REGISTERED NURSES' PROVISION OF END-OF-LIFE CARE TO HOSPITALISED
ADULTS: A MIXED STUDIES REVIEW

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ABSTRACT

Objectives: To describe, critically appraise and synthesise research regarding nurses' perceptions of their knowledge, skills or experiences in providing end-of-life care to hospitalised adults to help inform both future educational and practice initiatives.

Design: Mixed studies review.

Data Sources: MEDLINE, CINAHL, Cochrane Library, Web of Science and SCOPUS databases were searched for the years 2004 – June 2018, along with journal hand-searching and reference list searching.

Review Methods: Two independent reviewers screened the titles and abstracts of studies. Data extraction and quality assessment using the Mixed Methods Appraisal Tool was conducted independently by two reviewers. Disagreements were adjudicated by a third reviewer. Study findings were synthesised thematically.

Results: Nineteen studies met the inclusion criteria. Of them, ten were quantitative, eight qualitative and one mixed-method. All but one quantitative study were conducted in the United States and all but one used some form of survey. The qualitative studies were conducted in a variety of countries and all but one used some form of interview for data collection. Five themes were identified including nurse as a protecting provider, nurse as an advocate, nurse as a reflective practitioner, obstacles to providing quality end-of-life care and aids to providing quality end-of-life care.

Conclusions: Registered Nurses have aligned their end-of-life care with practice with the profession's expectations and are enacting a patient centred approach to their practice. They rely on reflective practices and on the support of others to overcome organisational, educational and emotional the challenges they to providing quality end-of-life care.

KEYWORDS

- End-of-life care
- Palliative care
- Mixed study review
- Patient Advocacy
- Reflective practitioner
- Clinical Competence
- Systematic review

Registered Nurses' Provision of End-Of-Life Care to Hospitalised Adults: A Mixed Studies Review

INTRODUCTION

The demand for end-of-life care (EOLC) is expected to continue rising (Etkind et al., 2017). This is largely a consequence of population growth over the decades, extended life expectancy, and the concurrent increase in chronic, debilitating conditions such as dementia (O'Shea et al., 2015; Teitelbaum et al., 2013). Many individuals prefer to die at home (Brogaard et al., 2013; Department of Health, 2008; Neergaard et al., 2011; Shepperd et al., 2011) or in nursing homes (Costa et al., 2016). Yet in many countries such as Australia (Swerissen & Duckett, 2014), Canada (Kiyanda et al., 2015), Ireland (O'Shea et al., 2015) and Thailand (Nagaviroj & Anothaisintawee, 2017), a significant proportion of patients will die in acute care settings, suggesting acute care nurses will be providing some of this care. But, the extent to which the nursing workforce are equipped and enable to provide proficient EOLC has been questioned (Todaro-Franceschi, 2013; White et al., 2001). While a large body of literature focuses on palliative care as a nursing specialty, there is also a need to better understand specific aspects of palliative care such as EOLC (Department of Health, 2008; Department of Health and Children, 2001; Forero et al., 2012). This mixed studies review focuses on nurses' perceptions of their knowledge, skills or experiences in providing EOLC to hospitalised adults. It describes, critically appraises and synthesises the research, to help inform both future educational and practice initiatives.

BACKGROUND

The term EOLC has been frequently used interchangeably with 'terminal care', 'palliative care', and 'hospice care', generating confusion (Pastrana et al., 2008). Together, these approaches of care focus on treatment of pain; managing physical symptoms; the relief

of social, spiritual and emotional suffering; helping patients with decision making; ensuring that their wishes for care are followed; teaching families and caregivers how to act around their loved ones; and providing holistic support to dying patients and their families (National Consensus Project for Quality Palliative Care, 2013). Notwithstanding, distinctions exist between these terms (Radbruch and Payne, 2009).

The World Health Organization (WHO) defines palliative care as ‘an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual’ (WHO, 2018). EOLC is a distinct part of palliative care (National Cancer Institute, 2012; National Health Service England, 2015). There is no real consensus on the definition of the end-of-life (EOL) period as it is largely dependent on the patient’s condition (Beck-Friis & Strang, 1993; National Health Service England, 2015; Radbruch & Payne, 2009). However, it is the time during which treatments and procedures are focused on physical, spiritual, social and emotional comfort (CareSearch, 2017; Radbruch & Payne, 2009).

Unsurprisingly, nurses play an integral role in EOLC, and are expected to provide individualised, holistic, patient-centred care (Moorhead et al., 2012). Yet, studies suggest that nurses may lack the knowledge, skills and experiences required to provide this type of quality EOLC (Arantzamendi et al., 2012; Holms et al., 2014). Previous reviews related to EOLC have focused on specific nursing interventions such as sedation (Abarshi et al., 2014), managing dying patients (Forero et al., 2012), maintaining patient dignity (Guo & Jacelon, 2014), care of prisoners (Wion & Loeb, 2016), and the methods, designs and research foci of palliative care (Henoch et al., 2016). No reviews were found that holistically examined the knowledge, skills and experiences nurses use to provide EOLC.

THE REVIEW

Design

A mixed studies review (Pluye & Hong, 2014), a type of systematic review that synthesises results from studies using diverse designs, was undertaken. The review was conducted in seven stages: 1) formulate a review question; 2) define eligibility criteria; 3) apply an extensive search strategy; 4) identify potential relevant studies; 5) select relevant studies; 6) appraise the quality of included studies; and 7) synthesise included studies (Pluye & Hong, 2014). The methods section has been written according to these steps. Throughout the review, regular team meetings occurred, which were monitored by the senior author (WC), experienced in undertaking a variety of systematic review methodologies, to ensure the progress and integrity of this review.

Formulate a review question

This mixed studies review was designed to answer the question: What are Registered Nurses' perceptions of their knowledge, skills or experiences in providing EOLC to hospitalised adults?

Define eligibility criteria

In the second stage of the review (Pluye & Hong, 2014), the following inclusion criteria was specified: 1) the sample was Registered Nurses working in hospitals; 2) research focused on the knowledge, skills or experiences of providing EOLC; 3) involved adult patients; and 4) empirical, full-text studies, in English, French or Spanish. This time period was chosen because the first comprehensive, high-quality, palliative care service guidelines for nurses were published in 2004 (Ferrer et al., 2007).

Studies were excluded if they involved: 1) nursing students because they are not yet considered professionals with the appropriate educational preparation and capacity to provide EOLC; 2) Nurse Practitioners who have had dissimilar educational preparation and scope of practice to Registered Nurses; 3) research set in hospice wards/centres as nurses working in these areas would be expected to have specialised EOLC skills; 4) nurses' response to the death of a patient, as this does not reflect the provision of EOLC itself; and 5) specific interventions or activities related to providing EOLC such as sedation or analgesic practices, as these aspects have been the focus of previous reviews, where this review intended to consider the holistic provision of EOLC. There was no restriction on study designs.

Apply an extensive search strategy

In the third stage in the review (Pluye & Hong, 2014), a comprehensive literature search with the assistance of a health librarian was conducted. The search dates were between 2004 and 2016 and then it was rerun in June, 2018. A systematic, computerised database search was performed in MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, Web of Science and SCOPUS. Databases were selected according to topic suitability and comprehensiveness (Pluye & Hong, 2014). The SPIDER (Sample, Phenomenon of Interest, Design, Evaluation and Research) tool (Cooke et al., 2012) was used in developing the search strategy (i.e. the search was pre-planned), which is detailed in Supplementary Table 1. Other recommended search strategies including journal and reference list hand-searching and Google Scholar were also used.

Identify and select potential relevant studies

With the assistance of the librarian, one reviewer undertook the search and two reviewers (CK, WC) independently screened the titles and abstracts and then full texts of the articles to determine studies for inclusion; disagreements were resolved through discussion.

A flow diagram was used to depict the flow of studies in the review, reflecting the fourth and fifth stages of the review (Pluye & Hong, 2014).

Appraise the quality of included studies

In the sixth stage of the review (Pluye & Hong, 2014), critical appraisal of the data was conducted with the use of the Mixed Methods Appraisal Tool (MMAT) version 2011 (Pace et al., 2012). The MMAT is valid and reliable, allowing for concurrent evaluations of quantitative, qualitative and mixed methods studies, making it an appropriate appraisal tool for this review. The studies were assessed against MMAT criteria and assigned quality scores ranging from 0 (no criteria met), through to 3 or 4 (** or **** stars) depending on the type of study. Studies with the lowest quality scores were not excluded to maintain a rich body of data for the synthesis, an approach that others use (Delgado et al., 2017). Two reviewers independently appraised the quality of the studies for qualitative (CK and CB), quantitative (CK and AE), and mixed methods (CK and CB) studies. Discrepancies were resolved by referring to a MMAT tutorial, and where consensus could not be reached, a third reviewer (WC) adjudicated the issue.

Synthesise included studies

Studies were first described and then synthesised. In order to describe the studies, data extracted included: author, year, country, aim, methodological approach, sample and key findings. Because of the proposed synthesis, the quantitative findings were described descriptively (i.e. in words). Two reviewers independently extracted the data for qualitative (CK and CB), quantitative (CK and AE), and mixed methods (CK and CB) studies.

Next, inductive thematic qualitative synthesis, a form of convergent qualitative synthesis, was undertaken (Pluye & Hong, 2014). This allowed for the synthesis of data from both qualitative and quantitative studies. As described by Pluye and Hong (2014),

quantitative data was transformed into narratives (i.e. words), prior to data synthesis. The synthesis was inductive in that the themes were derived from the data and not from a pre-defined theory. It involved reading and rereading the findings sections of the original papers and the findings we extracted into tables, first within and then across studies. Meaningful units of text were coded, grouping similar findings into preliminary themes, which were then refined. Data synthesis was iterative and was undertaken by all members of the team. Regular team meetings were held to continue refining the synthesis. All studies, irrespective of their MMAT score were used in the synthesis, because for the most part low scores were only evident in the quantitative research and were related to the sampling strategy used, thus the findings, while not likely to be generalisable, were likely to be valid for the sample. Where appropriate, the theme labels reflect the terms used in the findings of the original studies.

RESULTS

Descriptive results

A total of 6,998 records were screened, 91 full text articles were assessed for eligibility and 19 articles, all published in English, met the inclusion criteria (Figure 1). Table 1 provides an overview of the 10 quantitative studies. All but one was conducted in the United States (US). Nine used descriptive questionnaires/surveys and one was a randomised controlled study. The participants were members of professional nursing associations in the US or nurses who provided EOLC in a variety of wards. The sample sizes ranged from 95 to 864 nurses. In seven studies, the average years of nursing experience was 15 years or greater. Five studies were performed in medical and surgical units, four in critical care settings and one in the emergency department. No studies included hospital-based hospice units. Quality scores ranged from not meeting any of the criteria to meeting all four criteria (Table 1 and Supplementary Table 2). Limitations included low response rates; a lack of

representativeness of the sample; inadequate sampling strategies; and inappropriate tools to measure constructs (i.e. unclear origin, validity unknown). Insufficient description of how the randomisation schedule was generated was a limitation of the randomised controlled study.

Table 2 provides a summary of data extracted from the eight qualitative studies. Three were conducted in the United Kingdom (UK), two in the US and one each in Australia, Canada and China. Studies used a wide range of methodological designs, including phenomenology (n=2), grounded theory (n=1), qualitative exploratory description (n=3) and interpretive (n=1). Data were collected by semi-structured, face-to-face interviews (n=5), in-depth interviews (n=2), focus groups (n=1) and participant observation (n=1). Two studies gathered data from acute medical hospital wards and six from critical care settings. No studies included hospital-based hospice units. Nurses' experience in practice ranged from 1 to 40 years. All studies scored three or four stars for quality (Table 2 and Supplementary Table 3). There was only one mixed method study (Arantzamendi et al., 2012), conducted in Spain that focused on nurses' preparedness to provide EOLC. It achieved three stars, the highest possible quality score for mixed methods studies (Table 2 and Supplementary Table 4). Overall, the methodological quality scores of the qualitative studies and the single mixed method study were high or very high.

Thematic Synthesis findings

Five themes regarding the provision of EOLC were discovered inductively: nurse as a protecting provider; nurse as an advocate; nurse as a reflective practitioner; obstacles to providing quality EOLC; and aids to providing quality EOLC. The first three themes embody the professional role of the nurse and the last two both descriptive, reflecting influences on professional practice and the delivery of EOLC. Table 3 provides an overview of the origin of the theme labels and verbatim quotes from the primary research that exemplify the themes.

Nurse as a protecting provider

The first theme, nurse as a protecting provider, highlights the essential role nurses play in protecting the dignity, individuality and privacy of dying patients and their families (McCallum & McConigley, 2013; Valiee et al., 2012). Providing compassionate and dignified care to dying patients (Efstathiou & Walker, 2014), offering emotional and spiritual support, as well as ensuring that patients did not feel alone (McCallum & McConigley, 2013; Thompson et al., 2006) were considered important nursing duties. A participant in one study said “recognising that your patient is dying and taking steps to make it a comfortable end” (McCallum & McConigley, 2013). Supporting families, allowing families unlimited access to and time with their loved one and including them as active participants in care were part of this protective role (Efstathiou & Walker, 2014; McCallum & McConigley, 2013; Thompson et al., 2006). Part of being a protective provider involved the provision of physical care such as washing patients and providing eye and mouth care (McCallum & McConigley, 2013). Creating peaceful and dignified bedside scenes after a patients’ death, supporting families after the patient dies, and giving families privacy to be with the body were also part of providing care (Beckstrand et al., 2012; Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2009; Beckstrand et al., 2008). In fact, top ranked supportive nursing behaviours identified in several quantitative studies were allowing families adequate time alone with the patient after death and providing a peaceful and dignified bedside scene for them, also reflecting the protecting provider role (Beckstrand et al., 2012; Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2009; Beckstrand et al., 2008).

Nurse as an advocate

The second theme, nurse as an advocate, portrays patient advocacy as a primary nursing role. Ensuring appropriate medications are given, truly listening to the patients and

their families, documenting the patient's wishes and helping the family to let go of their loved one were described by nurses as forms of advocating for dying patients and their families (Arbour & Wiegand, 2014). Nurses said this role included advocating for patients with other health professionals for the transition from aggressive medical interventions to palliative care when appropriate (Arbour & Wiegand, 2014; Valiee et al., 2012). One participant stated "even though you are the patient advocate they just keep trying and trying and you can see the patient is struggling" (McCallum & McConigley, 2013). Being a patient advocates meant they tried to honour dying patients' and their family's decisions (Arbour & Wiegand, 2014; McCallum & McConigley, 2013; Valiee et al., 2012). However, at times nurses experienced powerlessness and frustration (Efstathiou & Walker, 2014; Holms et al., 2014), anxiety (Mak et al., 2013; Valiee et al., 2012), distress (McCallum & McConigley, 2013) in enacting this role.

Nurse as a reflexive practitioner

The third theme, nurse as a reflexive practitioner, illustrates nurses' meaningful and practical insights towards providing EOLC as a result of reflecting on and learning from their experiences caring for dying patients (Holms et al., 2014; Mak et al., 2013). One participant said "I reflect on what I have done in the entire caring process. What has worked and what I could have done differently." (Mak et al., 2013). These insights and learnings were evident, despite nurses also expressing that they did not feel adequately prepared to provide some aspects of EOLC (Hansen et al., 2009; Mak et al., 2013; Moss et al., 2005). Professional support through training, mentoring and positive experiences facilitated quality EOLC and enhanced nurses' awareness of the value of their practice (Arbour & Wiegand, 2014; Kruse et al., 2008; Mak et al., 2013).

Obstacles to providing quality EOLC

The fourth theme, obstacles to providing quality EOLC, described a variety of factors that hindered nurses' provision of proficient EOLC, which was evident in many studies reviewed. The physical environment including lack of space and poor physical design resulted in a lack of privacy for patients and their families (Beckstrand et al., 2012; Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2009; Beckstrand et al., 2008; McCallum & McConigley, 2013; Thompson et al., 2006). Another reported obstacle was a lack of time to provide quality EOLC (Arantzamendi et al., 2012; Beckstrand et al., 2012; Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2009; Beckstrand et al., 2008; Ingwu et al., 2016). Inadequate educational preparation and a lack of knowledge and skills related to psychosocial, emotional and spiritual management for providing quality EOLC were other obstacles (Arantzamendi et al., 2012; Espinosa et al., 2010; Holms et al., 2014; Ingwu et al., 2016; Moss et al., 2005; White & Coyne, 2011). One participant stated "I don't think that the preparation during the degree has been useful" (Arantzamendi et al., 2012). A variety of family issues such as a lack of understanding of life-sustaining versus EOLC (Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2008), their demands for care (Moss et al., 2005), and family's emotions such as anger and anxiety (Beckstrand et al., 2012; Beckstrand et al., 2009; Valiee et al., 2012) were other obstacles.

Aids to providing quality EOLC

A variety of aids to providing quality EOLC care emerged. Supportive multidisciplinary teams that communicated well (Espinosa et al., 2010; Hansen et al., 2009; Holms et al., 2014; McCallum & McConigley, 2013) was one. One participant stated "good communication for the patient and the families is extremely important so they know the plan" (Holms et al., 2014). This support encompassed having access to pastoral care and social workers (Beckstrand et al., 2012; Beckstrand et al., 2009) and having an agreed plan of care (Beckstrand & Kirchhoff, 2005; Beckstrand et al., 2009; Beckstrand et al., 2008). A second

aid was education in EOLC including specific interventions such as pain and symptom management (Arantzamendi et al., 2012; Arbour & Wiegand, 2014; Moss et al., 2005; Todaro-Franceschi, 2013; White & Coyne, 2011). The gratitude both families (Beckstrand & Kirchhoff, 2005) and other healthcare professionals (Todaro-Franceschi, 2013) showed towards nurses also emerged as an aid.

DISCUSSION

This mixed studies review revealed that nurses have three key roles within the multidisciplinary EOLC team including being the patient advocate, protecting provider and reflexive practitioner. The roles described in this review are reflective of and align with how professional nursing practice is described in national and international position statements (American Nurses Association, 2010; International Council of Nurses, 2012; Nursing and Midwifery Board of Australia, 2016; Nursing and Midwifery Council, 2015), guidelines on caring for dying patients and their families (National Consensus Project for Quality Palliative Care, 2013) and person-centered care frameworks (McCormack, 2003; Morgan & Yoder, 2012). Our findings are discussed in relation to three contemporary issues in EOLC; provision of individualised, holistic, patient-centred care (McCormack & McCance, 2006), advocating for dying patients (National Health Service England, 2015) and the nursing outcome, dignified life closure (Moorhead et al., 2012).

Individualised, holistic, patient-centred care

The findings suggest that nurses are viewed as the protectors of patients and their families by ensuring their dignity, individuality and privacy during the EOL period. This resonates with both international (International Council of Nurses, 2012) and national statements (American Nurses Association, 2010; Nursing and Midwifery Board of Australia,

2016; Nursing and Midwifery Council, 2015) that claim a nurse's role aims to respect a patient's right to privacy, ensure that patients' dignity is preserved, and that patients' physical, social and psychological needs are recognised and responded to. Consistent with other studies (Hopkinson et al., 2003; Porock et al., 2009), quality EOLC in this review included understanding patients' EOL wishes and providing compassionate and dignified care to patients and their families, ensuring physical as well as psychosocial, emotional and spiritual care.

Nurses in the studies reviewed described how they sought to understand and respect patients' and families' wishes, which is consistent with patient-centred care (McCormack & McCance, 2006; Morgan & Yoder, 2012). Patient-centred care processes have been described as a focus on respecting patients' beliefs and values, helping them in decision-making and ensuring that the patient's wishes are followed (Ekman et al., 2011; McCormack & McCance, 2006; Morgan & Yoder, 2012). They also include managing physical symptoms, relieving emotional or spiritual suffering including and taking care of relatives and fulfilling physical, emotional and spiritual needs (McCormack & McCance, 2006). The reviews findings reflect these patient-centred care processes. Further, findings on supporting the family, inclusive of after the patients' death, have also be described by others (Albinsson & Strang, 2003; McMillen, 2008).

Advocating for dying patients

Nurses perceived their role of patient advocate as an integral part of providing EOLC, which included acting on the patients' behalf when they were unable to make care decisions themselves, respecting their rights, and promoting dignified and holistic care (Arbour & Wiegand, 2014; McCallum & McConigley, 2013; Valiee et al., 2012). These findings are consistent with studies outlining the importance nurses attribute to advocating for the rights, interests and wellbeing of dying patients and their loved ones (Choi, 2015; Negarandeh et al.,

2008; Negarandeh et al., 2006). International and national nursing organisations have incorporated the role of patient advocate into their standards (American Nurses Association, 2010; International Council of Nurses, 2012; Nursing and Midwifery Board of Australia, 2016; Nursing and Midwifery Council, 2015). This further highlights the significance of this caring role.

When trying to enact this advocacy role, others report nurses' stances can be at odds with physicians', which ultimately impacts upon the management of patients EOLC (Calvin et al., 2007; Kirchhoff et al., 2000; Negarandeh et al., 2008). These findings were exemplified in this review when nurses reported a variety of negative emotions, some as a result of poor communication and disagreements with physicians. In addition, the findings of this review mirror those of other research which has shown that medical treatments or interventions that unnecessarily prolong patients' lives, can produce great distress to nurses (Oberle & Hughes, 2001).

We identified that the physical environment and a lack of time were obstacles to providing quality EOLC, as well as negative emotions that nurses' experience. Working conditions are considered predisposing factors for compassion fatigue as these factors culminate to deplete emotional resources, diminish feelings of both personal and work accomplishments and incapacitate nurses to play their roles (Sorenson et al., 2016). Compassion fatigue is therefore considered to be the 'caregivers cost' which may result in physical, emotional or psychological symptoms, and is a consequence of the decisions that healthcare professionals are required to make during the care process (Sorenson et al., 2016). This is particularly intensified when the patient population is palliative or at the end of their lives.

Dignified life closure

This review has the potential to help researchers and other nurses when considering the scope of nursing practice and capturing the effect of nursing care on patient outcomes. Dignified life closure is a nursing outcome in the Nursing Outcomes Classification (NOC), which provides a standardised method for measuring the results of nurse interventions (Moorhead et al., 2012). The NOC is a standardised language for nurses that may facilitate scientific progress of the discipline because it is based on clinical practice, is comprehensive, and is grounded in both qualitative and quantitative research (Moorhead et al., 2012). Dignified life closure is defined as “personal actions to maintain control when approaching the end of life” (Moorhead et al., 2012). If this is an accepted outcome of nursing care, then it follows that nurses have to be able to provide care to meet this criteria and they should be accountable to do so. As highlighted in this review, ensuring that nurses have the necessary educational preparation to provide quality EOLC is a first step. We propose that by being a protecting provider and advocate and by reflecting on experiences, nurses help patients to have a dignified life closure.

Recommendations

From this review a few important recommendations can be made. First, nursing education should provide students or staff with opportunities for interprofessional active learning of non-technical skills such as communication, teamwork and the provision of psychosocial and emotional support. In recent years, teaching and learning methods such as simulation, role play and drama have been used to educate health professionals in non-technical skills and this may facilitate lasting uptake of these core skills (Arvekle et al., 2015; Cant & Cooper, 2010; Foronda et al., 2013). These teaching and learning strategies promote active learning, where participants engage in various activities to ‘practice’ the non-technical but essential skills for providing EOLC. While this review showed that registered nurses learned to develop some of these skills through reflection, mentorship and learning

vicariously from their more experienced colleagues, it seems appropriate to incorporate learning opportunities into formal education.

A second recommendation focuses on organisational change and the obstacles identified in this review. Working conditions, including a lack of time and the physical environment impinge on nurses' ability to provide high quality EOLC; constraints nurses have limited control over. Innovations such as the 'Lotus room', a large and private room strictly set aside for dying patients and their families have been the focus of recent research (Slatyer et al., 2015). This research showed that the Lotus room enabled human connection and promoted communication and holistic support for the dying patients and their family. It highlights how overcoming contextual constraints can enhance patients, families and healthcare professionals' experience during the EOL period. This area of research warrants greater attention in order to elicit concrete evidence that could influence physical structures in the future.

Third, it is important to recognise the relationship between the emotional toll nurses experience when providing EOLC and compassion fatigue. This recognition may result in the use of strategies to prevent compassion fatigue. For example, proactive strategies include 1) a focus on one's own self-care, 2) education related to understanding the risk factors and symptoms of compassion fatigue, 3) good teamwork, and 4) positive working relationships (Sorenson et al., 2016). Our findings demonstrate that supportive multidisciplinary teams who communicate well and display gratitude for the work nurses do are also congruent with these proactive strategies to prevent compassion fatigue.

A fourth set of recommendations focus on future research. The quantitative research reviewed was of variable quality and only one article was a clinical trial. A focus on testing interventions such as innovative EOLC education in rigorous trials will strengthen the body

of evidence and contribute to robust recommendations regarding the provision of EOLC. Given that the findings of this review and recent literature suggests that EOLC coordination needs improvement (Allsop et al., 2017), and that standardised documentation of discussions with patients and family/carers (regarding issues such as the patients' preferred place of death) are lacking (Cox et al., 2011), developing and testing interventions in these areas may represent a research opportunity.

Strengths and limitations

This mixed studies review contains both strengths and limitations. In terms of strengths, we used an accepted and rigorous review process, and a wide variety of studies were included, providing a comprehensive overview of nurses' provision of EOLC. Studies were not limited to specific activities and excluded specialist palliative care nurses and units. Therefore, the findings may be more applicable to other hospital settings. Nevertheless, the varied data made the synthesis process more complex, which can introduce bias, although steps such as clearly documenting the review process and use of two reviewers and an adjudicator were employed to try to limit bias.

Although a well-developed search strategy was utilised, there is the possibility that some relevant articles may have been missed. Searching other databases may have uncovered additional studies. We did not restrict our use of studies that had major methodological limitations in our synthesis, however generally, these studies were quantitative and their limitations related to the sampling strategy. They predominantly contributed to two themes (obstacles and aids to providing quality EOLC); therefore, these themes may have less applicability to other contexts. These themes were also descriptive in nature. Finally, the review did not pose a review question or an a priori hypothesis about potential EOLC differences between specialty groups and the thematic synthesis did not detect differences. Perhaps the core knowledge and skills required in providing quality EOLC does not differ,

but the difference lies in how these competencies are enacted. However, the authorship team acknowledge that roughly half the studies reviewed focused on critical care nurses, which will have influenced the synthesis and resultant themes. Finally, while studies that focused on nurses' responses to providing EOLC were excluded, nurses' emotional responses emerged as an obstacle for providing quality EOLC in the data synthesis. Including this body of literature in future reviews may provide differing insights.

CONCLUSION

This review of nurses' perceptions of their knowledge, skills or experiences in providing EOLC to hospitalised adults helps inform both future educational and practice initiatives. The 19 studies reviewed showed nurses viewed themselves as protecting providers and advocates of care for dying patients. It was evident that they were reflective in their practice, yet they experienced a number of contextual barriers that made it difficult for them to provide quality EOLC. Being part of supportive multidisciplinary teams that communicated well clearly supported nurses in their provision of quality EOLC. Active learning strategies such as the use of simulation, role play and drama may help nurses develop competence and confidence in their provision of EOLC. Other initiatives, such as the adoption of a person-centred philosophy to service delivery and redesigning the physical environment, may help in the provision of quality EOLC. Clearly, further research is needed to find ways to overcome the various obstacles to the provision of quality EOLC.

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Table 1 – Overview of quantitative articles

Author (year) Country	Aim of study	Approach	Sample/ Setting	Key findings	^a Quality Score
Beckstrand and Kirchhoff (2005) USA	To measure critical care nurses' perceptions of both the intensity and frequency of obstacles and supportive behaviours in providing EOLC	<i>Design:</i> descriptive survey <i>Data collection:</i> 72- item mailed questionnaire: - Obstacles: n=29 - Supportive behaviours: n=24	<i>Setting:</i> ICU <i>Sample:</i> randomly selected, national and geographically dispersed 864 nurse members of the AACN (RR=61.3%) with an average of 19 (±8.2) years of RN experience; 15 (±8.7) years of experience in the ICU setting; and 9 (±4.8) years certified as a critical care nurses <i>Inclusion criteria:</i> - Have cared for at least 1 patient who was at the EOL - Ability to read English - Live in the USA - Have worked at least part- time in a critical care setting	- Top five obstacles: 1. Family continually calls nurse for update rather than the designated contact person 2. Family not understanding the term “life-saving measures” and its implications 3. Physicians differing in opinion about care of a patient 4. Physicians evasive and avoid family 5. Nurses too busy offering life-saving measures to provide quality EOLC - Top five supportive behaviours: 1. Family members having adequate time to be alone with the patient after his/her death 2. Family members having a peaceful and dignified bedside scene 3. Families being taught how to act around dying patient 4. Family members show gratitude to nurse for care provided to patient who has died 5. Physicians agreeing about direction of patient care	*****

Beckstrand et al. (2008) USA	To determine the magnitude, frequency, and size of the obstacles and supportive behaviours perceived by emergency nurses who provide EOLC	<p><i>Design:</i> descriptive survey</p> <p><i>Data collection:</i> 70- item mailed questionnaire:</p> <ul style="list-style-type: none"> - Obstacles: n=28 - Supportive behaviours: n=23 	<p><i>Setting:</i> ED</p> <p><i>Sample:</i> randomly selected 272 nurse members of the Emergency Nurses Association (RR=46.3%) with an average of 47 (± 9.5) years nursing experience; 20 (± 10.6) years of experience in ED nursing; and 10 (± 6.7) years as certified emergency nurses</p> <p><i>Inclusion criteria:</i></p> <ul style="list-style-type: none"> - Have cared for at least 1 patient who was at the EOL in an ED 	<p>- Top five obstacles:</p> <ol style="list-style-type: none"> 1. The ED nurse having too high a work load to allow for adequate time to care for dying patients and their families 2. Poor design of emergency departments that do not allow for privacy of dying patients or grieving family members 3. Family members not understanding what “life-saving measures” really mean 4. Not enough time to provide quality EOLC 5. The nurse having to deal with distracted family members while still providing care for the patient <p>***</p> <p>-Top five supportive behaviours:</p> <ol style="list-style-type: none"> 1. Allowing family members adequate time to be alone with the patient after he or she has died
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- Ability to read English
- Live in the USA
- Have worked, at some time, in an ED
- 2. Good communication between the physician and RN who are caring for the dying patient
- 3. Providing a peaceful, dignified bedside scene for family members once the patient has died
- 4. Having the physicians involved in the patient's care agree about the direction care should go
- 5. Teaching families how to act around the dying patient

Beckstrand et al. (2009)	To determine the magnitude of selected obstacles and supportive behaviours in providing EOLC to patients with cancer as perceived by oncology nurses	<p><i>Design:</i> descriptive survey</p> <p><i>Data collection:</i> 68-item mailed "Survey of Oncology Nurses' perceptions of EOLC" questionnaire:</p> <ul style="list-style-type: none"> - Obstacles: n=25 - Supportive behaviours: n=24 	<p><i>Setting:</i> USA (National)</p> <p><i>Sample:</i> 375 nurse members of the ONS (RR=41%) with an average of 18 (± 11.1) years of RN experience; 13 (± 8.3) years in oncology nursing specifically; 7 (± 5.6) years certified as a critical care nurse; and 8 (± 3.1) years as an advanced oncology certified nurses</p>	<ul style="list-style-type: none"> - Top five obstacles: <ol style="list-style-type: none"> 1. Angry family members 2. Families not accepting what the physician tells them about patients poor prognosis 3. Being called away from patients and families to help with a new admission or to help other nurses care for their patients 4. Anxious family members 5. Physicians who insist on aggressive care until patients are actively dying - Top five supportive behaviours: <ol style="list-style-type: none"> 1. Allowing family members adequate time to be alone with patients after death 2. Having social work or palliative care staff as part of 	***
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			<p><i>Inclusion criteria:</i></p> <ul style="list-style-type: none"> - Previously cared for inpatients with cancer - Ability to understand English - Having experience in EOLC were considered eligible 	<p>the patient care team</p> <ol style="list-style-type: none"> 3. Having family members accept that patients are dying 4. Having the physicians involved agree about the directions of patients' care 5. Providing a peaceful bedside scene after patient die
Beckstrand et al. (2012)	To describe the obstacles and supportive behaviours in EOLC as perceived by hospital-based oncology nurses	<p><i>Design:</i> descriptive survey</p> <p><i>Data collection:</i> 69-item mailed questionnaire:</p> <ul style="list-style-type: none"> - Obstacles: n=26 - Supportive behaviours: n=24 	<p><i>Setting:</i> USA (National)</p> <p><i>Sample:</i> 380 nurse members of the ONS (RR=42%) with an average of 18 (± 11.1) years of RN experience; 13 (± 11.1) years in oncology nursing specifically; 7 (± 5.6) years certified as an oncology nurse; and 8 (± 3.1) years as an advanced oncology certified nurses</p> <p><i>Inclusion criteria:</i></p>	<p>- Top five obstacles:</p> <ol style="list-style-type: none"> 1. Dealing with anxious family 2. Family not accepting the patients poor prognosis 3. Called away to help with new admission or to help another nurse 4. Families being overly optimistic despite patient's poor prognosis 5. Family and friends who continually call the nurse wanting an updated on the patient's condition rather than calling the designated family member <p>-Top five supportive behaviours:</p> <ol style="list-style-type: none"> 1. Allowing family members adequate time alone with the patient after death 2. Providing peaceful bedside scene for family after patient

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			<ul style="list-style-type: none"> - Having cared for at least 1 hospitalised patient with cancer at the EOL - Ability to read and understand English 	<ul style="list-style-type: none"> has died 3. Allowing families unlimited access to dying patients 4. Teaching family members how to act around the dying patient 5. Having social work or palliative care as part of the team 	
Hansen et al. (2009)	To examine how use of numerous interventions can improve nurses' experience of EOLC in five areas	<p><i>Design:</i> descriptive before and after design</p> <p><i>Outcome measurement:</i> 30-items tool with 5 domains measuring:</p> <ol style="list-style-type: none"> 1. Knowledge and ability 2. Work environment 3. Support for staff 4. Support for patients and their families 5. Work stress 	<p><i>Sample:</i></p> <ul style="list-style-type: none"> - Phase I: n= 91 nurses (RR=34%) with an average of 8 (± 6.8) years of intensive care experience - Phase II: n= 127 nurses (RR= 47%) with an average of 7 (± 6.2) years of intensive care experience <p><i>Setting:</i> 4 ICUs at a university medical centre</p>	<ul style="list-style-type: none"> - Interventions were associated with improvements in knowledge and ability - Knowledge and ability improves perceptions of nurses - Issues identified as important for EOLC: <ol style="list-style-type: none"> 1. Communication 2. Education 3. Protocol 4. Patient and family wishes 5. Improvements noted 6. Lack of spiritual support 7. Physician behaviours 8. Availability of services 	**
		<p><i>Interventions:</i></p> <ul style="list-style-type: none"> - Bereavement program - Palliative medicine and 			

			comfort care team - Pre-printed orders - Hiring of a mental health clinical nurse specialist - Staff education in end-of-life		
Ingwu et al. (2016) Nigeria	To examine the knowledge and practice of EOLC among nurses	<i>Design:</i> descriptive survey <i>Data collection:</i> questionnaire	<i>Setting:</i> oncology, medical and surgical wards of the University of Nigeria Teaching Hospital <i>Sample:</i> n=130 nurses; 61 (48%) had ≤10 years' experience	- Top three factors that influence negatively in the nurses practice of EOLC: 1. Inadequate manpower 2. Inadequate time 3. Lack of experience to practice	0
Kruse et al. (2008) USA	To test the best method for changing acute nurses' perceptions about EOLC	<i>Design:</i> Pre-post-test 3-group experimental, randomized design <i>Interventions:</i> - Group 1 (control): read EOLC article - Group 2: 3-hour classroom education (lecture, case study presentations, and discussion) - Group 3: 3-hours lecture	<i>Setting:</i> USA (all acute care areas at a large metropolitan hospital) <i>Sample:</i> n=81 (RR=85%) with an average of 15 years' experience (range 8-16 years; no standard deviation given) <i>Inclusion criteria:</i> - RN with at least 6	- Nurses reported feeling guilty for not having enough time to spend with dying patients.	***

		and 4-hours of clinical experience	months' experience - Work in the health care system in acute care	
		<i>Data collection:</i> 28- item questionnaire with three areas measuring:		
		- Knowledge - Comfort - Overall perceptions of caring for patients and their families at the end of life		
Moss et al. (2005) USA	To determine what West Virginia physicians and nurses treating patients in ICUs perceive to be the barriers to quality EOLC	<i>Design:</i> descriptive survey	<i>Setting:</i> ICUs of 28 hospitals in West Virginia <i>Sample:</i> n=473 nurses (response rate of 66%) with an average of 15 years of experience (range 0-42; no standard deviation given)	- Top five nurses' perceived barriers to quality EOLC: 1. Patient/family demands for all possible treatments at EOLC 2. Lack of education for health care professionals in palliative medicine 3. Concern over Board of Medicine security of prescribing practices for dying patients 4. Inadequate financing and insurance coverage for palliative care 5. Health care legislation - Top five nurses' satisfaction with EOLC skills: 1. Treat Nausea and Vomiting 2. Manage Opioid Analgesics 3. Treat Constipation 4. Manage Excessive secretion
		<i>Data collection:</i> mailed or hand- delivered questionnaire		***

5. Discuss Advance Directives

<p>Todaro-Franceschi (2013) USA</p>	<p>To explore whether: - Critical care nurses perceive themselves as able to provide quality EOL care - There is a relationship between the critical care nurses' perceived ability to provide quality care at the EOL and their professional quality of life</p>	<p><i>Design:</i> descriptive survey</p> <p><i>Data collection:</i> - PPACD survey - ProQOL R-IV established instrument</p>	<p><i>Setting:</i> ICU</p> <p><i>Sample:</i> 473 nurse members of the AACN with an average of 8 years of experience (range <1 to >42; no standard deviation given)</p> <p><i>Inclusion criteria:</i> - RN who worked in a critical care area in USA</p>	<p>- RNs who perceive themselves more prepared are able to provide better EOLC</p> <p>- Nurses' reflections reported: o Mandatory EOL education o More gratitude and respect for RNs from other professionals</p> <p>- Two themes emerged: 1. Facing death unprepared hurts more, not less. 2. Appreciating moments with patients who are dying and their loved ones is a gift</p>	<p>*</p>
<p>White and Coyne (2011) USA</p>	<p>To assess EOLC core competencies deemed most important with corresponding educational needs from oncology nurses</p> <p>To describe the characteristics of the respondents that are associated</p>	<p><i>Design:</i> descriptive survey</p> <p><i>Data collection:</i> mailed and online surveys</p>	<p><i>Setting:</i> large, tertiary medical center in a south-eastern of USA</p> <p><i>Sample:</i> 714 nurse members of the ONS from Virginia, Washington, Georgia and Wisconsin (response rate of 28.44%) with an average of 21</p>	<p>- All identified the importance of EOLC education</p> <p>- Some did not feel sufficiently prepared to care for dying patients</p> <p>- Top five nurses' EOLC competencies: 1. Symptom management 2. Communication about death and dying 3. What comprises palliative care 4. Pain control techniques 5. Dealing with your own feelings</p>	<p>**</p>

with selection
of the top-
ranked core
competencies

years of
experience (no
standard
deviation
given)

^a Quality score reflects the MMAT score range for quantitative research from zero (no stars) to **** (four stars)

USA= United States of America; ICUs= Intensive Care Units; ONS= Oncology Nursing Society; AACN=American Association of Critical-Care Nurses; ED= Emergency Department; PPACD= Perceptions of Preparedness and Ability to Care for the Dying; ProQOLR-IV = Professional Quality of Life instrument; EOLC= End-of-life care; RN= Registered Nurse; EOL= End-of-life; RR= Response Rate

Table 2 – Overview of qualitative and mixed methods studies

Author (year) Country	Aim of study	Approach	Sample/Setti ng	Key findings	^a Qualit y Score
Arbour and Wiegand (2014) USA	To improve understanding of the role perceptions experienced of critical care nurses during transition from aggressive life-saving care to palliative and EOLC	<i>Design:</i> Phenomenology <i>Data collection:</i> face-to-face interviews	<i>Setting:</i> medical and surgical critical care units of a tertiary care medical centre <i>Sample:</i> n=19 Caucasian: 73.4% Average years of experience 10 (range 1-25, no standard deviation given) <i>Inclusion criteria:</i> - To be experienced in caring for dying patients and their families in the critical care setting including when care transitioned from aggressive to palliative and EOLC	Seven categories emerged to help to understand the nurses 'experiences at EOLC: 1. Educating the family 2. Advocating for the patient 3. Encouraging and supporting family presence 4. Managing symptoms 5. Protecting families and creating positive memories 6. Family support 7. Mentoring and teaching	****
Efstathiou	To explore the experiences	<i>Design:</i> Qualitative exploratory	<i>Setting:</i> ICU of one local university	Core theme "doing the best to facilitate a comfortable and dignified death" was	

and Walker (2014) UK	of intensive care nurses who provided EOLC to adult patients and their families after a decision had been taken to withdraw treatment	<i>description</i> <i>Data collection:</i> semi- structured face-to-face interviews	hospital <i>Sample:</i> n=13; 10 (77%) had ≥11 years of experience	generated from 4 inter- related subthemes that emerged as the activities of EOLC: 1. Caring for the dying patient and their family 2. Providing and encouraging presence 3. Reconnecting the patient and family 3.1. Creating a less technical environment and reducing technical care 3.2. Reducing distance between the patient and their family 3.3. Increasing the privacy and intimacy 4. Dealing with emotions and ambiguity 4.1. Uncertainties on relationships 4.2. What is the right thing to do?	***
Espinosa al. (2010) USA	To explore the experiences of intensive care nurses who provide terminal care in the ICU	<i>Design:</i> Phenomenology <i>Data collection:</i> - Face-to-face interviews - Focus groups	<i>Setting:</i> 5 ICUs at a technical hospital in the southwestern of USA <i>Sample:</i> n=18; Nursing experience ranged from 2 to 40 years - Coronary ICU: n=8 - Medical ICU: n=5 - Neurological ICU: n=4	Three main themes emerged to describe nurses' experiences with terminal care in ICUs: 1. Barriers to optimal care: 1.1. Lack of involvement in the plan of care 1.2. Differences between the medical and nursing practice models 1.3. Disagreement among physicians and other healthcare team members 1.4. Perception of futile care and unnecessary	***

			- Surgical ICU: n=1	suffering 1.5. Unrealistic expectations of the family 1.6. Lack of experience and education of the nurse 2. Internal conflict: 2.1. Relief 2.2. Desire for patient comfort and good memories for family 2.3. Abandonment and powerless 2.4. Medication administration 2.5. Difficulty with younger patients 3. Coping: 3.1. Building trust with the family 3.2. Crying 3.3. Humour 3.4. Talking to others about terminal care 3.5. Avoiding care for the terminal patients 3.6. "Crusty" nurse attitude	
Holms et al. (2014) UK	To explore the experiences of ICU nurses who had provided EOLC to patients and their families	<i>Design:</i> Phenomenology <i>Data collection:</i> semi- structured face-to-face in-depth interviews	<i>Setting:</i> 1 general ICU in the west of Scotland <i>Sample:</i> n=5 (years of experience not given) <i>Inclusion criteria:</i> - Band 5 or 6 registered ICU staff nurses - Working	Five themes emerged which covered all 51 categories: 1. Integrated care systems 2. Communication 3. The intensive care environment 4. Educating and training 5. Staff distress	****

			<p>full or part time</p> <ul style="list-style-type: none"> - Regularly working within the ICU - Having cared for a dying patient and supported their relatives within the last 2 years 	
<p>Mak et al. (2013)</p> <p>China</p>	<p>To explore the experiences and perceptions of nurses caring for dying patients and their families in the acute medical admission setting</p>	<p><i>Design:</i> Qualitative interpretive description</p> <p><i>Data collection:</i> semi-structured face-to-face interviews</p>	<p><i>Setting:</i> 3 acute medical wards of a regional hospital in Hong Kong</p> <p><i>Sample:</i> n=15 (years of experience not given)</p> <p><i>Inclusion criteria:</i></p> <ul style="list-style-type: none"> - Have experience in the care of dying patients and their families in the target setting - Have to speak Cantonese - Be working full-time in the wards 	<p>Four themes described nurses' experiences and perceptions of caring for dying patients:</p> <p>****</p> <ol style="list-style-type: none"> 1. Lack of preparedness for patients' deaths <ol style="list-style-type: none"> 1.1. Sudden and unanticipated deaths 1.2. Families intense responses to patients' deaths 1.3. Emotional responses and somatic complaints 2. Reflecting on own nursing roles for dying patients <ol style="list-style-type: none"> 2.1. Disappointment and helplessness related to inadequacy in the role 2.2. Satisfied with their positive supportive role 2.3. Learning mutually for better care of dying patients and their families 3. Reflecting on the

				<p>meaning of death and personal experiences of the death of their own family members</p> <p>3.1. Striving for better care of their own family members</p> <p>4. Coping with caring for dying patients</p> <p>4.1. Easy attitude about life</p> <p>4.2. Exercising self-care</p>	
McCallum and McConigley (2013)	To describe the provision of EOLC in an open HDU	<p><i>Design:</i> Qualitative exploratory description</p> <p><i>Data collection:</i> semi-structured face-to-face interviews</p>	<p><i>Setting:</i> HDU at a major metropolitan tertiary hospital in Perth</p> <p><i>Sample:</i> n=5 (average 10 years of experience, standard deviation not given)</p> <p><i>Inclusion criteria:</i> - RNs working in the HDU for more than 12 months who had cared for a dying patient</p>	<p>One core theme, and two other themes related to this, emerged to illustrate nurses' perceptions of caring dying patients:</p> <p>1. The nurse as protector</p> <p>1.1. Conflict of care</p> <p>1.2. Peace and quiet</p>	***

Thompson et al. (2006)	To develop an:	<i>Design:</i> Grounded theory	<i>Setting:</i> 2 acute medical units at 2 tertiary university - affiliated hospitals in central Canada:	Core process “creating a haven for safe passage” was generated from 4 sub-processes that emerged as the problem experienced by nurses:	*****
Canada	<ul style="list-style-type: none"> - Understanding of the process nurses undertake in providing quality EOLC - Emerging theory that captured their experiences 	<i>Data collection:</i> <ul style="list-style-type: none"> - Semi-structured face-to-face interviews - Participant observation 	<ul style="list-style-type: none"> - Hospital A: n=8 - Hospital B: n=2 <i>Sample:</i> n=10 (years of experience not given)	<ol style="list-style-type: none"> 1. Facilitating and maintain a lane change 2. Getting what’s needed 3. Being there 4. Manipulating the care environment 	
			<i>Inclusion criteria:</i> <ul style="list-style-type: none"> - Had worked for a minimum of 3–6 months on the designated unit - Willing to participate in the study - 18 years of age or older - Able to speak and read English 		
Valiee et al. (2012)	To explore the experience of intensive care nurses providing care for end-of-life patients	<i>Design:</i> Qualitative exploratory description	<i>Setting:</i> ICU of a hospital in Teheran	Five sub-themes and two core main themes emerged about the experience of caring:	*****
UK		<i>Data collection:</i> semi-structured face-to-face in-depth	<i>Sample:</i> n=10 (experience ranged from 1-18 years)	<ol style="list-style-type: none"> 1. Emotional burden <ol style="list-style-type: none"> 1.1. The psychological pressure in providing care 	

		interviews		1.2. The nature of the patients' family's reaction 1.3. The effect of patients' conditions	
				2. Values and beliefs 2.1. The hereafter 2.2. Being an advocate for the patient	
Arantzamen di et al., (2012) Spain	To describe Spanish nurses' preparedness to care for hospitalised terminally ill patients and how this translates into care delivery	<i>Design:</i> Exploratory sequential mixed-methods study <i>Data collection:</i> - Stage 1: unstructured observations and semi-structured face-to-face interviews - Stage 2: regional survey	<i>Sample:</i> Stage I: - Observations: n=22 - Interviews: n=21 Stage II: n=165 (response rate 65%); Average 13 (± 8.1) years of experience <i>Setting:</i> Stage I: - Observations: 1 ward at a conveniently selected hospital - Interviews: 3 wards from two different hospitals Stage II: 6 hospitals of Navarra that did not have a PC unit	- 88% of nurses perceived that their level of competence to provide physical EOLC was very good - 25% of nurses considered that their psychological EOLC was very poor. - 54% of nurses had not received any postgraduate education on caring for dying patients - Nurses demands for more education on emotional management and dealing with their own feelings	***

^a Quality score reflects the MMAT score range for qualitative research from zero (no stars) to **** (four stars)

^b Quality score reflects the MMAT score range for mixed methods research from zero (no stars) to *** (three stars)

USA= United States of America; UK = United Kingdom; EOLC = End-of-life care; ICUs = Intensive care units; HDU = High-dependency unit

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Table 3: Overview of theme labels and quotes exemplifying the themes

Theme	Origin of Theme Label	Quotes from Research Reviewed that Exemplify the Theme
Nurse as protecting provider	McCallum & McConigley (2013)	<ul style="list-style-type: none"> • “Recognising your patient is dying and taking steps to make it a comfortable end” (McCallum & McConigley, 2013, p. 27). • “The end-of-life patients need more caring, for they are completely dependent... and the nurse is responsible for taking care of them” (Valiee et al., 2012, p. 313).
Nurse as an advocate	Arbour & Wiegand (2014) and Valiee et al. (2012)	<ul style="list-style-type: none"> • “They (the patient) suffered because a lot of times physicians don’t want to administer pain medication... and the patients need more than just the minimum dose. I’ve had physicians order acetaminophen and I’m like, that’s just not going to cut it. I got them to order more appropriate drugs at the right dose and the patient was far more comfortable” (Arbour & Wiegand, 2014, p. 215)

		<ul style="list-style-type: none"> • “I mean we’ve advocated for things to be switched off” (McCallum & McConigley, 2013, p. 28).
Nurse as a reflective practitioner	Mak et al. (2013)	<ul style="list-style-type: none"> • “I reflect on what I have done in the entire care process. What has worked and what I could have done differently” (Mak et al., 2013). • “I have learned from repeated dealings with dying patients and their families. I have also learned from watching more experienced nurses and doctors” (Holms et al., 2014, p. 552).
Obstacles to providing quality EOLC	A variety of studies	<ul style="list-style-type: none"> • “There is no space between the beds and there is no privacy for grief” (McCallum & McConigley, 2013, p. 28). • “I think we do our best... sometimes I have had the feeling that I could have done more... but because of the workload and time issues you limit yourself to the essentials” (Arantzamendi et al., 2012, p. 601). • “It is hard dealing with so many

dying patients. It's heart breaking, upsetting and exhausting" (Holms et al., 2014, p. 553).

Aids to providing
quality EOLC

A variety of studies

- "She is a good director... she is a good person to talk to because she'll let you just sit down and tell your story... you get to feel like somebody else acknowledged that you did the right thing" (Espinosa et al., 2010 p. 278).
- "It makes it easier, the close team of nurses to debrief" (McCallum & McConigley, 2013, p. 27).

EOLC = End-of-life care

Figure 1 – PRISMA diagram for reporting the search strategy

Source: Adapted from “Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement,” by D. Moher, A. Liberati, J. Tetzlaff and G. Douglas, 2009, Journal of Clinical Epidemiology, p. 1009(Moher et al., 2009)

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Figure 1

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Registered nurses' provision of end-of-life care to hospitalised adults: A mixed studies review

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