for full text reading. Of these, three were selected because they were in Portuguese, and two because they met the study objectives.

In SciELO, 66 articles were found. After applying the inclusion criteria, 36 were excluded for being editorials or not in Portuguese. Of the 30 selected, 26 met the needs of the current investigation. In both databases searched, only two articles were duplicates, resulting in 25 texts analyzed.

The authors of five articles showed interest in directly evaluating the syllabi of medical courses in search of information about ethics and bioethics teaching<sup>20-24</sup>. These studies

assessed issues such as: course load offered by disciplines, methodologies, and when in the course they were offered. The NCGs of the undergraduate medical courses<sup>25</sup> are responsible for orienting how medical courses should be offered by medical schools in Brazil. They include ethics as part of the knowledge, competencies, and specific abilities for every physician, and it should be part of the curricular content and organization of the course.

An analysis of ethical and bioethical aspects of NCGs of medical courses reaffirmed the legitimacy of teaching bioethics according to what they establish and broadens the view by urging colleges not only to offer the disciplines, but also guaranteeing that they are consolidated in academy and are offered and taught in a satisfactory manner<sup>26</sup>.

Teaching methodology is the set of theories that indicates the path to be followed in the teaching-learning process that, with the development of new technologies, adapts to the needs of society<sup>27</sup>. Thus, ten of the selected studies describe the main methodologies used in ethics teaching in Brazilian medical schools (11 descriptions in ten articles): traditional teaching present in two articles (18.8%), problem-based learning (PBL) present in two articles (18.8%), and active methodology in seven articles (63.63%)<sup>20,22,28,29-35</sup>.

Traditional teaching appears in two out of ten articles. It is carried out by means of lectures, in which the professor is the center of knowledge transmission. However, this model is becoming increasingly obsolete due to the ease of access to information by the students and the speed in technological evolution, causing difficulties in the affirmation of a teaching method that can be fast enough to follow such development<sup>28,29,36-38</sup>.

Another methodological tool found (two out of ten articles) is the problem-based learning (PBL), a new method in Brazil, which some medical schools have included in their curricula, based on successful experiences abroad. PBL brings a pedagogical philosophy aiming at the students' autonomy in their learning, allowing them to present the themes of their interests to a tutorial group so that the knowledge can be deepened

collectively. This pedagogical approach, which gives autonomy to students, also has requirements regarding the presentation of themes and a way of studying, such as: the theme must be described in a neutral way, use concrete terms, be free of distractions, keep the number of themes limited, and give guidelines as to the study method and the forms of group learning<sup>20,28,39,40</sup>.

Active methodology is present in seven out of ten articles, one of which contrasts its effect with the others. In this model, the professor becomes a guide and students the protagonists. Students are not just listeners, but agents that participate and interact in their learning process. There are several models that can be used in the active methodology. PBL itself can be described as one of them, since in it students are also protagonists. This methodological orientation also follows structure and norms, thus requiring the engagement of students to ensure functionality<sup>27,41</sup>.

Of the seven articles that describe active methodology, five determine the most used models in medical ethics teaching by medical schools in Brazil: the paradigmatic literature (three articles), the mock trial (one article), and the use of cinema as an adjuvant in teaching (one article)<sup>30-32,34,35</sup>.

The use of paradigmatic literature stands out as the model most commonly found in the studied higher education institutions (HEI). This model, when well used, provides students with reflections on several themes, in this case themes proposed for teaching ethics. The reflections include themes such as values, interpersonal relations, politics, social issues, and sharpen skills such as observation, interpretation, and clinical imagination<sup>31</sup>.

Of the articles studied, four addressed the workload allocated for teaching ethics and bioethics or equivalent disciplines, with a perceptible equality among the findings that were sufficient (two out of four descriptions) and unsatisfactory (two out of four descriptions), with only one of the studies presenting an HEI in which there was no specific discipline for these themes<sup>20,21,24,42</sup>.

Analyzing the course load allocated to medical ethics and bioethics disciplines in 198 out of 266 medical schools in Latin America and the Caribbean, one study concluded that it is

insufficient for the current demands of society. Moreover, private schools tend to offer less time for teaching medical ethics than public schools. On the other hand, another study<sup>20</sup> assessed the Federal University of Ceará (UFC) and the State University of Ceará (UECE), and the necessary improvements in the ethics teaching at UECE, and highlighted the satisfactory course load allocated to these disciplines at UFC. There is an offer of horizontal contents involving the themes, which makes the teaching of ethics more widespread at this university. Students at the UFC study ethical aspects throughout their entire undergraduate course, permeated in different disciplines, with a specific space dedicated to ethics and bioethics, and an extensive workload destined to these fields of knowledge<sup>24</sup>.

It is worth mentioning the Brazilian state of Minas Gerais, where 26 medical schools exist. Of this total, 18 were analyzed in an exploratory study, which showed that six medical schools do not offer specific courses on medical ethics or bioethics, and none of them covers medical civil liability as a discipline<sup>21</sup>.

As for the arrangement of ethics and bioethics disciplines during the course years, the transversal approach stands out as the most prevalent, which was found in four articles studied<sup>20-22,24</sup>. The classic model of ethics teaching, in which themes are taught in specific classes is becoming obsolete, as only the code of rules that is based on deontology is studied. This type of teaching has become inadequate to the demands of current medicine, requiring advances that accompany the development of society. Thus, transversality emerged, which briefly approaches themes related to ethics during different moments throughout the course, distributed among several disciplines<sup>43</sup>.

Four articles assessed the following themes, addressed in medical ethics teaching (Table 1): death; euthanasia, ethics, bioethics, and abortion; medical confidentiality; and professional responsibility<sup>22,23,29,35</sup>.

Seven articles address the deficits in medical ethics teaching and describe the issues poorly present in the literature (Table 2), requiring more attention from professionals involved: patients' rights related to medical records, medical

confidentiality, cooperativism, prescriptions, professor-student and student-patient ethical conflicts, social networks and use of photographs, palliative care, physician-patient relations, misuse of cadavers for procedures, and deficits in ethical knowledge in general<sup>1,9,28,42,44-46</sup>.

**Table 1.** Most frequent themes in medical ethics by studied higher education institutions and how many articles address them

Theme	Number of articles
Death	1
Euthanasia, ethics, bioethics, abortion	1
Medical confidentiality	1
Professional responsibility	2
Physician-patient relationship	2
Total	7*

\*Different articles described more than one theme, and this was the total number of themes. Thus, four articles described seven themes.

**Table 2.** Main themes with deficits described and how many articles address them

Theme	Number of articles
Patient rights related to the medical record Medical confidentiality Cooperativism Prescription	1*
Ethical conflicts professor-student and student-patient Social networks and use of photographs	1
Physician-patient relationship	2
Cadaver misuse	1
Deficits in ethical knowledge in general	1
Physician-patient relationship	1
Total	7

\*Each article described a set of themes in which there were deficits

Death and euthanasia were present in the most discussed themes by medical schools. However, palliative care, which aims to give

quality to the precursor process of death, appeared as neglected, leading the list of less addressed themes by these institutions. This type of care is relatively new and is about offering comfort to patients with serious life-threatening illnesses by controlling and preventing symptoms.

The concept also encompasses the people involved with these patients, such as family members and caregivers, who suffer and become ill with them. Discussing palliative care has become a demand in ethical teaching, due to the demographic changes taking place in Brazil, in which the increase in chronic-degenerative diseases has limited the activities of daily living and decreased the quality of life in the period before death<sup>47,48</sup>.

Among the described themes whose updating in ethics teaching is necessary in medical schools as they are current demands of society, palliative care appears at the top of the list (two out of four articles), followed by the use of social networks and cell phones (one out of four articles), and also focus on medical responsibility (one out of four articles)<sup>8,21,42,44,46</sup>.

A cross-sectional, descriptive, and analytical study examining the knowledge of medical school students at the Marília School of Medicine on aspects of the CME draws attention<sup>49</sup>. The research found no difference or evolution during graduation in the degree of knowledge about the CME provisions, showing fragility in medical ethics teaching system in this HEI. Thus, only one article revealed there was no significant change in students' knowledge after teaching medical ethics.

Due to deficits in teaching and update needs in other areas, nine articles offered suggestions of improvements to build a teaching of medical ethics that meets the needs of the current society (Table 3): creation of formal spaces to discuss ethical problems that students face throughout the course, use of paradigmatic literature, proposal of mock trials; cinema as a teaching adjunct, introduction of the homeopathic rationality model to the teaching used, creation of training and updating programs for professors; and introduction of the convergent bioethics model, to help future physicians in decision making during their professional life<sup>8-35,50-52</sup>.

**Table 3.** Suggestions for improving medical ethics education and how many articles describe them

Suggestion	Number of articles
Creation of formal space	1
Use of paradidactic literature	3
Proposal of mock trial	1
Cinema	1
Homeopathic rationality model	1
Program for professor training	1
Use of convergent bioethics	1
Total	9

Among the suggestions for progress in the teaching of medical ethics by medical schools in Brazil, the use of paradidactic literature appears as the most prevalent. This can be explained by the contribution that literature can give to the teaching of humanistic themes when it is well chosen. Paradidactic literature as a teaching tool stimulates reflection on relevant themes, encouraging interpretation and learning, besides contributing to the re-signification of ethical concepts such as euthanasia, dysthanasia, and orthothanasia<sup>31</sup>.

## Final considerations

It is noticeable in the literature that articles addressing ethics, bioethics, and medical course approach diverse themes, focusing on the teaching methodology used, the course load allocated to these

disciplines, the disposition in which these themes are approached during the course, the most discussed themes, the least mentioned themes, and which ones should be adapted to current social demands.

Ethical and bioethical aspects permeate medical education in Brazil through the active methodology, and the use of paradidactic literature is the main suggestion to improve teaching in this field. The current course load of ethics teaching regarding sufficiency and insufficiency is equivalent, and the disposition of the themes is mostly done in a transversal way. This is the most adapted way to the reality of social and technological advances in which we live.

As for the current demands, palliative care is the most prevalent, besides being the theme with the greatest teaching deficit. Medical responsibility and use of social networks are also present as demands of today's society. However, the responsibility of physicians is among the themes most addressed by HEIs.

One of the challenges of teaching ethics and bioethics in Brazil is, according to the research, to condense the teaching of essential themes to an insufficient course load in some HEIs, while still addressing all the remaining themes necessary in medical training. It also highlights the importance of expanding the active methodology to all medical schools to include the participation of students in their own learning. In addition, it is necessary to provide transversal teaching in medical schools to meet the demands exposed and experienced by students. Finally, it is relevant to adapt the themes addressed by medical ethics to the current demands that arise as technologies and societies develop.

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Eron de Oliveira Calado Godoi Segundo participated in the conception of the study, initial research, search for articles, data tabulation, search for theoretical references, and writing. Gilka Paiva Oliveira Costa advised and reviewed all the stages.

Received: 5.27.2022

Revised: 11.14.2022

Approved: 11.17.2022