

Perspectives of professors of medicine about medical ethics

Lorena Cunha Ferreira¹, Rogério Antunes Mourão², Rogério José de Almeida³

Abstract

This article aims to characterize the perspectives of professors from a medicine course about medical ethics. It is a descriptive cross-sectional study with a quantitative approach. Two questionnaires were applied to the 86 professors of the medicine course at PUC-Goiás: a socio-demographic questionnaire and another which assessed knowledge and interest in medical ethics. A descriptive analysis was performed using the Kolmogorov-Smirnov, Spearman, Mann-Whitney, chi-square and t tests (<0.05). The results found that the medical professors are aware of the Code of Medical Ethics and recommend its application during all modules of the course. A minority updated their knowledge of the subject frequently, have read the code completely and used it to prepare their lessons. We concluded that the higher the self-assessment of knowledge about medical ethics and the importance of this for the professor's own training, the greater the interest in using the Code in relation to his or her students, specifically in the preparation and implementation of lessons.

Keywords: Education, medical. Teaching. Ethics, medical.

Resumo

Perspectivas de docentes de medicina a respeito da ética médica

Este artigo tem por objetivo caracterizar as perspectivas dos docentes médicos de um curso de medicina em relação à ética médica. Trata-se de estudo transversal descritivo com abordagem quantitativa. Foram aplicados a 86 docentes médicos do curso de medicina da PUC-Goiás dois questionários: um sociodemográfico e outro de avaliação do conhecimento e interesse em ética médica. Realizou-se análise descritiva, teste de Kolmogorov-Smirnov, Spearman, Mann-Whitney, Qui-quadrado e teste t (< 0,05). Os resultados mostram que os docentes conhecem o Código de Ética Médica (CEM) e o recomendam no decorrer de todos os módulos do curso. Uma minoria atualiza-se com frequência, leu totalmente o CEM e o utiliza no preparo de suas aulas. Conclui-se que, quanto maior a autoavaliação do conhecimento sobre ética médica e sua importância para a própria formação profissional, maior também é o interesse em utilizar o CEM na relação com os alunos, especificamente na elaboração e realização das aulas.

Palavras-chave: Educação médica. Ensino. Ética médica.

Resumen

Perspectivas de los docentes de medicina acerca de la ética médica

Este artículo tiene como objetivo caracterizar las perspectivas de los médicos docentes de una escuela de medicina en relación con la ética médica. Se trata de un estudio transversal, de tipo descriptivo, con abordaje cuantitativo. Se aplicaron dos cuestionarios a 86 profesores médicos del curso de medicina de la PUC-Goiás: una evaluación socio-demográfica y otra de conocimientos e interés en la ética médica. Se realizó un análisis descriptivo, la prueba de Kolmogorov-Smirnov, Spearman, Mann-Whitney, chi-cuadrado y la prueba t (<0,05). Los resultados muestran que los profesores médicos conocen el Código de Ética Médica y lo recomiendan en el transcurso de todos los módulos del curso. Una minoría actualiza sus conocimientos sobre éste con frecuencia, lo leyó totalmente y lo utilizan en la preparación de sus clases. Se concluye que cuanto mayor es la autoevaluación de conocimientos acerca de la ética médica y la importancia de ésta para su propia formación profesional, mayor es también el interés en utilizar el Código en la relación con los estudiantes, específicamente en la elaboración y ejecución de las clases.

Palabras-clave: Educación médica. Enseñanza. Ética médica.

Aprovação CEP/PUC-Goiás CAAE 39325614.9.0000.0037

1. **Graduada** loreferreira@gmail.com 2. **Graduado** rogeriomourao@hotmail.com 3. **Doutor** rogeriopucgo@gmail.com – Pontifícia Universidade Católica de Goiás (PUC-Goiás), Goiânia/GO, Brasil.

Correspondência

Rogério José de Almeida – Rua 6, nº 250, apt. 603-C, Edifício Guarnieri CEP 74810-130. Goiânia/GO, Brasil.

Declararam não haver conflito de interesse.

Medical faculty careers in medical courses at Brazilian universities usually start without the proper institutional and pedagogical supervision of these lecturers. Among medical lecturers, especially doctors, in addition to the technical skills of their profession, it is required to have didactic and educational attributes that not only facilitate the access of students to basic knowledge, allowing them to develop technical and humanistic skills, but also the ability to awaken an understanding of the needs of the community of which they are part¹.

Moreover, it is common for a medical lecturer's career to begin with the prospect of gaining professional medical status and to progress as they reach the stages that establish an academic career. Added to that are professional recognition and scientific acceptance, elements that influence an increase in remuneration. The passage from one stage to another is linked to both professional endeavours as well as personal merits². The vast majority of medical teachers tend to start their career in teaching without the necessary training in educational methodology³.

The medical lecturer's role has changed in recent times. The traditional knowledge-transferring lecturer is giving way to learning facilitators. In Brazil, the National Curriculum Guidelines (Diretrizes Curriculares Nacionais) for medical courses have stated, in Article 26, that *the degree course in medicine will focus educational projects on the student as the subject of learning and be supported by the lecturer as facilitator and process mediator, with a view to providing full and proper training to the student*⁴. Lecturers need to have, not only a vocation for teaching, but also competence, the right attitude, dedication and knowledge of ethical responsibilities and rights⁵.

New medical schools adopt proactive methodologies, applying these strategies during the course, among which the "methodology of questioning" and "problem-based learning" are prioritised. With this approach, it is notable that, in daily contact with students, the medical faculties have been further consolidated as resources of expertise and as opinion makers regarding medical conduct and careers. In many cases, this relationship shows the strong influence of the lecturer on the student, especially because of the trust they place in their mentor's words and conduct, and in the reciprocity of the teaching-learning process. It is a fact that, during the medical course, this relationship is characterized by the direct influence of the lecturer on the future attitudes and proficiencies of students³.

Today, before the transformations mentioned above and the great changes that medicine has experienced in recent years, the study of medical ethics has become of great importance in order to understand the reality of professional practice and to anticipate new situations that could impose themselves on the lives of future doctors. Therefore, to strengthen the practice of medicine, medical ethics is translated into a code of ethics that regulates medical conduct through devices to be adopted by professionals.

In Brazil, the current Code of Medical Ethics (Código de Ética Médica - CEM) came into force on 13th April 2010, after two years work in conferences and reviews with doctors and civil society entities, incorporating a new concept of the doctor-patient relationship, in order to meet the population's needs, and to reinforce the full exercise of medicine. This updated and reviewed version of the code also included new issues, such as palliative care, with an emphasis on patient autonomy and assisted reproduction. Composed of 25 fundamental medical practice principles, 10 diceological standards, 118 deontological standards and 4 general provisions⁶, CEM is important not only because it encompasses scientific advances and their implications in medical practice, but also to turn to, for dignified and equitable assistance for all citizens⁷.

Humanistic student education provides curricular guidelines for medical education in Brazil and, as such, is intended to promote 1) the acquisition of specific knowledge of the humanities, 2) the development of communication skills and building bonds and 3) the development of moral behaviour appropriate to best practices in medicine⁴⁻⁸. It is intended with this humanistic perspective, to enable the future doctor to establish interpersonal relationships driven by technique, medical ethics and communicative actions⁸.

The 1960s was marked by the growth of the study of ethics in medical courses in Brazil. The proposal of a basic curriculum for the teaching of ethics in medical schools in 1983⁹ signified a new advancement of the discipline in the country. In general, *the beginning of medical ethics education for the training of future doctors was gradual and the number of class hours reduced and always associated with the chair of forensic medicine, in most medical schools*¹⁰.

In today's medical schools, we see a growing appreciation of the development of ethical and reflective thinking, based on Medical Ethics and Bioethics disciplines, as well as assimilated behaviours in the classroom, academic practice settings,

laboratories and, mainly, as explained, in the observation of the unique characteristics of lecturers⁹.

Given the above and considering the current transformations of medical courses in Brazil, especially in relation to active learning methodologies, there is a growing importance to prioritize teaching medical ethics, and the direct and constant consultation of CEM by future physicians. CEM is what preserves doctors' professional independence, given its concern to mediate in conflicts and safeguard the professional from the unreasonable influences of employers, industry and purely business interests⁷. In addition, CEM establishes obligations for medical practice and provides the means to charge the improper actions of professionals and, thereby, protect society.

Therefore, the focus of the analysis of the questions addressed in this article lies in the perspectives of the medical faculty of the PUC-Goiás medical school regarding medical ethics, considering the possible impacts on the shaping of medical students. That is, the present study aims to characterize the views of the medical faculty of this institution regarding professional ethics.

Methodology

This is a descriptive cross-sectional study with a quantitative approach that aims to analyse the relationship between the frequency of characteristic of phenomena in a given population within a defined timeline and a specific place¹¹. This type of study is intended to describe reality, not to explain it or to intervene in it¹².

The survey was conducted by applying two questionnaires to the medical faculty of the Department of Medicine at the Catholic University of Goiás (Pontifícia Universidade Católica de Goiás – PUC-Goiás). In principle, it was planned to carry out a census; however, circumstances allowed us to interview 86 (51.8%) of the total 166 medical lecturers that were in the full exercise of their functions in the institution, during the period of data collection, which was carried out between February and August 2015.

Two research instruments were used, one in the form of a socio-demographic questionnaire (see Appendix I) and another was an evaluation of the knowledge of and interest in medical ethics (see Appendix II). The latter, created and validated by Almeida *et al.*¹³, is self-administered for lecturers, with multiple choice questions, and is divided

into three blocks of questions: 1) characterization of the respondent (respecting anonymity); 2) perception of teaching of medical ethics; 3) evaluation of knowledge of the Code of Medical Ethics. As this questionnaire was originally applied and validated in a medical course with traditional teaching methods, it was decided to make some adjustments, especially regarding the terminologies specific to a medical course based on active learning methodologies, as it is the case of the PUC-Goiás course, in which, for example, there are not disciplines, but units.

After application of the two instruments, a database was created using the Statistical Package for Social Sciences (SPSS) software, version 16. The variables related to the subject studied were highlighted and the results were primarily obtained by using descriptive statistics.

After the descriptive analysis, all quantitative variables were verified using the Kolmogorov-Smirnov normality test. Correlations of quantitative variables were given by the Spearman correlation coefficient and the Mann-Whitney nonparametric tests were used for the median of the scores. Categorical variables were analysed by the chi-square test, and for the quantitative variables we used the t-test, always respecting the degree of significance ($p < 0.05$).

Before applying the questionnaire, the medical lecturer read and signed the free and informed consent form (ICF), guaranteeing confidentiality and the participant's anonymity. This research is registered with the National Research Ethics Commission (Comissão Nacional de Ética em Pesquisa - CONEP) and was approved by the Research Ethics Committee (Comitê de Ética em Pesquisa - CEP) of the Catholic University of Goiás (Pontifícia Universidade Católica de Goiás - PUC-Goiás).

Results

Eighty-six questionnaires were administered with the medical faculty of the PUC Goiás Department of Medicine. Of this total, 47.7% were female and 52.3% male. The average age of respondents was 42.92 years (± 8.8), and the minimum age 26 years and the maximum 65 years. Among the participants, 66.3% considered themselves as of white colour/ethnicity; 29.1% mixed; 3.5% black, and 1.1% other. Regarding marital status, 74.4% were married; 16.3%, single; 8.1% divorced and 1.2% others. Most (70.9%) did not practice teaching in another educational institution, with only 29.1% who are

also associated with another institution.

The lecturers who said they knew the units that discuss medical ethics during the medical course at PUC-Goiás correspond to the amount of 37.2%. When asked if they had read the latest update of CEM (published with CFM Resolution 1931/2009), 58.2% indicated “partially”; 8.1% “I never read it” and 33.7% “entirely.”

In relation to the point in the course that medical ethics should be thought, 77.9% said it should be during the entire duration of the medical course, permeating the discussions in all modules, while 2.3% indicated that it should be provided in an extracurricular course, and 19.8% chose specific modules. Regarding the frequency of updates on medical ethics, 32.6% answered that they “rarely” updated themselves; 29.1% “annually”; 12.8% “every six months”; 20.8% “monthly”, and 4.7% “never”. The main sources of medical ethics updates were specialized journals (38.4%), the internet (31.4%), conferences/forums (16.3%), lay magazines (2.3%), and other sources (11, 6%). Asked if they used the CEM as a reference source for the preparation and conducting of medical course lectures, 43% said “yes”; 31.4% “no”, and 25.6% “superficially”.

Regarding the self-assessment score on knowledge of medical ethics questioned on a scale of 1 to 5, it an average of 3.51 (± 0.81) was identified and distributed as follows: 2.3% grade 1; 7% grade 2; 33.7% grade 3; 51.2% grade 4; and 5.8% grade 5. Using the same scale to assess the importance of medical ethics for professional training, compared to other units, there was an average of 4.76 (± 0.46), according to the following percentages of marks awarded: 1.2% for grade 3; 22.1% for grade 4; and 76.7% for grade 5.

Questions relating to the evaluation regarding knowledge of the CEM, which were tested in the third block of the questionnaire, had the answer options “true”, “false” and “do not know”. Data analysis showed a very significant amount of correct answers to the questions presented, as well as significant results, according to the data of each of the issues explained below in Table 1.

In the analysis, a correlation was observed between the knowledge of the units that discuss medical ethics during the medical course and the CEM as a reference source for the preparation and conducting of classes (p <0.05). That is, the more the medical faculty know the medical ethics units in the medical courses, the more they are inclined to use the code as a reference for their classes. It was also

found that the medical faculty who read the latest update of the CEM, published by CFM Resolution 1931/2009, use this knowledge in preparing and conducting their classes (p < 0.05).

Table 1. Correct answers to questions about the Code of Medical Ethics

Questions	Correct answers	P sig.
CEM regulates relationships between doctors, doctors and patients, doctors and other health professionals	89.5 %	< 0.05
Doctors, nurses and other health professionals are subject to CEM	77.9%	< 0.05
CEM is punitive	77.9%	< 0.05
CEM deals directly with “surrogacy”	34.9%	< 0.68
CEM deals directly with professional confidentiality	98.8%	< 0.05
CEM deals directly with doctors’ strikes	65.1%	< 0.05
CEM deals directly with AIDS	53.5%	< 0.05
CEM prohibits the cloning of human beings	47.7%	< 0.05
When prescribing a prescription with illegible handwriting, the doctor is in contravention of a CEM clause	98.7%	< 0.05

It is interesting to note that, when asked about how often they consider updating themselves on medical ethics issues, the lecturers who answered “never” do not make use of medical ethics to prepare and teach their lessons (p <0.05). On the other hand, the medical lecturers that update themselves frequently are more likely to address medical ethics in their classes and to use specialized journals on the subject to keep up to date (p <0.05).

Another important fact is that the medical faculty who attributed grade 4 (51.2%) or grade 5 (5.8%) regarding their knowledge of medical ethics are often those who most use the CEM for the preparation and conducting of their classes during medical courses (p <0.05).

Discussion

From the presented results, it was possible to draw a clear characterization of the perspective of the medical faculty regarding their knowledge of the CEM, as well as of the importance they attributed to teaching medical ethics in medical schools. It was possible to extract meaningful data about the knowledge of medical ethics and the applicability of the code during the course. In this regard, an aspect in the data that draws attention is the great importance of the constant exercise of self-evaluation by lecturers¹⁴.

Today, in the face of major challenges faced in the teaching environment, one way of medical lecturers developing their knowledge would be through self-assessment, which would lead to a critical reflection regarding how their role can be improved¹⁴. Corroborating this view, data showed, significantly, that the lecturers surveyed who gave a higher score in the evaluation of their knowledge of medical ethics are the ones that most use the CEM as a reference source for discussions in the classroom.

Research conducted by the Regional Council of Medicine for the State of São Paulo (Conselho Regional de Medicina do Estado de São Paulo - CREMESP) and analysed by Scheffer and Callegari⁷, showed that the vast majority of professionals surveyed have already had contact with the new CEM. In addition, the authors found that the CEM is routinely consulted, as its text is comprehensive and easy to interpret. In the current study, it can be noted that, among the medical faculty who were questioned, this trend is also verified. This fact is consistent with the literature that advocates the importance of incorporating the CEM in both daily medical practice and in teaching⁷.

While, on the one hand, most medical lecturers claimed to have had contact with the latest update of the CEM and use it as a source for regular consultation, on the other, the minority reported that they have not even read it. This fact will have negative effects on the professional training of the student, since the actions of doctors are undeniably linked to their intellectual conception of the principles that guide professional and academic life. Thus, medical education becomes, in a way, responsible for the medical practice culture, in that it has been accredited, across the board, for the inefficiency of the intellectualization process of health professionals¹⁵.

In a study that evaluated the knowledge of medical ethics among medical students¹⁶, it was identified that there is variation in the progress of students during graduation and students during the rural internship term did not have significant gains in knowledge about the CEM, thus showing the inefficiency of teaching it only in one term. Therefore, the study proposes teaching medical ethics in all terms of the course. The data analysed in this study corroborate this finding, since it showed that most medical lecturers questioned declared themselves in favour of the inclusion of teaching medical ethics in all medical course modules. The medical faculty also attributed high importance to medical ethics in relation to other units of the course.

It is essential that in a medical course guided by active methodologies, there are lecturers who are aware of the importance of their role in motivating knowledge. A study that examined ethics and humanities education in the medical course at the Federal University of Rio Grande do Norte (UFRN)¹⁷ revealed that there is a national trend of adapting universities to education grounded in ethics and the humanities. The study recommends that medical schools support attempts to find ways that can ensure 1) teaching ethics in all modules, 2) the commitment and training of lecturers, 3) active methodologies and 4) appropriate evaluation instruments.

This study identified that the medical lecturers interviewed are following this direction, since most claimed to completely or superficially know both the medical ethics units of the course and the latest update of the CEM. Added to this is the fact that virtually all respondents attributed grade 4 or 5 when assessing the importance of the medical ethics unit in relation to other units from the medical course.

Regarding the third block shown in the questionnaire to the medical faculty, which directly assessed their knowledge regarding the CEM articles (Appendix II), results obtained were similar to those from other studies using the same instrument¹³⁻¹⁸. The questions that received correct answers similar to the ones in these surveys were those dealing with general topics, such as doctor-patient relationships, confidentiality, AIDS, human cloning, and illegible handwriting. As for the differences between this and other studies, they refer to the issues regarding the punitive disposition of the CEM, the subjection of other health professionals to CEM and doctors' strikes.

In general, the medical faculty of PUC-Goiás obtained a greater percentage of correct answers.

The fact that lecturers participate in medical courses that use active learning methodologies can be an element that contributes to this difference. For some time it has been acknowledged that the biomedical model of education and, specifically, teaching of medical ethics need to be changed by adopting new methodologies that emphasize the quality of lecturers and future physicians.

Active methodologies have been systematically suggested by scientific literature in recent years. According to Camargo *et al.*¹⁹, the pedagogical paradigms adopted in the teaching of medical ethics and bioethics should be rethought. In research on the opinion of medical sixth year students regarding ethics and bioethics, the authors report that, according to those surveyed, the traditional auditorium lectures are not productive, suggesting the use of educational resources in smaller groups in order to allow more in depth discussions, in addition to closer contact with the lecturer and other colleagues. Adding to this are the students' constant suggestions for joint discussion of real cases or fictional cases that they could encounter at some point in professional life. By considering these pedagogical principles, students could feel better prepared to solve ethical issues. Another study on teaching ethics to undergraduates, assumes that new methodological models, as well as the training and attitude of the lecturer, are essential to the effectiveness of the teaching-learning process²⁰.

In this study, there were statistically significant results that allowed reflection on the perspectives of the medical faculty. It was identified that the lecturers who better knew the course units regarding medical ethics, were those who most used the CEM as a reference source. It is important that medical lecturers be aware of the curriculum, to know the student's prior contact with the unit, be aware of their level of learning and, consequently, consider and improve their pedagogical practice, particularly the evaluation methods. In particular, the course that is developed through active learning methodologies defines this evaluator function as a specificity of teaching, in which *the lecturer during the exercise of any of his activities is also the evaluator of his own performance, of student performance, of the performance of his peers and of the entire teaching-learning process*²¹.

It was observed that medical lecturers who are up to date having read the CEM are more inclined to use it as a reference source for their classes. This fact shows the interest of using the CEM in the student approach. In medical courses that employ active

learning methodologies, the previous preparation for discussions gives the lecturer enough support to require students to demonstrate the knowledge acquired by means of formative assessments. Thus, medical lecturers tend to take their role more rigorously, being competent and having full knowledge of the unit subjects for which they are responsible. This also requires continuous study and training²².

Another aspect identified refers to the fact that lecturers who often study the CEM are the ones that use it more often as a reference source for their classes, and those who believe the constant discussion of medical ethics is important during the course are those who tend to use it in their classes. Chapter 1 of the CEM, which deals with fundamental principles, refers to doctors' competency to continually improve their knowledge and make the best use of scientific progress for the benefit of their patients⁶. To maintain professional competence and clinical experience, further education should be improved. What is learnt from lecturers in the primary stage of education is only the foundation of medical knowledge and should therefore be continuously expanded and updated²².

For many seeking pedagogical reorientation in times of change, it is essential to ensure the active participation of students in the learning process, in order to promote the transformation and training of competent professionals with a broad scientific, ethical and humanistic knowledge, and imbued with social and ethical commitment. The attention to individual and collective needs, as well as the educational work of each unit of the course, should be the priority of the current configuration of the educational project of medical schools²³.

Teaching needs to be incorporated into the professional identity, and not only limited to a complementary activity of the medical profession. Lecturers must not only have scientific competence, but also consistent teaching and pedagogical training, good interpersonal skills, and an ability to develop a critical and reflective attitude in students. Medical lecturers become a great reference for students, as they know the course plan of the medical school, and use the CEM to ponder on the knowledge of medical ethics, so that future professionals in training can stay abreast of new demands arising from society³.

Final considerations

This study found that most of the medical faculty at PUC-Goiás know the Code of Medical Ethics

and recommend teaching it through out all the medical course modules. However, only a minority update themselves frequently, have read the CEM in full and use it to prepare their lessons. Therefore, participants who know and are up to date with the Code of Medical Ethics are more likely to use it in preparing their lessons.

The study also concludes that the greater the self-assessment grades regarding knowledge about medical ethics and the grades regarding the importance of medical ethics for their own professional training, the greater the interest of lecturers in using the CEM in their interaction with students, specifically in the preparation and conducting of lessons and in the continuous and necessary updating for the purpose of teaching.

There is an urgent need to generate increasingly significant changes in the medical education process. The influence of the medical faculty conduct and the humanised relationships with patients justifies an analysis of the greater commitment of lecturers to the teaching of medical ethics and the promotion of CEM knowledge in medical courses. Thus, it is necessary to reflect on the knowledge of the medical faculty regarding CEM, since the lecturer is seen by students as an important reference in the building of their future profession.

The PUC-Goiás medical course opens the possibility of instigating faculties regarding certain

issues. Guided by the horizontally aligned curriculum, the active learning methods stimulate the student to think critically, taking themselves, along with their mentor, to increase the interest in medical ethics. Literature shows that greater focus on patient attitudes can be attributed to the curriculum model based on active learning methodologies²⁴. Thus, it can be inferred that the innovative positioning of the PUC-Goiás medical school curriculum may be related to the high percentage of positive responses to the questions that dealt with interest in the application of CEM in the student-teacher relationship, as well as with the lecturer's knowledge of medical ethics in general.

Therefore, as Andrade *et al.* stated, *it is expected that the future doctor takes a differentiated profile, based on the training of positive attitudes and the overcoming or, at least, the awareness of conflicting and prejudicial attitudes, while operating in society in a critical, transformative, and humanist manner*²⁵. Based on the results presented in this article, it is possible to add to this statement the importance of ethical principles present in the CEM for the training of future professionals. The duty of the teaching physicians is to lead their students in this direction, guiding them on the importance of doctors being increasingly aware of what the Code of Medical Ethics advocates.

Referências

1. Gonçalves EL. Médicos e ensino da medicina no Brasil. São Paulo: Edusp; 2002.
2. Zabalza MA. O ensino universitário: seu cenário e seus protagonistas. Porto Alegre: Artmed; 2004.
3. Costa NMSC, Cardoso CGLV, Costa D. Concepções sobre o bom professor de medicina. [Internet]. Rev Bras Educ Med. 2012 [acesso 15 fev 2016];36(4):499-505. Disponível: <http://www.scielo.br/pdf/rbem/v36n4/08.pdf>
4. Brasil. Ministério da Educação. Resolução nº 3, de 20 de junho de 2014. Institui Diretrizes Curriculares Nacionais do Curso de Graduação em Medicina e dá outras providências. Diário Oficial da União. Brasília; 23 jun 2014.
5. Martínez FL. Vocación docente versus profesión docente en las organizaciones educativas. Revista Electrónica Interuniversitaria de Formación del Profesorado. 2010;13(4):43-51.
6. Conselho Federal de Medicina. Resolução nº 1.931, de 17 de setembro de 2009. Aprova o Código de Ética Médica. Brasília: CFM; 2010.
7. Scheffer MC, Callegari DC. Conhecimento dos médicos do Estado de São Paulo e considerações sobre o Código de Ética Médica. Rev. bioét. (Impr.). 2012;20(3):451-60.
8. Rios IC, Schraiber LB. A relação professor-aluno em medicina: um estudo sobre o encontro pedagógico. Rev Bras Educ Med. 2012;36(3):308-16.
9. Neves NC. Ética para os futuros médicos: é possível ensinar? Brasília: CFM; 2006.
10. Caramico HJ, Zaher V, Rosito MMB. Ensino da bioética nas faculdades de medicina do Brasil. Bioethikos. 2007;1(1):76-90. p. 81.
11. Fronteira I. Estudos observacionais na era da medicina baseada na evidência: breve revisão sobre a sua relevância, taxonomia e desenhos. Acta Med Port. 2013;26(2):161-70.
12. Aragão J. Introdução aos estudos quantitativos utilizados em pesquisas científicas. Revista Práxis. 2011;3(6):59-62.

13. Almeida AM, Bitencourt AGV, Neves NMBC, Neves FBCS, Lordelo MR, Lemos KM *et al.* Conhecimento e interesse em ética médica e bioética na graduação médica. *Rev Bras Educ Med.* 2008;32(4):437-44.
14. Gutiérrez NPJ, López MMD, Castañeda PNZ. Desafíos educativos para el profesor de medicina: evaluación de su desempeño. *Iatreia.* 2015;28(3):292-9.
15. Ribeiro WC, Júlio RS. Reflexões sobre erro e educação médica em Minas Gerais. *Rev Bras Educ Med.* 2011;35(2):263-7.
16. Godoy MF, Ferreira HRA, Pria OAFD. Avaliação do conhecimento da ética médica dos graduandos de medicina. *Rev Bras Educ Med.* 2014;38(1):31-7.
17. Amorim KPC, Araújo EM. Formação ética e humana no curso de medicina da UFRN: uma análise crítica. *Rev Bras Educ Med.* 2013;37(1):138-48.
18. Vieira PSPG, Neves NMBC. Ética médica e bioética no curso médico sob o olhar dos docentes e discentes. *O Mundo da Saúde São Paulo.* 2009;33(1):21-5.
19. Camargo A, Almeida MAS, Morita I. Ética e bioética: o que os alunos do sexto ano médico têm a dizer. *Rev Bras Educ Med.* 2014;38(2):182-9.
20. Carneiro LA, Porto CC, Duarte SBR, Chaveiro N, Barbosa MA. O ensino da ética nos cursos de graduação da área de saúde. *Rev Bras Educ Med.* 2010;34(3):412-21.
21. Almeida MTC, Batista NA. Ser docente em métodos ativos de ensino-aprendizagem na formação do médico. *Rev Bras Educ Med.* 2011;35(4):468-76. p. 474.
22. López EG. Ética en la educación médica. *FEM.* 2013;16(4):191-5.
23. Valdés MAS. El trabajo educativo en la Universidad de Ciencias Médicas en el contexto histórico actual. *Rev Haban Cienc Méd.* 2013;12(4):637-49.
24. Peixoto JM, Ribeiro MMF, Amaral CFS. Atitude do estudante de medicina a respeito da relação médico-paciente x modelo pedagógico. *Rev Bras Educ Med.* 2011;35(2):229-36.
25. Andrade SC, Deus JA, Barbosa ECH, Trindade EMV. Avaliação do desenvolvimento de atitudes humanísticas na graduação médica. *Rev Bras Educ Med.* 2011;35(4):517-25. p. 524.

Participation of the authors

Lorena Cunha Ferreira and Rogério Antunes Mourão participated in the research design, bibliographic research, data collection, analysis and interpretation of data, and final draft of the paper. Rogério José de Almeida contributed in the research design, analysis and interpretation of data and final draft of the article and was also the research advisor.



Appendix

Sociodemographic Questionnaire

1. Age: _____

2. Gender:

() Feminine

() Masculine

3. Colour/Ethnicity

() White

() Black

() Mixed

() Native Brazilian

() Other _____

4. Marital status:

() Single

() Married

() Widowed

() Divorced

() Outros _____

5. Medical degree year of graduation:

6. Institution where you graduated in medicine:

7. Year admitted as a lecturer at PUC-Goiás medical school: _____

8. Medical speciality:

9. Weekly hours dedicated to PUC-Goiás medical school:

10. Do you teach at other educational institution?

() Yes. Where? _____

() No

Evaluation of the knowledge of the CEM and of interest in medical ethics among medical lecturers

Time since graduation (years): _____

Teaching experience in higher education (years): _____

1. Do you know the units that discuss medical ethics during the PUC-Goiás medical course?
 Yes No Superficially

2. Have you read the latest update of the Brazilian Code of Medical Ethics (CFM Resolution 1931/2009)?
 Entirely Partially I never read it

3. In your view, when should the medical ethics unit be taught in the course?
 _____ Module
 All modules
 In an extra-curricular unit
 It is not essential during the graduation course

4. How often you do you get updated about medical ethics?
 Never
 Rarely
 Annually
 Every six months
 Monthly

5. What is your MAIN source of update on medical ethics?
 Lay magazines
 Specialized Journals
 Internet
 Conventions/seminars/similar
 Other _____

6. Do you use the Brazilian Code of Medical Ethics as a reference source for the preparation and conducting of your classes?
 Yes No Superficially

In questions 7 and 8, select a value in the scale of 1 to 5, with 1 being the minimum and 5 the maximum.

7. How do you assess your knowledge about medical ethics in general?

5	4	3	2	1
---	---	---	---	---

8. For your training as a doctor, compared to other subjects, how do you assess the importance of medical ethics?

5	4	3	2	1
---	---	---	---	---

In questions 9 to 17, consider the statements and tick if true or false.

9. The Brazilian Code of Medical Ethics regulates relations between doctors, doctors and patients, doctors and other health professionals.
 True False Do not know

10. Doctors, nurses and other health professionals are subject to the Code of Medical Ethics.
 True False Do not know

11. The Code of Medical Ethics is punitive.
 True False Do not know

12. . The Code of Medical Ethics deals directly with “surrogacy”.
 True False Do not know

13. . The Code of Medical Ethics deals directly with professional confidentiality.
 True False Do not know

14. The Code of Medical Ethics deals directly with doctors’ strikes.
 True False Do not know

15. The Code of Medical Ethics deals directly with AIDS.
 True False Do not know

16. The Code of Medical Ethics prohibits the cloning of human beings.
 True False Do not know

17. When prescribing a prescription with illegible handwriting, the doctor is in contravention of a clause from the Code of Medical Ethics.
 True False Do not know

Source: Adapted from Almeida *et al.* ¹³.