

IDENTIFYING ENABLERS AND BARRIERS OF PALLIATIVE CARE LEARNING IN UNDERGRADUATE NURSING EDUCATION: SYSTEMATIC NARRATIVE REVIEW

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Hana Rizmadewi Agustina¹, Erna Rochmawati², M. Zulfatul A'la³, Siti Ulfah Rif'ah Fitri⁴, Nahyeni Bassah^{5,6}, Putri Karisa⁷, Oktaviani Fauziah⁸, Meideline Chyntia⁹

Abstract

Introduction: The development of a structured curriculum, relevant teaching and learning methods, and support facilities and access is necessary to improve palliative care education by preparing nursing students as future professional nurses in the palliative care area. This review aims to synthesize available literature explaining the barriers and enablers in implementing palliative care education in undergraduate nursing students.

Method: This review uses a systematic narrative review approach. Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) was used in this study. Studies were identified from the PubMed, Scopus, CINAHL, and ProQuest Nursing databases from January 2012 to August 2022.

Results: A total 23 of 890 studies were included. The findings were grouped into obstacles and enablers in four parts, namely curriculum and learning strategies, personal and professional competencies, relationships and enablers, and facilities and access.

Conclusions: Identifying barriers and enablers can help educational institutions to provide palliative care education according to the needs and expected developments in clinical practice. Collaboration and cooperation between stakeholders must be increased effectively to help provide maximum education.

Keywords: barriers, enablers, nursing students, palliative care education, undergraduate student

¹ Department of Fundamental Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, Indonesia

² Department of Nursing, School of Nursing, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia

³ Emergency and Critical Care Nursing Department, School of Nursing, Universitas Jember, Jember, Indonesia

⁴ Department of Surgical Nursing, Faculty of Nursing, Universitas Padjadjaran, Bandung, Indonesia

⁵ Faculty of Nursing, University of Alberta, Canada

⁶ Department of Nursing University of Buea, Cameroon

⁷ Undergraduate Nursing Science, Faculty of Nursing, Universitas Padjadjaran, Bandung, Indonesia

Corresponding Author

Hana Rizmadewi Agustina

Faculty of Nursing, Universitas Padjadjaran, Bandung, Indonesia

Email: hana.rizmadewi@unpad.ac.id

INTRODUCTION

An increasing number of people with chronic, incurable diseases with low life expectancy makes palliative care more and more needed (Etkind et al., 2017). Based on WHO data (2014), there are 40 million people in need of palliative care, and 78% of them are in developing countries. WHO (2020) defines palliative care as a series of actions to improve the quality of life of patients and their families. Then, palliative care will help resolve the problems and difficulties that occur in a person with a terminal and life-threatening illness through early diagnosis, complete diagnosis, pain management, and physiological, psychological, and spiritual care (Meier, 2011).

Previous studies identify that many nurses received limited palliative care education (Cavaye & Watts, 2014; Malone et al., 2016; Price et al., 2017) and often did not feel ready to provide care for patients with terminal illnesses (Malone et al., 2016). Limited opportunities in education and coaching care can hinder the delivery of quality palliative care (Cavaye & Watts, 2014) and the development of the palliative care (Carrasco et al., 2015). However, only a few educational institutions integrate palliative care education into the curriculum (Silveira et al., 2016). Nursing education institutions need to understand the importance of palliative care practice (Knopp de Carvalho et al., 2017).

Nursing students and nurses, as primary providers of palliative care for patients and families, must be properly trained to provide quality palliative care (Fitch, Flidner and O'Connor, 2015). In addition, helping patients with serious and life-threatening illnesses requires a humanistic view of the patient's and family's needs, self-control, and a commitment to

achieving the goals of palliative care, namely improving quality of life and relieving symptoms in a comprehensive perspective (Sapeta et al., 2022).

To ensure future nurses have the required palliative care competencies, undergraduate nursing education should include palliative care in its curriculum (Hökkä, Pölkki and Lehto, 2022). Previous evidence has shown that integrating palliative care into education can positively improve nursing students' knowledge and attitudes about the *end of life care* (Cavaye and Watts, 2012; Gillan, van der Riet and Jeong, 2014; Lippe and Carter, 2015; Hökkä, Rajala, et al., 2022). However, there are still many obstacles and challenges felt by nursing students that make palliative care education not optimal.

Palliative care education is a key factor in improving nursing students' competence and qualifications to provide high-quality palliative services (Mastroianni et al., 2019). However, there is still limited literature that reveals the barriers and challenges to nursing students in providing palliative care. Therefore, this systematic narrative review was conducted to identify the barriers and challenges faced by students in performing palliative care and to assist educational institutions in resolving these barriers and challenges by developing practical strategies.

METHODS

Study Design

This study was designed using a systematic narrative review framework developed by (Roberts et al., 2006), which makes it possible to seek transparency and appropriate approaches to identify and assess study quality. The review is reporting following the PRISMA 2020 guidelines. The systematic narrative review

methodology is suitable for this subject as it allows us to thoroughly explore the barriers and challenges of students in palliative care education. A systematic narrative review begins with a research topic narrowed down during the study process to allow for a more comprehensive evaluation. The study questions used in the initial search were: what are the barriers and enablers for undergraduate nursing students in attending palliative care education.

Criteria of studies

This systematic narrative review includes all qualitative studies published in English that report the views of undergraduate nursing students regarding the barriers and challenges faced in the palliative care education process. The criteria in this study were compiled based on the PICO framework criteria. Population: Nursing student (nursing student OR undergraduate nursing student OR pre-registration student OR bachelor nursing OR baccalaureate nursing education). Intervention: Palliative care (palliative care OR palliative nursing OR end of life care OR terminal care OR care of dying) AND Education (education OR education, nursing OR clinical teaching. Comparison: No comparison. Outcome: (perspective OR experience OR perception OR knowledge OR attitudes OR self-efficacy OR self-competence). Included studies following quantitative, qualitative and mixed-methods research design

Search and selection

The electronic databases used were PubMed, CINAHL, Scopus, and ProQuest to search for primary and qualitative research results that reported nursing students' views, experiences, and perspectives on palliative care education. The search results from the three databases will be available in appendix 1. Each study was screened based on the title, abstract, and full text.

Data collection and analysis

All authors completed the article selection process following the PRISMA flowchart: (1) identifying duplicates, (2) screening titles and abstracts and (3) full-text analysis. Then the selected studies were assessed using the Joanna Briggs Institute (JBI) critical appraisal checklist (Joanna Briggs Institute, 2020). Important information sought as part of the data extraction process was author, country, study design, and barriers and challenges in palliative care education. Next, the researcher conducted the content analysis with an inductive approach to determine the main themes discussed in the results and discussion sections.

RESULTS

The search yielded 23 studies based on the selection of titles, abstracts, full texts, and methodological quality assessments. These studies are included because they have sufficient data to analyze. The identification of the included studies is described in figure 1.

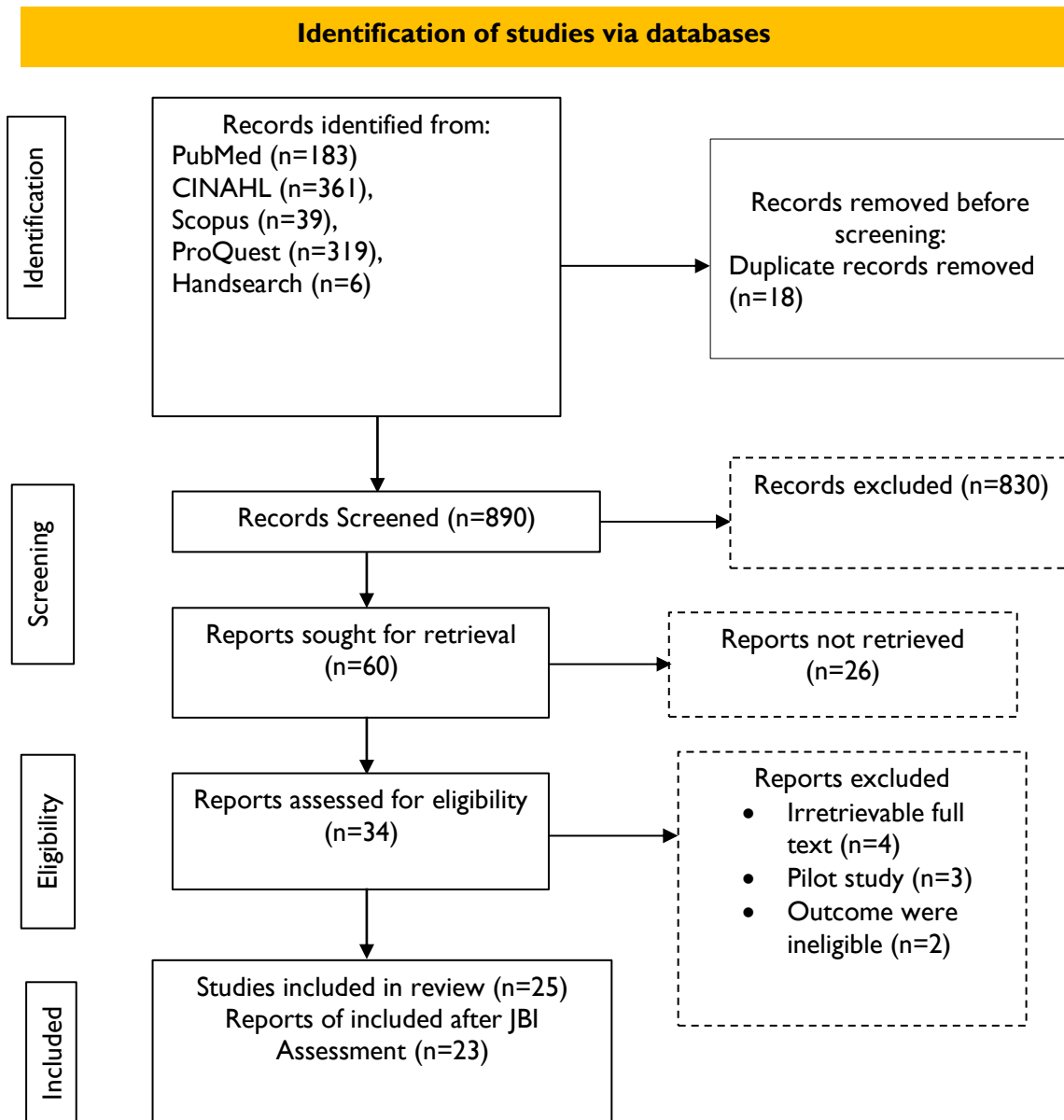


Figure 1. PRISMA Flow chart of literature search diagram

Characteristics of studies

The majority of included studies were conducted in developed countries, including the UK (Price *et al.*, 2014; Watts, 2014; Bassah, Cox and Seymour, 2016; E G Lewis *et al.*, 2018; Price *et al.*, 2019), USA (Hold, Blake and Ward, 2015; Glover *et al.*, 2019; Li RN *et al.*, 2019), Australia

(Adesina, DeBellis and Zannettino, 2014; Gillan, van der Riet and Jeong, 2016), Sweden (Ek *et al.*, 2014; Strang *et al.*, 2014), Portugal (Laranjeira, Afonso and Querido, 2021; Minosso, Martins and de Campos Oliveira, 2022), China (Cao *et al.*, 2022; Lian *et al.*, 2019), Finland (Hökkä, Lehto, *et al.*, 2022), Norway (Valen *et al.*, 2021), Turkey (Özveren and Kirca, 2019), Brazil

(Costa, Poles and Silva, 2016), Spain (Ballesteros, Centeno and Arantzamendi, 2014), South Africa (van der Wath and du Toit, 2015), and Cameroon (Bassah, Cox and Seymour, 2018). Of the 23 included studies, 15 were qualitative research, 3 were quasi-experimental articles and five studies used mix-method. The findings in the form of obstacles and enablers are categorized into four categories, namely structured curriculum and learning strategies, personal and professional competencies, adequate relationships and support and availability of facilities and accesses.

Theme 1: Structured curriculum and learning strategies

Student perceptions can be used to design and assess the curriculum (Minosso, Martins and de Campos Oliveira, 2022). The incompatibility of the curriculum and learning applied by the institution will affect student acceptance of the learning materials. This is often an obstacle and challenge in implementing palliative care education. In this study, all nursing students stated the importance of palliative care education as a separate compulsory subject in the curriculum. Studies report that palliative care learning content only focuses on biophysical problems and lacks material on psychosocial, spiritual, and communication skills (Li RN *et al.*, 2019; Minosso, Martins and de Campos Oliveira, 2022). In addition, the content of non-pharmacological therapy materials also needs to be integrated into the palliative care curriculum (Ballesteros, Centeno and Arantzamendi, 2014; Minosso, Martins and de Campos Oliveira, 2022). Interesting learning strategies will thus increase student satisfaction in palliative care

education. Studies reveal learning methods that have improved students' experience, and understanding of palliative care such as simulation and role-play methods (van der Wath and du Toit, 2015; Gillan, van der Riet and Jeong, 2016; E G Lewis *et al.*, 2018; Li RN *et al.*, 2019; Laranjeira, Afonso and Querido, 2021; Valen *et al.*, 2021; Hökkä, Pölkki and Lehto, 2022), apprenticeship and extracurricular programs with palliative specialization (Ballesteros, Centeno and Arantzamendi, 2014; Costa, Poles and Silva, 2016), peer discussion groups (Hold, Blake and Ward, 2015; Hökkä, Pölkki and Lehto, 2022), case studies (Price *et al.*, 2019; Hökkä, Pölkki and Lehto, 2022), self-reflection notes (Bassah, Cox and Seymour, 2016; Price *et al.*, 2019), and clinical learning opportunities in the hospital or palliative ward (Bassah, Cox and Seymour, 2016; Glover *et al.*, 2019; Lian *et al.*, 2019; Özveren and Kirca, 2019; Cao *et al.*, 2022; Hökkä, Pölkki and Lehto, 2022).

Theme 2: Personal and professional competences

The perceived obstacle when learning palliative care is that many nursing students feel they are not ready to provide palliative care due to a lack of knowledge and self-confidence (Strang *et al.*, 2014; Bassah, Cox and Seymour, 2016; Özveren and Kirca, 2019; Laranjeira, Afonso and Querido, 2021; Hökkä, Rajala, *et al.*, 2022), lack of communication skills with patients and families (Ballesteros *et al.*, 2014; Gillan *et al.*, 2016; Laranjeira *et al.*, 2021; Lian *et al.*, 2019; Strang *et al.*, 2014), difficulty developing feelings of empathy (Costa *et al.*, 2016; Ek *et al.*, 2014; Gillan *et al.*, 2016; Lian *et al.*, 2019; Strang *et al.*, 2014), difficulty regulate emotions when dealing

with patients and families (Costa *et al.*, 2016; Ek *et al.*, 2014), fatigue during practice (Bassah, Cox and Seymour, 2018) and low knowledge of legal ethics (Adesina, DeBellis and Zannettino, 2014). However, the high motivation to study palliative care can support nursing students in improving their knowledge and skills in providing palliative care (Adesina, DeBellis and Zannettino, 2014; Bassah, Cox and Seymour, 2018; Hökkä, Rajala, *et al.*, 2022). Learning that has been obtained previously can also improve the personal competence of nursing students (Adesina, DeBellis and Zannettino, 2014; E G Lewis *et al.*, 2018).

Theme 3: Adequate relationships and support

The condition of terminal patients tends to be difficult to identify, making it difficult for nursing students to provide palliative care (Bassah, Cox and Seymour, 2016; Cao *et al.*, 2022). Low family support for patient care can hinder nursing students because family assistance will increase the patient's comfort and hope towards a peaceful death (Price *et al.*, 2014; Cao *et al.*, 2022). However, the low family knowledge and lack of time to interact make the care provided a nurse-centred (Watts, 2014; Bassah, Cox and Seymour, 2016). The experience of caring for and witnessing the death of family and relatives increases the readiness of nursing students to provide palliative care (Adesina, DeBellis and Zannettino, 2014; Ek *et al.*, 2014; Bassah, Cox and Seymour, 2016; Glover *et al.*, 2019) as well as sharing experiences and insights. from other professionals (Hold, Blake and Ward, 2015; Lian *et al.*, 2019; Cao *et al.*, 2022).

Theme 4: Availability of facilities and access

A lack of facilities that support learning can hinder the process of palliative care education. Studies reporting palliative care literature available in educational institutions are very limited (Minosso, Martins and de Campos Oliveira, 2022). In addition, the limited access to providing palliative care training also makes nursing students only depend on the learning provided by the teacher (Adesina, DeBellis and Zannettino, 2014; Price *et al.*, 2019; Minosso, Martins and de Campos Oliveira, 2022). However, the use of increasingly advanced technology in both clinical and educational settings can improve students' knowledge and skills in learning and providing better palliative care (Cao *et al.*, 2022).

DISCUSSION

Palliative care education is required to improve students' knowledge, skills and confidence because it can help students to be able to provide palliative care well (Ballesteros, Centeno and Arantzamendi, 2014). Pain and symptoms management is one of the focuses of palliative care to achieve a good quality of life among patients. Nurses can use non-pharmacological therapy in addition to providing pharmacological therapy. An understanding of non-pharmacology for students is very important because it can affect the way they perform pain management when providing care to palliative patients (Munkombwe, Petersson and Elgán, 2020). Nurses have an important role in delivering breaking bad news to patients and families; therefore, student nurses need to learn about breaking bad news. Providing education and training related to delivering bad news can be done

as early as possible to students. Brouwers et al (2020) found that communication skills training for delivering bad news can improve the knowledge and skills of students to discuss bad news with patients and their families.

The learning method is used as a tool to create a teaching and learning process (Munawaroh, 2017). An interactive and interesting method is one of the right steps to achieve successful learning. Active and interesting learning is expected to be able to make students follow learning well and can help achieve student learning success. Learning with the simulation method has a positive influence on students, such as increasing students' knowledge, skills and confidence. Besides that, students also gain experience before practising in a hospital (Gillan, van der Riet and Jeong, 2016; Valen et al., 2021). Learning by stimulating visual sensors and auditory sensors is also the right step to increase student understanding in the learning process. Using media or visual aids can promote the student's interests in the teaching and learning process and facilitate educators in providing active learning.

Experiential learning is a learning process that aims to integrate theoretical and practical elements that emphasize the learning experience (Murray, 2018). Clinical learning in palliative care can effectively stimulate nursing students to explore their feelings and beliefs about death, helping them develop positive attitudes towards the palliative care (Chow et al., 2014a). There are several barriers to learning facilities that are felt by students, namely limited materials, limited study time and lack of clinical learning opportunities (Costa, Poles and Silva, 2016; Li RN et al., 2019; Laranjeira, Afonso and Querido, 2021; Valen, Simonsen, Lise, et al., 2021; Cao et al., 2022; Hökkä, Lehto, et al., 2022;

Minosso, Martins and de Campos Oliveira, 2022). Even so, there are too many learning materials that only focus on medical treatment, which is also an obstacle for students (Bassah, Cox and Seymour, 2018; Minosso, Martins and de Campos Oliveira, 2022). In addition, the learning method must also be considered by the teacher because boring methods can hinder the student learning process in palliative care education (Bassah, Cox and Seymour, 2018).

Personal and professional competence are enabler aspects of palliative nursing education. In this study, it was found that the knowledge base related to palliative care and verbal and non-verbal communication skills can enable the process of palliative care education (Adesina et al., 2014; Lian et al., 2019). Lack of knowledge and awareness of palliative care is a serious obstacle because it can make quality palliative care difficult to provide to patients (Menekli et al., 2021). In addition to knowledge, previously held positive attitudes, values, and beliefs, perceptions/views about death are also one of the enablers things in the nursing student learning process related to the palliative care (Adesina et al., 2014; Ballesteros et al., 2014; E. G. Lewis et al., 2018; Lian et al., 2019). Adesina et al (2014) showed that most of the participants emphasized that achieving good dying for patients and families is very important; with this belief, students will try to help patients achieve good dying. Beliefs and perceptions of death in nursing students or nurses can affect the provision of palliative care.

Negative feelings about death can cause nurses to avoid topics related to death, causing them to run away from palliative care duties (Zahran et al., 2022). Fear is one of the obstacles for students in studying palliative care because they fear

facing dying or dying patients. However, other students found such fear has a positive impact on motivating them to meet the patients as early as possible to learn palliative care directly (Ek et al., 2014). Negative feelings or emotions that arise when carrying out direct learning are a normal response for students, but these negative feelings will become obstacles based on the coping strategies possessed by students; if students are not able to control negative emotions, then these emotions can become obstacles for students. While carrying out the learning process (Weurlander et al., 2018). Lack of self-confidence in nursing students can hinder their ability to acquire new knowledge and hinder students' ability to cope with difficult situations. Confident students can face difficult situations with low anxiety (Lundberg, 2008).

Communicating effectively with patients and families is an important skill in palliative care. Poor communication can make the delivery of palliative care difficult because communication is a basic tool and an important element in patient health care. In palliative care, a nurse must be able to explain complex information such as disease progression, treatment, and treatment plans to patients and families (Schroeder & Lorenz, 2018). In addition to communication skills with patients and families, nursing students who will become nurses in the future must also have effective communication skills with other health workers.

Relationships and support can be enablers aspect in palliative nursing education. Experience has an important role in improving students' abilities. Personal and professional experiences of death can be used as lessons that can increase students' knowledge and confidence when providing palliative care.

Clinical experience in palliative care is very important in increasing the perception of competence and attitudes of nursing students in palliative care (Chow et al., 2014). Support for providing clinical practice can provide opportunities for students to develop the knowledge, skills and attitude development needed when providing nursing care to patients. Providing effective feedback, direction, knowledge, insight and support from health professionals or clinical supervisors can also support students in the process of palliative care education (Bassah, Cox and Seymour, 2016; Costa, Poles and Silva, 2016; Lian et al., 2019; Cao et al., 2022).

Clinical supervisors influence effectiveness in absorbing knowledge and achieving competence in the clinical learning (Permana, 2020). Lack of support from nurses and lack of knowledge of nurses on duty about palliative care can be barriers for students (Bassah, Cox and Seymour, 2016; Lian et al., 2019; Minosso, Martins and de Campos Oliveira, 2022). The lack of competence of lecturers is also included in the obstacles found by students (Hökkä, Lehto, et al., 2022). The lack of role models from nurses and lecturers is another obstacle when studying palliative care education (Bassah, Cox and Seymour, 2016, 2018). Role models are necessary because they influence student attitudes and behaviour and facilitate student learning. This is because students can learn through their observations of lecturers and nurses and imitate their behaviour (Bazrafkan et al., 2019).

Facilities and access that can support students in the learning process are the holding of an interprofessional education (IPE) workshop (Price et al., 2019). Providing workshops related to IPE can certainly help improve the knowledge and skills of nursing students related to

interprofessional collaboration so that they can collaborate with other health workers when providing palliative care to patients. Interprofessional collaboration is needed in palliative care because collaboration between health workers can reduce errors, improve the quality of patient care, reduce stress levels for health workers, and facilitate a positive work environment (Zelko, Pajk, 2021). The availability of facilities, such as the use of information technology to facilitate communication between nurses and patients and families, can make it easier for students to provide care in the process of learning palliative care (Cao *et al.*, 2022). The results of the study found that there were facilities and access that could hinder the learning of palliative care education, namely the lack of training and learning programs on palliative care, limited time for direct clinical practice, limited reading resources for students (Adesina, DeBellis and Zannettino, 2014; Watts, 2014; Minosso, Martins and de Campos Oliveira, 2022).

CONCLUSION

Aspects that hinder and support nursing students in learning palliative care are curriculum and learning strategies, personal and professional competencies, relationships, and support, as well as facilities and access. Most of the barriers and enablers the nursing student feels are curriculum, learning strategies, and personal and professional competencies. This research evidence is very important to improve the quality of palliative care education according to the standards and expectations of students to improve nursing practice and maximize the role of nurses. By exploring the barriers and challenges from different parts, our findings can help educational institutions develop more leveraged learning systems to overcome the barriers identified. From this

study, we recommend further systematic reviews with meta-analysis to test more accurate results.

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CONFLICT OF INTEREST

There is no potential conflict concerning this research

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Appendix I. Summary of Characteristics of Included Studies (n=23)

No	Author (year)/ Country	Aim of the study	Study design	Population/ Sample	Main Findings	
					Barriers	Enablers
1	Price et al (2014) UK	To explore student perspectives on effective learning strategies	Qualitative study	38 second year pediatric nursing students		<ul style="list-style-type: none"> ● Learning in a meaningful and memorable way ● Learning by direct visits to the hospice ● Discussion forums ● Meetings with patients' families
2	Adesina et al (2014) Australia	To explore students' knowledge, attitudes, and experiences in education end of life care	Mixed-method study	200 third year nursing students	<ul style="list-style-type: none"> ● Lack of knowledge related to legal and ethical ● Inadequate palliative care learning programs 	<ul style="list-style-type: none"> ● Values and beliefs about death ● Beliefs about the importance of achieving good dying ● education and knowledge ● Personal and professional about death
3	Ballesteros, Centeno and Arantzamendi (2014) Spain	To explore the contribution of palliative care learning to undergraduate nursing students	Qualitative study	236 nursing students	<ul style="list-style-type: none"> ● Difficult to communicate with critically ill patients 	<ul style="list-style-type: none"> ● Palliative care education needs to be included in the curriculum as a compulsory subject by all health workers ● Knowledge of non-pharmacological techniques needs to be mastered ● Improve knowledge, skills and better confidence ● Palliative care training

4	Ek <i>et al</i> (2014) Sweden	To describe the experiences of nursing students about providing palliative care	Qualitative study	222 first-year nursing students	<ul style="list-style-type: none"> ● Difficulty controlling emotions ● Feelings of inadequacy when faced with sudden death ● It is difficult to know what the patient is thinking ● Feelings of being unable to provide support there is a patient and family 	<ul style="list-style-type: none"> ● Fear of dealing with a dying or dying patient increases the desire to see the patient as early as possible ● Hand-to-hand experience of meeting dying patients face-to-face ● Physical interaction and contact with patients in end of life ● Previous experience when dealing with dying patients
5	Strang <i>et al</i> (2014) Sweden	To describe Experience and knowledge of nursing students about emotions in the care of dying patients	Mixed-method study	245 nursing students	<ul style="list-style-type: none"> ● Feelings of being unprepared when dealing with dying patients ● Lack of clinical experiences ● Lack of communication skills ● Difficulty discussing with clients about the patient's desired death 	
6	Watts (2014) UK	To explore nursing students' understanding of palliative care	Qualitative study	68 final year nursing students	For communicating with patients and families	<ul style="list-style-type: none"> ● Inter pedagogical approach active and reflective ● Learning experience

7	Hold, Blake and Ward (2015) USA	To examine the perceptions and experiences of nursing students taking elective courses in palliative care with an internship program	Qualitative study	52 nursing students	<ul style="list-style-type: none"> ● Peer group discussion becomes an interesting method ● Requires very complex collaborative practice ● Gain knowledge and insight from sharing with professional workers
8	van der Wath and du Toit (2015) South Africa	To explore and describe the experiences of nursing students in the end of the world life care through experiential learning in a constructivist education model	Qualitative study	64 second-level nursing students	<ul style="list-style-type: none"> ● Materials with visual media, demonstrations , and observations of emotional expressions ● Listening to poetry, scenarios, music, and verbalizing feelings ● Strong engagement in the learning process ● Emotional experiences during learning

9	Bassah, Cox and Seymour (2016) UK	To explore the experiences of nursing students in transferring palliative care education into practice	Qualitative study	64 nursing students (level one, level two, and level three)	<ul style="list-style-type: none"> ● Anxiety and low self-confidence when discussing death with patients ● Lack of competence, confidence and lack of experience ● Lack of role models in clinical practice ● Lack of knowledge of nurses about palliative care ● Patients who are not aware and show negative attitudes ● Lack of palliative care policies ● Low family knowledge about palliative care ● Families who are in denial or surrender to the patient's condition ● Lack and limited opportunities for practice 	<ul style="list-style-type: none"> ● Implementing palliative care in the clinical setting ● Support from caregivers ● Reflection activities ● Classroom learning
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10	Costa, Poles and Silva (2016) Brazil	To identify the experiences of medical and nursing students in providing palliative care and understand the educational needs of palliative care needed	Qualitative study	10 medical students and nursing students	<ul style="list-style-type: none"> ● Feel unprepared to provide care because it is difficult to deal with dying patients ● Difficult to empathize with clients ● The curriculum contains little material, does not cover comprehensively 	<ul style="list-style-type: none"> ● Extracurricular developments specializing in palliative care ● There is an internship program in the curriculum ● Support from interprofessional team
11	E.G. Lewis et al (2018) UK	To assess the effect of a simulation intervention on the attitudes of undergraduate nursing and medical students towards end-of-life care.	Quasi Experiment	15 nursing students and 4 medical students		<ul style="list-style-type: none"> ● Active and experiential learning in the form of simulations helps promote a more positive attitude towards end-of-life care ● Simulation scenarios provide opportunities for students to gain practical experience in providing end-of-life care ● Attitudes Previous positive experiences can support better learning outcomes
12	Bassah, Cox and Seymour (2018) Cameroon	To describe the experiences of nursing students about the strengths and weaknesses of palliative care education	Qualitative study	69 nursing students	<ul style="list-style-type: none"> ● Feeling stressed and having difficulty working with patients who have problems is too complex ● Lack of role models from lecturers and nurses when providing palliative care ● Learning time is too long and the material provided is too much ● Lecture method tends to be boring 	<ul style="list-style-type: none"> ● Palliative care needs to be included in the institution's mandatory curriculum ● Interesting learning methods can increase interaction between students and teaching ● Provide experiences for caring for families with similar conditions

13	Glover <i>et al</i> (2018) USA	For analyze more formally the learning experiences of nursing students as they give <i>comfort shawls</i> for patients	Qualitative study	9 senior nursing students		<ul style="list-style-type: none"> ● Learning with in-person visits ● Direct experiences when providing palliative care to palliative patients
14	Price <i>et al</i> (2019) UK	To examine the experiences of midwifery and pediatric nursing students on initiatives IPE in developing knowledge about perinatal/ neonatal palliative care	Mix method study	39 final year midwifery students and 34 pediatric nursing students		<ul style="list-style-type: none"> ● Learn about perinatal/neonatal palliative care by listening to mothers' experiences (Memorable learning) ● group work discussion with midwifery students ● IPE Workshop
15	Lian <i>et al</i> (2019) China	to describe the reflections of first to third year nursing students on caring for end-of-life patients in the context of young volunteer services in China.	Qualitative study	11 first year to third year nursing students	<ul style="list-style-type: none"> ● Lack of knowledge and skills ● Communication (language) barriers ● Lack of support from nurses 	<ul style="list-style-type: none"> ● Direct delivery of palliative care to patients ● Compulsory learning about palliative care ● learning by doing/clinical training is more useful. ● Learning with experienced staff ● Verbal and nonverbal communication skills ● Importance of providing care with a sincere heart ● Experience in providing direct care to patients

16	Li RN et al (2019) USA	To evaluate students' perspectives on palliative care education in curriculum and practical experience	Mix method study	37 nursing students	<ul style="list-style-type: none"> • Lack of clear terminology and inconsistency use of terms • Students do not have prior spiritual knowledge 	<ul style="list-style-type: none"> • Clinical exposure • Simulation methods improve the experience • Learning methods are made interactive, more flexible, and interesting • Availability of palliative courses in compulsory courses • Palliative care training can improve students' knowledge and attitudes about spiritual and spiritual care
17	Özveren and Kirca (2019) Turkey	To determine the effect of palliative care training on the level of nursing students' perceptions about spirituality and spiritual care	Quasi Experiment pretest and post test group	70 nursing students		
18	Laranjeira, Afonso and Querido (2021) Portugal	to explore the experience of nursing students after conducting a simulation of breaking bad news	Qualitative study	4 th year students (semester 7) (n=30)	<ul style="list-style-type: none"> • A short simulation classes • Nervous and lack of confidence about communication skills 	<ul style="list-style-type: none"> • Reflective learning using the Gibbs' cycle model of learning with simulation or role playing on breaking bad news • Communication education about breaking bad news • Effective feedback
19	Gillan, Jeong and van der Riet (2021) Australia	To find out the experiences of students providing end-of-life care using a simulator	Qualitative study	128 nursing students	<ul style="list-style-type: none"> • Difficult to communicate with current clients at talking about death • Fear of facing the client's death, difficulty empathizing 	<ul style="list-style-type: none"> • Learning with the simulation method can provide reflection for students when providing palliative care directly • Simulation increases knowledge and confidence
20	Valen, Simonsen, Lise, et al (2021)	To determine the effect of palliative care simulation learning on	Quasi experimental	55 nursing students	<ul style="list-style-type: none"> • Simulation given after practice in hospital does not show 	<ul style="list-style-type: none"> • Palliative care simulation has increased knowledge, skills and

	Norway	nursing students after simulation and after hospital placement practice			positive effect	competence ● Simulation has provided prior experience in hospital practice
21	Cao <i>et al</i> (2022) China	To critically explore the current state of education regarding end-of-life care from the perspective of undergraduate nursing undergraduate students.	Qualitative study	15 nursing students	<ul style="list-style-type: none"> ● Limited learning materials ● Very limited study time ● Too much to learn making it difficult to remember ● Difficult to provide patient care assistance because the problem is very complex ● Refusal of death from family ● Cultural differences in family 	<ul style="list-style-type: none"> ● Clinical practice encourages and consolidates student knowledge, skills, and confidence ● Directions from nurses during practice help students provide optimal care ● Use of information technology to help communicate with families
22	Hökkä, Lehto, <i>et al</i> (2022) Finland	To describe the perspective of nursing students about the development of palliative care education	Qualitative study	766 final year nursing students	<ul style="list-style-type: none"> ● Learning time is relatively short ● Learning methods are not interesting ● Lack of practical opportunities in the clinic ● Limited material content ● Lack of confidence in abilities ● Lack of teaching competence among staff 	<ul style="list-style-type: none"> ● Obtaining formal education ● Learning methods with case studies, discussions, and simulations enhance experience ● Intrinsic motivation to learn palliative care ● Previous experience in clinical practice of palliative care
23	Minosso <i>et al</i> (2022) Portugal	To identify nursing students' perceptions and knowledge about palliative care and compare them with clinical practice experience	Mixed-methods study	15 final year nursing students	<ul style="list-style-type: none"> ● Learning is too focused on medical care ● Limited reading resources available on campus ● Lack of training on palliative care 	<ul style="list-style-type: none"> ● Knowledge of non-pharmacological therapies ● Internship experiences in clinics improve skills