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Death and dying in Brazilian medical training: an integrative review

Vinícius Leite Melo [1], *César Quadros Maia* [1], *Elisa Maia Alkmim* [1], *Amanda Pais Ravasio* [1], *Rafael Lourenço Donadeli* [1], *Larissa Ottoni Estevanin de Paula* [1], *Alexandre Ernesto Silva* [1], *Denise Alves Guimarães* [1]

1. Universidade Federal de São João del-Rei, Divinópolis/MG, Brasil.

Abstract

To describe how death and dying are approached in the medical undergraduate programs in Brazil and their repercussions for students, an integrative review of publications from 2008 to 2019 was carried out, resulting in a selection of 36 articles. The difficulties in approaching the theme related to the biomedical model of training, the organization of the curriculum, and the training of teacher were identified. Those affect students, causing psychic suffering and hindering the training process. Few curriculums approach psychosocial aspects related to death and dying, which are often approached for insufficient credit hours, inadequate methods, or as extracurricular activities. Solution proposals point to the necessity of investments in palliative care in the undergraduate programs. In conclusion, these themes need to be more thoroughly included in the National Curricular Directives of medicine programs, to foster a more humanitarian training, based on ethical principles, and which prepares students and professionals to deal with end-of-life situations

Keywords: Education, medical. Death. Mental health.

Resumo

Morte e morrer na formação médica brasileira: revisão integrativa

A fim de descrever como a morte e o morrer são abordados na graduação médica no Brasil e suas repercussões para estudantes, realizou-se revisão integrativa de publicações ocorridas entre 2008 e 2019, resultando na seleção de 36 artigos. Identificaram-se dificuldades na abordagem do tema relacionadas ao modelo biomédico de formação, à organização dos currículos e à formação dos professores. Estas afetam os estudantes, trazendo sofrimento psíquico e prejudicando o processo de formação. Poucos currículos abordam aspectos psicossociais relacionados à morte e ao morrer, sendo frequentemente abordados com carga horária insuficiente, métodos inadequados ou como atividades extracurriculares. Propostas de solução apontam a necessidade de investimentos em cuidados paliativos na graduação. Conclui-se que essas temáticas precisam ser mais bem contempladas nas Diretrizes Curriculares Nacionais de cursos de medicina, de modo a garantir uma formação mais humanitária, pautada em princípios éticos, e que prepare estudantes e profissionais para lidar com situações de terminalidade.

Keywords: Educação médica. Morte. Saúde mental.

Resumen

La muerte y el morir en la educación médica brasileña: una revisión integradora

Este texto describe cómo la graduación en Medicina en Brasil aborda la muerte y el morir y sus repercusiones al alumnado; para ello, se realizó una revisión integradora de 36 artículos publicados entre 2008 y 2019. Se identificaron las dificultades en el enfoque del tema relacionadas con el modelo biomédico de formación, la organización curricular y la formación docente. Esas dificultades generan sufrimiento psíquico a los estudiantes y perjudican su formación. Pocos currículos abordan los aspectos psicosociales en este tema y, muchas veces, lo hacen con inadecuados métodos, desde una insuficiente carga horaria o desde actividades extracurriculares. Para solucionarlo, es necesario plantear los cuidados paliativos en la graduación. Esta temática debe abordarse mejor en las Directrices Curriculares Nacionales de la carrera de medicina para garantizar una formación más humanitaria, basada en principios éticos y que prepara a los estudiantes y profesionales para enfrentar situaciones de final de la vida.

Palabras clave: Educación médica. Muerte. Salud mental.

Research

The authors declare no conflict of interest.

Different cultural aspects influence how people cope with losses, construing particular possibilities to face a difficult moment such as death [1,2]. These meanings attributed to death varied at different historical moments [2-4]; and despite being an inevitable biological process [2,3], death is commonly feared [1] and associated with suffering [3,5]. This understanding of death influences the way medicine addresses life and issues related to terminality, often involving dysthanasia, situation in which terminally ill patients' life is prolonged, thus representing the maintenance of a painful process [3-5].

Consequently, technology ends up helping to prolong the patient's existence, but not helping them to experience the process of dying in a qualified and dignified manner [6]. This scenario reinforces the importance of talking about death and ways of coping with it, topics that should be more widely discussed in health education and practices.

Regarding medical education, the literature argues that physicians are still trained to approach disease and death in their technical aspects to combat them, being unprepared to address the ill or dying [2,6]. As such, medical education tends to imprint an impersonal and purely biological view of death [4,6], which results in health professionals who, by avoiding contact with the other's death, distance themselves from emotions in relation to their own death [2].

One of the great challenges for current health education is, therefore, to go beyond teaching exclusively technical care [6] to encompass the complexity of suffering, illness, and terminality. This is specially challenging for the Brazilian medical education scenario, which was greatly influenced by Flexner's model, based on education focused on hospital practice and disease [7] and not on the person and other social contexts involved in health-illness processes.

The creation of the Unified Health System (SUS) and the Health Reform movement in the 1980s intensified the debates on the limits of the biomedical-centered health education model. Such discussions led to the incorporation of ideals put forward by the *Dawson Report* [8], which proposed the regular use of Primary Care services for health education, a focus on the person and groups, and attention to social issues involved in health-illness processes [9].

Several changes concerning the legal framework of medical practices and education were developed in the country following these technical recommendations and reflecting the transformations in health care that have been taking place in Brazilian society. If, on the one hand, the 2010 Code of Medical Ethics reaffirmed the medical commitment to life and health, it also reinforced its commitment to respecting patient autonomy and ensuring care in irreversible and terminal situations [10].

From the ongoing set of discussions regarding health education in Brazil, the National Curricular Guidelines (DCN) for undergraduate medical programs advocate a reflective and empathic education that values each person's psychosocial context [11]. But the space devoted to issues related to the psychosocial aspects of illness, death, and palliative care remains small and, when discussed, the reflections remain restricted to understanding them as part of the physiological cycle [11,12].

The lack of institutional support for students to address their anguish before death situations emerges as a factor that could later influence their professional capacity regarding these issues [13]. As for the medical education process, the 2018 Medical Student Code of Ethics establishes that the student should seek, in their education institution, psychosocial support initiatives to aid situations that imply psychic suffering, and the student's co-responsibility in developing a curricular structure geared towards a critical and humanistic education [14].

Given the complexity in approaching terminality and its relevance to medical practice, this study sought to describe, based on the analysis of papers on Brazilian medical education, how topics related to death and dying have been discussed in undergraduate medical programs and their repercussions for students.

Method

This study is an integrative, qualitative, and descriptive literature review based on

bibliographic research [15], method chosen due to its broad approach and for allowing to combine data from the literature, including qualitative and quantitative studies.

Bibliographic research was conducted in the LILACS, PubMed, SciELO, and Medline databases using descriptors—or keywords—in English and Portuguese chosen based on consultation to the Health Sciences Descriptors (DeCS) and previous test-research, namely: "*students*, *medical* and *death*"; "*students*, *medical* and *stress*, *psychological*"; "*students*, *medical* and *attitude to death*"; "*students*, *medical* and *anatomy*"; "estudantes de medicina *and* morte"; "estudantes de medicina *and* atitude frente à morte"; "estudantes de medicina *and* estresse psicológico"; "educação médica *and* morte"; "*education*, *medical* and *death*"; "educação médica *and* tanatologia"; "*education*, *medical* and *thanatology*"; "*students*, *medical* and *thanatology*"; "estudantes de medicina *and* tanatologia." Titles and abstracts of the selected articles were read by more than one researcher to assess the eligibility of the study regarding the inclusion and exclusion criteria.

Original articles in Portuguese and English published between 2008 and 2019 were included. Studies that: a) did not include Brazilian medical students in their sample; b) did not address medicine undergraduate programs; c) addressed the issue of death and dying only considering its biological and legal aspects; d) were not original, or e) were duplicated were excluded. This process resulted in the selected articles that composed the analysis structure of this research. A data extraction form was used, prepared according to the established objectives and research design, to ensure that all relevant information was properly recorded, minimizing errors [15].

The selected articles were organized in a chart (Chart 1), considering the following variables: authorship, journal and year of publication, sample characteristics, age group and course year of the participating students, and study design. Articles that met the eligibility criteria were read and analyzed by pairs of researchers and, later, the group jointly developed the content categorization process based on the theoretical framework of thematic or categorical analysis [16].

Our adoption of a qualitative framework for data analysis is justified by the possibility of including and approaching complex and relevant topics for discussion, and not simply considering their frequency of appearance. Qualitative approaches in health research are of paramount importance, as they allow a greater understanding of difficult-to-approach topics, whose complexity makes it difficult to be apprehended by exclusively quantitative methodologies [17]. The following categories emerged from this process, being presented and discussed below: 1) death and dying in medical education and its psychosocial impacts; 2) approach to death and dying in the curriculum organization; 3) solution proposals suggested given its problematic approach.

Results

The bibliographic research carried out resulted in 31,404 studies, of which we selected 36 after analysis by reading titles, abstracts, and articles in full (Figure 1). Among the selected articles, 21 used qualitative methods, 11 were quantitative, and four presented a qualitative-quantitative approach (Chart 1). In total, these studies involved 2,823 medical students from different course years, 548 physicians—among which 320 residents—and other health professionals outside of our scope.

Figure 1. Flowchart of inclusion and exclusion of studies

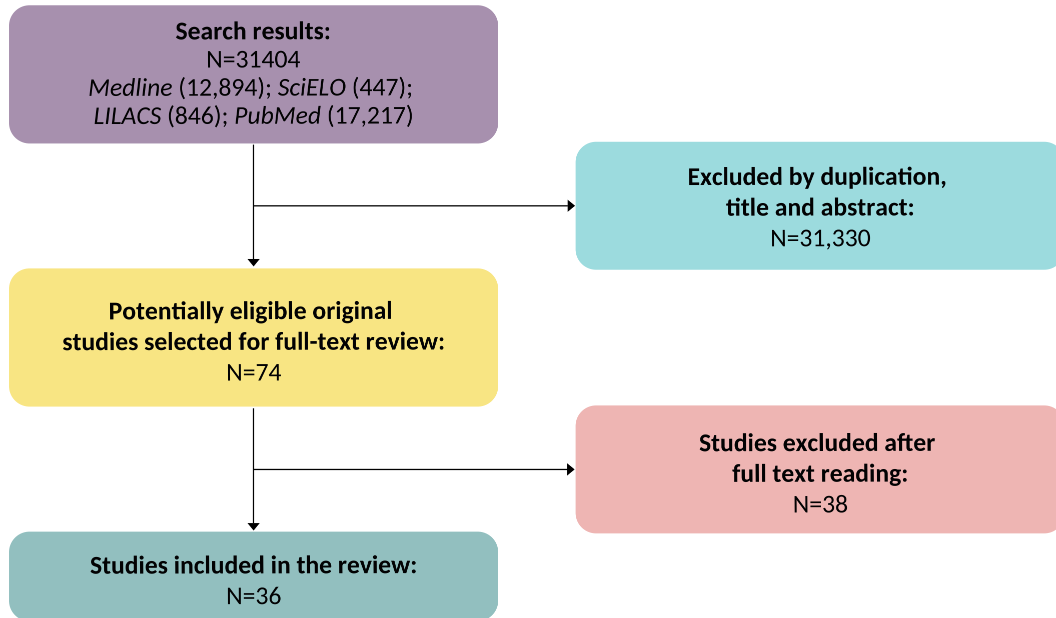

Chart 1. Articles according to authorship, journal and year of publication, study design and methodology

Author(s)	Journal and year of publication	Sample characteristic/place of research (state)/ course year/age group	Method
Sadala and Silva [18]	*Interface (Botucatu)*, 2008	24 undergraduate medical students, São Paulo 5th- and 6th-year students who had experienced two or three situations involving caring for terminally ill patients Age range between 21 and 27 years old	Qualitative and descriptive
Quintana and collaborators [19]	*Revista Brasileira de Educação Médica*, 2008	11 undergraduate medical students, Rio Grande do Sul 1st-to-5th-period students Age range between 18 and 27 years old	Qualitative, ethnographic
Brito and collaborators [20]	*Revista Paraense de Medicina*, 2008	240 undergraduate medical students, Pará 1st to 4th year students Age range between 17 and 33 years old	Quantitative, cross-sectional study
Falcão and Mendonça [21]	*Revista Brasileira de Educação Médica*, 2009	48 medical professors, Rio de Janeiro Unspecified age group	Qualitative and reflexive
Marta and collaborators [22]	*Revista Brasileira de Educação Médica*, 2009	120 residents and 100 undergraduate medical students, São Paulo 3rd year students and residents Unspecified age group	Quantitative, cross-sectional study
Mascia and collaborators [23]	*Revista Brasileira de Educação Médica*, 2009	82 undergraduate medical students, São Paulo 41 from the 6th year and 41 from the 2nd year Unspecified age group	Quantitative, cross-sectional study
Bifulco and Iochida [24]	*Revista Brasileira de Educação Médica*, 2009	15 health professionals, including three physicians, São Paulo Mean age group of 35.7 years, age range between 22 and 80 years old	Qualitative, descriptive, exploratory
Silva and Ayres [25]	*Revista Brasileira de Educação Médica*, 2010	15 undergraduate medical students and four residents, Rio Grande do Sul At least one student from each period and two from each year of residency (R1 and R2) Unspecified age group	Qualitative and reflexive

continues...

Chart 1. Continuation

Author(s)	Journal and year of publication	Sample characteristic/place of research (state)/ course year/age group	Method
Combinato and Queiroz [26]	*Ciência & Saúde Coletiva*, 2011	Six physicians and seven nurses, São Paulo Age range between 24 and 48 years old	Qualitative, exploratory
Andrade and collaborators [27]	*Revista Brasileira de Educação Médica*, 2011	120 undergraduate medical students, Federal District 25% of students in each year (1st to 6th year) Age range between 18 and 31 years old	Qualitative, quantitative, cross-sectional, descriptive study
Pinheiro and collaborators [28]	*Revista Brasileira de Educação Médica*, 2011	180 undergraduate medical students, São Paulo 1st to 6th-year students Unspecified age group	Quantitative, cross-sectional study
Azeredo, Rocha, and Carvalho [29]	*Revista Brasileira de Educação Médica*, 2011	Five undergraduate medical students, Rio Grande do Sul 9th to 12th-period students Unspecified age group	Qualitative, descriptive, exploratory
Pinheiro, Benedetto, and Blasco [30]	*Revista Brasileira de Medicina*, 2011	Unspecified sample, São Paulo Undergraduate medical students and residents 6th year students and residents Unspecified age group	Qualitative, participant observation
Borges and Mendes [31]	*Revista Brasileira de Enfermagem*, 2012	One nutritionist, two nurses and two physicians, Federal District Age range between 26 and 32 years old	Qualitative, descriptive, exploratory
Santos, Menezes, and Gradvohl [32]	*Ciência & Saúde Coletiva*, 2013	Six undergraduate medical students, 10 undergraduate nursing students and six undergraduate psychology students, São Paulo Unspecified course period Unspecified age group	Qualitative, descriptive, exploratory
Figueiredo and Stano [33]	*Revista Brasileira de Educação Médica*, 2013	Unspecified sample 2nd year undergraduate medical students Age group above 16 years	Qualitative and reflexive
Almeida and Falcão [34]	*Revista Brasileira de Educação Médica*, 2013	27 physicians, Rio de Janeiro Unspecified age group	Qualitative and reflexive
Poletto, Santin, and Bettinelli [35]	*Revista Brasileira de Educação Médica*, 2013	11 physicians treating older patients, Rio Grande do Sul Age range between 39 and 63 years old	Qualitative and exploratory
Bertoldi, Folberg, and Manfroi [36]	*Revista Brasileira de Educação Médica*, 2013	Undergraduate medical students, Rio Grande do Sul Unspecified sample Unspecified age group	Qualitative, case study
Fonseca and Geovanini [37]	*Revista Brasileira de Educação Médica*, 2013	Seven undergraduate medical students, one PhD student in geriatrics and one not identified, Rio de Janeiro Unspecified course period Average age group of 27 years	Qualitative, exploratory
Silva, Leão, and Pereira [38]	*Revista Bioética*, 2013	76 undergraduate medical students, Pernambuco 3rd period students Unspecified age group	Qualitative and reflexive
Andrade and collaborators [39]	*Revista Brasileira de Educação Médica*, 2014	40 undergraduate medical students, Ceará 2nd to 6th year students Average age group of 21.5 years in one group and 21 years in the other	Qualitative, quantitative, longitudinal, descriptive

continues...

Research

Chart 1. Continuation

Author(s)	Journal and year of publication	Sample characteristic/place of research (state)/ course year/age group	Method
Duarte, Almeida, and Popim [40]	*Interface (Botucatu)*, 2015	26 undergraduate medical students, São Paulo 4th and 6th period students Unspecified age group	Qualitative, descriptive
Costa, Poles, and Silva [41]	*Interface (Botucatu)*, 2016	10 students, five from medicine and five from nursing, Minas Gerais 3rd to 9th period undergraduate students Age range between 21 and 30 years old	Qualitative, descriptive, exploratory
Silva and collaborators [42]	*Revista Brasileira de Educação Médica*, 2016	25 undergraduate medical students, 83 medical professors and 64 residents, Rio Grande do Norte 12th period students, and physicians Unspecified age group	Quantitative, cross-sectional study
Alves and collaborators [43]	*Revista da Associação Médica Brasileira*, 2017	69 undergraduate medical students, Sergipe 9th to 12th period students Average age group of 25.1 years	Quantitative, cross-sectional study
Freitas and collaborators [12]	*Revista Bioética*, 2017	23 undergraduate medical students, Bahia Unspecified course period Unspecified age group	Qualitative, descriptive
Tamada and collaborators [44]	*Revista de Medicina*, 2017	Nine physicians, São Paulo Age range between 32 and 58 years old	Qualitative, descriptive, cross-sectional
Storarri and collaborators [45]	*BMJ Supportive e Palliative Care*, 2017	293 undergraduate medical students and 43 residents, São Paulo 1st to 6th year students and residents Unspecified age group	Qualitative, descriptive
Santos, Lins, and Menezes [46]	*Revista Bioética*, 2018	47 undergraduate medical students, Bahia 1st year students Unspecified age group	Qualitative, descriptive
Correia and collaborators [47]	*Revista Brasileira de Educação Médica*, 2018	134 undergraduate medical students, Alagoas 9th to 12th period students Age range between 22 and 37 years old	Qualitative, descriptive, cross-sectional
Malta, Rodrigues, and Priolli [48]	*Revista Brasileira de Educação Médica*, 2018	240 undergraduate medical students, São Paulo Unspecified course period Age group above 19 years	Quantitative, cohort
Pereira, Rangel, and Giffoni [49]	*Revista Brasileira de Educação Médica*, 2019	81 undergraduate medical students, Goiás 6th year students Age group above 18 years	Qualitative, quantitative, descriptive, evaluative
Marques and collaborators [50]	*Revista Brasileira de Educação Médica*, 2019	66 undergraduate medical students, Acre 8th-and 11th-period students Average age group of 26.76 years	Qualitative, quantitative, descriptive, evaluative
Santos and Pintarelli [51]	*Revista Brasileira de Educação Médica*, 2019	805 undergraduate medical students and 93 residents, Paraná All-period students Age range between 18 and 22 years among students and between 23 and 27 years among residents	Quantitative, observational
Meireles and collaborators [52]	*Revista Bioética*, 2019	51 undergraduate medical students and 42 physicians, Minas Gerais 2nd and 4th period students Age group equal or greater than 18 years	Qualitative, descriptive, cross-sectional

Research

As observed, the analyzed studies were carried out in all regions of Brazil: 18 in the Southeast, four in the South, three in the Midwest, eight in the Northeast, and two in the North. Regarding the federation units, 12 studies were performed in São Paulo, three in Rio de Janeiro, three in Minas Gerais, three in Rio Grande do Sul, one in Paraná, one in Goiás, one in Ceará, one in Pernambuco, two in Rio Grande do Norte, one in Sergipe, two in Bahia, one in Alagoas, one in Pará, one in Acre, and two in the Federal District. Chart 2 summarizes the main results and recommendations of the papers.

Chart 2. Summary of the main results and recommendations of the selected articles

Authors	Main results	Main recommendations
Sadala and Silva [18]	Anxiety in treating terminal patients and difficulty coping with their own feelings; impotence, depression and anxiety in the face of death; deficient training and unpreparedness to address terminality; distancing from the patient	Broaden the approach towards aspects related to terminality in medical education, such as interpersonal skills, ethics, and medical deontology
Quintana and collaborators [19]	Anguish in the face of terminality; pain and suffering regarding training models and practices	Create spaces to discuss the topic and share experiences
Brito and collaborators [20]	Anxiety in the face of death; distancing from the patient and professional dehumanization; poor curriculum organization; own health concerns	Encourage the development of interpersonal skills in students; search for a greater humanization in medical education, so that illness and death can be better coped with
Falcão and Mendonça [21]	Suffering and unpreparedness of physicians, students, and patients in the face of death; lack of emotional support during undergraduate studies; poor curriculum organization; predominance of the biomedical perspective	Create spaces to discuss the topic and share experiences
Marta and collaborators [22]	Development of burnout syndrome; distancing from and indifference towards the patient; poor curriculum organization; perceived theoretical, practical, and individual preparation to cope with death and dying during undergraduate studies	Include a theoretical-practical approach to terminality, provide thanatology courses
Mascia and collaborators [23]	Psychic suffering in the face of terminality; different perceptions and reactions between students from different periods in the face of death	Include thanatology courses throughout medical education; discuss clinical cases; create spaces for discussion; offer psycho-pedagogical support
Bifulco and Iochida [24]	Psychic suffering, frustration and sense of loss; education focused on the biomedical model; perceived lack of the topic of death during training	Discuss death and dying throughout the undergraduate course, especially when training in palliative care; encourage the development of empathy and user embracement skills
Silva and Ayres [25]	Vulnerabilities and unpreparedness to address terminality situations; deficient approach to the topic; lack of contact with death throughout the course; deprivation of contact with patients in the first years	Incorporate specific content and active and diversified methods to address suffering and terminality; experience terminality throughout the course; develop psychosocial aspects and the communication process; provide institutional psycho-pedagogical support
Combinato and Queiroz [26]	Unpreparedness to cope with terminality situations; training focused on the biomedical and scientific model; manifestation of negative feelings related to terminality	Change the training perspective, focusing more on terminality issues; need to develop empathy, user embracement and dialogue skills

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Research

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Chart 2. Continuation

Authors	Main results	Main recommendations
Andrade and collaborators [27]	Recognition of the development of positive attitudes and maturity regarding issues related to death; better understanding of the illness and terminality process	Develop empathy, user embracement and dialogue skills; involve oneself in care when cure is not possible; use active methodologies
Pinheiro and collaborators [28]	Poor approach to terminality and lack of knowledge regarding bioethical concepts related to moral types of death (euthanasia, dysthanasia, and orthothanasia)	Develop theoretical and practical knowledge on terminality and bioethical concepts
Azeredo, Rocha, and Carvalho [29]	Psychic suffering and impotence; little approach to the topic; feeling of unpreparedness, and distancing from the patient	Provide experiences related to terminality throughout the course; develop theoretical and practical knowledge on terminality; develop psychosocial aspects related to illness and terminality; provide institutional psycho-pedagogical support
Pinheiro, Benedetto, and Blasco [30]	Unpreparedness to address terminality situations throughout the course; death seen as medical failure; active methodologies improved communication and expressing feelings	Invest in palliative care education; provide practical experiences during the training process; develop theoretical and practical knowledge on terminality in each curricular subject
Borges and Mendes [31]	Distancing from the patient; curriculum approach with poor focus on aspects related to terminality	Develop interpersonal skills of empathy, user embracement and dialogue ; be involved in the care process in terminal situations
Santos, Menezes, and Gradvohl [32]	Unpreparedness to deal with death; psychic suffering; poor approach by the mandatory curriculum; ignorance of the term "orthothanasia"	Provide an education that develops psychosocial and communication aspects regarding death
Figueiredo and Stano [33]	Importance of using active teaching methodologies and curricular subjects that address death; importance of thanatology and palliative care subjects	Encourage the development of interpersonal skills by subjects with active methodologies
Almeida and Falcão [34]	Limits of medical action in the face of death in the ICU; unpreparedness in medical training to cope with terminal situations; recognition of the need for psychological support	Implement a thanatology course; student must witness moments of terminality during undergraduate studies; create spaces for discussion
Poletto, Santin, and Bettinelli [35]	Need for further discussions and reflections on the approach to death and dying in academic education; death and dying are not included in the pedagogical projects; concern for patients and families	Implement a thanatology course; create spaces to share emotions and knowledge
Bertoldi, Folberg, and Manfroi [36]	Contact with patient death and suffering generates fear; discouragement to seeking knowledge, and difficulty perceiving oneself and others	Does not provide recommendations
Fonseca and Geovanini [37]	Death as an indicative of medical failure; student unpreparedness to address terminality; approach to death and dying considered deficient in the curriculum; some students feel prepared to cope with death	Include the topic of palliative care in the medical course; develop interpersonal relationships and communication skills; provide pedagogical support

continues...

Chart 2. Continuation

Authors	Main results	Main recommendations
Silva, Leão, and Pereira [38]	Importance of using bioethical teaching in the medical course; perceived primacy of the curative perspective on medicine; deficient curricular organization on aspects related to terminality	Include subjects focused on terminality and new teaching methodologies
Andrade and collaborators [39]	Education that barely addresses death and dying; student anguish over terminal and cadaver contact in anatomy classes; psychic suffering related to contact with death (anxiety, depression, insomnia)	Expand the approach to terminality throughout the course by creating spaces for discussion; provide psycho-pedagogical support
Duarte, Almeida, and Popim [40]	Death seen as a medical failure; psychological distress among students in the face of death (feelings of failure, impotence, and anguish); feeling of unpreparedness, despite the progressive contact with the topic of terminality during undergraduate studies (insufficient workload, punctual approach)	Include a comprehensive approach to the topic of palliative care throughout the undergraduate course; provide in-person contact with terminality situations
Costa, Poles, and Silva [41]	Death seen as a medical failure; development of defense mechanisms (distancing from the patient); unpreparedness in training; poor approach by the mandatory curriculum	Encourage theoretical-practical palliative care education and research aimed at improving this training
Silva and collaborators [42]	Poor approach to the topic of terminality and on completing the death certificate	Develop an approach that allows proper completion of the death certificate
Alves and collaborators [43]	Psychic suffering in the face of terminality; feeling of failure, difficulty communicating with patients and their families	Create of spaces to discuss the topic
Freitas and collaborators [12]	Poor curricular organization to address terminality; students' unpreparedness to deal with death; changes in the perception of death; new paradigm proposed by palliative care	Include mandatory thanatology subjects in the curriculum
Tamada and collaborators [44]	Unpreparedness to address death; insufficient approach to the topic in the curriculum	Adopt active strategies and methodologies to approach topics related to terminality (cinema, psychodrama, role-playing, and workshops)
Storarri and collaborators [45]	Unpreparedness to address terminality situations; lack of approach to communicating difficult news	Include the topic of palliative care in the undergraduate course; develop theoretical-practical activities on terminality
Santos, Lins, and Menezes [46]	Understanding of death as a natural and social phenomenon; ethical and psychological aspects of death should be considered in medical practice; death seen as an enemy in medical practice, but also represents relief; need to replace the biomedical model and to broaden the approach to terminality in undergraduate studies	Develop interpersonal skills of empathy, user embracement and dialogue
Correia and collaborators [47]	Death seen as medical failure; feelings of frustration when addressing the issue; anguish due to contact with a terminal patient; insufficient approach; lack of approach to communicating difficult news	Include thanatology courses as a curricular subject

continues...

Research

Chart 2. Continuation

Authors	Main results	Main recommendations
Malta, Rodrigues, and Priolli [48]	Unpreparedness to deal with terminality situations; student difficulty in communicating with patients and their families; advantages in acquiring knowledge for students who studied the topic throughout the undergraduate course	Develop interpersonal skills of empathy, user embracement and dialogue and therapeutic practices for pain control; provide a more humanized care to patients
Pereira, Rangel, and Giffoni [49]	Feelings of anxiety and threat to their own life; poor approach to palliative care, orthothanasia, dysthanasia, and euthanasia by the curriculum; unpreparedness to address terminality	Include elective courses and extension projects on the subject; invest in palliative care education; provide a more humanized care to patients
Marques and collaborators [50]	Undergraduate program based on the biological model; interference of past experiences and personal factors in the perception of death and dying	Offer opportunities for students to witness moments of terminality throughout the undergraduate course; create spaces to discuss the topic
Santos and Pintarelli [51]	Feelings of frustration, anxiety and helplessness in the face of terminality; insufficiency of the approach during undergraduate studies and contact with the subject restricted to the last years of the course	Expand the approach to the topic throughout the course
Meireles and collaborators [52]	Unpreparedness to cope with terminality situations; deficient training; distancing from the patient	Include thanatology courses; develop theoretical-practical activities on terminality

Death and dying

Medical education and its social impacts

Regarding the psychosocial impacts of death and dying in medical education, the selected articles mainly discussed those aspects linked to their biotechnical elements, the issue of suffering and unpreparedness before terminality situations, difficulties experienced by students, and the influence of personal beliefs and experiences.

Of the 36 articles, 13 brought critical perspectives about undergraduate medical courses predominantly focused on organicist biomedical references and that prioritize the traditional scientific-biological paradigm [12,21,22,24,26,31,33,37,38,40,44,46,50]. Such precarious or non-existent approach to death and dying in undergraduate medical programs resulted in a set of issues identified and discussed by these studies. Four articles pointed out the students' unpreparedness to address patients with no possibility of cure and situations that involved the death process [12,33,44,52]; another four identified that death is seen as something negative, indicating medical failure and generating anguish [31,37,47,50]. The remaining five argued that the assumed ability to intervene on death led to the search for a cure, an attempt to maintain life and recover health at all costs [12,24,34,35,38].

As for how patient death is coped with, the studies identified several instances of psychic suffering expressed by the students as feelings of frustration [24,29,47,51], impotence [18,26,29,37,51], failure [26,40], loss [24], and imperfection [43]. Twelve studies pointed out that the various manifestations of psychological distress discussed referred to unpreparedness to deal with terminal situations throughout the course [25,26,30,32,34,37,40,41,43,45,48,52], lack of student emotional support [21,25,37,45,52], or because of the medical training model focused on healing. Some studies also mentioned that due to this unpreparedness, death was seen as a medical failure [26,30,40,41].

Lack of contact with death and dying during undergraduate studies left students uncomfortable to work in contexts where these events predominate [30,43], being associated with communication difficulties between students and patients and their families [43,48].

Twenty-six studies identified a set of psychosocial impacts and defense mechanisms among medical students, resulting from an education that barely approached the issues of death and dying [18-26,29-32,34,36,37,39-41,43,45,47-49,51,52]. Three studies reported on anguish caused by contact with terminal patients [40,41,47] and with cadavers in anatomy classes [19,39]. Other forms of psychological distress such as anxiety [18,20,47,48,51], depression [18,23,32,39], insomnia [39], and burnout syndrome [22,23] were also highlighted as resulting from the student's contact with death. Faced with a patient's death, students had to face their own finitude [20,21,47,49], which could generate anxiety [47] and the feeling of threat to their own lives [20].

As for the defense mechanisms developed by medical students to cope with patient death [18,22,29,31,36,41,43,52] and deal with cadavers in anatomy classes [22], the studies point to distancing from the patient [18,20,22,29,31,41,52], distancing from the human condition [29], use of jokes towards the corpse [19], professional dehumanization [20,36], professional isolation when coping with death [29], and indifference towards the patient [22].

The analyzed articles also investigated influences related to personal and family experiences and beliefs as factors that could interfere with how they perceived death and dying and thus impact professional practice [18,22,23,26,28,31,40,41,50-52]. Five studies pointed out the influence of religious beliefs [18,26,28,31,50], three of which argued that such beliefs enabled a better acceptance of death and constituted a means of minimizing feelings of guilt, failure and impotence in the face of death [18,26,31].

Curricular organization

Approach to death and dying

Aspects directly related to the approach to death and dying within the organization of undergraduate medical curricula were also addressed by the analyzed articles. Overall, these studies discussed the modalities of approach; workload, teaching methods and materials; problems, challenges, and limits encountered.

Of the total, 24 studies identified different modalities of approach to death and dying during undergraduate studies [12,18,20,22,25,28,30-33,37,38,40-51], such as short-term medical ethics courses [28], palliative care courses [48], extension projects [41], optional subjects [41], elective subjects [12,48], compulsory subjects [33,48], didactic palliative care outpatient clinic [30], and ethics and bioethics curricular components [46]. Additionally, one article pointed out that daily and progressive contact with the topic occurred in several subjects throughout the undergraduate program, even if it scaped the student's notice [40]. Other studies found that, among the participating students, most had no contact with death and dying during undergraduate studies for the topic was restricted to the final years of the course [25,51].

Based on accounts from physicians and students, 12 studies pinpointed the following topics related to terminality as receiving a deficient approach by the mandatory undergraduate curriculum [12,22,25,28,30-32,41-43,47,49]: palliative care [30,41,47]; knowledge of the terms 'orthothanasia' [22,28,32,49], 'dysthanasia,' and 'euthanasia' [22,28,49]; monitoring of the process of death and dying [31]; thanatology [43]; development of communication skills [30], and completion of the death certificate [42].

Eighteen studies identified a perceived insufficiency regarding the approach to death and dying in the medical curriculum [18,21,22,27,29-32,34,35,40,41,44,47,49-52], including students who participated in palliative care classes [41,47,49], extracurricular activities on the topic [40,41], and internships [31].

Other three papers mentioned that, according to the students, the lack of approach to communicating difficult news during the course lead to difficulties and insecurity in doing so [18,45,47]. One study pointed out that, due to the lack of a palliative care approach in curricular subjects, students had to resort to extension projects and optional and elective subjects to obtain knowledge on the topic [41]. Other articles highlighted that the professors themselves had no sufficient knowledge on the theme [12,42,47].

During the analysis, we identified discussions focused more specifically on the curricular organization of medical courses that hindered or poorly favored the approach to death and dying in student training [12,18,20,22,25,28,30-33,37,38,40-48,50,51]. Some articles pointed out that students were deprived from interacting with the human being in learning situations involving health care in the first two or three years of the program [25,33,45].

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Such interaction was generally restricted to contact with the cadaver in the anatomy laboratory during the initial years [33], when contact with death begins [22,40].

Other studies discussed the limitations related to how death and dying have been addressed throughout the medical education curriculum. Two articles revealed that the emotional aspects and disturbances resulting from the student's contact with this topic/reality were addressed by the curricula from an eminently scientific perspective, ignoring the field of emotions [31,47]. According to two papers, the students perceived an explicit orientation from their professors to distance themselves from patients [29,30].

Some studies pointed out the relevance attributed by students to discussing death and dying in the curriculum, highlighting the perceived importance of this topic in undergraduate subjects [12,47] and the advantages in knowledge acquisition for those who studied the topic throughout the course [41,45,48]. As this topic is rarely addressed during graduation, students found themselves unprepared to deal with a patient's death and dying process [18,21,27,29,32,40,44,47,49-52]. Conversely, three papers showed that students felt prepared to address patient death [22,37,49].

A set of articles discussed the course load allocated to approaching death and dying in the curricular organization, emphasizing its insufficiency in addressing the theme or how the subject is treated in a single class or a single subject in the curriculum, without observing the learning needs [12,33,40].

Eleven articles investigated the methodologies used to approach the topic [12,18,24,26,30,31,33,38,41,46,48], and only three addressed teaching materials [33,40,46]. These studies analyzed reports from students [12,18,40,46,48] and physicians [26,31], and the results of the implementation of subjects and/or new teaching methods [12,30,33,38,41,46,48].

Regarding the methods used to approach the theme, the analyzed papers identified subjects that used lectures and theoretical classes [12,46] and active teaching methods [26,30,33,38], besides practice-based learning in extension projects [41]. Of the four articles that mentioned active teaching methods, three showed that these fostered the development of students' personal skills, such as improved communication and externalization of feelings [26,30,38].

Proposals for approaching the subject

All studies included solution proposals to issues related to approaching death and dying in undergraduate courses. These were divided into two groups: 1) those developed around the discussion and suggestion of theoretical and conceptual frameworks and methodologies [12,22-25,29,30,32,35,37,39-45,47,49,50,52], and 2) those resulting from the perception of students and physicians who participated in the research [25,31,34,35,37,41,45,46,49].

Some papers highlighted the need to address death and dying during the program [23,24,29,35,37,39,43,47,50,52], to develop interpersonal skills of empathy, user embracement and dialogue [20,24,26,31-33,41,46,48], and therapeutic practices such as pain control [41,48]. Other articles suggested the inclusion of humanities content [18]. Some studies also suggested thanatology courses [12,22,23,34,35,47,52], of which two proposed to include this topic as a curricular subject [12,47].

Two articles pointed out the importance of elective courses and extension projects to foster greater mastery over the topic [41,49], and two others argued that death should not be addressed beyond the biological context, including the human aspect of loss in an interdisciplinary manner [37,40].

As for palliative care education, eight studies argued that this field of knowledge represented an important proposal for approaching terminality issues in medical education [12,22,30,40,41,45,47,49]; some point to the need for more course load and greater depth in this topic [12,41], and another emphasizes that palliative care should appear throughout the undergraduate course [40]. Two studies found students' reports on the importance of including a subject [45,49] or a topic involving palliative care in the program [45].

As for the methods used, one article suggested incorporating discussions of clinical cases and creating support groups for family members and health professionals [23], while others proposed strategies to turn the topic more personal, such as cinema, psychodrama, role-playing, and workshops [25,44]. Seven studies affirmed the importance of students witnessing moments of terminality throughout their undergraduate program [25,29,30,34,40,50,52], so that they could absorb the expected professional attitude, ideals, and manner in each situation [25,40]. Finally, ten articles

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pointed out the importance of developing theoretical and practical knowledge on terminality in different curricular subjects [22,25,28-30,34,41,45,49,52].

Regarding the different ways of addressing death and dying, some articles discussed the importance of students better understanding the process of illness and terminality [26,29,37,46]. Six studies stated the importance of providing more humanized care to patients [26,31,45,46,48,49]. Two articles argued that future professionals should be able to offer patients a quality death, by means of a humanized care [24,32], and three studies asserted that the professional should know how to care and embrace patients when cure is impossible and death a reality [27,31,33]. Some studies argued that training should include the development of interpersonal relationship and communication skills with patients and family members, besides providing students with psychological, sociological, spiritual, and cultural mastery over death [22,25,32,37,41].

Ten of the studied articles suggested the creation of discussion spaces [19,21,23,25,29,34,35,39,43,50] to share emotions stemming from the education process, as a means of reducing the consequences of dealing with illness every day, with some mentioning that these sharing spaces could also generate knowledge acquisition on the topic [19,21,29,35,50]. Other studies highlighted the active role to be played by the University in providing psycho-pedagogical support for future physicians [23,25,29,39], recognizing stressors, evaluating content that reduces the impacts of other subjects [29,39] and improving transitions between periods [29,39].

Discussion

Our results revealed how the national literate has been outlining discussions that seek to analyze the difficulties and challenges in medical education to address death and dying, as well as the changes necessary to move towards an education more focused on the complexity of the elements that make up medical care. Death is a difficult issue to approach, since it involves different perspectives of dealing with limitations surrounding human finitude. These difficulties, present within medical training and involving students, professors and teaching structures, when faced with death, destroy the medical professional idealized as a "thanatolytic," omnipotent being capable of delaying the threat of death [13].

The challenges arising from dealing with death-related situations can become more difficult and generate suffering and illness among students, seen as they cannot count on the support of training structures and professors. In this regard, disregard of the students' personal needs and lack of emotional support in the face of death and dying can generate helplessness, loneliness, and despair [6,13,53,54].

Moreover, the difficulties of professors and training structures in approaching death and dying can lead students to believe that emotional aspects related to death and terminality could impair reasoning and professional skills in decision-making related to case management [6]. Consequently, students start developing defense mechanisms from the first anatomy classes. To deal with the anguish stemming from the contact with the cadaver and death, students dissociate between the anatomical part and human life, producing a cold attitude [4-6].

Despite its relevance for professional training, and constituting a reflexive and complex process with broad consequences in training and professional practice, the literature emphasize that the number of subjects dedicated to the topic of death and dying is small, which can generate unpreparedness, frustration and illness from dealing with everyday situations involving death [6].

The failure of a more critical, reflective and interdisciplinary education process can result in the training of physicians who seek exclusively to save lives and who find it difficult to cope with patient death, as they start questioning their limits and professional competences in the face of death [5], difficulties that refer to frustrations, suffering, and illness [2,13].

From the point of view of student training and professional practices, the organizational structure of some health institutions also promotes a separation between affective aspects and medical practice as a strategy to avoid suffering in terminal situations [4,6], as if affective involvement could impair reasoning and the ability to act when faced with the need for a decision [6].

As for curricular organization, few curricular subjects approach death in a non-defensive and biological manner and can serve as references so

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that students do not have to resort to learning on their own how to manage situations related to terminality or to seek this aspect of training in extracurricular programs [6].

Besides, considering the need for medical education that moves away from a technicist training model [6], it is essential to understand and expand the advances contained in teaching proposals that incorporate patient-centered, comprehensive care and interdisciplinary work as a means of expanding patient care [6,55].

The 2001 National Curricular Guidelines (NCG) for undergraduate medical programs places the approach to death during graduation as a mere understanding of a physiological process, disregarding the biopsychosocial aspects involved [56]. Although the 2014 NCG advanced in its approach to the health-illness processes, involving multidisciplinarity, historical and sociocultural factors, in addition to biological aspects, when compared to the 2001 NCG [57], they failed to present significant advances in how death and dying should be addressed during the course [11]. Thus, the NCG themselves, although responsible for guiding medical education, neglect the approach to the topic throughout medical training.

Final considerations

Dealing with finitude is a daily challenge presented to individuals and collectivities throughout history. Talking about death forces society to reflect on how life develops. Hence, to reflect on how to cope with death is also to think about the meanings that are constructed to deal with life, with the health-illness processes, and with suffering. And especially to think that, if it is possible and necessary to discuss quality of life, it is also possible and necessary to discuss quality in the dying process.

Difficulties of dealing with taboo topics are present in different formative contexts and are shared by different actors who participate in them, around a question that needs to be better examined: how does one prepare oneself to deal with the end of life? As complex as this question is, as it springs many answers, not to propose an answer is to remain in a terrain of suffering, even if we believe that the goal is to move away from it.

As such, proposing an expanded scenario of debates on the theme includes discussing the need for the NCG of medical courses to advance in this aspect, including discussions about terminality in medical training, strengthening ethical commitments of care in death-related situations, expanding the training of future professionals to address the complexity of health care and, finally, safeguarding the inclusion of curricular subjects aimed at these discussions and methods that broaden the perspectives of psychological support for students.

Referências

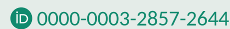
1. Barcellos R, Stavie ME, Kuhn K, Lovato M, Cassales L, Smeha L. A morte e os processos de luto na perspectiva do desenvolvimento humano [Internet]. In: 5º Interfaces no Fazer Psicológico; 8-11 maio 2012. Santa Maria: Unifra; 2012 [acesso 5 jan 2022]. Disponível: https://bit.ly/3woeDT4
2. Combinato DS, Queiroz MS. Morte: uma visão psicossocial. Estud Psicol [Internet]. 2006 [acesso 5 jan 2022];11(2):209-16. DOI: 10.1590/S1413-294X2006000200010
3. Kübler-Ross E. Sobre a morte e o morrer. 7ª ed. São Paulo: Martins Fontes; 1996.
4. Kovács MJ. Morte e desenvolvimento humano. São Paulo: Casa do Psicólogo; 1992.
5. Moritz RD. Os profissionais de saúde diante da morte e do morrer. Bioética [Internet]. 2005 [acesso 5 jan 2022];13(2):51-63. Disponível: https://bit.ly/3wvMj1g
6. Sartori AV, Battistel ALHT. A abordagem da morte na formação de profissionais e acadêmicos da enfermagem, medicina e terapia ocupacional. Cad Bras Ter Ocup [Internet]. 2017 [acesso 5 jan 2022];25(3):497-508. DOI: 10.4322/2526-8910.ctoAO0770
7. Pagliosa FL, Ros MA. O relatório Flexner: para o bem e para o mal. Rev Bras Educ Med [Internet]. 2008 [acesso 5 jan 2022];32(4):492-9. DOI: 10.1590/S0100-55022008000400012

8. Guimarães DA, Oliveira CAM, Lima RA, Silva LC, Avelar CRT, Gama CAP. Formação em saúde e extensão universitária: discutindo sexualidade e prevenção de IST/aids. Rev Bras Pesqui Saúde [Internet]. 2017 [acesso 5 jan 2022];19(2):124-32. Disponível: https://bit.ly/3M584eJ
9. Kuschnir R, Chorny AH. Redes de atenção à saúde: contextualizando o debate. Ciênc Saúde Colet [Internet]. 2010 [acesso 5 jan 2022];15(5):2307-16. DOI: 10.1590/S1413-81232010000500006
10. Conselho Federal de Medicina. Resolução CFM nº 1.931, de 17 de setembro de 2009. Aprova o Código de Ética Médica. Diário Oficial da União [Internet]. Brasília, p. 90, 24 set 2009 [acesso 5 jan 2022]. Seção 1. Disponível: https://bit.ly/3yEGi53
11. Brasil. Ministério da Educação. Resolução CNE/CES nº 3, de 20 de junho de 2014. Institui as Diretrizes Curriculares Nacionais do Curso de Graduação em Medicina e dá outras providências. Diário Oficial da União [Internet]. Brasília, 2014 [acesso 5 jan 2022]. Disponível: https://bit.ly/37G86uH
12. Freitas ED. Manifesto pelos cuidados paliativos na graduação em medicina: estudo dirigido da Carta de Praga. Rev bioét. (Impr.) [Internet]. 2017 [acesso 5 jan 2022];25(3):527-35. DOI: 10.1590/1983-80422017253209
13. Millan LR, Rossi E, Marco OLN. A psicopatologia do estudante de medicina: o universo psicológico do futuro médico. São Paulo: Casa do Psicólogo; 1999.
14. Conselho Federal de Medicina. Código de ética do estudante de medicina [Internet]. Brasília: CFM; 2018 [acesso 5 jan 2022]. Disponível: https://bit.ly/3yzvDZi
15. Souza MT, Silva MD, Carvalho R. Integrative review: what is it? How to do it? Einstein (São Paulo) [Internet]. 2010 [acesso 5 jan 2022];8:102-6. DOI: 10.1590/S1679-45082010RW1134
16. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2011.
17. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 13ª ed. São Paulo: Hucitec; 2013.
18. Sadala MLA, Silva MP. Cuidar de pacientes em fase terminal: a experiência de alunos de medicina. Interface [Internet]. 2008 [acesso 5 jan 2022];12(24):7-21. DOI: 10.1590/S1414-32832008000100002
19. Quintana AM, Rodrigues AT, Arpini DM, Bassi LA, Cecim S. A angústia na formação do estudante de medicina. Rev Bras Educ Med [Internet]. 2008 [acesso 5 jan 2022];32(1):7-14. DOI: 10.1590/S0100-55022008000100002
20. Brito NMB, Homma TK, Santos FS, Bastos FA, Filgueira JPPS. Medos, atitudes e convicções de estudantes de medicina de Universidade Pública da Região Norte, perante as doenças e a morte. Rev Para Med [Internet]. 2008 [acesso 5 jan 2022];22(2):45-52. Disponível: https://bit.ly/3swtkCy
21. Falcão EBM, Mendonça SB. Formação médica, ciência e atendimento ao paciente que morre: uma herança em questão. Rev Bras Educ Med [Internet]. 2009 [acesso 5 jan 2022];33(3):364-73. DOI: 10.1590/S0100-55022009000300007
22. Marta GN, Marta SN, Filho AA, Job JRPP. O estudante de medicina e o médico recém-formado frente à morte e ao morrer. Rev Bras Educ Med [Internet]. 2009 [acesso 5 jan 2022];33(3):405-16. DOI: 10.1590/S0100-55022009000300011
23. Mascia AR, Silva FB, Lucchese AC, Marco MA, Martins MCFN, Martins LAN. Atitudes frente a aspectos relevantes da prática médica: estudo transversal randomizado com alunos de segundo e sexto anos. Rev Bras Educ Med [Internet]. 2009 [acesso 5 jan 2022];33(1):40-8. DOI: 10.1590/S0100-55022009000100006
24. Bifulco VA, Iochida LC. A formação na graduação dos profissionais de saúde e a educação para o cuidado de pacientes fora de recursos terapêuticos de cura. Rev Bras Educ Med [Internet]. 2009 [acesso 5 jan 2022];33(1):92-100. DOI: 10.1590/S0100-55022009000100013
25. Silva GSN, Ayres JRCM. O encontro com a morte: à procura do mestre Quíron na formação médica. Rev Bras Educ Med [Internet]. 2010 [acesso 5 jan 2022];34(4):487-96. DOI: 10.1590/S0100-55022010000400003
26. Combinato DS, Queiroz MS. Um estudo sobre a morte: uma análise a partir do método explicativo de Vigotski. Ciênc Saúde Colet [Internet]. 2011 [acesso 5 jan 2022];16(9):3893-900. DOI: 10.1590/S1413-81232011001000025
27. Andrade SC, Deus JA, Barbosa ECH, Trindade EMV. Avaliação do desenvolvimento de atitudes humanísticas na graduação médica. Rev Bras Educ Med [Internet]. 2011 [acesso 5 jan 2022];35(4):517-25. DOI: 10.1590/S0100-55022011000400011

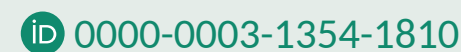
28. Pinheiro A, Nakazone MA, Leal FS, Pinhel MAS, Souza DRS, Cipullo JP. Medical students' knowledge about end-of-life decision-making. Rev Bras Educ Med [Internet]. 2011 [acesso 5 jan 2022];35(2):171-6. Disponível: https://bit.ly/3FHFo95
29. Azeredo NSG, Rocha CF, Carvalho PRA. O enfrentamento da morte e do morrer na formação de acadêmicos de medicina. Rev Bras Educ Med [Internet]. 2011 [acesso 5 jan 2022];35(1):37-43. DOI: 10.1590/S0100-55022011000100006
30. Pinheiro TRSP, Benedetto MAC, Blasco PG. Ambulatório didático de cuidados paliativos: aprendendo com os nossos pacientes. Rev Bras Med [Internet]. 2011 [acesso 5 jan 2022];68(1):1-10. Disponível: https://bit.ly/3PbqpZs
31. Borges MS, Mendes N. Representações de profissionais de saúde sobre a morte e o processo de morrer. Rev Bras Enferm [Internet]. 2012 [acesso 5 jan 2022];65(2):324-31. DOI: 10.1590/S0034-71672012000200019
32. Santos LRG, Menezes MP, Gradvohl SMO. Conhecimento, envolvimento e sentimentos de concluintes dos cursos de medicina, enfermagem e psicologia sobre ortotanásia. Ciênc Saúde Colet [Internet]. 2013 [acesso 5 jan 2022];18(9):2645-51. DOI: 10.1590/S1413-81232013000900019
33. Figueiredo MGMCA, Stano RDCMT. O estudo da morte e dos cuidados paliativos: uma experiência didática no currículo de medicina. Rev Bras Educ Med [Internet]. 2013 [acesso 5 jan 2022];37(2):298-306. Disponível: https://bit.ly/3M9UxTd
34. Almeida LF, Falcão EBM. Representação social de morte e a formação médica: a importância da UTI. Rev Bras Educ Med [Internet]. 2013 [acesso 5 jan 2022];37(2):226-34. Disponível: https://bit.ly/3sydO8X
35. Poletto S, Santin JR, Bettinelli LA. Vivência da morte de idosos na percepção de um grupo de médicos: conversas sobre a formação acadêmica. Rev Bras Educ Med [Internet]. 2013 [acesso 5 jan 2022];37(2):186-91. Disponível: https://bit.ly/38uWgDT
36. Bertoldi SG, Folberg MN, Manfroi WC. Psicanálise na educação médica: subjetividades integradas à prática. Rev Bras Educ Med [Internet]. 2013 [acesso 5 jan 2022];37(2):202-9. Disponível: https://bit.ly/3FIZhNa
37. Fonseca A, Geovanini F. Cuidados paliativos na formação do profissional da área de saúde. Rev Bras Educ Med [Internet]. 2013 [acesso 5 jan 2022];37(1):120-5. DOI: 10.1590/S0100-55022013000100017
38. Silva J, Leão HMC, Pereira ACAC. Teaching bioethics in a medical science graduation: an experience report. Rev. bioét. (Impr.) [Internet]. 2013 [acesso 5 jan 2022];21(2):333-8. Disponível: https://bit.ly/39hD1xV
39. Andrade JBC, Sampaio JJC, Farias LM, Melo LP, Sousa DP, Mendonça ALB *et al*. Contexto de formação e sofrimento psíquico de estudantes de medicina. Rev Bras Educ Med [Internet]. 2014 [acesso 5 jan 2022];38(2):231-42. DOI: 10.1590/S0100-55022014000200010
40. Duarte AC, Almeida DV, Popim RC. A morte no cotidiano da graduação: um olhar do aluno de medicina. Interface [Internet]. 2015 [acesso 5 jan 2022];19(55):1207-19. DOI: 10.1590/1807-57622014.1093
41. Costa ÁP, Poles K, Silva AE. Formação em cuidados paliativos: Experiência de alunos de medicina e enfermagem. Interface [Internet]. 2016 [acesso 5 jan 2022];20(59):1041-52. DOI: 10.1590/1807-57622015.0774
42. Silva PHA, Lima ASD, Medeiros ACM, Bento BM, Silva RJS, Freire FD *et al*. Avaliação do conhecimento de médicos professores, residentes e estudantes de medicina acerca da declaração de óbito. Rev Bras Educ Med [Internet]. 2016 [acesso 5 jan 2022];40(2):183-8. DOI: 10.1590/1981-52712015v40n2e01532014
43. Alves ÁTLS, Alves FV, Melo EV, Oliva-Costa EF. Evaluation of medical interns' attitudes towards relevant aspects of medical practice. Rev Assoc Med Bras [Internet]. 2017 [acesso 5 jan 2022];63(6):492-9. DOI: 10.1590/1806-9282.63.06.492
44. Tamada JKT, Dalaneze AS, Bonini LMM, Melo TRC. Relatos de médicos sobre a experiência do processo de morrer e a morte de seus pacientes. Rev Med [Internet]. 2017 [acesso 5 jan 2022];96(2):81-7. DOI: 10.11606/issn.1679-9836.v96i2p81-87
45. Storarri ACM, Castro GD, Castiglioni L, Cury PM. Confidence in palliative care issues by medical students and internal medicine residents. BMJ Support Palliat Care [Internet]. 2017 [acesso 5 jan 2022];1-4. DOI: 10.1136/bmjspcare-2017-001341
46. Santos MRC, Lins L, Menezes MS. "As intermitências da morte" no ensino da ética e bioética. Rev bioét. (Impr.) [Internet]. 2018 [acesso 5 jan 2022];26(1):135-44. DOI: 10.1590/1983-80422018261235

47. Correia DS, Bezerra MES, Lucena TS, Farias MSJA, Freitas DA, Riscado JLS. Cuidados paliativos: importância do tema para discentes de graduação em medicina. Rev Bras Educ Med [Internet]. 2018 [acesso 5 jan 2022];42(3):78-86. DOI: 10.1590/1981-52712015v42n3RB20170105.r1
48. Malta R, Rodrigues B, Priolli DG. Paradigma na formação médica: atitudes e conhecimentos de acadêmicos sobre morte e cuidados paliativos. Rev Bras Educ Med [Internet]. 2018 [Internet];42(2):33-44. DOI: 10.1590/1981-52712015v42n2RB20170011
49. Pereira EAL, Rangel AB, Giffoni JCG. Identificação do nível de conhecimento em cuidados paliativos na formação médica em uma escola de medicina de Goiás. Rev Bras Educ Med [Internet]. 2019 [acesso 5 jan 2022];43(4):65-71. DOI: 10.1590/1981-52712015v43n4RB20180116
50. Marques DT, Oliveira MX, Santos MLG, Silveira RP, Silva RPM. Perceptions, attitudes, and teaching about death and dying in the medical school of the Federal University of Acre, Brazil. Rev Bras Educ Med [Internet]. 2019 [acesso 5 jan 2022];43(3):123-33. DOI: 10.1590/1981-52712015v43n3RB20180187ingles
51. Santos TF, Pintarelli VL. Educação para o processo do morrer e da morte pelos estudantes de medicina e médicos residentes. Rev Bras Educ Med [Internet]. 2019 [acesso 5 jan 2022];43(2):5-14. DOI: 10.1590/1981-52712015v43n2RB20180058
52. Meireles MAC, Feitosa RB, Oliveira LA, Souza HJ, Lobão LM. Percepção da morte para médicos e alunos de medicina. Rev bioét. (Impr.) [Internet]. 2019 [acesso 5 jan 2022];27(3):500-9. DOI: 10.1590/1983-80422019273334
53. Gonçalves MB, Maria A, Benevides-Pereira T. Considerações sobre o ensino médico no Brasil: consequências afetivo-emocionais nos estudantes [Internet]. 2009 [acesso 5 jan 2022];33(3):493-504. DOI: 10.1590/S0100-55022009000300020
54. Pacheco JPG, Giacomin HT, Tam WW, Ribeiro TB, Arab C, Bezerra IM, Pinasco GC. Mental health problems among medical students in Brazil: a systematic review and meta-analysis. Rev Bras Psiquiatr [Internet]. 2017 [acesso 5 jan 2022];39(4):369-78. DOI: 10.1590/1516-4446-2017-2223
55. Stella RCR, Puccini RF. A formação profissional no contexto das Diretrizes Curriculares Nacionais para o curso de medicina [Internet]. São Paulo: Unifesp; 2008 [acesso 5 jan 2022];53-69. Disponível: https://bit.ly/3wmyCRX
56. Conselho Nacional de Educação. Resolução CNE/CES nº 4, de 7 de novembro de 2001. Institui diretrizes curriculares nacionais do curso de graduação em Medicina. Diário Oficial da União [Internet]. 2001 [acesso 5 jan 2022]. Disponível: https://bit.ly/3yzQ4oI
57. Meireles MAC, Fernandes CCP, Silva LS. Novas Diretrizes Curriculares Nacionais e a formação médica: expectativas dos discentes do primeiro ano do curso de medicina de uma instituição de ensino superior. Rev Bras Educ Med [Internet]. 2019 [acesso 5 jan 2022];43(2):67-78. DOI: 10.1590/1981-52712015v43n2RB20180178

Vinícius Leite Melo – Undergraduate student – vileitemelo@hotmail.com


0000-0003-2857-2644

César Quadros Maia – Undergraduate student – cesar_quadros@hotmail.com


0000-0003-1354-1810

Elisa Maia Alkmim – Undergraduate student – elisalkmim@gmail.com

0000-0001-7218-4900

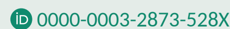
Amanda Pais Ravasio – Undergraduate student – ravasioamanda@gmail.com

0000-0002-2858-041X

Rafael Lourenço Donadeli – Undergraduate student – rldonadeli@gmail.com

0000-0002-4805-1507

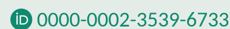
Larissa Ottoni Estevanin de Paula – Undergraduate student – lariottoniep@aluno.ufsj.edu.br


0000-0003-2873-528X

Alexandre Ernesto Silva – PhD – alexandresilva@ufsj.edu.br

0000-0001-9988-144X

Denise Alves Guimarães – PhD – alvesguimaraesdenise@gmail.com


0000-0002-3539-6733

Correspondence

Vinícius Leite Melo – Rua Sergipe, 771, ap. 401, Centro CEP 35500-012. Divinópolis/MG, Brasil.

Participation of the authors

Vinícius Leite Melo, César Quadros Maia, Elisa Maia Alkmim, Amanda Pais Ravasio, Rafael Lourenço Donadeli and Larissa Ottoni Estevanin de Paula contributed to the following stages: study design idealization and conception; search for articles in selected databases; article selection; article analysis and categorization; writing and critical review. Alexandre Ernesto Silva evaluated and reviewed the methodological aspects and participated in the final review of the manuscript. Denise Alves Guimarães participated in the study design and conception, data analysis and interpretation, article writing and reviewing, and was also responsible for editing and final correction.

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