Cogitare Enfermagem

TECHNOLOGICAL INNOVATION

Communication in palliative care for aged person: elaboration and validation of a concept map

HIGHLIGHTS

1. Concept map to improve communication with aged people.
2. Professional qualification for humanized communication in palliative care.
3. High agreement that confirms clarity and relevance of the material.
4. Effective communication based on active listening, accessible language, and empathy.

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ABSTRACT

Objective: To develop and validate a conceptual map as an educational strategy to improve communication between healthcare professionals and aged people receiving palliative care. **Method:** A methodological study conducted between May 2024 and January 2025 in three stages: scoping review; development of a conceptual map structured into four categories (verbal communication, nonverbal communication, training and professional ethics, and support strategies); content validation by judges and semantic validation by healthcare professionals. **Results:** The scoping review included 15 studies on communication in palliative care, which informed the development of the conceptual map. The material showed a content validity index of 0.96 among raters and a semantic validity index of 0.95 among healthcare professionals. **Conclusion:** The conceptual map proved to be a valid educational resource with innovative potential and relevance to clinical practice, promoting communication and contributing to humanized care for aged person in palliative care.

DESCRIPTORS: Geriatric Nursing; Health Communication; Aged; Palliative Care; Interpersonal Relations.

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INTRODUCTION

Population aging in Brazil reflects demographic and epidemiological transition processes. The decline in fertility, birth, and mortality rates, combined with increased life expectancy, has expanded the aged people, driven by social and economic improvements, albeit unevenly across regions[1]. In the field of epidemiology, there has been a reduction in infectious and contagious diseases and a predominance of chronic noncommunicable diseases, which are now the leading cause of morbidity and mortality, requiring new models of health care[2].

In this context, palliative care has established itself as an ethical and clinical response to the complexity of human suffering in the face of life-threatening illnesses. This approach seeks to improve the quality of life for patients and their families through the prevention and relief of suffering, with physical, psychological, social, and spiritual care provided by an interdisciplinary team[3]. In Brazil, the National Palliative Care Policy, established in 2024 under the Unified Health System, stands out; it sets guidelines for progressive, integrated, and person-centered care[4].

Despite these advances, end-of-life care is still fraught with taboos and resistance. Death is often perceived as a therapeutic failure, both by patients and their families and by healthcare professionals, which leads to communication gaps and weaknesses in care[5]. The lack of clear and empathetic dialogue compromises clinical decisions and the experience of the dying process[6].

Communication is an essential component of palliative care, as it enables the clarification of information, provides emotional support, and fosters an understanding of the needs of patients and their families, thereby promoting trust in the team and shared decision-making in person-centered care[7]. Educational strategies have proven effective in enhancing this competency, reducing anxiety among professionals and patients, and promoting understanding of therapeutic goals and care options[8].

Among these strategies, Concept Maps (CMs) stand out: graphical representations that organize and express knowledge through interconnected concepts. Used for over five decades, CMs facilitate the understanding of complex content and encourage active and reflective learning[9-10]. Based on the Theory of Meaningful Learning, these maps require learners to establish relationships among concepts, thereby promoting the critical internalization of content and the autonomy to apply it in practical contexts [9,11], such as palliative care.

Thus, this study is justified by the importance of communication as a cornerstone of palliative care and by the need for educational resources that enhance the training and practice of healthcare professionals. The concept map, by enabling the organization and integration of knowledge about communication, serves as an innovative tool for promoting meaningful learning and strengthening communication skills. Thus, the objective of this study was to develop and validate a concept map as an educational strategy to improve communication between healthcare professionals and aged people receiving palliative care.

METHOD

This is a methodological study with a quantitative approach, conducted between May 2024 and January 2025. The study followed methodological recommendations[12], encompassing stages of evaluation, tool validation, and the application of systematic methods for organizing and analyzing data geared toward professional practice. The

process of developing the educational technology was organized into three stages: scope review, conceptual map construction, and content and semantic validation.

The first stage, involving a scope review, was conducted in May 2024, with the aim of mapping communication strategies between healthcare professionals and aged people receiving palliative care. This approach followed the JBI guidelines[13], using the guiding question formulated by the PCC (Population, Concept, and Context) strategy: What communication strategies do healthcare professionals use when caring for aged people in palliative care? Searches were conducted in the *PubMed/MEDLINE, Scopus, Embase, Web of Science,* BDENF, BVS/*LILACS*, and CINAHL databases, as well as the *SciELO* repository and the Google *Scholar* platform.

Controlled subject headings (DeCS/MeSH) were used in combination: (aged *OR* aged people) *AND* (interpersonal relationships *OR* health communication) *AND* (palliative care). Studies published between 2013 and 2023 in Portuguese, English, or Spanish were included. The findings informed the development of the initial version of the conceptual map.

The second stage involved the creation of a concept map, developed using the *CmapTools® software*[14], which was structured into four thematic categories: verbal communication, nonverbal communication, professional training and ethics, and support strategies. This organization aimed to present the content in a clear, didactic manner, facilitating understanding of concepts and improving the quality of care and health education.

The concept map was developed for mid-level and advanced-level health professionals, including nursing staff, physicians, and other members of the multidisciplinary team involved in providing palliative care to aged person.

It was rigorously structured, following the principles of its creator[9]: the central concept is positioned at the top, establishing a clear hierarchical organization. Its coherence is provided by the propositions (connections between concepts via linking words such as "requires" and "manifests"), with arrows indicating the direction of relationships and cross-links that integrate the axes of verbal and nonverbal communication. The initial *layout* aimed at clarity and visual standardization, with colors and shapes refined during the validation stages to facilitate reading and comprehension.

The third stage comprised the validation process, conducted in two successive phases: content validation and semantic validation, both carried out using electronic questionnaires in *Google Forms®*.

Thirteen judges participated in the content validation phase; they were selected by convenience using the snowball sampling technique[15], which was adopted due to the difficulty of forming a committee that would simultaneously meet the established criteria. The panel included healthcare professionals (nurses, nutritionists, dentists, occupational therapists, and social workers) working in palliative care and/or geriatrics/gerontology, with experience in the development and validation of educational technologies. As supplementary criteria, academic qualifications, scientific publications in the field, and experience in teaching or research were considered to ensure the evaluators' qualifications. The selection followed established methodological criteria for content validation in the health field, which recommend the participation of six to twenty evaluators, with the participants' qualifications being the primary determinant of the validation's quality[16].

The instrument used for content validation was composed of two sections: professional characterization and evaluation of the material, with the objective of analyzing the clarity, pertinence, relevance and applicability of the first version of the concept map. A four-point Likert scale was used (1 = Totally adequate to 4 = Inadequate). The data were analyzed based on the CVI, calculated by the proportion of "Totally Adequate" and "Adequate" responses (points 1 and 2). The validity criterion was the cut-off point ≥ 0.80 for each block[16]. The justifications presented by the judges were analyzed quantitatively and supported the modifications implemented in the subsequent versions of the material. The instrument also included a space for comments, through which the judges suggested adjustments to textual clarity, adequacy to the target audience and improvements in the visual presentation, guiding the refinement of the preliminary version.

Following the judges' suggestions, the semantic validation phase was conducted with 17 healthcare professionals, with both secondary and higher education, affiliated with the medical clinic staff at a university hospital. The inclusion criteria for these professionals were: having worked at that facility for at least one year, being actively employed during the data collection period, and demonstrating willingness and interest in participating in the study. The objective was to assess the appropriateness, clarity, and applicability of the material in the practical context of providing palliative care to aged person. Quantitative data were stored in Excel® spreadsheets.

The qualitative suggestions arising from this stage were used to make final refinements to the conceptual map, resulting in a version that was improved in terms of readability, organization, and practical applicability.

All participants were invited via email and/or WhatsApp® and participated after reading and signing the Free and Informed Consent Form (FICF). The study complied with the ethical guidelines of Resolution No. 466/2012 of the National Health Council and was approved by the Research Ethics Committee of the Center for Health Sciences at the Federal University of Paraíba, under Opinion No. 6,977,569.

RESULTS

The literature search identified 1,622 publications, of which 15 studies were included after applying the eligibility criteria. The analysis highlighted the importance of communication in palliative care for aged person, particularly active listening, clear and accessible language, empathy, and the integration of verbal and nonverbal communication. Aspects related to spirituality, emotional support, ethics, interprofessional collaboration, and the need for professional training were also identified, as were gaps in academic training and in the availability of educational resources. These findings informed the organization of the content and thematic blocks of the conceptual map, ensuring consistency between the theoretical framework and the developed educational product.

The initial version of the concept map was submitted to 13 judges for content validation. The sample consisted mainly of women (92%), nurses (54%) working in Paraíba (92%), with 10 to 19 years of education and professional experience (46%). The most common degree held was a master's degree (54%), with a significant record of scientific publication (77%) and prior experience in validation processes (69%). All reviewers (100%) had professional experience in the field under review, reinforcing the group's expertise in the subject matter.

The judges evaluated the conceptual map across three domains: Objectives, Structure and Presentation, and Relevance. The content validity indices were satisfactory across all domains, reaching 0.98 for Objectives, 0.97 for Structure and Presentation, and 0.94 for Relevance, resulting in a total Content Validity Index of 0.96 (Table 1). These results demonstrate that the educational material has clear objectives, a coherent organization, and thematic Relevance to professional practice.

Table 1. Content Validity Indexes, by domains and general index, according to the judges' evaluation. João Pessoa, PB, Brazil, 2025

Domain	Objectives	CVI	Global CVI
Objectives	To evaluate whether the concept map meets the needs of health professionals, favoring communicative practice, changing attitudes and scientific dissemination.	0.98	0.96
Structure and Presentation	To evaluate the organization, coherence and adequacy of the content to the target audience, ensuring clarity, scientific correctness and logical sequence of information.	0.97	
Relevance	To evaluate the practical and theoretical importance of the material, its contribution to meaningful learning and applicability in professional practice.	0.94	

Legend: CVI = Content Validity Index.
Source: The authors (2025).

The judges' suggestions focused primarily on the visual organization and accessibility of the content, highlighting the need to increase font sizes, widen the spacing between elements, and adopt a cleaner, more balanced layout. They also emphasized the importance of reinforcing essential components of communication in palliative care, such as active listening and a holistic approach to aged patients. Based on these recommendations, the map was reorganized, with improvements to the *layout* and standardized colors, resulting in a more readable, objective resource that is aligned with its educational purpose.

Next, the semantic validation involved 17 healthcare professionals, predominantly women (88.2%), nurses (47.1%), and nursing technicians (52.9%), aged 30–39 (47.1%), and with more than 10 years of professional experience (88.2%). The participation of the target audience in this stage was essential to confirm the applicability and suitability of the material in the healthcare context, ensuring its practical relevance and promoting recognition and effective use of the tool by professionals[15].

The professionals evaluated five domains: Objectives, Organization, Writing Style, Appearance, and Motivation. The agreement indices were high, ranging from 0.86 to 1.00, resulting in a total Semantic Validation Index of 0.95 (Table 2). The organization domain had the lowest index (0.86), reflecting the need for visual adjustments, especially regarding font sizes and graphic elements. This issue had already been identified during the content validation stage, reinforcing the relevance of the adjustment. Furthermore, only one participant used the space provided for comments to justify their response, specifically mentioning the small font size, which underscored the specific nature of the observations and the overall relevance of the instrument.

Table 2. Results of the Semantic Validity Indexes, by domains and general index, according to the evaluation of the target audience. João Pessoa, PB, Brazil, 2025

Domain	Objectives	CVI	Global CVI
Objectives	Evaluate whether the material meets the needs of the target audience and contributes to professional practice in communicating with aged people.	1.00	
Organization	Evaluate the visual and textual layout, ensuring coherence, clarity and balance between the elements presented.	0.86	
Writing style	Evaluate whether the title and vocabulary are adequate, clear and easy to understand.	0.97	0.95
Appearance	Evaluate the harmony and visual organization of the elements of the material.	0.94	
Motivation	Evaluate the potential of the material to engage professionals, stimulate reflections and promote positive changes in communicative practice.	0.98	

Legend: CVI = Content Validity Index.
Source: The authors (2025).

The final product consisted of a validated, two-part concept map (Figures 1 and 2), structured in a clear and organized manner, which covers verbal and nonverbal communication strategies, as well as the dimensions of support, ethics, and professional training. The material synthesizes the content in a visual, integrated, and objective manner, serving as an educational tool applicable to the training of healthcare professionals and the improvement of communication with aged people receiving palliative care.

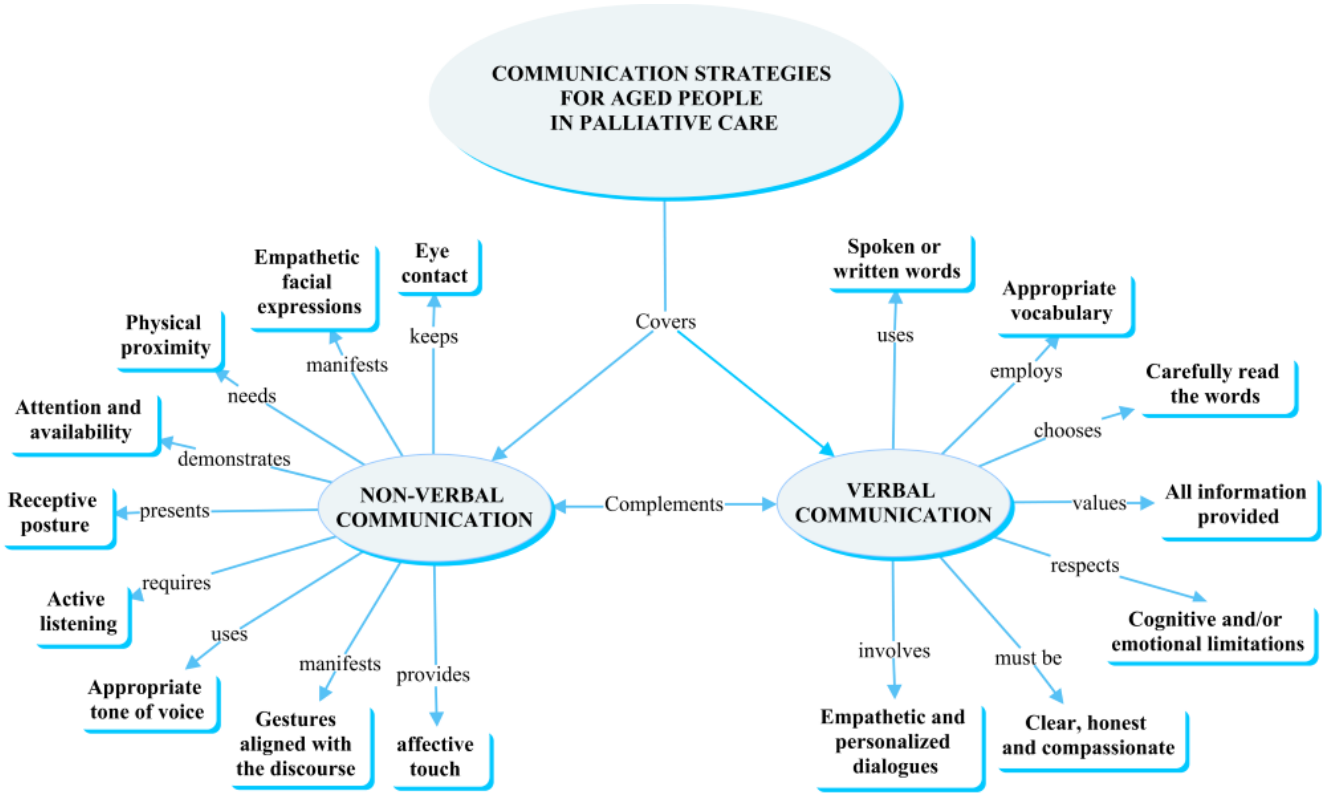

Figure 1. Final version of the concept map after content and semantic validation: verbal and non-verbal communication strategies. João Pessoa, PB, Brazil, 2025
Source: The authors (2025).

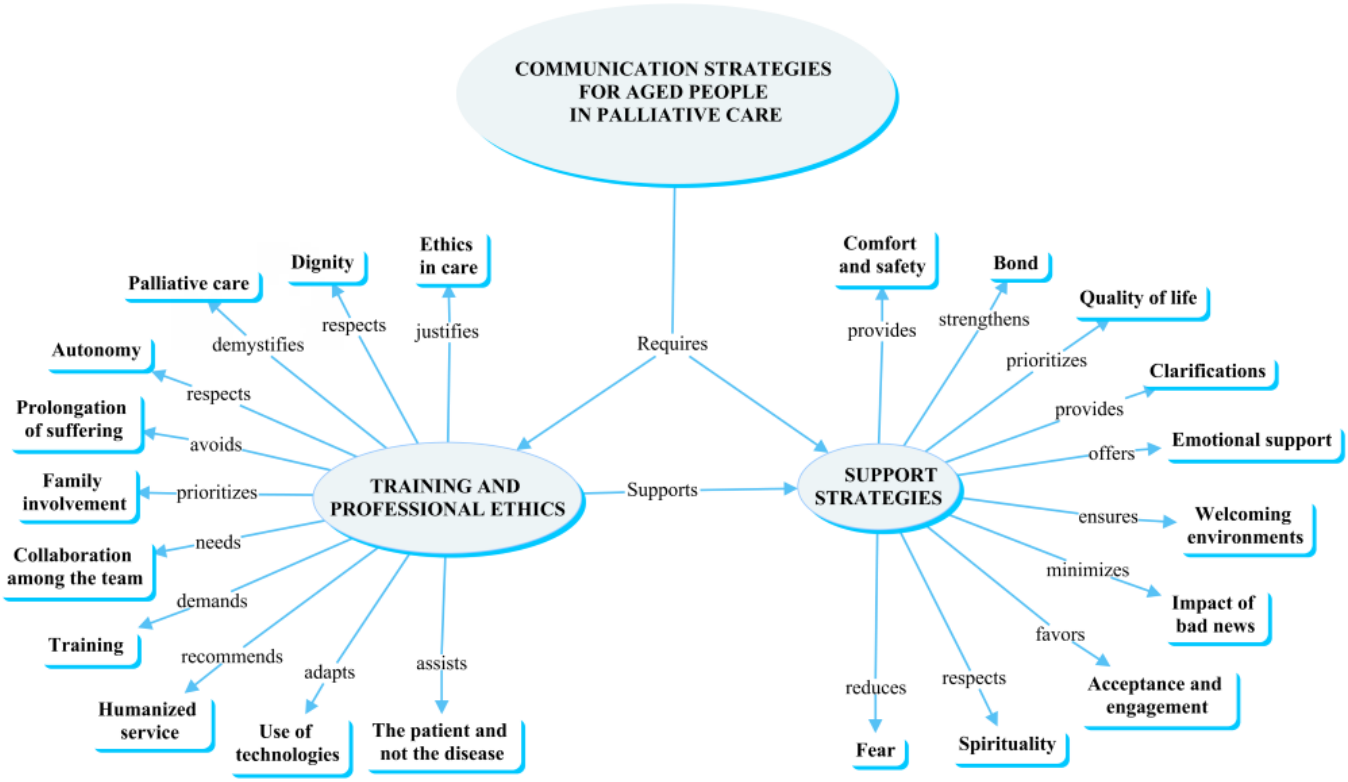

Figure 2. Final version of the map after content and semantic validation: ethics and professional training and support strategies. João Pessoa, PB, Brazil, 2025

Source: The authors (2025).

DISCUSSION

The elements that make up the conceptual map relate to establishing the therapeutic alliance, understanding the patient's multidimensional needs, and promoting person-centered care, which has the potential to reduce uncertainty, alleviate suffering, and support shared decision-making. The analysis also identified gaps in professional training and in the availability of educational resources aimed at developing these competencies. These findings guided the structuring of the content and thematic blocks of the conceptual map, ensuring consistency between the theoretical foundation and the educational product developed.

Based on these findings, the process of developing and validating the conceptual map confirmed its relevance and applicability as an educational technology aimed at improving communication in palliative care. The product's validity was confirmed by high levels of agreement in both content validation and semantic validation. The CVI is an important methodological parameter for assessing the representativeness and clarity of an instrument's items, ensuring that the developed material is scientifically grounded and appropriate for the needs of the target audience [17].

The methodological rigor employed and the participation of judges with clinical and scientific experience reinforced the credibility of the material, in line with evidence highlighting the importance of evaluators' qualifications in the validation of educational tools in health[18].

The modifications implemented, particularly regarding visual and textual organization, improved accessibility and facilitated understanding of the content. These adjustments are even more relevant given that materials in this field often use overly technical language, which can hinder comprehension and impact the quality of care[19].

Thus, the integration of design, textual clarity, and appropriate language is essential, as improving the format and vocabulary helps make the tool clearer and more functional, thereby fostering dialogue and a welcoming environment for aged person.

The "Objectives" domain obtained the highest validity index, indicating that the material meets the educational needs of professionals and promotes the development of communication skills. When learning objectives are clearly stated, they contribute to the development of competencies and promote professional autonomy in the training process[20]. Similarly, the domains "Writing Style," "Appearance," and "Motivation" also yielded satisfactory results, indicating that the map is visually appealing, accessible, and capable of sparking professionals' interest, in line with the literature's recommendations for the development of educational resources, highlighting that clear language, appropriate organization of information, and suitability for the target audience are important aspects for facilitating understanding and promoting engagement in the learning process[21].

On the other hand, the "Organization" domain showed a lower validity index, particularly regarding adjustments related to font size and the arrangement of graphic elements. This need for revision reflects the care taken to adapt the material to real-world reading and usage conditions, since an inappropriate layout can compromise the readability and assimilation of the content. Studies indicate that visual clarity is crucial for effective learning, especially in educational materials geared toward professional practice[22].

The process of successive validation made it possible to tailor the content to the needs of the target audience, reinforcing the importance of continuous improvement in the development of educational technologies. This practice supports the evidence that iterative revisions and successive validations ensure greater reliability, clarity, and applicability of the instruments developed[23].

The main elements of communication highlighted in the conceptual map were active listening, accessible language, and an empathetic approach, recognized as the pillars of humanized care. Active listening[24] facilitates the recognition of aged adults' needs, allowing the professional to understand the physical, emotional, and existential dimensions of their suffering. Accessible language[24], in turn, promotes mutual understanding, strengthens the therapeutic bond, and facilitates the decision-making process while respecting the patient's cognitive and emotional limitations, making care more participatory and safer. The empathetic approach[25], meanwhile, supports ethical and compassionate communication, which is essential for providing a welcoming environment and making shared decisions in the face of mortality. Thus, the conceptual map establishes itself as an educational tool with the potential to raise awareness among professionals and enhance relational practices in palliative care.

The final version of the map, structured around verbal and nonverbal communication strategies, as well as aspects related to support, ethics, and professional training, promotes meaningful learning by organizing the content into easily digestible blocks, thereby facilitating its application by professionals with different profiles. This pedagogical structure is supported by evidence demonstrating the potential of concept maps as effective tools for promoting critical thinking, knowledge integration, and the retention of complex concepts, thereby strengthening healthcare practice and education[26].

In this context, it is worth noting that the quality of communication in palliative care depends not only on educational materials but also on an organizational culture that promotes dialogue, collaborative work, and ethical leadership. Work environments

that value active listening and collaboration among professionals enhance the use of educational technologies and increase the safety and humanization of care[27]. In this sense, the validated conceptual map serves as a resource to support clinical practice and continuing education in health care, encouraging reflection and changes in the way professionals communicate with aged people facing the end of life.

As a limitation, the restricted number of participants and the linguistic scope of the scoping review stand out, which may have excluded relevant studies in other languages. Nevertheless, the methodological rigor employed strengthens the credibility of the findings and highlights the study's contributions to advancing knowledge about communication between healthcare professionals and aged people in palliative care, pointing to avenues for future research and practical applications.

As a contribution to palliative care, this study presents a validated educational tool that organizes and integrates evidence-based communication strategies, such as active listening, empathy, accessible language, and the integration of verbal and nonverbal communication. By organizing these elements into a clear and integrated framework, the conceptual map promotes critical reflection and the development of communication skills in the care setting. Its potential for application in continuing education and health care services reinforces its relevance to enhancing professional practices, especially in conducting sensitive, ethical, and person-centered interactions with aged person in palliative care.

CONCLUSION

This study identified the need to improve communication between healthcare professionals and aged people receiving palliative care, based on evidence from the literature and the needs observed in clinical practice. To address this gap, a conceptual map structured into two thematic blocks was developed and validated through evaluation by expert judges and the target audience, yielding results that demonstrated clarity, relevance, and applicability.

The concept map was developed to support the clinical practice and continuing education of health professionals at different levels of training, promoting empathetic, clear and aged-centered communication strategies. In addition to serving as a training resource, the material contributes to the humanization of care, the strengthening of the therapeutic relationship, and the promotion of shared decision-making, all essential elements for the quality of life of patients and their families in palliative care.

In addition, this educational resource contributes to the improvement of care routines, helping to identify gaps and strengthen communication practices in complex and sensitive contexts. Although future studies are needed to assess its direct impacts on professional practice, the conceptual map emerges as an innovative and practical tool with the potential to strengthen comprehensive and humanized care for aged person receiving palliative care.

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **de Jesus DRR.** Drafting the work or revising it critically for important intellectual content - **de Jesus DRR, Costa CBA, Gutierrez BAO, Monteiro EA.** Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **de Jesus DRR, da Silva RD, Costa CBA, Gutierrez BAO, Monteiro EA.** All authors approved the final version of the text.

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