Perception of medical students about the termination of life

Tanise Nazaré Maia Costa¹, Milena Coelho Fernandes Caldato², Ismari Perini Furlaneto³

Abstract

The advancement of medicine has improved the treatment of diseases, modifying the population's morbidity and mortality pattern, with an increase in chronic diseases. This phenomenon made it urgent to properly interpret the termination of life. Considering this need, this cross–sectional, descriptive and analytical study analyzed data regarding the perceptions of 111 students from the sixth year of the medical school about endof-life palliative care. Data were collected between August and November 2016 through a questionnaire and analyzed by statistical tests using the Iramuteq software. 37.3% of students reported difficulty communicating a patient's death to their family; 60% of them felt unprepared or had doubts regarding how to deal with death in the emergency department; 25% of students reported not knowing the term Euthanasia; 53%, Orthothanasia; and, 56%, Dysthanasia. Results show that there are still gaps in the knowledge of medical students making evident the need for medical schools to reinforce educational practices regarding death. **Keywords:** Perception. Students, medical. Hospice care.

Resumo

Percepção de formandos de medicina sobre a terminalidade da vida

O avanço da medicina aprimorou o tratamento de enfermidades, modificando o padrão de morbimortalidade da população, com aumento de doenças crônicas. Esse fenômeno tornou urgente interpretar adequadamente a terminalidade da vida. Considerando essa necessidade, este estudo, de corte transversal, descritivo e analítico, analisou dados sobre a percepção de 111 estudantes do sexto ano de medicina acerca dos cuidados paliativos no fim da vida. Os dados foram coletados entre agosto e novembro de 2016, por meio de questionário e analisados por testes estatísticos com o programa Iramuteq. 37,3% dos estudantes relataram dificuldade em comunicar a morte do paciente à família; 60% sentem-se despreparados ou com dúvidas sobre como lidar com óbitos em serviço de urgência; 25% desconheciam o termo "eutanásia", 53% "ortotanásia", e 56% "distanásia". Os resultados mostram que ainda há lacunas no conhecimento desses estudantes, explicitando a necessidade de que escolas médicas reforcem práticas pedagógicas sobre a morte.

Palavras-chave: Percepção. Estudantes de medicina. Cuidados paliativos na terminalidade da vida.

Resumen

Percepción de estudiantes de Medicina sobre la terminalidad de la vida

El avance de la medicina mejoró el tratamiento de enfermedades, modificando el patrón de morbimortalidad de la población, con un aumento de enfermedades crónicas. Este fenómeno tornó urgente interpretar adecuadamente la terminalidad de la vida. Considerando esta necesidad, este estudio, de corte transversal, descriptivo y analítico, analizó datos sobre la percepción de 111 estudiantes de sexto año de medicina acerca de los cuidados paliativos en el final de la vida. Los datos fueron recogidos entre agosto y noviembre de 2016, por medio de un cuestionario, y fueron analizados con pruebas estadísticas y con el programa Iramuteq. El 37.3% de los estudiantes informó dificultad para comunicar la muerte de un paciente a su familia, el 60% no se siente preparado o con dudas respecto de cómo lidiar con las muertes en el servicio de urgencia, el 25% desconocía el término "eutanasia", el 53%, "ortotanasia", y el 56%, "distanasia". Los resultados muestran que aún existen lagunas en el conocimiento de estos estudiantes, explicitando la necesidad de que las facultades de medicina refuercen prácticas pedagógicas sobre la muerte. **Palabras clave:** Percepción. Estudiantes de medicina. Cuidados paliativos al final de la vida.

Aprovação CEP-Uepa CAAE 54831916.8.0000.5168

- 1. Mestranda tanisemaia@yahoo.com.br Universidade do Estado do Pará (Uepa) 2. Doutora milenacaldato@hotmail.com Uepa 3. Doutoranda ismarinf@hotmail.com Uepa 8. Rejám/20. Bracil
- Doutoranda ismaripf@hotmail.com Uepa, Belém/PA, Brasil.

Correspondência

Tanise Nazaré Maia Costa – Estrada da Ceasa, Residencial Morada Verde, 2.260 CEP 66.610-840. Belém/PA, Brasil.

Declaram não haver conflito de interesse.

Contextualization

The control of disease-causing factors and the technological advancement of medicine, which started to slow the evolution of diseases in different age groups (children, adolescents and adults of reproductive age), changed the population's morbidity and mortality patterns, with the chronicity of pathologies being essential for this change¹. With this, Brazil has been accompanying the rest of the world in increasing the longevity of individuals². Nationally, the elderly is the segment with the largest increase in population, with growth rates estimated at over 4% per year during the period from 2012 to 2022^{1,3}.

This drastic change in demographic patterns is one of the most important structural changes observed in Brazilian society. The decline in overall population growth and changes in age structure have led to a slower increase in the number of children and adolescents, while the elderly population continues to grow⁴.

Terminality of life

In the current scenario, there is a need to understand the terminality of life^{5,6}, a process resulting from the exhaustion of efforts to restore the health of the infirm, which brings about the imminent, inexorable and predicted death⁷, considered as the absolute interruption of existence⁸. This understanding is fundamental, especially since, in current times, invasive technology and methods have not only increased longevity but also slowed the death process and prolonged life, although without ensuring quality of life^{9,10}.

It is precisely this illusion of longevity in patients without any chance of cure or maintenance of minimal quality of life and comfort that defines futile treatment, which characterizes dysthanasia, a source of distress especially for patients and their families ^{11,12}. Death then becomes an extremely lonely event, since the individual, needing medical and hospital care, is removed from family life and separated from interpersonal relationships⁹. In addition, dysthanasia is associated with the use of resources that could benefit other patients whose diseases can still be extinguished ^{9,13,14}.

Approaches to maintaining life at all costs are insufficient, exaggerated, unnecessary and ignore patients' suffering. Sometimes patients are kept alive thanks to treatments that cause more pain than relief and comfort. However, these observations are not intended to condemn technological medicine, but rather to stimulate reflection regarding the course of action to be taken in the face of inexorable human mortality. It is essential to maintain the balance between scientific knowledge and humanism, restoring the dignity of life and the quality of death¹⁵.

Contrary to therapeutic obstinacy - which keeps patients alive but in pain and suffering -"euthanasia", is the act (active) or omission (passive) that causes or accelerates the death of the debilitated individual^{9,13,16}. There is also "orthothanasia", which advocates death at the right time, not postponing it with disproportionate and illogical treatment^{9,13,17} nor advancing it for any reason ^{11,18}. This concept is related to palliative care, which consists of zealous actions towards the person with an advanced and incurable disease, in a situation of physical and/or mental suffering. Palliative care is an attempt to overcome the current predominance of futile treatment and, to be put into practice, professionals need to be aware that the patient must be the principal character in the care process 13,15,19.

Palliative care promotes quality of life for terminally ill patients and their relatives, relieving patients' suffering from diagnosis to death, assessing not only physical, but also psychosocial and spiritual problems¹⁵. This care is based on palliative medicine, which was recently recognized as an area of medical practice in Brazil²⁰.

Law and bioethics

The historically known hippocratic concept was based on the principles of pain relief, reduction of pathology harmfulness, and renunciation of treatment when medicine is no longer able to contribute to the reversal of the condition ¹³. True to these principles, in 1967, the Hospice movement was born and St. Christopher's Hospice was founded in London thanks to the commitment of Cicely Mary Saunders. The movement is considered a pioneer in end-of-life care²⁰.

In Brazil, in 2010, the Código de Ética Médica (CEM) (Code of Medical Ethics) reinforced the exercise of orthothanasia, providing in chapter I item XXII that, *in irreversible and terminal clinical situations, physicians will avoid performing unnecessary diagnostic and therapeutic procedures and will provide patients under their care all appropriate palliative care*²¹. And the new CEM, which came into force in 2019, reproduces the same reasoning²². However, there is no standardization regarding this practice in Brazilian law¹³. To curb dysthanasia, the Conselho Federal de Medicina (CFM) (Brazilian Federal Council of Medicine)²³ launched Resolution 1,995/2012, establishing the "advance directives", which express the will of the patient regarding end-of-life diagnostic or therapeutic procedures, guiding the physicians' conduct with respect to patient autonomy²⁴.

The 2010 CEM ²⁵, as well as the 2019 CEM, in article 41, prohibits physicians from *abbreviating the patients' life, even at their, or their legal representatives', request* ²⁶. Therefore, euthanasia is still considered a crime in Brazil ^{17,27}. In this context, there are discussions in several countries: the procedure has been legalized, for example, in Belgium and the Netherlands since 2002 ²⁸⁻³⁰, in Luxembourg since 2009 and in two USA states, Oregon since 1997 and Washington since 2009²⁸.

Examining these discussions, the confrontation of moral, religious, cultural and political values arising from diversity is verified. Different perspectives impact on the illusory and distorted characterization of technological medicine as an infallible, inevitable and indisputable process destined to prevent death and bring quality of life to human beings. The illusion that science holds the answers to all problems makes end-of-life ethical decisions more sensitive and controversial, with innumerable questions and ethical dilemmas ^{31,32}.

Medical education and curriculum guidelines

Not long ago, medical education did not advocate empathy in the face of suffering nor the humanization of medicine³³. To a large extent, this perspective was due to the great advance of technologies, which allowed the artificial prolongation of human life, almost indefinitely, besides the emergence of superspecialists, whose therapeutic focus was restricted to the disease, not to the patient. Treating an individual with terminal illness and imminent death was not part of the physicians' training, which created a sensation of failure³⁴.

In contemporary medical education, the importance of "attitude", the affective ability taught and learned to relate with patients and society, was understoodAccording to Medeiros and collaborators³³, in order to prevent medicine from being limited to technicalism, the Diretrizes Curriculares Nacionais (DCN) (National Curriculum Guidelines) of the undergraduate course

were modified, raising the concern regarding biopsychosocial aspects in the search to unite knowledge from different fields³³. With these changes, and once physicians base their conduct on humanistic values and medical ethics, it is impossible to view the future of the profession with skepticism³⁵.

The previous teaching model did not adequately address the finitude of life, leading to health professionals' concerning unpreparedness³⁶. However, nowadays there is an awareness that it is essential to prepare students to deal with suffering and death, considering the inexorable trajectory of human beings, which every physician faces in daily practice.

Medical students and residents should be familiar with the concepts and principles of medical ethics in view of the finitude of life, as topics such as euthanasia, dysthanasia, terminality and the legalization of euthanasia are central to the reflection of health professionals in work groups, ethics committees and public debates⁵. Several countries such as Poland^{5,6}, Pakistan³⁷, United States³⁸, Turkey³⁹, Mexico⁴⁰, England and Belgium⁴¹ have been advancing in this regard and discussing the issue with health students.

According to Siqueira ⁴², universities previously subjected students to specialized knowledge systems and technologies, restricting the learning of medical and communication skills. This focus reduced the ability to take informative medical histories and detailed physical examinations, favoring the uncritical – and sometimes unnecessary – use of the vast stream of information produced by equipment.

In Brazil, it is urgent to address these issues in order to adapt the competencies and skills of physicians to the National Curriculum Guidelines for the undergraduate course, which recommends that: *professionals should perform their services within the highest quality standards and the principles of ethics/bioethics*⁴³. The reason for this curriculum change is to provide effective training with generalist, humanist, critical and thoughtful education, making graduates capable of solving problems characteristic of modern society¹⁴.

Thus, it is vitally important to describe and evaluate the perception of medical students about aspects related to the terminality of life, in order to understand how the topic has been debated and to analyze how future physicians can deal with this broad, controversial subject, which is dependent on social, economic, legal, religious and cultural factors.

Method

Outline

This is a cross-sectional, descriptive and analytical study, conducted through a previously structured questionnaire, applied to 111 students completing the sixth year of medical school in two institutions from the state of Pará, Brazil: one private, Centro Universitário do Estado Pará – (CESUPA) (Pará University Center) (n=40), and another public, the Universidade do Estado do Pará – (UEPA) (State University of Pará) (n=71). The data collection period was from August to November 2016.

Data collection

Data were obtained through a questionnaire divided into two parts, of which the first was based on two protocols. The first protocol, of the Likert type, is entitled "instrument for assessing the attitudes of medical students towards relevant medical practice issues". Already validated, the scale was created and used in 2002, at the Ribeirão Preto Medical School from the University of São Paulo, by Colares and collaborators⁴⁴. The instrument has 52 items; however, for this study, only five items concerning aspects of the finitude of life were used.

The second protocol used nine questions from a research conducted in 2011, in the municipality of Bauru, in the state of São Paulo, Brazil, by Oliveira and collaborators⁴⁵, which assessed the position of physicians regarding the humanization of health care and palliative care for terminal patients. For the analysis of this first block from the questionnaire, the chi-square and Wilcoxon tests were performed using the BioEstat 5 program.

The second part of the form contained the question: "What do you understand about euthanasia, dysthanasia and orthothanasia?" The students' answers were inserted in the Iramuteq software, which generated word cloud representations of the data based on the occurrence of isolated words. The importance of each word was shown by the font size or color. This type of representation of lexical analysis was chosen because it is intuitive, simple and graphically interesting, allowing the rapid identification of keywords in a *corpus*.

Ethical aspects

Students agreed to participate in the study after clarification regarding its objectives and the

signing of the informed consent form, as determined by the Brazilian National Health Council in Resolution 466/12. The research, accepted by the UEPA Ethics Committee, was funded by the authors themselves and there is no conflict of interest. The project was carried out to obtain a master's degree in Teaching of Health in the Amazon Region from the State University of Pará.

Results and discussion

The survey questioned 111 sixth-year medical students about their attitudes toward medical practices related to the terminality of life. Regarding the news of the death, more than one third of the participants reported difficulty communicating it to the patients' families (Figure 1), which may reveal students' inability. In a 2011 study that used the same attitude scale ³⁵, the rates are even higher, with 70% of students showing that they were unprepared to convey the bad news.

This inability is associated with the negativity, fear and taboo that surrounds death, which turn it into something undesirable and a subject to be avoided ^{46,47}. Duarte, Almeida and Popim ⁴⁶, in a 2015 qualitative study with fourth and sixth year medical students, found that rejection of the topic was dominant in the responses. In the students' opinion, the topic is little discussed during the course, and, besides knowledge, the learning of skills related to relationships and affection is also necessary.

Regarding the feeling of unpreparedness when experiencing death in emergency services, about 60% of the sixth-year students felt unprepared or had doubts about how to cope (p=0.3594). The percentage is quite significant considering that students are at the end of their course. Thus, it is worth asking: how will these future physicians face bioethical aspects? According to Dias⁴⁸, emergency services have a unique dynamic and a critical and disorderly nature, given the scenario of first doctorpatient contact without a pre-established bond.

When asked if they feel very disturbed when they witness the death of a young patient, most final year students said they are totally in agreement with the statement (p < 0.0001). In the study by Andrade and collaborators ³⁵, about 70% of the students also mentioned discomfort. The death of a young person is considered unacceptable because it suggests failure and brings out the common view that finitude cannot be part of youth.

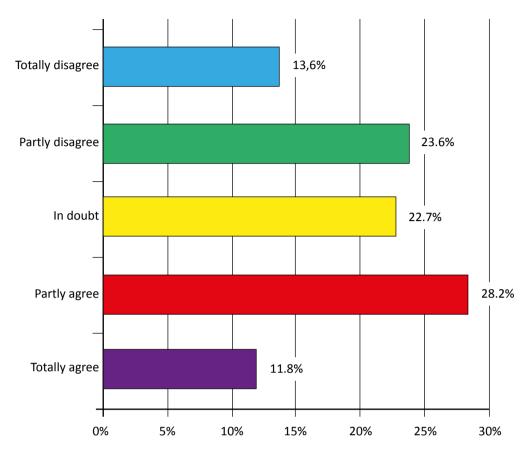


Figure 1. Distribution of responses to the item "I feel prepared to report the patient's death to the family"

p=0.0298⁺ (Chi-square of adherence)

Students' positioning regarding humanization in health care and palliative care was also researched. Most responded that they "would adopt emotional support for terminally ill patients" (97.3%); "would talk to the terminally ill patient about the disease" (98.2%); "would clarify for terminal patients how long they would live" (65.8%); "would inform patients about the true diagnosis, in case of terminal illness" (98.2%); "agree that palliative care increases patients' quality of life" (93.7%); and "would adopt palliative care with their patients" (97.3%) (Table 1). These answers reveal progress in teaching competencies regarding the doctor-patient relationship, especially concerning the terminality of life, even if there are obstacles, since the subject has been widely discussed by society in general, even outside the academic environment.

The data corroborate the research by Oliveira and collaborators⁴⁵, in which almost all respondents said that they provide emotional support to patients (90%) and talk about the pathology, informing those in the terminal phase of the actual diagnosis (70%). Regarding palliative care, Barclay and collaborators⁴⁹ verified 2015 the knowledge of such care by medical students; and Moraes and Kairalla⁵⁰, in a 2010 article, identified that graduating students are aware of the importance of palliative treatment, even without facing this experience during their academic life, which is confirmed by the present work.

Regarding the items "agree that open discussion about life and death issues does not harm patients in this situation and that they actually like this candor", "would use devices to extend the life of their patients" and "think advanced technologies become a complicating factor in the humane treatment of terminally ill patients", students responded in a variety of ways, suggesting uncertainty. This is because advances and success in the treatment of pathologies have turned medicine entirely to healing, prolonging life and, supposedly, eliminating the possibility of death⁵¹. **Table 1.** Student positioning regarding the humanization of health care and palliative care for terminally ill patients

	Answers						
Positioning	Yes				Ν	p *	
		%	IC	n	%	IC	
1. Would it provide emotional support for terminally ill patients?	108	97,3	92,4-99,1	3	2,7	0,9-7,7	<0,0001
2. Would you talk to a terminal patient about the disease?	109	98,2	93,7-99,5	2	1,8	0,5-6,3	<0,0001
3. Would you clarify for terminal patients how long they will live?	73	65,8	56,5-73,9	38	34,2	26,1-43,5	0,0013
4. In cases of terminal illness, would you inform patients about the true diagnosis?	109	98,2	93,7-99,5	2	1,8	0,5-6,3	<0,0001
5. Do you agree that open discussion about life and death issues does not harm patients in this situation and that they actually like this candor?	66	59,5	50,2-68,1	45	40,5	31,9-49,8	0,0577
6. Would you use devices to extend the life of your patients?	62	56,9	47,5-65,8	47	43,1	34,2-52,5	0,1799
7. Do you think advanced technologies become a complicating factor in the humane treatment of terminally ill patients?	46	41,4	32,7-50,7	65	58,6	49,3-67,3	0,0875
8. Do you agree that palliative care increases patients' quality of life?	104	93,7	87,6-96,9	7	6,3	3,1-12,5	<0,0001
9. Would you adopt palliative care with your patients?	108	97,3	92,4-99,1	3	2,7	0,9-7,7	<0,0001

* Chi-square of adherence; n = 111; an = 109 (only 109 students answered this item)

Another question students answered was: "what do you understand about euthanasia, dysthanasia and orthothanasia?". Of the 111 students, 25% reported not knowing the term "euthanasia", 53% "orthothanasia" and 56% "dysthanasia". Moreover, 23% of students were unaware of the three terms. For Junges and collaborators 52, the differences between these concepts are often overlooked, making it difficult to understand and to create an opinion about them. In 2008 in Sudan, Ahmed and Kheir⁵³ also found that 87.9% of students were unfamiliar with the definition of euthanasia. In contrast, in the study by Leppert and collaborators, carried out in Poland in 2013⁵, 79.59% of the students demonstrated understanding of the concept. These differences demonstrate how the focus of training influences the way terminality is perceived and understood in different societies.

The word cloud (Figure 2) created from the participants' response to euthanasia confirms a study by Felix and collaborators²⁷, which verified that the term is little known, although the conduct it denotes is widely practiced. In another study, conducted in São Paulo, medical students also showed ignorance of the concept⁵⁴.

The words most related to euthanasia were "patient" and "life", followed by "death", "not knowing " and "terminal". It can be inferred that the greater occurrence of the first terms is dichotomous, since, etymologically, "euthanasia" means "good death". In relation to orthothanasia, the expression "not knowing" was prevalent, followed by "patient", "death", "natural" and "life". The concept is precisely defined by natural death, the so-called "dignified death", when there is no possibility of cure ^{11,27}.

Figure 2. Word cloud generated by the Iramuteq program



Final considerations

In the present study, more than a third of sixth-year medical students reported difficulty communicating death to the patient's family, about 60% feel unprepared or have doubts about how to act in the event of death in an emergency room, and most say they feel "very disturbed when they witness the death of a young patient."

Despite these failures in education, most students state that they would follow and practice procedures related to the humanization of the doctor-patient relationship: 97.3% would provide emotional support to terminally ill patients; 98.2% would talk to the infirm about the disease; 65.8% would reveal the life expectancy of the individual; 98.2% would report the true diagnosis in case of a terminal state; 93.7% agree that palliative care improves the quality of life; and 97.3% would apply this care in their medical practice. On the other hand, the students prove to be proponents of therapeutic obstinacy, or "dysthanasia", by agreeing that they would use devices to prolong their patients' lives (56.9%). In the items regarding technology and discussions about living and dying, the answers were varied, suggesting uncertainty and a lack of determination about the topic. Finally, regarding the open question, alarming data were observed regarding the lack of knowledge of the terms "euthanasia", "dysthanasia" and "orthothanasia", which highlights the need to better address these concepts in medical courses.

Therefore, it is clear that there are gaps in medical undergraduates' knowledge regarding the termination of life. It is necessary that medical schools adopt methods and educational practices that deal with the topic in depth, as professionals must be prepared to deal with the demographic tendency of an aging population. Along with these changes that affect graduation, it is also worth highlighting the importance of public policies to adapt to the new context.

Referências

- Brito MCC, Freitas CASL, Mesquita KO, Lima GK. Envelhecimento populacional e os desafios para a saúde pública: análise da produção científica. Rev Kairós [Internet]. 2013 [acesso 5 jun 2017];16(3):161-78. Disponível: https://bit.ly/2lz9kWH
- Oliveira TC, Medeiros WR, Lima KC. Diferenciais de mortalidade por causas nas faixas etárias limítrofes de idosos. Rev Bras Geriatr Gerontol [Internet]. 2015 [acesso 30 jan 2017];18(1):85-94. DOI: 10.1590/1809-9823.2015.14203
- Borges GM, Campos MB, Silva LGC. Transição da estrutura etária no Brasil: oportunidades e desafios para a sociedade nas próximas décadas. In: Borges GM, Ervatti LR, Jardim AP. Mudança demográfica no Brasil no início do século XXI: subsídios para projeção da população. 3ª ed. Rio de Janeiro: IBGE; 2015. p. 138-51.
- Simões CCS. Relações entre as alterações históricas na dinâmica demográfica brasileira e os impactos decorrentes do processo de envelhecimento da população. Rio de Janeiro: IBGE; 2016.
- Leppert W, Gottwald L, Majkowicz M, Kazmierczak-Lukaszewicz S, Forycka M, Cialkowska-Rysz A *et al*. A comparison of attitudes toward euthanasia among medical students at two Polish universities. J Cancer Educ [Internet]. 2013 [acesso 24 jul 2017];28(2):384-91. DOI: 10.1007/s13187-012-0414-4
- Leppert W, Majkowics M, Forycka M. Attitudes of Polish physicians and medical students toward breaking bad news, euthanasia and morphine administration in cancer patients. J Cancer Educ [Internet]. 2013 [acesso 24 jul 2017];28(4):603-10. DOI: 10.1007/s13187-013-0553-2
- Marengo MO, Flávio DA, Silva RHA. Terminalidade de vida: bioética e humanização em saúde. Medicina [Internet]. 2009 [acesso 11 out 2015];42(3):350-7. DOI: 10.11606/issn.2176-7262.v42i3p350-357
- Calasans CR, Sá CK, Dunningham WA, Aguiar WM, Pinho STR. Refletindo sobre a morte com acadêmicos de medicina. Rev Bras Neurol Psiquiatr [Internet]. 2014 [acesso 17 jun 2017];18(1):34-57. Disponível: https://bit.ly/2B9BB44
- Sanchez y Sanches KM, Seidl EMF. Ortotanásia: uma decisão frente à terminalidade. Interface Comun Saúde Educ [Internet]. 2013 [acesso 23 jul 2015];17(44):23-34. DOI: 10.1590/S1414-32832013000100003
- Rahman M, Abuhasna S, Abu-Zidan FM. Care of terminally-ill patients: an opinion survey among critical care healthcare providers in the Middle East. Afr Health Sci [Internet]. 2013 [acesso 16 ago 2015];13(4):893-8. DOI: 10.4314/ahs.v13i4.5
- Santos LRG, Menezes MP, Gradvohl SMO. Conhecimento, envolvimento e sentimentos de concluintes dos cursos de medicina, enfermagem e psicologia sobre ortotanásia. Ciênc Saúde Coletiva [Internet]. 2013 [acesso 23 jul 2015];18(9):2645-51. Disponível: https://bit.ly/2OQWsRU
- Biondo CA, Silva MJP, Dal Secco LM. Distanásia, eutanásia e ortotanásia: percepções dos enfermeiros de unidades de terapia intensiva e implicações na assistência. Rev Latinoam Enferm [Internet]. 2009 [acesso 22 jul 2015];17(5):613-9. Disponível: https://bit.ly/2MIFidv

- Silva JAC, Souza LEA, Silva LC, Teixeira RKC. Distanásia e ortotanásia: práticas médicas sob a visão de um hospital particular. Rev. bioét. (Impr.) [Internet]. 2014 [acesso 22 jul 2017];22(2):358-66. DOI: 10.1590/1983-80422014222017
- Franco CAGS, Cubas MR, Franco RS. Currículo de medicina e as competências propostas pelas diretrizes curriculares. Rev Bras Educ Méd [Internet]. 2014 [acesso 31 jul 2015];38(2):221-30. DOI: 10.1590/S0100-55022014000200009
- Matsumoto DY. Cuidados paliativos: conceitos, fundamentos e princípios. In: Carvalho RT, Parsons HA, organizadores. Manual de cuidados paliativos ANCP. 2ª ed. São Paulo: ANCP; 2012. p. 23-30.
- 16. Siqueira-Batista R, Schramm FR. A eutanásia e os paradoxos da autonomia. Ciênc Saúde Coletiva [Internet]. 2008 [acesso 22 jul 2015];13(1):95-102. Disponível: https://bit.ly/2OLFZhM
- Cruz MLM, Oliveira RA. A licitude civil da prática da ortotanásia por médico em respeito à vontade livre do paciente. Rev. bioét. (Impr.) [Internet]. 2013 [acesso 23 jul 2015];21(3):405-11. Disponível: https://bit.ly/2VTKs3D
- Santos MFG, Bassitt DP. Terminalidade da vida em terapia intensiva: posicionamento dos familiares sobre ortotanásia. Rev Bras Ter Intensiva [Internet]. 2011 [acesso 23 jul 2015];23(4):448-54. Disponível: https://bit.ly/2nPE3tB
- Crippa A, Lufiego CAF, Feijó AMGS, Carli GA, Gomes I. Aspectos bioéticos nas publicações sobre cuidados paliativos em idosos: análise crítica. Rev. bioét. (Impr.) [Internet]. 2015 [acesso 8 set 2015];23(1):149-60. DOI: 10.1590/1983-80422015231055
- 20. Toledo AP, Priolli DG. Cuidados no fim da vida: o ensino médico no Brasil. Rev Bras Educ Méd [Internet]. 2012 [acesso 13 jun 2017];36(1):109-17. Disponível: https://bit.ly/2MlxjWL
- Conselho Federal de Medicina. Código de ética médica: Resolução CFM nº 1.931, de 17 de setembro de 2009 [Internet]. Brasília: CFM; 2010 [acesso 8 set 2015]. p. 31. Disponível: https://bit.ly/2gyRqtD
- Conselho Federal de Medicina. Código de ética médica: Resolução CFM nº 2.217, de 27 de setembro de 2018 [Internet]. Brasília: CFM; 2019 [acesso 17 out 2019]. Disponível: https://bit.ly/2Hu8MTZ
- Conselho Federal de Medicina. Resolução CFM nº 1.995, de 9 de agosto de 2012. Dispõe sobre as diretivas antecipadas de vontade dos pacientes. Diário Oficial da União [Internet]. Brasília, p. 269-70, 31 ago 2012 [acesso 12 jul 2017]. Seção 1. Disponível: https://bit.ly/2Qry87e
- Stolz C, Gehlen G, Bonamigo EL, Bortoluzzi MC. Manifestação das vontades antecipadas dos pacientes como fator inibidor da distanásia. Rev. bioét. (Impr.) [Internet]. 2011 [acesso 23 jul 2017];19(3):833-45. Disponível: https://bit.ly/35FCzD5
- 25. Conselho Federal de Medicina. Op. cit. 2010.
- 26. Conselho Federal de Medicina. Op. cit. 2019. p. 28.
- Felix ZC, Costa SFG, Alves AMPM, Andrade CG, Duarte MCS, Brito FM. Eutanásia, distanásia e ortotanásia: revisão integrativa da literatura. Ciênc Saúde Coletiva [Internet]. 2013 [acesso 22 jul 2015];18(9):2733-46. DOI: 10.1590/S1413-81232013000900029
- Chambaere K, Bilsen J, Cohen J, Onwuteaka-Philipsen BD, Mortier F, Deliens L. Physician-assisted deaths under the euthanasia law in Belgium: a population-based survey. Can Med Assoc J [Internet]. 2010 [acesso 24 jul 2015];182(9):895-901. DOI: 10.1503/cmaj.091876
- 29. Legemaate J, Bolt I. The Dutch euthanasia act: recent legal developments. Eur J Health Law [Internet]. 2013 [acesso 24 jul 2015];20(5):451-69. Disponível: https://bit.ly/2MPGYuS
- Rietjens JAC, Raijmakers NJH, Kouwenhoven PSC, Seale C, Van Thiel GJMW, Trappenburg M *et al.* News media coverage of euthanasia: a content analysis of Dutch national newspapers. BMC Med Ethics [Internet]. 2013 [acesso 24 jul 2015];14(11):1-7. Disponível: https://bit.ly/20LRp58
- Siqueira JE, Pessini L, Siqueira CEM. Conflitos morais sobre a terminalidade da vida: aspectos médicos, filosóficos e jurídicos. Rev Colomb Bioét [Internet]. 2013 [acesso 18 jun 2017];8(2):104-13. Disponível: https://bit.ly/2VJJKWp
- 32. Aghababaei N, Wasserman JA. Attitude toward euthanasia scale: psychometric properties and relations with religious orientation, personality, and life satisfaction. Am J Hosp Palliat Care [Internet]. 2013 [acesso 23 jul 2017];30(8):781-5. DOI: 10.1177/1049909112472721
- Medeiros NS, Santos TR, Trindade EMV, Almeida KJQ. Avaliação do desenvolvimento de competências afetivas e empáticas do futuro médico. Rev Bras Educ Méd [Internet]. 2013 [acesso 2 nov 2015];37(4):515-25. DOI: 10.1590/S0100-55022013000400007
- Brugugnolli ID, Gonsaga RAT, Silva EM. Ética e cuidados paliativos: o que os médicos sabem sobre o assunto? Rev. bioét. (Impr.) [Internet]. 2013 [acesso 8 set 2015];21(3):477-85. DOI: 10.1590/S1983-80422013000300012
- Andrade SC, Deus JA, Barbosa ECH, Trindade EMV. Avaliação do desenvolvimento de atitudes humanísticas na graduação médica. Rev Bras Educ Méd [Internet]. 2011 [acesso 2 nov 2015];35(4):517-25. DOI: 10.1590/S0100-55022011000400011
- 36. Pinheiro TRSP. Avaliação do grau de conhecimento sobre cuidados paliativos e dor dos estudantes de medicina do quinto e sexto anos. Mundo Saúde [Internet]. 2010 [acesso 14 ago 2015];34(3):320-6. Disponível: https://bit.ly/2KEJnqN
- Shaikh MA, Kamal A. Beliefs about euthanasia among university students: perspectives from Pakistan. East Mediterr Health J [Internet]. 2011 [acesso 24 jul 2015];17(10):794-7. Disponível: https://bit.ly/35ymTBz
- 38. Yang HB, Nelesen RA, Montross LP, Whitmore SM, Ferris FD. Comparison of international medical graduates with US medical students and residents after a four-week course in palliative

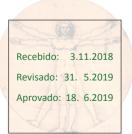
medicine: a pilot study. J Palliat Med [Internet]. 2013 [acesso 31 jul 2015];16(5):471-7. DOI: 10.1089/jpm.2012.0478

- Ozcelik H, Tekir O, Samancioglu S, Fadiloglu C, Ozkara E. Nursing students' approaches toward euthanasia. Omega [Internet]. 2014 [acesso 24 jul 2015];69(1):93-103. DOI: 10.2190/OM.69.1.f
- Del Río AA, Marván ML. On euthanasia: exploring psychological meaning and attitudes in a sample of Mexican physicians and medical students. Dev World Bioeth [Internet]. 2011 [acesso 24 jul 2015];11(3):146-53. DOI: 10.1111/j.1471-8847.2011.00308.x
- Broekman MLD, Verlooy JSA. Attitudes of young neurosurgeons and neurosurgical residents towards euthanasia and physician-assisted suicide. Acta Neurochir [Internet]. 2013 [acesso 31 jul 2015];155(11):2191-8. DOI: 10.1007/s00701-013-1861-3
- Siqueira JE. Definindo e aceitando a terminalidade da vida. In: Moritz RA, organizadora. Conflitos bioéticos do viver e do morrer [Internet]. Brasília: CFM; 2011 [acesso 12 ago 2015]. p. 15-24. Disponível: https://bit.ly/33wLXHo
- Brasil. Ministério da Educação. Diretrizes curriculares nacionais do curso de graduação em medicina [Internet]. Brasília: Ministério da Educação; 2014 [acesso 25 maio 2017]. Disponível: https://bit.ly/1CCBjuE
- 44. Colares MFA, Troncon LEA, Figueiredo JFC, Cianflone ARL, Rodrigues MLV, Piccinato CE et al. Construção de um instrumento para avaliação das atitudes de estudantes de medicina frente a aspectos relevantes da prática médica. Rev Bras Educ Méd. 2002;26(3):194-203.
- Oliveira FT, Flávio DA, Marengo MO, Silva RHA. Bioética e humanização na fase final da vida: visão de médicos. Rev. bioét. (Impr.) [Internet]. 2011 [acesso 20 nov 2015];19(1):247-58. Disponível: https://bit.ly/200MSim
- Duarte AC, Almeida DV, Popim RC. A morte no cotidiano da graduação: um olhar do aluno de medicina. Interface Comun Saúde Educ [Internet]. 2015 [acesso 17 jun 2017];19(55):1207-19. DOI: 10.1590/1807-57622014.1093
- Santos DA, Almeida ERP, Silva FF, Andrade LHC, Azevêdo LA, Neves NMBC. Reflexões bioéticas sobre a eutanásia a partir de caso paradigmático. Rev. bioét. (Impr.) [Internet]. 2014 [acesso 22 jul 2015];22(2):367-72. DOI: 10.1590/1983-80422014222018
- 48. Dias GT. Comunicação de más notícias no departamento de emergência: uma análise comparativa entre as percepções de médicos residentes, pacientes e familiares [dissertação] [Internet]. São Paulo: Universidade de São Paulo; 2015 [acesso 25 jul 2017]. Disponível: https://bit.ly/2pj8QPL
- Barclay S, Whyte R, Thiemann P, Benson J, Wood DF, Parker RA, Quince T. An important but stressful part of their future work: medical students' attitudes to palliative care throughout their course. J Pain Symptom Manage [Internet]. 2015 [acesso 24 jul 2017];49(2):231-42. DOI: 10.1016/j.jpainsymman.2014.06.004
- Moraes SAF, Kairalla MC. Assessing knowledge of medical undergraduate students on palliative care in end-stage disease patients. Einstein [Internet]. 2010 [acesso 15 jul 2017];8(2):162-7. Disponível: https://bit.ly/2qk7pBc
- 51. Oliveira MZPB, Barbas S. Autonomia do idoso e distanásia. Rev. bioét. (Impr.) [Internet]. 2013 [acesso 29 jul 2017];21(2):328-37. DOI: 10.1590/S1983-80422013000200016
- Junges JR, Cremonese C, Oliveira EA, Souza LL, Backes V. Reflexões legais e éticas sobre o final da vida: uma discussão sobre a ortotanásia. Rev. bioét. (Impr.) [Internet]. 2010 [acesso 23 jul 2015];18(2):275-88. Disponível: https://bit.ly/2MieJpk
- Ahmed AM, Kheir MM. Attitudes towards euthanasia among final-year Khartoum University medical students. East Mediterr Health J [Internet]. 2008 [acesso 18 jun 2017];12(3-4):391-7. Disponível: https://bit.ly/2ISWjJB
- Pinheiro A, Nakazone MA, Leal FS, Pinhel MAS, Souza DRS, Cipullo JP. Medical students' knowledge about end-of-life decision-making. Rev Bras Educ Méd [Internet]. 2011 [acesso 18 jun 2017];35(2):171-6. DOI: 10.1590/S0100-55022011000200005

Participation of the authors

Tanise Nazaré Maia Costa collected the data and wrote the manuscript. Ismari Perini Furlaneto performed the statistical analysis, and Milena Coelho Fernandes Caldato supervised the research and critical review.

Tanise Nazaré Maia Costa 0000-0003-1319-5591 Milena Coelho Fernandes Caldato 0000-0002-7077-8470 Ismari Perini Furlaneto 0000-0001-9941-0162



Appendix

Research instrument

Explanatory note

This instrument refers to a study that aims to verify what medical students think and feel about various issues regarding medical practice. We have tried to address several points of view that you may agree, disagree with or doubt. What matters is your personal opinion regarding all the questions.

We thank you in advance for your important collaboration.

Identification data

Age:	Gender:	Year you are attending:
Institution:		

Instructions:

The accompanying booklet provides a set of items for you to evaluate according to the following instructions: mark in the space in front of each item your opinion regarding each statement according to the intensity of your agreement or disagreement by writing an X in front of each statement, following the outline below.

- 1) Totally agree
- 2) Partly agree
- 3) In doubt
- 4) Partly disagree
- 5) Totally disagree

	Hama	Answers				
n⁰	Items		2	3	4	5
1	In the clinical interview I consider it important to investigate if there are psychological problems in the patient's family.					
2	I feel uncomfortable seeing patients with signs suggestive of psychiatric problems.					
3	I feel prepared to report a poor prognosis to the patient.					
4	I think it is the physician's role to help bring health services closer to the community.					
5	I think the specialist physician plays a more relevant role in society than the general practitioner.					
6	I believe that psychological factors are important as determinants of organic diseases.					

continua...

•	Items	Answers					
nº		1	2	3	4	5	
7	I feel prepared to report the patient's death to the family.						
8	I think the general practitioner should be more appreciated.						
9	I believe that developing scientific research is the role of scientists, not physicians.						
10	Psychiatric patients bother me the most during a consultation.						
11	I think, while taking patients' clinical history, they should be encouraged to talk about their emotional problems.						
12	I find it easy to conduct interviews with psychiatric patients.						
13	I consider it important to know the current policies in the field of mental health, even if I do not work in the field.						
14	I think that the preventive aspects of the diseases are the exclusive responsibility of public health specialists.						
15	I think a psychiatric patient with organ problems should not be admitted to the general ward.						
16	I think specialist physicians do not have to deal with the preventive aspects of diseases.						
17	I consider it important to ask patients how they resolve their stress problems.						
18	I think in medical school a huge amount of time is wasted trying to turn medical students into scientists.						
19	I think physicians should be part of multiprofessional teams that make home visits to communities near health centers.						
20	As a physician, I think that worrying about developing research can distance me from real medicine.						
21	I feel unprepared when I have to deal with death in an Emergency Room.						
22	I consider that the investigation of psychological aspects involved in diseases is only the responsibility of mental health professionals.						
23	I feel insecure regarding how to respect the ethical precepts of my profession.						
24	I believe in the importance of social environment factors in the evolution of mental illness.						
25	When a patient reports a disease, I consider it important to investigate if he or she has had any negative experiences recently.						
26	I believe that negative experiences of past illnesses can interfere with the patient's emotional state.						

continua...

•		Answ		Answers		
n⁰	Items	1	2	3	4	5
27	I think the physician can be a professional caregiver to mental ill patients without necessarily being a psychotherapist.					
28	I think physicians should not engage in cultural and group activities promoted by communities that belong to health centers.					
29	Patients with mental illness arouses negative feelings in me.					
30	I believe that the development of most diseases includes factors of psychological origin.					
31	I do not feel prepared to report a patient's death to his or her family.					
32	For me, psychological factors affect the physical condition of individuals.					
33	It is the physician's role to report, to the competent bodies, health institutions that do not offer decent care conditions					
34	A good physician needs to be aware of the biopsychosocial aspect of diseases.					
35	Chronic mentally ill patients cannot make decisions about their own life.					
36	I consider it important to know the scientific methods used in a medical research.					
37	I think that the joint work of primary health services with entities such as neighborhood associations can be productive.					
38	I find it naive to think that the physician's work can contribute to the scientific development of medicine.					
39	I think I would feel uncomfortable working in a mental hospital.					
40	Patients with multiple complaints discourage me in consultations.					
41	Physicians are exempt from listening to patients regarding their recommendations for diagnostic or therapeutic procedures when dealing with people with low levels of educational.					
42	I think the socialization policies for the mentally ill can alleviate their problems.					
43	I should not place much value on the emotional complaints of patients with multiple complaints.					
44	I think it is important that medical students, from the beginning of the course, have a habit of reading articles from scientific journals.					
45	It does not bother me to answer questions asked by family members of a severely ill patient.					
46	I think it is part of the role of the physician in primary care services to promote lectures on primary health care.					

continua...

	Items	Answers					
nº	items	1	2	3	4	5	
47	I think the psychological preparation of pre-surgical patients is not the responsibility of the physician.						
48	I think physicians in general should pay attention to the emotional state of every hospitalized patient.						
49	I get very disturbed when I witness the death of a young patient.						
50	I think it is up to professionals other than the physician to give basic care guidance to patients seeking basic health facilities.						
51	I think making new medical discoveries is for people who work in school hospitals, not for physicians in general.						
52	I feel uncomfortable answering questions from relatives of terminally ill patients.						

Questions	Yes	No
Would you provide emotional support to terminally ill patients?		
Would you talk to a terminal patient about the disease?		
Would you clarify for terminal patients how long they will live?		
In cases of terminal illness, would you inform patients about the true diagnosis?		
Do you agree that open discussion about life and death issues does not harm patients in this situation and that they actually like this candor?		
Would you use devices to extend the life of your patients?		
Do you think advanced technologies become a complicating factor in the humane treatment of terminally ill patients?		
Do you agree that palliative care increases patients' quality of life?		
Would you adopt palliative care with your patients?		

Question:

What do you understand about euthanasia, dysthanasia and orthothanasia?