The use of games by nurses in palliative care: a scoping review

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Abstract

Background: Nursing is at the forefront of palliative care. Games are an innovative strategy in palliative care training. **Aims**: This study aimed to examine the usefulness of games for nurses in palliative care. Methods: A scoping review was conducted using the following databases: CINAHL and PUBMED (which includes MEDLINE, PsycINFO, SCOPUS and SciELO). The steps outlined by the Joanna Briggs Institute were followed. **Findings**: Of the 685 articles initially identified, 17 were included for analysis. Games used were role-play (n=12), card games (n=1), digital games (n=1), board games (n=1), reflection games (n=1) and experimental games (n=1). Games were aimed at nurses (n=6) and nursing students (n=11). Game advantages included: improved palliative care knowledge, increased communication skills, reduced negative emotions and increased multidisciplinary team skills. **Conclusions**: Effective and innovative pedagogical techniques are required training techniques for nurses and nursing students who provide palliative care, as they can reduce negative emotions such as fear, anguish and guilt.

Key words: ● nursing ● games ● palliative care ● review ● knowledge

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Palliative care provides a comprehensive and integrated response to the complex needs of people with a chronic, advanced and irreversible disease and a limited prognosis for life. Palliative services provide support for families during and after the palliative period, as well a response relief from distress and anguish related to health conditions that threaten or limit life; they are also a global imperative for health and equity (Knaul et al, 2018). End-of-life care is aimed at both the patient and the family, with an estimable prognosis of months of life, and favours the quality of life and the development of human wellbeing and dignity of care (Amblàs-Novellas et al, 2016).

Death and dying affect all health professionals throughout their professional life (Gibbins et al, 2011). Nurses play an essential supportive role during the dying process and after death; however, they often acknowledge that they do not feel able for the task (Parry, 2011; Gorchs-Font, 2021).

Games are an innovative strategy that can help prepare nursing students to provide quality end-of-life care (EOLC) (Gillan et al, 2013b). Talking about end-of-life issues is often difficult for patients, families and healthcare professionals, particularly nurses (Li et al, 2021). There has

been increasing recognition of the potential of games to develop these skills in students and palliative care health professionals (Coyle et al, 2015; Grudzen et al, 2016; Li et al, 2021). Games in palliative care can support the promotion of quality care and facilitate an understanding of the value of accompanying the patient and family (Alonso et al, 2018), as well as offer an innovative approach to overcoming reluctance and resistance to discussing uncomfortable topics about EOLC and death (Radhakrishnan et al, 2019).

Background

Palliative and EOLC are prioritised in global policy agendas (Worldwide Hospice Palliative Care Alliance, 2020) and in the interdisciplinary academic area (Higginson, 2016). Hospice care should be provided by multidisciplinary teams in different health contexts, as it often represents the final opportunity for quality social and health care before death. Nurses are at the forefront of care for patients with incurable or serious illness, in advanced, progressive and end-of-life stages. They deal with the physical, emotional and relational dimensions of death in different contexts of care. Exposure to the death process of others makes us aware of our own mortality, which can cause

high levels of anxiety in these health professionals. These issues are very complex and challenging for the person and family in palliative and end-of-life situations, health professionals and political managers. Therefore, it is important that the training of these professionals aims to improve their self-confidence and reduce the level of stress in caring for a person and family at the end of life (Jones et al, 2020).

Games have emerged as a promising educational technique in several domains (Vlachopoulos and Makri, 2017). Lu and Kharrazi (2018), through a systematic research analysis, identified healthcare as one of the primary fields that would benefit from the use of educational games.

In contrast to traditional educational techniques, games in health focus on the ease of providing a risk-free environment for users, allowing them to practise high-risk tasks and experience unpredictable results (Pannese et al, 2013). Health professionals and students in the health field, who use serious games, consider them a substantial and useful educational technique (Kron et al, 2010). Clinical educators also consider games an attractive and engaging educational tool that enables dynamic and interactive learning (Gorbanev et al, 2018; Sipiyaruk et al, 2018). A serious game is not primarily intended for entertainment. The adjective 'serious' is often used to refer to games adopted by complex industries such as defence, education, scientific exploration, medical care, emergency management, urban planning, engineering and politics (Warsinsky et al, 2021).

In the context of palliative care, games are a useful tool to facilitate the development of interpersonal relationships between health professionals and patients, families and the multidisciplinary team (Grudzen et al, 2016). They also allow the development of skills to face the process of death and dying (Roth et al, 2019) and facilitate the communication of bad news (Skye et al, 2014; Tanzi et al, 2020).

Despite the growing popularity of games in the health field, there are no published reports that discuss the usefulness of games in nursing, or in the wider context of palliative care. This is the first review to provide a historical overview of the type of games used by nurses and nursing students in palliative care, and the advantages of such an application.

Methods

Design

This review used the methodology and steps outlined by the Joanna Briggs Institute (JBI) (Peters et al, 2015) to conduct a scope analysis. This involves defining the objective, the research question, inclusion and exclusion criteria, describing the planning, performing data selection, and analysing and summarising the evidence.

The present review aimed to examine the existing research on the use of games for nurses and nursing students in palliative care. This would allow the identification of relevant issues to help advance evidence-based health, increase knowledge and identify gaps.

The present review was guided by the following research question: what is the use of nurse-orientated games in the context of palliative care?

The objectives of this scoping review were to:
- Examine how nurses use games in palliative care
- Identify the type of game most used by nurses in palliative care
- Examine the advantages of nurses using games in palliative care.

Search methods

All studies with reference to the use of games were considered as inclusion criteria. Games considered included serious games, board games, card games, simulation games and role-play games, among others. Regarding the type of participants, studies focused on nursing students and nurses in need of training in palliative and EOLC. No time limits were placed on database searches or inclusion criteria.

The survey was conducted in February 2021, using the following subject-specific databases: CINAHL, PUBMED, which includes MEDLINE, PsycINFO, SCOPUS and SciELO.

The authors constructed the research question based on elements that would allow for the construction of the population, concept and context (PCC) acronym, which in turn guided the definition of the inclusion criteria. Terms were defined as follows:
- Population-nurses/nursing students
- Concept-games
- Context-palliative care.

The authors constructed the navigation phrases using Boolean logic and some variations of the same word. This allowed the search to be enhanced. Special attention was paid to keywords during navigation to ensure consistency in searches, building the appropriate phrases for each database. A search for additional studies was also performed in the reference lists of all publications included in the review (a method known as 'backward citation searching').

Study selection and data extraction were performed by two independent authors (MCGL, CSF). Differences were resolved by consensus with a third author (MBRCV). The Rayyan QCRI (Web Systematic Reviews) platform was used for the data selection process.

The screening and inclusion of relevant studies was guided by the preferred reporting items for systematic reviews and meta-analyses (PRISMA) approach. Information extracted from each study was aggregated to provide a descriptive summary of the research. Data were compiled into descriptive tables.

Results

A total 685 articles were initially identified, with a final 17 studies being included following a comparison to the inclusion criteria (*Figure 1*).

Study characteristics

Table 1 summarises the studies, including authors, year, country, study aim and design. The studies were coded from E1 to E17 to facilitate the presentation and analysis of results. Most studies included in this scoping review were conducted in the US (n=12) and Australia (n=2). One study was conducted in each of Switzerland, Spain and Japan (*Table1*). A total of 11 studies used a quantitative design and six used a qualitative design. Included studies were published between 2003 and 2020. *Table 1* also shows the year of publication of the studies included in this scoping review. Regarding the type of game used, most games were role-play (n=12), but others also included card games (n=1), digital games (n=1), board games (n=1), games of reflection (n=1) and experimental games (n=1).

The games were aimed at nurses (n=6) and nursing students (n=11). However, some studies also included other health professionals, such as physicians, medical students, pharmacists and social workers (E3, E4, E6, E7). The sample size of the studies ranged from 15 to 370, for a total of 1482 nurses and nursing students.

Aims of the games

Most of the games analysed in this study focused on developing skills to improve communication between nurses/nursing students, patients and families in palliative care (E3, E4, E5, E7, E11, E15, E17), as well as developing the communication skills necessary to function in a multidisciplinary team (E1, E3, E16). Another game objective was to increase the levels of self-confidence of nurses/nursing students in addressing the theme of death and the process of dying (E2, E6, E8, E10, E14, E15, E17). In this way, games were used to reduce fear when approaching potentially difficult and emotionally charged conversations, which, in turn, helped the healthcare professional to control the emotional charge from witnessing the death of a patient (E6, E11). Games also aimed to improve the knowledge of nurses/nursing students about the philosophy of palliative care (E1, E9, E12, E13, E15). Collectively, the games sought to increase the healthcare professional's awareness of the challenges experienced by the patient and their family in the face of an incurable and progressive disease.

Discussion

This scoping-type review allowed the authors to examine the type of games used by nurses/nursing students and to understand the advantages of using them to develop the theme of palliative care. This review is the first to identify and gather all types of games used in the training of these professionals in palliative care and summarise their advantages in palliative care training.

Type of games used by nurses/nursing students

The analysis of the articles included in this review revealed that nurses/nursing students used role-playing games the most. Additionally, nursing students considered role-playing a very valuable strategy to complement academic training in palliative care (Fluharty et al, 2012; Gillan et al, 2013a; Gillan et al, 2013b).

Role-playing allowed nurses/nursing students to develop relational skills in the field of communication, whether with patients and families (Betcher, 2010; Shannon et al, 2011; Fluharty et al, 2012; Gillan et al, 2013b; Hamilton et al, 2014; Erickson et al, 2015; Ichikawa et al, 2016, Harder and Turner, 2020) or with the multidisciplinary team (Gillan et al, 2013a; Erickson et al, 2015; Charmillot and Gobron, 2017). Other types of games were also mentioned as beneficial in the development of EOLC skills and understanding of the palliative care philosophy. These games included a board game (Kopp and Hanson, 2012), digital game (Charmillot and Gobron, 2017), reflection game (Kenny, 2003), card game (Hudnall and Kopecky, 2020), and an experimental game (Alonso et al, 2018). This teaching strategy is based on the teaching model of 'learning to learn' and uses methodologies that address motivation, creativity, integration and continuous evaluation. This model is able to drive adaptation

to societal changes in a seemingly natural way (López-Aguado and López-Alonso, 2013). This is in line with the model proposed in Bologna (process of intergovernmental reform at European level that aims to materialise the European Higher Education Area), which makes students the protagonists of their learning and encourages the acquisition of knowledge, skills and abilities that will allow them to develop the required competencies in their professional field (Ramón et al, 2015). Similar results were found in other studies, which mainly used role-play, with roles played by other people, including actors, to train students and health professionals regarding the philosophy of palliative care (Skye et al, 2014; Subramanian and Sathanandan, 2016; Tanzi et al, 2020).

Advantages of the use of games by nurses/nursing students

This review showed strong evidence that games benefit the training of nurses in the provision of palliative care and EOLC. Specifically, games were shown to help nurses develop strategies to deal with death and the dying process (Gillan et al, 2013b; Coyle et al, 2015; Alonso et al, 2018), as well as strategies to build self-confidence and deal with negative emotions experienced by people at the end of life (Kenny, 2003; Betcher, 2010; Hudnall and Kopecky, 2020). Further advantages include helping nurses recognise the high levels of distress that patients and families in palliative care endure as a result of loss (Twycross, 2003).

Participants also felt that the use of the games broadened nurses' understanding of the palliative care philosophy and enhanced their skills at communicating bad news (Alonso et al, 2018). Additionally, games were shown to promote a higher quality of care and increase the patients' appreciation of the importance of the company of health professionals during their end-of-life stage (Radhakrishnan et al, 2019). Finally, games were shown to offer an innovative approach to overcoming reluctance and resistance to discussing uncomfortable topics about care during the end-of-life and death (Radhakrishnan et al, 2019).

Collectively, this review made it possible to identify other advantages of using games in the training of nurses and nursing students.

Improve knowledge about palliative care

There is worldwide concern regarding the education of nurses and physicians who provide palliative and EOLC (Centeno et al, 2017). As the population ages and the incidence of
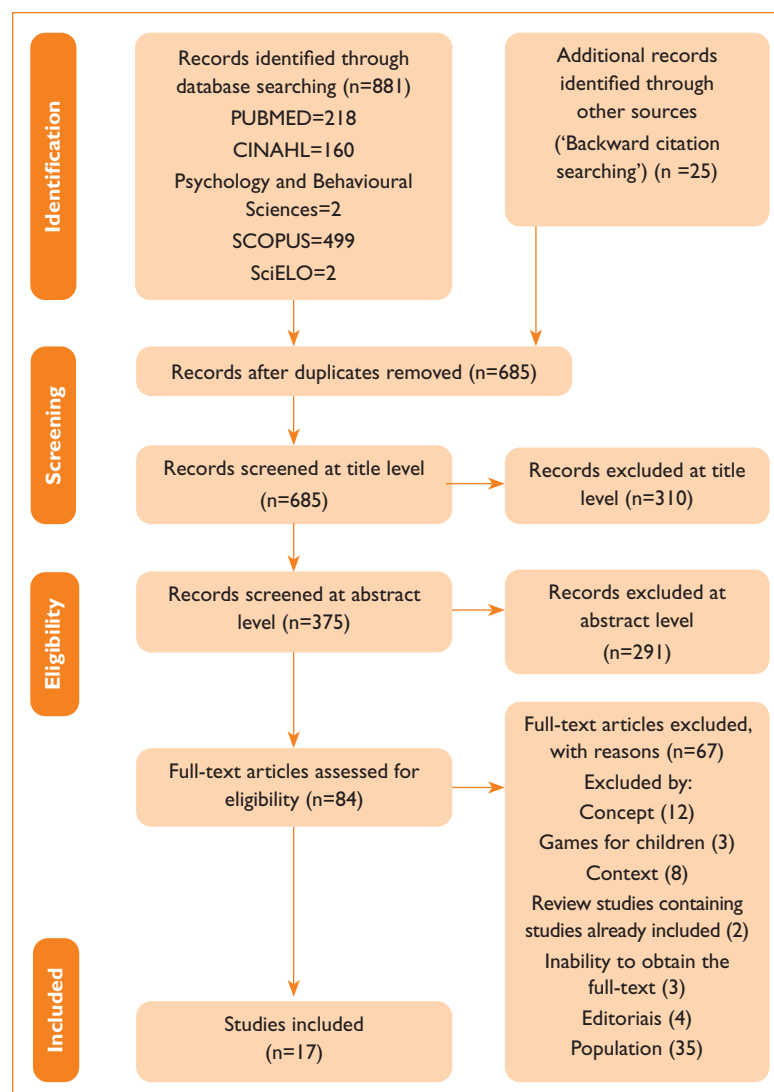

Figure 1. PRISMA flowchart of the study selection and inclusion process

chronic health conditions increases, the need for quality EOLC as part of the continuum of care also increases (Morin et al, 2017). The nurses who participated in the studies found it easier to mobilise their own emotional knowledge and awareness in view of the another's death (Charmillot and Gobron, 2017). The research findings show innovative strategies that allowed nursing students to develop knowledge regarding the philosophy of palliative care and the end of life throughout their course.

These strategies included high-fidelity simulations and using an end-of-life scenario and an experimental gaming simulation with the following objectives: prioritising the management of nursing care for the end-of-life person; evaluating the results of care and nursing interventions; and modifying care according to the needs of the end-of-life person (Kopp and Hanson, 2012).

Table 1. Study characteristics					
Code	**Authors**	**Year**	**Country**	**Aim**	**Study design**
E1	Charmillot and Gobron	2017	Switzerland	Determine the most appropriate environment for teaching relational skills in palliative care and understand the impact of the game 'Serious Game - End of Life (SG-EoL)'	Quasi-experimental study
E2	Betcher	2010	US	Describe an educational programme to help nurses communicate effectively with the person and family in palliative care	Descriptive study
E3	Erickson et al	2014	US	Assess the effectiveness of an interprofessional workshop regarding teamwork and communication in difficult situations	Quasi-experimental study
E4	Hamilton et al	2014	US	Develop communication skills of nurses and social workers in palliative care	Randomised experimental study
E5	Harder and Turner	2020	US	Describe an innovative simulation-based experience using a ShadowBox; an approach used to promote decision-making using videos	Descriptive study
E6	Hudnall and Kopecky	2020	US	Provide a platform to practise statements of empathy in a low-risk environment before taking responsibility for patient care	Descriptive study
E7	Ichikawa et al	2016	Japan	Reducing the difficulties experienced by patients and families in care when returning home	Pilot study
E8	Kenny	2003	US	Develop skills to apply reflective thinking in clinical practice in palliative care through the six thinking hats created by Bono (1995)	Case study
E9	Kopp and Hanson	2012	US	Describe the use of simulation board games as an innovative teaching strategy to develop the skills of nursing undergraduate students in caring for the person and family at the end of life	Descriptive study
E10	Alonso et al	2018	Spain	To evaluate the effect of a game-based training programme in a classroom with nursing students in the palliative care discipline	Quasi-experimental study
E11	Shannon et al	2011	US	Describe a workshop with communication tools for conversations in end-of-life care (EOLC)	Descriptive study
E12	Thrane	2020	US	Describe the development of an online course for nursing students in palliative and EOLC	Pilot study
E13	Bodine and Miller	2017	US	Determining which of the educational approaches was most effective in increasing emergency nurses' knowledge about EOLC	Pilot study
E14	Coyle et al	2015	US	Adapt an EOLC communication skills training module, originally developed for oncologists, for oncology nurses	Pilot study
E15	Fluharty et al	2012	US	Assess knowledge, self-confidence levels and self-reported communication skills in the care of an end-of-life patient, as well as satisfaction with the high-fidelity simulation	Quasi-experimental study
E16	Gillan et al	2013a	Australia	Discuss the qualitative results obtained in student assessments, conducted after an interprofessional workshop on EOLC	Pilot study
E17	Gillan et al	2013b	Australia	Describe the development and implementation of an EOLC simulation in a group of 3rd year nursing students	Pilot study

The games helped students understand that palliative care aims to respond to the needs of patients and end-of-life families, as well as alleviate their physical and emotional distress (Kopp and Hanson, 2012). They also allowed students to reflect on the changes in a person's life that are associated with an incurable and progressive disease, as well as understand the importance of empathising with patients who face this challenge (Hudnall and Kopecky, 2020). Integrating palliative care education is needed as the mainstay to improve students' knowledge and the nursing profession as a whole. This education needs to be comprehensive in covering the basic principles of palliative care and symptom management (Al-Qadire, 2014).

Increase communication skills in palliative care

Adequate communication with the patient and family is one of the fundamental pillars of palliative care. Active listening is a key strategy for promoting dignity, as it helps the patient and family find meaning in the experience. It is essential for nurses to develop communication skills in palliative care, as they are the health professionals with the longest contact time with such patients. The present review found that game-based learning experiences can be used to complement students' didactic teaching and nurses' clinical experiences in the following:

● Developing skills to communicate with the end-of-life patient (Hamilton et al, 2014; Brighton et al, 2017; Alonso et al, 2018)

- Skills to lead family conferences (Ichikawa et al, 2016)
- Increase strategies to address potentially difficult and emotionally charged conversations (Shannon et al, 2011)
- Develop strategies to support clinical decision-making (Kenny 2003).

During simulations, videos and teaching material relating to a real problem situation are used to confront students about the strategy they would use to solve the situation. A final debriefing is carried out based on a reflective best practice model (Harder and Turner 2020).

Reduce negative emotions

Effective and innovative pedagogical techniques are necessary to reduce the negative emotions that nursing students may experience (fear, anguish, guilt) after being exposed to people and families at the end of life (Poultney et al, 2014). It is common for nursing students and newly graduated nurses to feel ill-prepared to enter a person's room in an emotionally distressed palliative situation (Harder and Turner, 2020). Involving students in EOLC and providing adequate preparation and support can influence their experience and the care they will provide in the future (Ranse et al, 2018).

Role-play acted as a facilitating agent and helped nurses to understand and articulate the hidden feelings of fear and loss behind the person's and family's emotional reactions. These measures increased the healthcare professional's confidence in discussing the topics of death, dying and patient goals during their EOLC (Coyle et al, 2015).

Grudzen et al (2016) highlight many other advantages of this pedagogical technique, including role modelling and the practice of skills, such as: improving the care provided to people in palliative care; increasing the self-efficacy of health professionals; developing strategies to ensure effective communication of bad news and care planning; the capacity to alleviate family and patient doubt; and increased confidence in handing potential confrontation.

These strategies can avoid the exhaustion of the health professional and ensure they remain protected (Hudnall and Kopecky, 2020). The game space allows for the expression of emotions. Therefore, it enhances nurses'/nursing students' skills in demonstrating an understanding and respect for the emotional content, given the proximity of death to the patient and the impact their passing will have on the family. Collectively, these measures ensure that palliative care remains the image of dignity with which the communities face disease, life and death (Alonso et al, 2018).

Develop skills to work in a multidisciplinary team

Health professionals, particularly nurses, are essential elements in monitoring people in the end-of-life stage (Charmillot and Gobron, 2017). This task requires a high-level interpersonal relationship, which underpins quality care (Gillan et al, 2013b). Interprofessional collaboration ensures safe and effective care, centred on the patient and family at the end of life, as well as the protection of the professional (Charmillot and Gobron, 2017). Role-play allowed nursing students to develop new perspectives on teamwork and a deeper understanding of the philosophy of palliative care (Charmillot and Gobron, 2017). Interprofessional education and simulation are becoming important strategies for providing healthcare students with opportunities to learn interprofessional skills (Gillan et al, 2013b). The 'Serious Game' was found to be another teaching and training tool with a high potential in the education of young nurses, as it promoted inter-relational reflection about clinical practice in complex end-of-life situations (Charmillot and Gobron, 2017).

Limitations

Limitations of this study include the methodological variability of the included studies—12 of the 17 studies were descriptive, pilot studies or case studies. The authors strong believe that further research in the area of games is necessary in order to create serious games that can help nurses improve the practice of palliative care. Role-play games are an excellent strategy to facilitate the communication of bad news between the nurse, patient and family in palliative and end-of-life situations. In the future, the authors of the article intend to contribute to the creation and validation of a card game that aims to help the person and the family in palliative care communicate feelings, values and preferences for the last days/months of life.

Conclusion

The use of games proved to be a very beneficial strategy to complement the academic and professional training of nurses/nursing students in palliative care. Role-playing games are the most-used option by nurses/nursing students, as they are a useful way to develop relational and communication skills with the patient, family and wider multidisciplinary team. The advantage of using games in health professionals' training was a concern that guided this research. The present study showed strong evidence supporting the benefit of using games in training nurses to

provide palliative and EOLC, develop strategies for dealing with death and the dying process, as well as increase healthcare professionals' self-confidence in discussing death, dying and EOLC goals with patients and their families.

Effective and innovative pedagogical techniques, such as games, are a critical tool in ensuring that nurses/nursing students are able to handle the negative emotions (such as fear, anguish and guilt) that they may experience in their palliative roles. *IJPN*

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Key points

- Games are a beneficial strategy to complement the academic and professional training of nurses/nursing students in palliative care

- Games allowed nurses/nursing students to increase their perception of palliative care and end-of-life care, as well as their level of self-confidence in speaking to patients and family members about death, dying and end-of-life care goals

- The nurses who participated in the games found it easier to mobilise the acquired knowledge and exhibited improved awareness of their own emotional knowledge.

CPD reflective questions

- To what extent are nursing students prepared for hospice and end-of-life care?

- In addition to traditional educational strategies, what other innovative strategies can be used to help nurses/nursing students provide better palliative and end-of-life care?

- What are the advantages of games in the academic and professional training of nurses/nursing students in palliative care?

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