









EMPIRICAL RESEARCH MIXED METHODS

Registered Nurses' beliefs about end-of-life care: A mixed method study

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Abstract

Aims: To examine registered nurses' (RNs) behavioural, normative and control beliefs about end-of-life care for patients who are diagnosed with advanced and life-limiting illnesses; and to identify the barriers and facilitators they experience when providing end-of-life care.

Design: A sequential explanatory mixed methods study.

Method: An online cross-sectional survey was conducted using the Care for Terminally Ill Patient tool among 1293 RNs working across five hospitals in the Kingdom of Saudi Arabia. Online individual semi-structured interviews with a subgroup of survey respondents were then undertaken. Data were collected between October 2020 to February 2021.

Results: A total of 415 RNs completed the online survey, with 16 of them participating in individual interviews. Over half of the participants expressed the belief that end-of-life care is most efficiently delivered through multidisciplinary team collaboration. The majority of participants also believed that discussing end-of-life care with patients or families leads to feelings of hopelessness. Paradoxically, the study revealed that more than half of the participants held the negative belief that patients at the end of life should optimally receive a combination of both curative and palliative care services. The results showed that nurses' beliefs were significantly associated with their age, religion, ward type, level of education and frequency of providing end-of-life care. Data from the qualitative interviews identified four themes that explored RNs' beliefs and its related factors. The four themes were 'holistic care', 'diversity of beliefs', 'dynamics of truth-telling' and 'experiences of providing end-of-life care.'

Implications for the Profession and/or Patient Care: Wherever possible, patients at the end-of-life should be cared for in specialist settings by multidisciplinary teams to ensure effective, high-quality care. Where this is not possible, organisations should ensure that teams of multidisciplinary staff, including nurses, receive education and resources to support end-of-life care in non-specialist settings. Hospitals that employ foreign-trained nurses should consider providing targeted education to enhance their cultural competence and reduce the impact of different beliefs on end-of-life care.

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KEYWORDS

barriers, beliefs, end-of-life care, facilitators, nursing

1 | INTRODUCTION

End-of-life care and palliative care are two terms that are often used interchangeably but they have distinct differences (Ryan et al., 2020). Palliative care is intended for patients who have been diagnosed with a life-limiting illness but may not be likely to die soon (WHO, 2023). Patients can receive palliative care for many years (Palliative Care Australia, 2023) and may start receiving it at the time of their terminal disease diagnosis to manage symptoms and psychological impacts (Worldwide Palliative Care Alliance, 2020). In contrast, end-of-life care refers to a specific time point within palliative care and is focused on patients and their families at the time of impending death from a terminal disease condition that has become advanced, progressive and incurable (Palliative Care Australia, 2023; Ryan et al., 2020).

Although high-quality end-of-life care is considered a basic human right, providing it can be challenging and complex due to individual diversity of beliefs and preferences. For example, in many Western countries, end-of-life care has become part of mainstream healthcare services due to its widespread acceptance among individuals (Six et al., 2023). In comparison, in many Asian, Middle Eastern and African countries, end-of-life care remains problematic and is often dependent on advocacy from the person requiring care or their family, and the support of members of the multidisciplinary team (Lin et al., 2019). In the Kingdom of Saudi Arabia (KSA), specialist end-of-life care is still in its nascent stage and is not widely available to patients (Alshammari et al., 2019). The underdeveloped integration of palliative care services into healthcare facilities and limited public awareness regarding specialist end-of-life care are significant factors that impede its advancement in the KSA (Aboshaiqah, 2019; Almoajel, 2020). Consequently, patients in KSA at the end-of-life, typically receive nursing care in general hospital wards by generalist registered nurses (RNs) (Al-Jabarti et al., 2021).

In all contexts, RNs play a crucial role in providing end-of-life care for patients and their families. Their beliefs about end-of-life care may be influenced by their personal experiences, cultural and religious backgrounds, and professional training, all of which can impact the quality of care they provide (Karbasi et al., 2018). However, regardless of their personal beliefs, RNs must provide compassionate, dignified and patient-centred care to support patients and their families through the end-of-life process (Manookian et al., 2014). Therefore, it is important to understand RNs' beliefs about end-of-life care and to identify the barriers and facilitators that affect the provision of such care.

2 | BACKGROUND

Beliefs are ideas that individuals consider to be true. Ajzen and Fishbein (1980) developed the Theory of Reasoned Action (TRA)

which proposes that a person's beliefs about an issue are formed by direct observation or external information sources. In the case of RNs, their beliefs about end-of-life care can be influenced by various personal and professional factors, such as their values, education and clinical experiences (Scherrrens et al., 2018). The TRA proposes that one's behavioural intention is the most reliable predictor of their behaviour, and this intention is dependent on three main beliefs which are the focus of this particular study.

First, behavioural beliefs refer to an individual's positive or negative evaluation or judgement of performing a specific behaviour, such as providing end-of-life care (Ajzen, 1985). Second, as defined by Ajzen and Fishbein (1980) normative beliefs relate to an individual's view of a particular behaviour from a societal perspective. More specifically, it refers to the individual's beliefs that individuals or groups think they should or should not perform the behaviour, such as the RN's colleagues, patients or family members (Xu et al., 2023). Third, control beliefs encompass an individual's skills and abilities, as well as the facilitators and barriers to actual performance which when taken together, are important determinants of the behaviour (White et al., 2022). All of these beliefs are important in exploring RNs' beliefs about end-of-life care from their personal behavioural beliefs, social normative beliefs and in the context in which they work such as control beliefs (Scherrrens et al., 2018).

The limited research that has examined RNs' beliefs about end-of-life care consistently reports a variety of perspectives. For instance, a systematic review conducted by Alshammari et al. (2022) found that RNs value the provision of end-of-life care for patients with terminal illnesses and their families. The preference of many RNs is for end-of-life care to be provided in specialist palliative or end-of-life care settings, rather than general hospital departments. This is due to the various challenges that RNs in general hospital settings encounter when providing end-of-life care (Stuart, 2022). These challenges include staff shortages, the demands of their roles, and a lack of time which can negatively affect RNs-patient communication (Carvajal et al., 2019; Hussin et al., 2018). Additionally, a scoping review by Červený et al. (2022) highlighted the challenges experienced by nurses when caring for patients from different cultures. The review identified understanding religion, psychosocial emotions, culture and spirituality as key aspects of providing high-quality end-of-life care. These issues are particularly relevant in the KSA due to the diverse cultural backgrounds of the nursing workforce. Specifically, 40.6% of the total nursing workforce in KSA has received training overseas, resulting in a diverse mix of cultural backgrounds (Ministry of Health, 2023). As a result, nurses working in KSA are likely to hold diverse and varying beliefs about end-of-life care that could influence their clinical practice. However, no previous studies have investigated RNs' beliefs regarding end-of-life care in KSA. Therefore, this study aims to use both quantitative and qualitative data to gain a deeper understanding of their beliefs and

explore the barriers and facilitators that influence the provision of high-quality end-of-life care by a multicultural nursing workforce in general hospitals in KSA.

3 | METHODS

3.1 | Aim and objectives

This study formed part of a broader doctoral project examining RNs' knowledge, attitudes, and beliefs towards end-of-life care. The specific aim of this component of the study was to examine the influence of RNs' personal and professional characteristics on their beliefs about end-of-life care and to explore the barriers and facilitators they experience when providing end-of-life care.

3.2 | Study design

A sequential explanatory mixed method design, consisting of a cross-sectional survey and semi-structured interviews was used (Taguchi, 2018).

3.3 | Population and sample

3.3.1 | Survey respondents

Participants for the quantitative phase were recruited by convenience sampling from nurses working in medical, surgical, cardiac, cancer and palliative care units in five hospitals in the KSA. Nurses working in emergency, critical care and paediatric units were excluded from the study because of variations in treatment goals for patients admitted in these areas (WHO, 2023). Nurses working in intensive care units, critical care units and emergency departments were excluded because withdrawal of treatment and care in these settings occurs for a broad range of conditions and may not relate to advanced progressive and incurable diseases (Del Olmo et al., 2019; Orban et al., 2017). Paediatric and neonatal wards were also excluded because nursing models for end-of-life care for children differ from the approaches used to provide end-of-life care for adults (WHO, 2023). The sample size was calculated using the population of 1293 nurses from the targeted hospitals, a 95% confidence interval and a margin of error of 5% using Qualtrics (2018). An approximate sample size of 297 was required, and a total of 490 nurses completed the survey (Figure 1).

3.3.2 | Semi-structured interviews participants

A convenience sample of nurses who completed the cross-sectional survey were invited to participate in semi-structured interviews.

3.4 | Data collection

Data for the cross-sectional survey were collected using the 22-item Care of Terminally Ill Patients (CTIP) questionnaire developed by Csikos et al. (2010). To recruit participants, a nominated contact person from each hospital distributed study posters to each ward area. The posters included details regarding the study's aim, purpose and a Quick Response (QR) code. After survey data had been collected, nurses who had completed the survey were invited to participate in semi-structured interviews. Due to disparate geographic locations and the COVID-19 pandemic restrictions in place at the time of data collection, all interviews ($n = 16$) were conducted virtually using telephone and videoconferencing software Zoom™ (Zoom, 2022). The primary author developed the interview questions and interview guide in collaboration with three experienced nurses with PhD qualifications (Files S1 and S2). The questions were informed by the principles of the TRA (Ajzen & Fishbein, 1980) and were designed to guide the semi-structured interviews. The interview guide was pilot tested with two RNs, no data from the pilot testing were included in the final analysis. Interviews were audio-recorded and had a mean duration of 21 min. The data collection took place between October 2020 and February 2021.

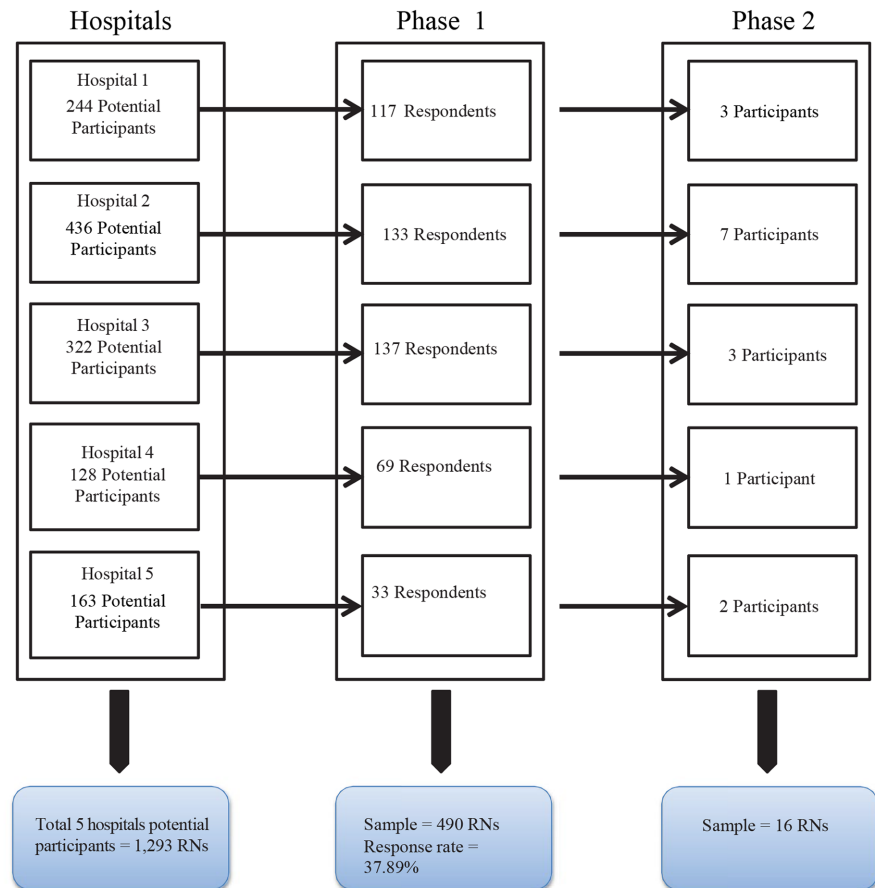
3.4.1 | Validity and reliability of CTIP

The CTIP questionnaire was initially developed to assess primary care US and Hungarian physicians' beliefs and practices about end-of-life care. Although previously translated and used with a sample of US and Hungarian health professionals (Csikos et al., 2010), the validity and reliability of the CTIP have not been established. Therefore, the CTIP questionnaire was reviewed by the research team, and modifications were made where appropriate, for example, changing the term 'Physicians' to 'Registered Nurses'. This modified questionnaire was then pilot tested with 9 RNs to assess face and content validity, as well as to check for comprehension before administration.

3.5 | Ethical considerations

The study protocol was approved by the University of Wollongong Human Research Ethics Committee and the Saudi Arabia Ministry of Health. For the quantitative phase, access and completion of the online survey was regarded as consent to participate, and each participant for the semi-structured interviews gave informed written consent prior to data collection. Recognising the sensitive nature of discussing death and that the provision, or experience of, providing end-of-life care in hospital settings may have the potential to cause emotional distress, the participants were provided information on how to access in-hospital and local counselling support in the Participant Information Sheet.

FIGURE 1 Recruitment of participants.



3.6 | Data analysis

3.6.1 | Quantitative data

Data analysis was undertaken using IBM SPSS version 27.0 (IBM, 2020). Descriptive statistics, such as means, frequencies, percentages and SDs, were used for summarising the variables. Subgroup analysis was conducted using cross-tabulations with Kendall's tau-beta to test for significance and to compare associations between demographic and professional variables with CTIP items. A p -value of <0.05 was considered statistically significant. The open-ended answers for items 1 and 7 were analysed using summative content analysis so that key words could be identified and quantified to understand participants' responses (Hseih & Shannon, 2005). The open-ended answers for item 13 were analysed using thematic analysis (Figure 2).

3.6.2 | Qualitative data

To ensure dependability, the first author conducted and transcribed the interviews and collaborated with the other research team members to create field notes and an audit trail, as recommended by Lincoln et al. (1985). To support transferability, participants' detailed descriptions and verbatim quotes, as well as a comprehensive description of study processes were used. Confirmability

was achieved through a rigorous process where three members of the research team independently analysed the data to assess the objectivity of the analysis, and to ensure the results accurately reflected the voice of the participants rather than the researchers' biases, objectives or viewpoints (Lincoln et al., 1985).

Thematic analysis of the semi-structured interviews was conducted using the approach of Braun and Clarke (2016). This process involved: (1) familiarisation with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes and (6) producing the report. Coding and theme development were guided by the TRA (Ajzen & Fishbein, 1980) to identify the RNs' beliefs about providing end-of-life care.

4 | RESULTS

A total of 415 out of 490 (84.6%) participants completed both the demographic questions and the CTIP items. The demographic and professional characteristics of participants are summarised in Table 1.

4.1 | RNs' belief about end-of-life care setting (items: 1,9)

The majority of the participants (94%, $n=390$) reported that patients at end-of-life were being cared for in hospitals. However,

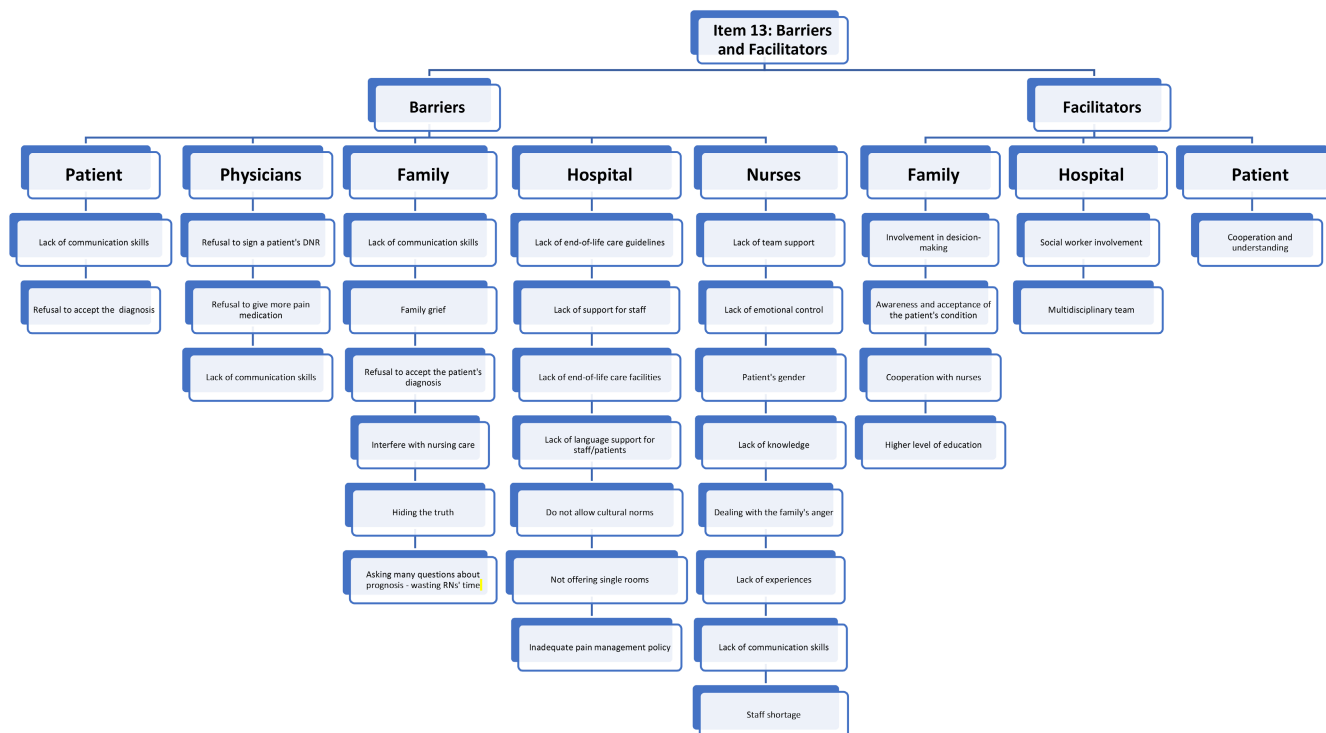


FIGURE 2 CTIP Item 13 mind-map of the codes.

56.1% ($n=233$) of participants stated that hospitals were the best setting for end-of-life care, while 41.6% ($n=173$) indicated that a patient's home was the preferred setting. Subgroup analysis identified statistically significant associations between home as the best setting for end-of-life care and three factors: RNs who were older than 46 years ($p<0.05$), those who identified as Christian in religion ($p<0.001$), and those who provided end-of-life care at least a few times per year ($p<0.05$).

4.2 | Perceived knowledge of end-of-life care and interest in further knowledge acquisition (items: 4,11,12)

The survey included three items that focused on the RNs self-reported level of knowledge of end-of-life care, their desire to acquire more knowledge, and the availability of end-of-life care services. Approximately forty percent of respondents (43.4%, $n=180$) reported having a basic knowledge of end-of-life care requirements, and a similar number (43%, $n=176$) reported having more than basic knowledge. Subgroup analysis identified that RNs who worked in palliative care wards ($p<0.05$), and those who had attended more than three days of end-of-life care education ($p<0.05$) reported having more than the basic level of knowledge about end-of-life care. Notably, the results showed that more than half (59.3%, $n=239$) of RNs who work in non-specialist palliative care settings only had a basic knowledge of end-of-life care, with 20% ($n=48$) only having heard about it, and 4% ($n=11$) never heard of it before the survey.

With regards to end-of-life care training, 70% of RNs ($n=292$) indicated that they were willing to attend professional development to learn more about end-of-life care. Among RNs who frequently provide end-of-life care, 94% ($n=390$) identified the need for additional professional development ($p=0.03$) (Table 2).

There were differences in perceptions with regard to the availability of end-of-life care services, with 36.4% ($n=151$) of RNs reporting that the end-of-life care services in their regions were inadequate or barely adequate. Only 24% ($n=99$) of RNs believed that end-of-life care services were exceptionally good. Around 40% ($n=165$) of the respondents indicated that end-of-life care services in their current health service were adequate but could be improved. There were some key differences in participants responses based on location. For example, the largest proportion of RNs in the North region rated end-of-life health care services as 'Inadequate' (28.1%, $n=18$), while the largest proportion of RNs in the West region rated end-of-life services as 'Barely adequate' (44.7%, $n=55$). In the Middle, East, and South regions, the highest proportion of staff rated end-of-life care as 'adequate but could be improved' (40.4%, $n=42$; 56.3%, $n=58$ and 47.6%, $n=10$, respectively).

4.3 | RNs' belief about end-of-life care practices (items: 2,3,7,10)

The majority of RNs (72.3%, $n=300$) agreed that collaboration with an interdisciplinary team is crucial for providing optimal end-of-life care. However, there were differences noted in RNs' views about

TABLE 1 Characteristics of participating registered nurses ($n=415$).

Demographic and professional characteristics		
	<i>n</i>	%
Gender		
Male	60	14.5
Female	355	85.5
Age		
20–25	21	5.1
26–30	108	26
31–35	151	36.4
36–40	60	14.5
41–45	42	10.1
>46	33	8
Religion		
Christian	202	48.7
Muslim	143	34.5
Hindu	48	11.6
Other and Non-specify religion	22	5.3
Nationality		
Philippines	169	40.7
India	130	31.3
Saudi Arabia	87	20.9
Others	29	6.9
Ward		
Medical	183	44.1
Surgical	171	41.2
Oncology	49	11.8
Palliative	12	2.9
Country of qualification		
Philippines	164	39.5
India	127	30.6
Saudi	84	20.2
Others	40	9.6
Highest nursing qualification		
Diploma	50	12
Bachelor	324	78.1
Graduate or higher degree	41	9.9
Frequency of end-of-life care provided		
Daily	123	29.6
Once per week	73	17.6
Once per month	58	14
Few times per year	136	32.8
Never	25	6
Number of end-of-life patients in the last 12 months?		
None	79	19
1–3	140	33.7
4–7	71	17.1
8–11	28	6.7
12 or more	97	23.4

(Continues)

TABLE 1 (Continued)

Demographic and professional characteristics		
How much education on end-of-life care attended		
2–8 h	222	57.3
1–5 days	106	27.4
More than 5 days	59	15.2
End-of-life care education attended		
Yes attend	390	94
Not attend	25	6
Interested in having additional education on end-of-life care		
Yes	365	88
No	50	12

how end-of-life care should be delivered. Around a quarter of respondents (27.2%, $n=113$) believed that trained healthcare professionals should be responsible for providing psychosocial end-of-life care, while 23.9% ($n=99$) reported that end-of-life care is best managed by physicians. In contrast, 43% ($n=181$) of participants believed that end-of-life care is a personal issue that should be managed by the patient and their family. However, these differences were not statistically significant. Comparisons based on nationality indicated that Saudi RNs were more likely to believe that end-of-life care is primarily a psychological issue that is best dealt with by other trained specialists (41.4%, $n=36$). However, RNs from other countries were more likely to select the option that end-of-life care is a personal issue best dealt with by the patient and their family (43.4%, $n=179$).

The data highlighted differences based on previous end-of-life care education and nationality with beliefs about maintaining patient's dignity. Nurses who had attended end-of-life care education were more likely to believe that patients were able to maintain their dignity until death ($p=0.008$) when compared to those who had not attended such education. Of the 169 Filipino RNs, more than half (52%, $n=88$) believed that patients at end-of-life are able to maintain personal dignity, compared to RNs from other countries ($p<0.001$) who believed that patients are sometimes able and sometimes not able to maintain personal dignity.

Nurses' opinions about the most appropriate type of care for patients at the end-of-life varied. For instance, more than 60% ($n=260$) of RNs believed that the most appropriate type of care for end-of-life patients is a combination of curative treatment and palliative care. However, almost half of the RNs (51%, $n=38$) aged over 40 years believe that the most appropriate type of care for end-of-life patients is primarily palliative care only ($p=0.007$).

4.4 | Communication (items: 5,6,8)

Three items focused on RNs experiences of discussing a prognosis of end-of-life with patients and families. A large majority of respondents (88.4%, $n=367$) expressed the view that discussions

TABLE 2 CTIP descriptive statistics (N=415).

Items	Total frequency %
1. In your opinion, the best settings for care of end-of-life care are usually?	
<i>A hospital</i>	232 (55.9)
<i>The patient's home</i>	174 (41.9)
<i>Missing</i>	9 (2.2)
2. What do you believe is the most appropriate type of care for end-of-life care patients?	
<i>Continuous curative treatment of the disease until death</i>	50 (12.0)
<i>A combination of curative treatment and palliative care</i>	260 (62.7)
<i>Primarily palliative care only</i>	105 (25.3)
3. Some people believe that the well-being of end-of-life care patients is best served by collaboration with an interdisciplinary team. Do you:	
<i>Strongly agree</i>	110 (26.5)
<i>Agree</i>	190 (45.8)
<i>Unsure</i>	75 (18.1)
<i>Disagree</i>	22 (5.3)
<i>Strongly disagree</i>	18 (4.3)
4. In your opinion, are the health care services in your regions currently available for the care of end-of-life care patients?	
<i>Exceptionally good</i>	99 (23.9)
<i>Adequate but could be improved</i>	165 (39.8)
<i>Barely adequate</i>	98 (23.6)
<i>Inadequate</i>	53 (12.8)
5. Some people believe that discussing a prognosis of end-of-life with patients gives them a sense of hopelessness. Based on your experience, is this statement:	
<i>Usually true</i>	71 (17.1)
<i>Often true</i>	121 (29.2)
<i>Sometimes true</i>	175 (42.2)
<i>Seldom true</i>	28 (6.7)
<i>Never true</i>	20 (4.8)
6. Some people believe that discussing a prognosis of end-of-life with family of a terminally ill patient gives them a sense of hopelessness. Based on your experience, is this statement:	
<i>Usually true</i>	56 (13.5)
<i>Often true</i>	131 (31.6)
<i>Sometimes true</i>	178 (42.9)
<i>Seldom true</i>	37 (8.9)
<i>Never true</i>	13 (3.1)
7. In your opinion, is end-of-life care primarily	
<i>A medical issue best dealt with by a physician</i>	116 (25.8)
<i>A personal issue best dealt with by the patients and his/her family</i>	198 (44.1)
<i>A psychosocial issue best dealt with by other trained professionals</i>	130 (28.9)
<i>Missing</i>	5 (1.2)
8. Regarding the decision to inform a patient that s/he has end-of-life, do you believe:	
<i>The patient has the right to know and I always tell them</i>	76 (18.3)
<i>The patient has the right to know, but I only tell them if I am asked</i>	112 (27.0)
<i>The patient's right to know is balanced by the nurse's judgement of whether it is in the patient's best interest to know</i>	210 (50.6)
<i>The patient has no right to know; the decision should always be left to the nurse</i>	17 (4.1)

TABLE 2 (Continued)

Items	Total frequency %
9. In your experience, the families of end-of-life care patients are capable of providing appropriate care in the home. Regarding this statement, do you	
<i>Strongly agree</i>	49 (11.8)
<i>Agree</i>	173 (41.7)
<i>Unsure</i>	124 (29.9)
<i>Disagree</i>	54 (13.0)
<i>Strongly disagree</i>	15 (3.6)
10. In your experience, are end-of-life care patients usually able to maintain their personal dignity, up to and including the moment of death?	
<i>Almost all terminally ill patients are able to maintain personal dignity</i>	68 (16.4)
<i>The majority of terminally ill patients are able to maintain personal dignity</i>	94 (22.7)
<i>Sometimes terminally ill patients are able to maintain their personal dignity, sometimes they are not</i>	167 (40.2)
<i>A majority of terminally ill patients are not able to maintain personal dignity</i>	55 (13.3)
<i>Almost all terminally ill patients are not able to maintain personal dignity</i>	31 (7.5)
11. How familiar are you with end-of-life as a type of care?	
<i>I am quite knowledgeable</i>	82 (19.8)
<i>I have more than a basic knowledge</i>	94 (22.7)
<i>I have only a basic knowledge</i>	180 (43.4)
<i>I have only heard about it</i>	48 (11.6)
<i>I have never heard of it before now</i>	11 (2.7)
12. Would you attend a professional development workshop to increase your knowledge and understanding of end-of-life care?	
<i>Yes, definitely</i>	189 (45.5)
<i>I probably would</i>	103 (24.8)
<i>Maybe</i>	88 (21.2)
<i>I do not think so</i>	35 (8.4)

about end-of-life care with patients or families led to hopelessness (Table 2). However, 50% ($n=210$) of RNs believed that the decision to inform a patient that they require end-of-life care is 'balanced by the nurse's judgement of whether it is in the patient's best interest to know'. Many Saudi RNs (77%, $n=67$) were found to be more likely to tell the patients that they require end-of-life care compared to RNs from other countries (83%, $n=348$) ($p=0.009$).

4.5 | Correlations between demographic characteristics with CTIP items

The associations between demographical variables and CTIP item categories were negligible. All Pearson's correlation coefficient values were less than 0.2 (File S3).

4.6 | Qualitative results

In total, sixteen RNs consented to be interviewed for this study. The majority of participants were females ($n=14$), and half were from the

surgical wards ($n=7$). The participants' characteristics are shown in Table 3.

4.7 | Nurses' beliefs about end-of-life care

Four themes were derived from the qualitative data exploring nurses' beliefs about providing end-of-life care in the KSA hospital settings. The four themes included: the provision of holistic care, the diversity of RNs beliefs, the dynamics of truth telling and RNs experiences of providing end-of-life care.

4.7.1 | Holistic care

Participants described end-of-life care as holistic in nature and explored how it differed from traditional curative care. Important considerations at end-of-life included '... the psychological, social, emotional, spiritual, and cultural concerns of the patient and the family' (Participant #15). They expressed the view that patients receiving end-of-life care were different to those they routinely

Characteristics of the interview participants

No.	Age	Speciality area	Religion	Gender	Nationality	Hospital/Region
1-	31–35	Surgical	Hindu	Female	Indian	2
2-	31–35	Oncology	Catholic	Male	Filipino	2
3-	31–35	Surgical	Christian	Female	Indian	1
4-	>50	Palliative	Muslim	Female	South Africa	2
5-	36–40	Surgical	Christian	Female	Filipino	2
6-	31–35	Cardiac	Christian	Female	Indian	5
7-	41–45	Surgical	Christian	Female	Indian	1
8-	41–45	Medical	Catholic	Female	Filipino	2
9-	31–35	Palliative	Christian	Male	Filipino	2
10-	36–40	Surgical	Christian	Female	Indian	1
11-	26–30	Medical	Muslim	Female	Filipino	3
12-	41–45	Oncology	Muslim	Female	Filipino	3
13-	31–35	Medical	Muslim	Female	Saudi	2
14-	36–40	Surgical	Hindu	Female	India	3
15-	26–30	Surgical	Hindu	Female	Indian	4
16-	26–30	Medical	Hindu	Female	Indian	5

TABLE 3 Characteristics of the interview participants.

cared for on the ward, saying 'this kind of patient [end-of-life care patient] needs more care' (Participant #3). Others provided direct information on how 'we have to provide holistic care for the patient, including more physical, emotional, psychological support as well as a virtual support system' (Participant #6). Holistic care at end-of-life was summarised by Participant #1 as improving quality of life and requiring them to 'understand their condition, their feelings, and ... support them psychologically and physically. And we have to provide [care for] all their needs' (Participant #1).

The holistic nature of end-of-life care led to participants using terms such as 'need' to describe how they felt when providing care. This may be because participants believed that end-of-life care was important but 'never an easy task' (Participant #11) and required advanced practice skills which nurses developed through end-of-life education and experiences. Participants also shared the feeling that they 'needed' the support of the multidisciplinary team to provide high-quality, holistic end-of-life care.

'It [end-of-life care] would give comfort to the family as well as to the patient because ... I would be able to provide supportive care ... And also if they have any concerns, especially their family, I would refer them to the palliative doctors. So, with that, and with the help of that multi-disciplinary team, I can provide [the] quality care that they are looking for.'

(Participant #2)

However, some participants, especially those in non-speciality palliative care wards reported that they were unable to meet the needs of patients and families in a holistic way. Barriers to the provision of end-of-life care included caring for patients on

mixed-speciality and general medical wards, and inadequate staffing. In non-specialist wards, the diversity of care needs of patients – when some patients require end-of-life care and some require active treatment care – was also perceived as a barrier by some nurses. Participant #5 summarised the stressors induced by this diverse workload.

'It is hard. When it comes to meeting their [end-of-life care] needs because sometimes patients can become so demanding, ... they just want your one-on-one care. They want your they will be the one to be cared [for] only, considering we have four patients'.

4.7.2 | Diversity of beliefs

Participants had diverse religious and cultural backgrounds, but this did not appear to influence individual nurses' beliefs about the importance of providing end-of-life care. They described how effective end-of-life care required humanity and was a reflection of their role as a nurse, which they considered 'a noble profession with a sense of caring to the patient' (Participants #10). Participant 9 said, '... it doesn't matter what religion [you] have ... it matters most how do you deal with the individual? How human you are to deal with those patients?'. However, participants described how they needed to know the religion and culture of their patients to provide end-of-life care consistent with the needs of the patient and their family, as participant #1 expressed, 'We are giving end-of-life care according to their cultural beliefs. So, for patients and their families, we must, we have to know their cultural belief, and we have to follow their cultural beliefs also. So we have to understand their beliefs also'. The

emphasis on understanding the religious and cultural needs and beliefs of the diverse range of patients under their care provides insight into the depth of knowledge and acceptance that nurses require to provide high-quality end-of-life nursing care.

Despite recognition of the importance of understanding the diversity of religious practices, this knowledge was also described as both an enabler and a barrier to effective end-of-life care. Some participants expressed how their religious practices helped them deliver appropriate end-of-life care. One participant described an example of end-of-life care religious practices as follows: 'I would tell them [family of the patients], okay, now, you know, this is a patient now bedridden, put in the Qibla position.' (Participant #4). Qibla is the direction of Mecca to which Muslims turn at prayer. This example illustrates how nurses can adequately and appropriately care for patients and their families when they have an understanding of the patient's religious practices. Participant 16 also provided an exemplar, '... when I went to his room, he requests me, he wants to hear some type from our Ramayana [Hindu Song]'. In contrast, some participants from different cultural and religious backgrounds than the patients they commonly looked after, reported the challenges they experienced in providing end-of-life care because they did not fully understand the cultural norms and religious needs of these patients and their families. This led to participants expressing that they needed more education on important religious rituals to meet the needs of their patients and their families.

'It's very important thing and it will improve the quality-of-life care ... if they will teach us, because of course, we are from another country and we are all another religion. If they will teach us some Muslim religious beliefs, like that we can follow that one, and we can easily understand that one.'

(Participant #15).

4.7.3 | Dynamics of truth telling

Participants raised concerns of how being truthful impacts nurses' professional practice and their psychological well-being. Several participants described situations where patients were not aware that their disease was terminal. When this occurred, nurses expressed how this necessitated providing care based on the patients' awareness of their diagnosis rather than their prognosis, 'the family members, they hide the matter, they will hide the matters to the patient and, sometimes they are not aware also. So, in that situation we can behave according, [to] that way.' (Participant #16). In these cases, participants reported limited capability to provide high quality, holistic end-of-life care due to 'the family's refusal for the patient to know their condition, so until the end of life, the patient still think that they only have this small illness' (Participant #8). Participant 7 also indicated that they 'feel very sad because you know, the patient definitely doesn't know his condition. The patient is thinking he will become okay' (Participant #7).

The dynamics of truth telling, and the limited influence nurses had on disclosing details about the patients' prognosis made some nurses feel like their professional obligations and responsibilities to the code of ethics were compromised. Nurses explained how this barrier impacted end-of-life care for patients as they could not ensure some patients had a full understanding of their condition and were therefore unable to fully engage in decision-making about end-of-life care planning.

Respondents described how the context they worked in impacted their views about disclosing prognosis to individual patients. Participants who were working in specialist palliative care units pointed out how they 'are oriented at the first place [in] how to take care, how to deal with those end-of-life patients' (Participant #9). This includes an explicit system about disclosing the diagnosis/prognosis to the patients 'first' and then their families. This is because the nurses, patients, families and doctors in the palliative care units are all aware of how best to approach end-of-life care, which facilitates planning of care.

'I work in the end-of-life care settings. So, you know, ... for the others [nurses], maybe it will be difficult, you know, because we have [in palliative care settings] a clear goal for our patient at end-of-life, but maybe for the other nurses [working outside of palliative care settings], maybe difficult'

(Participant # 4).

In contrast, participants from non-specialist palliative care wards indicated a kind of chaos about the process of truth telling at end-of-life. Participants highlighted uncertainty and ambiguity surrounding who should be responsible for informing patients about impending death and the need to change care goals to that which is appropriate for end-of-life care. One participant described their personal beliefs that family members should know the diagnosis before the patient, 'We have to explain to the families first ... what all things we are doing for the patient' (Participant # 1). This belief contradicts with the principles of end-of-life care regarding telling the truth to the patient first. Some participants expressed confusion and a lack of clarity about their role in situations where the doctor refuses to tell patients the truth about their prognosis. This confusion led to moral and professional struggles between members of the treating team and is evident in this quote from participant #7:

'I said, Doctor so what can we do [for the patient]? Can you explain to the patient in this one [situation]. So, the doctor refused to give the information, she [the doctor] told me, no, no, no, this is, I cannot explain, I will not explain like that. In that time only I'm thinking more about end-of-life care because you know, I feel very sad [at] that time ... if I am the one [the patient], it will be harmful like that ... so ... it will feel really sad because ... I don't know my condition and the doctor doesn't want to explain to the patient'

(Participant # 7).

4.7.4 | Experiences of providing end-of-life care

Most of the participants described end-of-life care as a difficult task due to the challenges they experienced in delivering high-quality care. The challenges participants reported included being unable to successfully fulfil patients and families' requests in non-specialist palliative care wards. Participant #14 expressed end-of-life care as 'very hard, because our ward is the busiest ward in our hospital, we cannot give the maximum care which is needed by the patients, the one who require palliative and terminal care'. Another challenge included dealing with patient and family anger. 'Sometimes they [the patient] are aggressive, sometimes they are showing aggressive behaviour because of their disease sometimes because of their pain. So, they are showing anger to us' (Participant #3). Communicating in Arabic was also perceived to be challenging for some participants due to Arabic being their second or third language. Participant 16 stated that 'there is a language barrier, that is the most important problem for communication'. All of these challenges affected participants' beliefs and, subsequently, their ability to provide high-quality end-of-life care.

'Its not easy because ... patients and the family members have different views, and perceptions about end-of-life care. So, there are decisions in ... whatever the plan of care would be, it's not easy to decide what to do and when to do it because they have different views. And sometimes they have conflict. So, it really affects the care of the patient. And, also their acceptance and the patient's acceptance and awareness of these conditions.'

(Participant #8)

Some participants explored how providing end-of-life care is difficult because of its negative impact on them. Although not common, respondents expressed the belief that when they form a close relationship with their patients and the patient dies, they become very stressed as they are emotionally attached. 'Sometimes we are taking care of our patients ... same like our family members. They become close to us also, sometimes you know, so suddenly, something will happen to our patients very hard to ... it's a very different feeling for us also. For us, it's mental feeling ... is too much stressful also.' (Participant #1). Other participants described how it is 'very hard to cope' (Participant #3) because their patients at their final stage are in pain and feeling very depressed. In addition, participants identified challenges at being present at the time of death. Participant #8 highlighted how some moments during end-of-life care are very difficult, such as when death occurs, and family members are emotionally and psychologically distressed. They reported 'the emotions of the family members [are difficult], because I had it before that the patient died during our visit and it was really emotional for ... the family ... and it's not easy to be there in those moments' (Participant #8).

5 | DISCUSSION

End-of-life care practices are greatly influenced by nurses' behavioural, normative, and control beliefs and also the systems in place which support or impede the provision of such care. The results of this study show that RNs, regardless of any professional or personal demographic factors, are committed to providing the best end-of-life care. This is because they believe that providing end-of-life care will make patients and their families as comfortable as possible. However, the study also revealed that RNs' cultural, religious, educational and/or ethnic backgrounds may influence end-of-life nursing practices (Rittle, 2015). This is consistent with existing literature that highlights how cultural norms and education play a crucial role in shaping RNs' beliefs about death and dying and influence the provision of care (Binda et al., 2021; Juranić et al., 2023). These findings highlight the need to examine these factors to develop recommendations for improving end-of-life care practices in Saudi Arabia and internationally.

The study also found that the majority of RNs (80%) believed that discussing a terminal prognosis makes patients and families feel hopeless. However, RNs' normative beliefs were challenged when exposed to different views or cultural stances on the emotions that come with learning the end of life is near. In a broader cultural context, RNs' beliefs that breaking bad news will bring about a feeling of hopelessness may not align with the actual experiences of patients and their families (Fishbein & Ajzen, 2011). Rather, these beliefs may reflect RNs' personal expectations and beliefs about the consequences of disclosing and discussing a terminal prognosis. This normative belief and its consequences may explain why RNs in the qualitative phase reported that they wished to learn more about Saudi Arabian culture and beliefs regarding end-of-life care, and how best to communicate with Saudi patients when they are approaching the end-of-life. This is because the majority of RNs in this study are from different cultural backgrounds and are unaware of the psychosocial norms of the Saudi Arabian population. This finding is supported by research from other cultural contexts, which emphasises the importance of understanding patients' and families' cultural perspectives when communicating about terminal prognoses (Kwame & Petrucka, 2021). Increased cultural awareness might, therefore, facilitate communication between RNs and patients, which is a crucial component of quality end-of-life care (Kaihanen et al., 2019).

Previous research has also highlighted how nurses from different cultures and beliefs need to learn more about end-of-life care practices in their host country. An Australian study by O'Callaghan et al. (2020) explored the experiences of foreign-educated and locally trained migrant nurses working in a culturally diverse environment. They found that those trained in other countries were uncertain about when to approach end-of-life care due to a lack of cultural knowledge and practices in their new context. Zhang et al.'s (2018) reported similar findings with nurses working in Singapore needing to learn more about the patients' cultures and beliefs to support their spiritual needs at end-of-life. An integrative review highlighted

that international nurses working in Middle Eastern Muslim countries may not fully understand the nuances of local customs and beliefs surrounding death and dying, potentially impacting the delivery of culturally appropriate end-of-life care (Oakley et al., 2019). Therefore, to improve patient outcomes and create culturally inclusive workplaces, health services should educate and orientate internationally educated nurses about death and dying in different cultures (Semlali et al., 2020). The findings also reinforce the call for increased emphasis on death and dying in the undergraduate nursing curriculum, particularly in relation to different beliefs, cultures and end-of-life care.

There is also a complex interplay between RNs' beliefs, cultural and religious backgrounds and their provision of end-of-life care. Some participants mentioned that their religious practices helped them provide appropriate end-of-life care. For example, RNs who shared the same religion as their patients were more familiar with the religious rituals required in the last moments of life, which help preserve the patient's dignity. This religious factor may explain why there were differences in nurses' responses about their belief in their ability to preserve patients' dignity until the moment of death (Xiao et al., 2021). A systematic review by Balante et al. (2021) confirmed that faith and religion often guide end-of-life approaches. Their findings indicated that RNs consider their faith as an integral part of their professional role when providing end-of-life care, and they felt satisfied that their faith guided them in their decisions to support patients and their families (Balante et al., 2021). Additionally, the religious and cultural backgrounds of RNs can affect behavioural beliefs, giving them confidence that they have the knowledge and skills to provide appropriate end-of-life care (Brunton, 2017). Therefore, we recommend that nurses be educated using scenarios and role-playing methods to develop knowledge about providing end-of-life care to patients who are religiously or culturally different from them (Valen et al., 2019). Using these methods in nursing education and professional development, as well as focusing on preserving religious rituals in a multicultural workplace context, may support development in this area (Coyle et al., 2015).

This study also highlighted the importance of interdisciplinary teams for the provision of end-of-life care in both specialist and non-specialist settings. An interdisciplinary approach is becoming more widely accepted among healthcare staff in practice, and there is a growing integration of palliative and end-of-life care into Saudi Arabian hospitals and health systems (Alshammari et al., 2019). This study is not the first to find that interdisciplinary care teams facilitate improvements to the quality of end-of-life care, particularly in general hospital settings. Carvajal et al. (2019), in their scoping review, reported that RNs accepted and recognised the interdisciplinary team as a facilitator in providing end-of-life care. Nurses' acceptance and recognition were related to the high level of control achieved by an interdisciplinary team regarding patient care, enabling them to meet each patient's end-of-life needs (WHO, 2023). However, the results from this study suggest that there are significant variations in the role of RNs in interdisciplinary teams

in the KSA context. These findings and existing literature, show that nurses are not always adequately supported to participate in decisions about end-of-life care planning (Blackwood et al., 2019). Further research is needed to explore the role of RNs in interdisciplinary teams to determine how they can contribute to improving the quality and effectiveness of end-of-life care.

This study clarified the relationship between RNs' years of experience and their beliefs about end-of-life care best practices. It found that RNs with more years of experience believe that palliative care and making patients comfortable at the end of their lives is the best practice for caring for the terminally ill. They hold the view that curative care should not be provided to patients with incurable illnesses to avoid unnecessary treatments. This belief may be a response to the current practice of aggressive curative treatment until the last days of life, which often resulting in missed opportunities to refer patients for end-of-life care (Nevin et al., 2020). Glogowska et al. (2016) also found that more experienced nurses feel more sympathy for their terminally ill patients who are still undergoing curative treatment in their final phase of life, despite there being no hope of recovery. Avoiding emergency interventions in end-of-life patients, such as cardiopulmonary resuscitation (CPR), helps reduce the pain dying patients (and their families) experience (Martin et al., 2022). Nurses with more experience are likely to have encountered numerous patients with incurable illnesses and have witnessed the impact of aggressive curative treatments on patients' quality of life (Chan et al., 2020). This exposure may lead to a shift in their beliefs, favouring a more patient-centred approach that focuses on comfort care and symptom management instead of aggressive curative interventions (De Brasi et al., 2021). Therefore, incorporating end-of-life care education into nursing curricula can help prepare nurses to provide compassionate and effective care for dying patients. This can include training on symptom management, communication with patients and families and navigating cultural and religious differences. By normalising the importance of end-of-life care, nurses can feel more confident and prepared to provide compassionate care to their patients.

5.1 | Limitations

There are some limitations to the research that must be considered when interpreting the findings of this study. Firstly, this research was conducted during the COVID-19 pandemic, which may have had an impact on the nurses' experiences and perceptions of end-of-life care. The pandemic may have led to changes in the work environment and care processes and increased workload and stress for healthcare professionals (Gao et al., 2020), potentially affecting data collection. In addition, due to the length of the questionnaire and the increased workloads of participants during the pandemic, some RNs did not complete the belief section of the survey. However, the study was strengthened by the inclusion of in-depth, semi-structured interviews. Finally, the tool used for

measuring RNs' beliefs in this study requires further validation. Ideally, this would be achieved by using the tool in future research conducted in other countries to assess its validity and reliability across cultures.

6 | CONCLUSION

In conclusion, this study has contributed to the understanding of RNs' beliefs about end-of-life care in general ward settings. The findings suggest that RNs hold a range of beliefs, influenced by cultural and religious factors, as well as their professional experiences and training. These beliefs can both facilitate and hinder the provision of appropriate end-of-life care for patients and their families. The study highlights the need for ongoing education and training for RNs to improve their understanding and delivery of end-of-life care, and for the integration of palliative and end-of-life care into Saudi Arabian hospitals and health systems. Overall, this study provides valuable insights that can inform the development of policies and strategies to improve end-of-life care provision in Saudi Arabia and potentially other multicultural settings.

AUTHOR CONTRIBUTIONS

FA, JS, GM, SL: Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; Involved in drafting the manuscript or revising it critically for important intellectual content; Given final approval of the version to be published. Each author has participated sufficiently in the work to take public responsibility for appropriate portions of the content; Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the authors.

DATA AVAILABILITY STATEMENT

The data used and analysed during the current study are available from the corresponding author on reasonable request.

DECLARATIONS

The authors confirm that any data utilised in the submitted manuscript have been lawfully acquired in accordance with The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilisation to the Convention on Biological Diversity.

ETHICS STATEMENT

The relevant fieldwork permission was obtained from: The University of Wollongong Human Research Ethics Committee (Approval No 2020/255). Saudi Arabian Ministry of Health (Approval No 1441-1798736).

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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