



Pedagogical practices in nursing education to develop competencies for preparing family caregivers: scoping review protocol

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ABSTRACT

Introduction: Increased life expectancy and the growing prevalence of chronic conditions reinforce the central role of the family caregiver in healthcare. Nursing education must include pedagogical strategies that equip students to support family caregivers. Despite widespread recognition of its importance, there remains a gap in the evidence regarding how this preparation has been operationalized in nursing education.

Objective: To map and describe the pedagogical practices used in undergraduate and postgraduate nursing education that aim to prepare students to educate and support family caregivers.

Methodology: The scoping review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews and reported following the PRISMA-ScR guidelines. A comprehensive three-step search strategy will be used. An initial limited search of MEDLINE and CINAHL has already been conducted to identify relevant keywords and index terms. The refined search strategy will then be adapted for all selected databases, including MEDLINE, CINAHL, Scopus, Embase, Web of Science, SciELO, the Joanna Briggs Institute Evidence-Based Practice Database, and Cochrane, followed by a search of grey literature sources and manual screening of the reference lists of included studies. Studies that describe pedagogical practices implemented in undergraduate and postgraduate academic nursing education aimed at preparing students to support family caregivers will be included. A structured data extraction tool will be developed and piloted by two independent reviewers to ensure consistency during the screening and charting process. Data will be synthesized using descriptive numerical summaries and qualitative content analysis. Findings will be presented narratively and displayed through charts and tables mapping pedagogical practices, their characteristics, and associated student competency outcomes.

Conclusion: This scoping review will identify the breadth, depth, and scope of the literature on pedagogical practices implemented in nursing education to develop students' competencies for preparing and supporting family caregivers. It will map the characteristics, teaching strategies, educational contexts, and competency outcomes associated with these practices, providing a comprehensive overview of how caregiver-related content is integrated into undergraduate and postgraduate nursing curricula. The findings will inform future curricular development, support pedagogical innovation, and guide a broader research agenda focused on strengthening the preparation of nursing students to effectively assess, educate, and collaborate with family caregivers across healthcare settings.

Contributions: Conceptualization: JS; Data curation: JS and AL; Methodology: JS, ME, MC and RG; Project administration: ME, MC and RG; Resources: JS and AL; Supervision: ME, MC and RG; Validation: ME, MC and RG; Writing – original draft: JS; Writing – review & editing: AL, ME, MC and RG.

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RESUMO

Introdução: O aumento da esperança de vida e a crescente prevalência de condições crônicas reforçam o papel central do familiar cuidador nos cuidados de saúde. A formação em enfermagem deve integrar estratégias pedagógicas que capacitem os estudantes para apoiar os familiares cuidadores. Apesar do reconhecimento generalizado da importância deste tema, persiste uma lacuna na evidência sobre a forma como esta preparação tem sido operacionalizada no ensino em enfermagem.

Objetivos: Mapear e descrever as práticas pedagógicas utilizadas na formação em enfermagem que visam preparar os estudantes para educar e apoiar os familiares cuidadores.

Metodologia: Esta *scoping review* será conduzida de acordo com a metodologia do Joanna Briggs Institute para revisões desta tipologia e reportada segundo as orientações PRISMA-ScR. Será utilizada uma estratégia de pesquisa abrangente em três etapas. Uma pesquisa preliminar limitada às bases MEDLINE e CINAHL já foi realizada para identificar palavras-chave e termos de indexação relevantes. A estratégia refinada será posteriormente adaptada para todas as bases selecionadas, incluindo MEDLINE, CINAHL, Scopus, Embase, Web of Science, SciELO, a Joanna Briggs Institute Evidence-Based Practice Database e Cochrane, seguida de uma pesquisa de literatura cinzenta e da triagem manual das listas de referências dos estudos incluídos. Serão incluídos estudos que descrevam práticas pedagógicas implementadas no ensino de enfermagem, em cursos de licenciatura ou pós-graduação, destinadas a preparar os estudantes para apoiar familiares cuidadores. Será desenvolvido e testado um instrumento estruturado de extração de dados por dois revisores independentes, garantindo a consistência durante os processos de triagem e mapeamento. Os dados serão sintetizados através de resumos descritivos numéricos e análise de conteúdo qualitativo. Os resultados serão apresentados de forma narrativa e organizados em quadros e tabelas que mapearão as práticas pedagógicas, as suas características e os resultados associados ao desenvolvimento de competências dos estudantes.

Conclusões: Esta revisão de escopo permitirá identificar a amplitude, profundidade e alcance da literatura sobre práticas pedagógicas implementadas na formação em enfermagem para desenvolver competências dos estudantes na preparação e apoio aos familiares cuidadores. Irá mapear características, estratégias de ensino, contextos educativos e resultados de aprendizagem associados a estas práticas, proporcionando uma visão abrangente de como os conteúdos relacionados com o cuidador são integrados nos currículos de enfermagem, tanto ao nível da licenciatura como da pós-graduação. Os resultados informarão o desenvolvimento curricular futuro, apoiarão a inovação pedagógica e orientarão uma agenda de investigação mais ampla centrada no reforço da preparação dos estudantes de enfermagem para avaliar, educar e colaborar eficazmente com familiares cuidadores em diferentes contextos de cuidados de saúde.

Introduction

The ageing of the Portuguese population - driven by declining birth and mortality rates, improved socioeconomic conditions, and advances in health sciences - has contributed to a significant increase in the prevalence of chronic diseases and dependence in self-care.^{1,2} It is estimated that 80% of long-term care in Europe is provided by informal caregivers, and in Portugal, around 1.3 million people assume this role.³ In this context, the family caregiver emerges as an essential figure in continuity of care.

The transition to the caregiver role may occur gradually or suddenly and directly influences the caregiver's capacity to adapt. Therefore, it is essential that nurses understand this process and implement appropriate interventions to support caregivers in their new role.⁴ This transition is framed within nursing as a situational transition, as

defined by Chick and Meleis,⁵ with the family caregiver understood as the person responsible for caring for a family member in a situation of illness or disability.⁶⁻¹⁰

In Portugal, studies show that nurses and nursing students recognize the importance of including the family in the care process.^{11,12} However, this recognition is not fully reflected in clinical practice, as demonstrated by gaps in health information systems and nursing documentation regarding support provided to family caregivers.¹²⁻¹⁴

Furthermore, Cloyes and collaborators¹⁵ highlight the scarcity of references to family caregivers in documents guiding nursing education and practice, suggesting the need for curricular updates to include content that prepares students to support caregivers at different levels of complexity.

The development of such competencies should begin in undergraduate education, as this is when future nurses

develop the knowledge, attitudes, and practices that shape their professional performance.^{16,17} This process is influenced by factors such as the organizational environment, institutional culture, interprofessional work, and opportunities for supervision and critical reflection.¹⁸

Consequently, curricula must incorporate pedagogical strategies that promote the acquisition of communication, relational, and technical-scientific competencies oriented towards supporting families. This implies integrating content related to the transition process, with a focus on the family caregiver, through supervised teaching - learning practices.¹⁹

Despite the increasing importance of the family caregiver's role and recognition of the need to prepare nursing students for this context, there remains a gap in knowledge regarding the pedagogical practices currently used for this purpose. A scoping review is therefore justified to map and synthesize the existing evidence on this topic. This review will provide a broad and systematic overview of the available literature, supporting the identification of pedagogical approaches that are most effective in developing students' competencies to prepare and support family caregivers.

This preliminary search in the Joanna Briggs Institute (JBI) Database of Systematic Reviews and Implementation Reports, Cochrane Database of Systematic Reviews, PROSPERO, Open Science Framework (OSF), PubMed (Medline), and CINAHL (EBSCO) did not identify any published or ongoing reviews addressing the pedagogical practices used in nursing education to prepare students to work with family caregivers, reinforcing the relevance of this scoping review.

Thus, the objective of this scoping review is to map and describe the content and pedagogical practices used in undergraduate and postgraduate nursing education to develop students' competencies for preparing family caregivers.

Review question

The main review question is: *What pedagogical practices are implemented in nursing education programs to prepare students to support and educate family caregivers?*

The sub questions are:

1. *What pedagogical practices are described in the literature to prepare nursing students to work with family caregivers?*
2. *What are the pedagogical characteristics of these practices, including teaching content, instructional strategies, activity typology, duration, and implementation contexts?*
3. *What evidence or impacts are described regarding the development of students' competencies for preparing family caregivers?*

Methodology

This scoping review will follow the JBI methodology^{20,21} and will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) checklist.²²

JBI methods are widely used in multiple areas of knowledge and recognized by experienced reviewers, representing a key approach for supporting evidence-based decision-making.²³

PRISMA-ScR provides reporting guidance specific to scoping reviews and is aligned with the integrated approach proposed by JBI.²⁴

Types of sources

Eligible studies include quantitative, qualitative, and mixed-methods research, literature reviews, and grey literature. Any methodology will be considered if relevant.

Secondary studies will be included for contextual mapping purposes only, and primary studies identified within reviews will not be double counted during data extraction or synthesis.

Review method

A scoping review aims to map and describe the characteristics of a body of literature on a specific topic, not to compare or evaluate the effectiveness of interventions. Instead, it identifies gaps, consolidates existing knowledge, and guides future research.²⁵ This review will follow the JBI methodology for scoping reviews²⁵ and PRISMA-ScR.²²

Search strategy

The search strategy was developed by the research team following JBI guidance and refined through pilot exploratory searches and include the following databases: MEDLINE (PubMed), CINAHL (EBSCO), Scopus, Embase, Web of Science, SciELO, JBI Evidence-Based Practice Database, and Cochrane Database of Systematic Reviews (EBSCOhost). Grey literature will be searched through RCAAP.

A three-step strategy will be used:

1. Initial exploratory search in MEDLINE and CINAHL to identify relevant keywords and indexed terms;
2. Development of a complete search strategy tailored to each database;
3. Screening reference lists of included studies.

The full search strategies for MEDLINE (via PubMed) and CINAHL (via EBSCO) are provided in Appendix 1. Equivalent strategies were adapted for the remaining databases by adjusting controlled vocabulary, syntax, and search operators according to each database's requirements. The search strategy will be updated prior to final data analysis to ensure inclusion of the most recent evidence.

Study selection

References will be imported into Rayyan for management and duplicate removal. Two independent reviewers (JS and AL) will screen titles/abstracts and full texts. A third reviewer will resolve disagreements. Prior to full screening, a pilot calibration exercise will be conducted by two independent reviewers to ensure consistent interpretation of the eligibility criteria. Inter-reviewer agreement may be explored descriptively (e.g., using Cohen's kappa) during this calibration phase to support refinement of the eligibility criteria, in accordance with JBI guidance for scoping reviews. PRISMA-ScR flowchart will guide reporting.

Eligibility criteria (PCC)

Inclusion criteria will be defined according to the PCC structure:

- Population (P): Nursing students enrolled in undergraduate and postgraduate academic nursing programs;
- Concept ©: Pedagogical practices aimed at preparing and supporting family caregivers;
- Context ©: Nursing education in higher education institutions (public or private) through theoretical, practical, simulated, or clinical teaching.

Pedagogical practice is understood as the set of intentional, critical, and reflective teaching–learning actions that promote competency development for supporting family caregivers. This includes strategies, methodologies, dynamics, and educational relationships integrating theoretical and practical knowledge, consistent with the understanding of pedagogical practice as praxis.²⁶

Preparing family caregivers refers to intentional educational strategies explicitly designed to develop nursing students' competencies to assess, educate, and support family caregivers in their caregiving role. General family-centered care content without a specific focus on caregiver education or support will be excluded.

Limitations

Studies in Portuguese, English, and Spanish will be included. No time limits will be imposed.

Inclusion criteria require that studies:

1. Involve nursing students in educational processes;
2. Explore pedagogical practices aimed at developing competencies to prepare or support family caregivers;
3. Occur within undergraduate or postgraduate academic nursing programs.

This review will focus on undergraduate and postgraduate academic nursing education and will not include continuing professional development or in-service training

contexts, which may limit the transferability of findings to professional education settings.

Data extraction

Data extraction will be carried out using specific instruments developed by the reviewers for this scoping review (Appendix 2), which may be refined after reading and analyzing the included studies. Before full extraction, a pilot test will be conducted with five randomly selected studies by two independent reviewers (JS and AL), with the aim of anticipating and discussing potential challenges in data interpretation and ensuring consistency in the application of the instruments. Following the pilot test, any necessary adjustments will be made by consensus between the reviewers. When reported, information on the type of outcome measures used (e.g., validated instruments versus author-developed tools) will be descriptively charted to support interpretation.

Data synthesis

The data analysis will be predominantly descriptive and thematic, with results presented in narrative and tabular formats, based on the objective of the scoping review. This synthesis process will be conducted independently by both reviewers (JS and AL). To answer the defined review questions, the reviewers developed data synthesis instruments (Appendix 2).

Interpretation and data presentation

The mapping of pedagogical practices implemented in undergraduate nursing education aimed at developing students' competencies related to supporting family caregivers may contribute to the development of guidance for curriculum design in undergraduate nursing programs, to promote the acquisition of competencies required for preparing family caregivers. As previously noted, this review will follow the methodology described in the JBI Manual for Evidence Synthesis. Accordingly, the final report will be prepared based on the PRISMA-ScR reporting guidelines. No critical appraisal of the methodological quality of the included studies will be conducted, as the purpose of the review is to map existing evidence rather than evaluate the effectiveness or impact of interventions.

Whenever gaps in information or missing relevant data are identified during data analysis or extraction, the authors of the included studies may be contacted to request additional clarification or supplementary information considered essential for the review.

The results will be submitted for publication in a scientific nursing journal or a journal specifically focused on nursing education. The full protocol will be registered with the JBI.

Study status

Data collection for the scoping review has not yet begun. Search strategies have been drafted, and the review team is prepared to initiate screening following the publication of this protocol. This scoping review protocol has been registered on the Open Science Framework (OSF) under the DOI: 10.17605/OSF.IO/C7S29.

Conclusion

The rise in life expectancy, prevalence of chronic disease, and shift toward home-based care have increased the centrality of family caregivers in health systems. Nurses must be prepared to support these caregivers, requiring competency development beginning during undergraduate nursing education and further developed within postgraduate academic programs.

This scoping review will map pedagogical practices that support competency development for preparing and supporting family caregivers, providing evidence to inform curriculum development, teaching practice, and pedagogical innovation.

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No funding was received for this protocol or the scoping review.

Declarations

The authors acknowledge the importance of equity, diversity, and inclusion in scientific research. This review was developed by a team with professional and academic experience in nursing and health education, aiming to promote inclusive, person-centered, and family-centered pedagogical practices.

Conflicts of Interest

No conflicts of interest declared.

Data supporting the results will be provided on request.

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Appendix 1

Results of the search strategy applied on 19 June 2025

Database	Search Strategy		Results
MEDLINE(via PubMed)	P	(students, nursing[MeSH Terms]) OR (((((((("graduate nurs**") OR ("student nurse")) OR ("baccalaureate nursing student**") OR ("bachelor nursing student**") OR ("bsn student**") OR ("student nurs**") OR ("nursing student**") OR ("nursing undergraduat**") OR ("postgraduate nurs**") OR ("undergraduate nurs**"))	1177
	C	(((family[MeSH Terms]) OR (family caregiver[MeSH Terms])) OR (caregiver[MeSH Terms])) OR (((((((((((family OR ("caregivers, informal") OR ("caregiver, informal") OR ("informal caregivers") OR ("informal caregiver") OR ("caregivers, family") OR ("caregiver, family") OR ("family caregivers") OR ("family caregiver") OR ("caregivers, spouse") OR ("caregiver, spouse") OR (carers) OR (carer) OR ("care giver**") OR (caregiver**)) AND (((((((teaching[MeSH Terms]) OR (method, teaching[MeSH Terms])) OR (simulation training[MeSH Terms])) OR (learning, problem based[MeSH Terms])) OR (competency based education[MeSH Terms])) OR ("active learning"[All Fields] OR "teaching strategy"[All Fields] OR "pedagogical methodology"[All Fields] OR "pedagogical approach"[All Fields] OR "problem-based learning"[All Fields] OR "experiential learning"[All Fields] OR "simulation"[All Fields] OR "clinical teaching"[All Fields] OR "educational innovation"[All Fields] OR "education strategies"[All Fields] OR "didactics"[All Fields] OR "learning"[All Fields] OR "educational tool"[All Fields] OR "educational intervention"[All Fields]))	
	C	(((("nursing school") OR ("clinical placement")) OR ("nursing education")) OR (education)) OR (curriculum [MeSH Terms])) OR (education, nursing [MeSH Terms])	
CINHAL (via EBSCO)	P	(((("bsn student**") OR ("baccalaureate nursing student**") OR ("undergraduate nurs**") OR ("postgraduate nurs**") OR ("graduate nurs**") OR ("student nurs**") OR ("student nurse**") OR ("nursing student**") OR ((MH "Students, Nursing+"))	1172
	C	(((("educational intervention") OR ("educational tool") OR ("learning") OR ("didactics") OR ("education strategies") OR ("educational innovation") OR ("clinical teaching") OR ("simulation") OR ("experiential learning") OR ("problem-based learning") OR ("pedagogical approach") OR ("pedagogical methodology") OR ("teaching strategy") OR ("active learning") OR ((MH "Education, Competency-Based")) OR ((MH "Teaching Methods+")) AND (((("caregivers, family") OR ("caregiver, family") OR ("caregivers, spouse") OR ("caregiver, spouse") OR ("family care giver**") OR ("spouse caregiver**") OR ("carers") OR ("carer") OR ("care giver**") OR (family) OR ("caregiver**") OR ("informal caregiver**") OR ("family caregiver**") OR ((MH "Family") OR ((MH "Caregivers+"))	
	C	(((education) OR ("nursing education") OR ("clinical placement") OR ("nursing school") OR ((MH "Curriculum+")) OR ((MH "Education, Nursing+")) AND	

Appendix 2

Data extraction and synthesis instruments

Table 1. Data extraction instrument developed by the reviewers: article characteristics.

DATA EXTRACTION INSTRUMENT								
Review Title		Pedagogical Practices in Nursing Education for Developing Students' Competencies to Prepare Family Caregivers: Scoping Review						
Review Question		What pedagogical practices are used in nursing education to prepare students to support and educate family caregivers?						
Methodology (PCC)		P (Population): Nursing students / nursing educators C (Concept): Pedagogical / educational practices related to the preparation of family caregivers C (Context): Nursing education						
Article Characteristics								
Article	Title	Authors	Year of Publication	Country	Study Design	Aim	Participants	Context

Table 2. Data extraction instrument developed by the reviewers: extracted results.

Extracted Results							
Article ID	Identified pedagogical practices	Caregiver-related content	Duration of the practice	Context (theoretical, practical, simulated, clinical)	Developed competencies	Main findings	Notes

Table 3. Data Synthesis Instrument

DATA SYNTHESIS – PEDAGOGICAL PRACTICES					
Article ID	Implemented pedagogical practices	Type of approach (theoretical, practical, simulated)	Application context	Duration / Frequency	
DATA SYNTHESIS – CHARACTERISTICS OF PEDAGOGICAL PRACTICES					
Article ID	Caregiver-related content	Pedagogical strategies used	Type of activity (individual, group)	Tools / Resources	
DATA SYNTHESIS – DEVELOPED COMPETENCIES AND IMPACT					
Article ID	Competencies developed by students	Instruments used	Level of evidence or perception		