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Systematic review

Medical students' knowledge of palliative care for terminally ill patients: A systematic review

Knowledge of medical students about palliative care for terminally ill patients.

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SUMMARY

Palliative care is a specialized clinical approach to the care of people with serious illnesses, with the express aim of improving their quality of life. It helps patients, families, and caregivers cope with the



challenges associated with life-threatening conditions. To identify scientific publications geared towards the training of medical professionals and to address the theoretical gaps observed in the knowledge of undergraduate medical students regarding palliative care for terminally ill patients, a systematic review was conducted of 29 articles published in Spanish. These articles were obtained from reliable sources and indexed in databases that cover the topic. Results were obtained from 26 articles in the Google Scholar database and 3 in the regional SciELO database, leading to the conclusion that there is evidence that a high percentage of undergraduate medical students show limited knowledge regarding palliative care for patients with serious terminal illnesses. This demonstrates the need to implement, from the basic cycle, activities aimed at enhancing knowledge related to palliative care and other aspects of coping with death and the dilemmas of

Keywords:Palliative care; Undergraduate studies; Death; Terminal illness.

ABSTRACT

the end of life.

Palliative care is a special clinical approach to caring for people with serious illnesses, with the explicit purpose of improving their quality of life. This approach helps patients, families, and caregivers cope with the problems associated with life-threatening diseases. With the objective of identifying scientific publications focused on the training of medical science professionals and on the theoretical shortcomings observed in the knowledge level of undergraduate medical students regarding palliative care for terminally ill patients, a systematic review was conducted on 29 articles published in Spanish, obtained from reliable sources and indexed in databases addressing this topic. Results were obtained from 26 articles in Google Scholar and 3 in SciELO Regional. It is concluded that there is evidence showing that a high percentage of undergraduate medical students have limited knowledge about palliative care for patients with serious terminal illnesses. The study demonstrates the need to implement, from the basic cycle, educational activities aimed at strengthening knowledge related to palliative care, as well as coping with death and end-of-life dilemmas.

Keywords:Palliative care; Undergraduate; death; Terminal illness.

SUMMARY

Palliative care constitutes a special clinical approach to care for people with serious illnesses, with the express objective of improving their quality of life. Com isso, it helps patients, family members



and caregivers to face the problems associated with potentially fatal diseases. With the objective of identifying scientific publications intended for the training of professionals in medical sciences and

for the theoretical insufficiencies confirmed at the level of knowledge of graduate students of the

Medicine course on palliative care for terminally ill patients, a systematic review of 29 articles

published in Spanish was carried out. Obtained from trusted sources and indexed in databases that

address this topic. We obtained results in 26 articles in the Google Academic database and in 3 in

SciELO Regional. It is concluded that there is evidence that a high percentage of medical graduate

students have little knowledge in relation to palliative care in patients with serious illnesses in a

terminal state, and demonstrates the need to implement, from the basic cycle, activities aimed at

strengthening the knowledge regarding care. palliatives, the confrontation of death and the

dilemmas of the end of life.

Key words: palliative care; Graduation; Morte; Terminal doença.

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Introduction

A systematic review is a type of study that is basically theoretical, whose purpose is to find out what

is studied, researched, and published in a specific area of knowledge and professional practice; in

this case, it refers to the training of professionals in Medical Sciences and the theoretical

shortcomings observed in the level of knowledge of graduates in relation to palliative care. (1,2)

Caring for terminally ill patients presents a challenge in the face of death in hospital wards. How to

meet this challenge and what to do in each case is learned primarily during undergraduate studies

and throughout the entire degree program, and is further enriched during specialization. The

process of caring for terminally ill patients is known as palliative care. (3) Undergraduate programs

offer future professionals a general education that is included in the curricula of disciplines and

subjects specific to the health sciences, as well as essential content in on-the-job training.

The technologization of medical practice, population aging, the proliferation of cancer and other

lethal pathologies demand palliative care and professionals specialized in this area of care for

terminally ill patients. (3)

Therefore, today the training process for health professionals needs to focus its attention on the content system of the subjects and disciplines that structure the undergraduate medical curriculum in order to incorporate clinical content that generates knowledge and skills in the student to face the care of this type of patient. (4)

Observing in practice the shortcomings in the care of the terminally ill patient (5,6) and the insufficient theoretical and practical preparation of the student, (7) motivated the authors to carry out a systematic review on the subject in order to identify what is researched and published in relation to the shortcomings in the training of the future health professional in the area of palliative care, the methodology used in these studies, the result achieved and the resolving actions to face the problem.

It is important to note that the global need for palliative care will continue to increase as a result of the growing burden of non-communicable diseases and the aging of the population.

Given the growing social demand for palliative care, this review is carried out with the objective of identifying scientific publications aimed at the training of professionals in medical sciences and the theoretical deficiencies that are found in the level of knowledge of undergraduate students of the Medicine degree about palliative care to patients in a terminal state.

Methods

A systematic review was conducted following the recommendations of the PRISMA statement.

Phenomenon of interest: Scientific publications in medical journals indexed in databases that address the issue of theoretical deficiencies in the level of knowledge of undergraduate medical students regarding palliative care for terminally ill patients.

Inclusion criteria:

Qualitative and quantitative studies: experimental, quasi-experimental, descriptive, and systematic reviews published in article format, written in Spanish; published in the period between March 2019 and March 2025.

Of these, the following were taken into account:

- The training process for undergraduate students in the Medicine program.
- Theoretical deficiencies found in the level of knowledge of undergraduate students in the Medicine program.
- Palliative care in the care of terminally ill patients.



Exclusion criteria:

- Works aimed at other health professionals and postgraduate studies were excluded.
- For Grey literature and studies related to degree works, articles whose full text cannot be consulted, with few references, that are not published in the established period.
- This excludes information/opinion articles, conference papers and communications, literature reviews, and qualitative studies.

Bias in the review process:To control for research bias, duplicate documents were excluded. To minimize selection bias, blind and independent appraisal was performed by the authors following the PRISMA guidelines.

Sources of information

The main sources of information were the databases: GOOGLE SCHOLAR, SCIELO. The terms from the health descriptor "Palliative care", "Medical students", "Family medicine" were used, joined by the Boolean operator AND.

Selection of studies

The selection of studies, at the different stages, was carried out taking into account:

- > Title and summary.
- > Articles with abstract not available.

Screening was performed by reading the selected articles in full, and the selected articles of interest were included.

The result of the process of selecting the articles to be included in the study is presented in a flowchart provided by the PRISMA statement.



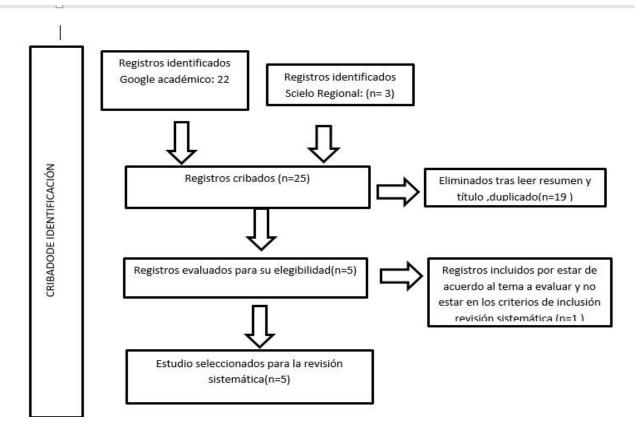


Fig. PRISMA guideline flowchart.

Source: PRISMA flow diaphragm customized by the author.

Results

After conducting the literature search and applying the inclusion criteria, 26 results were obtained from the Google Scholar database and 3 from the regional SciELO database, for a total of 29 articles. All of these were reviewed to eliminate those found in more than one database and to identify those relevant to the study's objective. Five articles were found to be relevant to the present study. The results of the systematic review:

1. Luis Alfonso Díaz-Martínez, Mitzy Helein Cuesta Armesto, María José Díaz Rojas. Medical training in communicating bad news: A narrative review. Colombia. 2022.

It is a non-experimental narrative review study whose objective is to present the conceptual, pedagogical and didactic bases for formulating formal training courses or activities in delivering bad news in a Medicine program whose result is: it prepares students to generate their own perspectives and decide rationally on the behaviors that seem appropriate to them and those they



prefer to discard, also providing tools to build a personal way of delivering bad news, which is, of course, positive and efficient, including a completely conscious emotional display.

 Silvia Allende-Pérez, Arcelia Alanis-Cho, Abel Delgado-Fernández, Adriana Peña-Nieves, and Emma Verástegui-Avilés. Basic knowledge and perceptions of palliative care among undergraduate medical students at the National Autonomous University of Mexico: a crosssectional study. Mexico. 2020

This is a non-experimental, descriptive, cross-sectional study that aims to evaluate the basic knowledge and perceptions of end-of-life care among 726 undergraduate medical students using an anonymous questionnaire. The variables assessed were sex, age, and knowledge of palliative care. The results, expressed as percentages for the variables assessed, show a response rate of 82.5%. The majority of participants were women (60.8%), with a median age of 24 years (range 23-25). Palliative care was defined as "quality of life" in 38.6% of cases (n = 280). 63.4% of participants felt incapable of managing end-of-life care, while 78.4% felt moderately capable of delivering bad news. 65.7% had no palliative care training, and 88.2% considered it necessary to include this subject in their curriculum.

3. Ismael Ramírez-Villaseñor. Feelings of a Medical Student When Approaching Death Through Film, Music, and Real Cases. Mexico. 2019.

This exploratory experimental study aimed to explore the emotions and feelings of 16 medical students regarding death and to stimulate personal and group reflection. The study examined the variable of feelings when addressing death. As a result, the students expressed significant reflections on their feelings and empathic capacity. Some students were enthusiastic about confronting their feelings about death, while others exhibited a clear lack of empathy and significant vocational doubts. 91.5% of the students recommended permanently incorporating this experience into the medical curriculum.

 Maria Luisa Ribeiro Brant Nobre, Débora Ribeiro de Lira, Sammantha Maryanne Soares Brito, Luiza Augusta Rosa Rossi-Barbosa. Knowledge of palliative care among medical students. Brazil. 2024

This is a descriptive, quantitative experimental study whose objective was to identify palliative care knowledge among 320 medical students from three institutions in northern Minas Gerais, Brazil. The variables studied were: age, sex, year of study, institution of enrollment (public or private), and religion. The questionnaire included the Palliative Care Knowledge Test (PCKT). The analysis was based on the average percentage of correct answers. The results obtained were categorized as:



unsatisfactory (up to 50%), acceptable (between 51% and 70%), desirable (between 71% and 80%), and excellent (above 80%). As the semesters progressed, there were more correct answers, but with unsatisfactory or acceptable averages. Although the 11th-semester students completed almost the entire course load, their average accuracy was not adequate.

5. Daniela Tarazona-Pedreros, Rubén Espinoza-Rojas. Factors associated with the level of knowledge about palliative care in medical students of a university in Lima, Peru, 2021.

This is a non-experimental, cross-sectional, observational, and analytical study whose objective is to determine the factors associated with the level of knowledge about palliative care in 139 sixth- and seventh-year medical students at Ricardo Palma University during the second semester of 2020. Peru. 2021. The main variable was the level of knowledge about palliative care, and other variables included age, sex, year of study, and prior completion of a palliative care course/rotation. The Palliative Care Knowledge Test (PCKT) was the instrument used to obtain the information.

The results showed that 48.9% of the students were sixth-year medical students and 51.1% were seventh-year students. 87.8% reported not having taken any elective courses or rotations in palliative care. The predominant level of knowledge was "intermediate" (61.9%), followed by "low" (23.7%). The variables sex (predominantly female, p=0.020), age (predominantly young, p=0.017), and year of study (predominantly sixth year, p=0.031) had statistically significant associations with the level of knowledge. The variable of having taken a previous elective course or rotation in palliative care did not show a significant association. Regarding the medical students' opinions and perceptions of the need for undergraduate palliative care training, more than half considered this inclusion "very necessary," followed by "necessary."

Discussion

The thoroughness of the analysis of the results obtained in this review is of utmost importance. This allows for a deeper exploration of aspects closely related to the object of study.

Limitations:Since these are studies from different countries, it must be taken into account that health policies differ in each territory, with a difference in the portfolio of services, resources and health training exclusive to each State.

The palliative care model should not focus solely on pain and symptom control techniques, but rather address all needs with the complexity that the individual requires. It is important to clarify that a lack of knowledge regarding symptom management and poor communication with the



healthcare team increases anxiety for both the patient and their family. Patients with advanced stages experience a range of physical and psychological symptoms that impact their quality of life. The severity worsens as the disease progresses, thus making care more complex. (8)

To date, few studies have investigated the extent to which family members, caregivers, and healthcare personnel understand the terminal nature of dementia. This condition is very common in the community. (9)

Based on the prevalence of symptoms and the use of resources in the terminal phase of life, it has been estimated that 60% of cancer patients and 30% of non-cancer patients require the intervention of palliative care teams to avoid situations of therapeutic obstinacy and/or abandonment. (10)

Díaz Martínez and colleagues state in their study that a fundamental part of healthcare is communication with patients and their families, a critical process when delivering bad news. Unfortunately, many physicians do not receive specific training during their undergraduate studies, and therefore often develop their communication skills inadequately. (11)

Studies conducted in various parts of the world have found that few professionals have received specific training in delivering bad news: even among groups of professionals who continually face this task, less than 40% acknowledge having received formal training; for example, among oncologists, the proportion of trained physicians ranges from 6 to 24%, which is equivalent to accepting as relevant the statement of the majority of clinicians, who acknowledged that they instinctively carried out this practice due to a lack of training during their education. (12)

Servotte et al in Belgium reported, in a study with the characteristics of a controlled clinical trial, that a four-hour course simulating the delivery of bad news, inserted into the emergency department rotation, resulted in participants showing substantial improvement in self-efficacy in the process of delivering bad news and in communication in general, compared to their peers who did not attend the course. (13)

In a study that assessed basic knowledge and perceptions about end-of-life patient care among final-year undergraduate medical students at the UNAM Faculty of Medicine in Mexico, the results show some needs in the area of palliative care among undergraduate medical students and a low self-perception of their ability to cope with end-of-life situations, as well as an interest in including a mandatory palliative care course. (14)

In Mexico there are approximately 74 medical schools, of which only two include CP in their curricula; three offer it as an optional subject within their programs. However, it is assumed that



knowledge of CP is deficient among undergraduate students and only a few students enroll when CP is not mandatory. (14)

It is important to highlight that palliative care is a set of services required by a person with a severely suffering illness that may limit their lifespan. Palliative care aims to improve the quality of life for the patient, their family, and caregivers by alleviating suffering through a support system provided by a multidisciplinary team, which continues even after the patient's death. (15) In 2020, 13% of medical schools in Latin America offered some form of palliative care. (16)

A study was conducted at Ricardo Palma University in Lima, Peru, to determine the factors associated with the level of knowledge about palliative care among sixth- and seventh-year medical students during the second semester of 2020. The study found that the predominant level of knowledge about palliative care among these students was "intermediate," followed by "low." The variables sex (female group), age (younger group), and year of study (sixth year group) showed a significant association. (17)

Students who come into contact with palliative care during their undergraduate studies develop competencies for expanded care at all stages of a patient's life. (18) Systematically including palliative medicine in student training is currently a challenge for medical schools, and, due to increased longevity, professionals trained in palliative care are needed to minimize the suffering of the growing population. (19)

Considering palliative care knowledge as a pillar of clinical care and health promotion, and the insidious nature of its teaching in Brazilian medical schools, a study was conducted to verify the specific knowledge about palliative care of medical students from three institutions in northern Minas Gerais. The study, which included students in their 1st, 6th, and 11th semesters from three medical schools in Montes Claros/MG (one public and two private), found that while 11th-semester students completed almost the entire course load, their accuracy averages were inadequate. Therefore, it is necessary to implement the provisions of Resolution CNE/CES 3/2022 of the National Council of Education in the medical degree program to promote assertive behaviors related to palliative care. (20)

Another study, conducted at the Universidade do Sul de Santa Catarina with 188 students between the 9th and 12th semesters, found that more than half were unprepared to deal with lifethreatening illnesses or with the bereavement of family members. Just over 20% said they had heard of palliative care, but considered themselves to have no knowledge of the subject, and



around 84% stated that they had not acquired, during their undergraduate studies, the necessary training to provide care to patients in the process of dying. (21)

The effectiveness of palliative care in relieving suffering is not based on alleviating physical pain but on offering comprehensive care to the sick person; this is based on respect for the human person until death.

The lack of a theoretical foundation on the management of the most common symptoms of patients receiving palliative care leads to a lack of preparation and insecurity among medical students when treating terminally ill patients. (22)

Conclusions

There is evidence that a high percentage of undergraduate medical students show little knowledge regarding palliative care in patients with serious terminal illnesses, demonstrating the need to implement, from the basic cycle, activities aimed at enhancing knowledge related to palliative care and other aspects of coping with death and the dilemmas of the end of life.

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Conflict of interest

There are no conflicts of interest between the authors or with the publication of this work.

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