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Evaluating ICU nurses' education, practice, and competence in palliative and end-of-life care in Saudi Arabia: A cross-sectional study

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Abstract

Background: In palliative and end-of-life (PEOL) care, especially within intensive care units (ICUs), nurses' unique skills are critical, yet their expertise remains under-explored, particularly in Saudi Arabia

Objective: This study aimed to evaluate the education, practice, and perceived competence of adult ICU nurses in Saudi Arabia regarding PEOL care and to pinpoint key factors that influence this aspect of healthcare delivery.

Methods: A cross-sectional design was utilized in this study. Participants were recruited from five public hospitals and one specialized center in Hail, Saudi Arabia. Data were gathered in September 2023 using the PEOL Care Index, which measures various care dimensions on a Likert scale in Arabic and English. IBM SPSS Statistics 29.0 was used for statistical analysis, particularly to conduct ANOVA, t-test, and multiple regression.

Results: 142 out of the targeted 171 ICU nurses completed the survey, yielding a response rate of 83.04%. Although 81% of the nurses had experience caring for dying patients, only 30.3% had received in-service PEOL care training. Those with this training demonstrated significantly higher scores in education, clinical practice, and perceived competence than their counterparts (p <0.05). Mean scores across these areas were 69.67, 71.01, and 71.61, respectively. In-service training positively correlated with these metrics (p <0.05). Multiple regressions also revealed that in-service training, job satisfaction, and communication authority are strong influencers, explaining 21.6% of the variation in clinical practice and 16.9% in perceived competence.

Conclusion: The study highlighted the proficiency of ICU nurses in PEOL care, emphasizing that in-service training, job satisfaction, and the authority to communicate effectively with patients and their families significantly improved clinical practice and nurses' competence in PEOL care. This underlines the critical need for healthcare institutions to acknowledge and address these key factors to optimize patient care outcomes.

Keywords

Saudi Arabia; end-of-life; ICU; nurses; palliative care; patient care; hospitals

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Background

Improving the quality of care for patients with life-threatening illnesses and reducing stress for family members is essential to healthcare delivery. Palliative care is the approach employed to meet these objectives. According to the World Health Organization (2020), this care approach is focused on promptly identifying the spiritual, psychological, and physical challenges the patients face so that these can be managed effectively. On the other hand, end-of-life care targets patients who are in their terminal stage and have ceased to receive curative treatment. The highlight of such care is dealing with the wide-ranging needs of the patients and their families. The National Cancer Institute (n.d.) advises that several services play a crucial role in the terminal stages of patient care, including hospice care, supportive care, and palliative care. Despite an increasing need, there remains a significant gap in the availability of these services. According to the World Health Organization (2020), only around 14% of individuals needing palliative care have access to it, implying that approximately 56.8 million people each year lack access to essential palliative and end-of-life (PEOL) care services.

In Saudi Arabia, PEOL care was not part of the services made available by interdisciplinary specialties in the past (Alshammari et al., 2023). This has changed over the years, as PEOL care is becoming recognized as a priority in the Saudi Arabian healthcare sector, as illustrated by the Saudi Vision 2030 (Saudi Vision, 2022). For instance, the country now has more than 15 cancer centers with a specific emphasis on palliative care units, indicating the country's growing recognition of PEOL care (Al-Jabarti et al., 2021). This recognition can be attributed to the escalation in the prevalence of severe life-threatening illness among patients.

In the context of intensive care units (ICUs), it is noted that PEOL is now an important factor, irrespective of whether the objective is curative treatment or a peaceful transition to the

end of life (Athari et al., 2016). ICUs are not regarded as optimal environments for patients approaching the end of life (Angus & Truog, 2016). Nevertheless, PEOL care inescapably becomes part of the day-to-day practices within ICUs (Velarde-García et al., 2016). Research has revealed the significant advantages linked with incorporating PEOL care in ICUs. Firstly, it has been demonstrated that palliative care has the capacity to mitigate ICU admissions, which promotes a wide-ranging approach to the well-being of patients (Gade et al., 2008; Penrod et al., 2010). Additionally, implementing protocols associated with palliative care has shown a palpable reduction in the duration of ICU stays (Norton et al., 2007; Penrod et al., 2010). This makes it possible to move patients to more appropriate care settings when necessary. A relationship- between palliative care and a reduction in ICU mortality has been observed (Martins et al., 2017), highlighting the potential of palliative care to boost patient outcomes. Finally, when palliative care is integrated into ICUs, it has been shown to result in improvements in the quality and substance of family meetings, a situation that nurtures effective communication, shared decision making, and improvements in the general provision of care for patients and their families (Glajchen et al., 2022).

In the area of PEOL care, the implementation of care relies on the distinctive skills of nurses (Hagan et al., 2018; Schroeder & Lorenz, 2018). Nurses have numerous crucial roles, including educator, advocator, collaborator, care provider, and supporter, both for patients and their families (Eltaybani et al., 2021a; Eltaybani et al., 2021c). In their education role, nurses ensure that patients and their families are equipped with the required knowledge regarding PEOL care so that they can make informed decisions and take an active part in their care process. Nurses' advocacy is illustrated when they champion the preferences and rights of patients, making sure that their voices are heard and taken into consideration (Hagan et al., 2018). Regarding collaboration, nurses participate in interdisciplinary teams to develop comprehensive care plans addressing patients' and their families' psychosocial, emotional, and physical needs (Sekse et al., 2018). When they assume the caring role, nurses ensure the delivery of evidence-based and compassionate interventions focusing on managing symptoms, ensuring comfort, and promoting general well-being (Hagan et al., 2018). Finally, nurses provide support to patients when they provide guidance and emotional solace to patients and their families as they navigate the complexities of PEOL care. Therefore, it can be concluded that nurses' multifaceted expertise and roles make them vital contributors to implementing and facilitating PEOL care.

The provision of PEOL care by nurses is a widespread practice, regardless of the specific healthcare setting (Paice et al., 2018). Nonetheless, an analysis of the literature shows a dearth of research examining the factors associated with the performance of nurses and their perceived proficiency levels when providing PEOL care, particularly within an ICU setting (Eltaybani et al., 2021a). On the other hand, there is extensive research related to nurses' attitudes and knowledge regarding PEOL in Saudi Arabia and globally. An analysis of existing findings brings to the fore some worrying findings about the insufficient education and knowledge among nurses regarding PEOL care (Aboshaiqah, 2019; Alshaikh et al., 2015; Davis & Lippe, 2017; Eltaybani et al., 2021b; Etafa et al., 2020; Hussin et al., 2018; Muliira et al., 2023; Sesma-Mendaza et al., 2022; Wang et al., 2022). It has been noted that nursing schools fail to ensure that student nurses are sufficiently prepared to deliver care for patients nearing the end of life. This view is acknowledged by Qureshi et al. (2022), who noted that many nursing schools do not deliver elective or dedicated courses solely focusing on PEOL care. Instead, PEOL is incorporated into care-related subjects in different classes. This education deficiency has been noted as an important factor behind the subpar care received by patients (Gillan et al., 2014). Hence, there has been an urgent call to incorporate PEOL care education within nursing curricula and to sustain this training through clinical in-service programs (Ferrell et al., 2016; Li et al., 2019).

The attitudes of nurses and nursing students towards PEOL care have been investigated by several studies, the majority of which indicated favorable attitudes among nurses and nursing students (Alenezi et al., 2022; Alshammari et al., 2023; Wang et al., 2022; Zeru et al., 2020). These positive attitudes are encouraging, as they contribute to compassionate and patient-centered care. Nonetheless, it can be noted that some findings do not align with this trend. For instance, Hussin et al. (2018) and Etafa et al. (2020) presented findings indicating unfavorable views on PEOL care among their nurse participants. This contrast could be read as proof of the presence of disparities in particular settings, which brings to the fore the need to understand and address the underlying challenges.

Previous studies have evaluated a broad range of factors influencing PEOL care practice among nurses, including perceived advantages and obstacles, subjective norms, religious beliefs, intention, self-efficacy, skills, knowledge, qualifications, attitudes, experience, education, culture, and age (Alshammari et al., 2023; Jeong et al., 2020; Soikkeli Jalonen et al., 2020; Xu et al., 2023). From their studies, Alshammari et al. (2023) and Carvajal et al. (2019) concluded that nurses constantly emphasized the role of support from more experienced colleagues and collaboration with patients' families in delivering impactful PEOL care. Nonetheless, together with these enablers, some hindrances to effective PEOL care have been noted. For instance, one of the worrying trends is the dearth of knowledge, coupled with negative attitudes among nursing staff. Such factors present considerable impediments to the achievement of the gold standard in caring for patients during the end-of-life stage (Alshammari et al., 2022; Carvajal et al., 2019; Griffiths, 2019; Hussin et al., 2018; Mani & Ibrahim, 2017; Meilando et al., 2022). Another impediment noted by numerous studies is the challenge associated with nurses managing their own emotions and meeting the emotional demands linked to the provision of PEOL care (Carvajal et al., 2019; Griffiths, 2019; Hafez et al., 2022; Jung & Matthews, 2021). From this observation, the need to adopt self-care and support strategies for healthcare workers in PEOL settings comes to the fore.

Effective communication is at the heart of quality PEOL care. It becomes essential when broaching sensitive topics like death and end-of-life considerations (Alenezi et al., 2022; Carvajal et al., 2019). Notwithstanding its importance, communication in such settings is usually mired by challenges, including cultural differences, language barriers, and varying

beliefs about handling discussions associated with death. In countries such as Saudi Arabia, this challenge can be more acute for expatriate nurses, with significant language and culture challenges (Alenezi et al., 2022; Mani & Ibrahim, 2017; Oakley et al., 2019). Family members take an active role in decision-making within the ICU environment, usually accommodating unconscious patients (Meilando et al., 2022). Yet, navigating this realm is not without its complexities. Nurses frequently encounter challenges in facilitating and managing family participation in these crucial decisions (Alshammari et al., 2023; Alshehri et al., 2022; Griffiths, 2019; Jung & Matthews, 2021; Meilando et al., 2022).

There is a general dearth of studies with a primary focus on PEOL care, particularly from a nursing perspective. Consequently, there is a lack of comprehensive understanding regarding the training and education made available to ICU nurses in the area of PEOL care and the degree to which they are involved in the delivery of services associated with PEOL care. This study is at the forefront of addressing this gap by evaluating the perceived competence, practice, and education of ICU nurses in Saudi Arabia in the area of PEOL care. This study will inform the development of tailored strategies and interventions to enhance the quality and efficacy of PEOL care within the Saudi healthcare framework. In the present study's context, the aim is to bring to the fore the prevailing status of PEOL care education, perceived competence, and practice among adult ICU nurses in Hail, Saudi Arabia, while also exploring the factors linked to PEOL care practice and perceived competence.

Methods

Study Design

The study utilized a cross-sectional quantitative design.

Samples/Participants

Participants for this study were recruited from the ICUs of five government hospitals and one specialized center in Hail, Saudi Arabia. The settings chosen for this research had ICU bed capacities ranging between 6 and 21 beds, with a total of 171 ICU staff nurses. To ensure the efficient recruitment of eligible nurses, the study employed a non-probability convenience sampling method due to its feasibility and efficiency in accessing a specific group within a known setting. To ensure that participants had sufficient clinical insight and exposure, the eligibility criteria required nurses to possess a minimum of three months of clinical experience and be engaged in direct patient care. The representative sample size for a population of 171 ICU nurses is 119, calculated using the Rao soft Online Sample Size Calculator (Raosoft, 2004), with a 95% confidence level and a 5% margin of error. This study collected 142 complete surveys, reaching the projected sample size and significantly representing the intended population.

Instrument

The instrument for the study was adapted from Eltaybani et al. (2021a), and the necessary permission for its use was duly obtained from the first author. The instrument consisted of two forms, one for nurse managers and one for staff nurses. Nurse managers provided information about their socio-demographic details like age, gender, and qualifications, along with specifics about their units. Some of the collected data included the proportion of patients able to communicate verbally and non-verbally on the day when the survey was conducted, the average patient stay duration, the existence of a room for the family to meet, rules relating to visitation, institutional end-of-life care guidelines and the size and type of the ICU.

On the other hand, staff nurses provided data on their socio-demographic characteristics (age, gender, years of experience, years of ICU experience and qualification), work-related information, and the PEOL Care Index. Work-related factors examined included job satisfaction, shift work, experience with dying patients, in-service PEOL care training, the stress associated with handling death, and nurses' authority in the unit. Job satisfaction was measured on a 0-5 Likert scale, asking nurses to rate their overall job contentment. Stress-related to death and dying was also assessed on a 0-5 scale, gauging the extent of stress experienced. Nurses' authority was evaluated on a 0-10 scale, inquiring about their ability to communicate diagnoses and prognoses or help families and patients make decisions based on available treatment choices, with higher scores on these scales indicating higher satisfaction, stress, and authority, respectively (Eltaybani et al., 2021a).

The PEOL Care Index was employed to evaluate perceived competence in palliative care, self-reported practice, and education among ICU nurses, using both its Arabic and English versions, comprising eight domains with an aggregate of 25 questions, as presented in **Table 1**.

Table 1 The eight domains of the PEOL Care Index

Aspect	Number of Items	Competency Area
Structure and process of care	4	Evaluating knowledge and application of PEOL care frameworks
Physical aspects	3	Assessing the physical needs of patients and providing comfort
Psychological and psychiatric aspects	4	Focusing on the emotional well-being of patients
Social aspects	3	Evaluating social support systems of patients
Spiritual, religious, and existential aspects	3	Addressing patient's spiritual needs
Cultural aspects	2	Incorporating cultural sensitivities into care
Care of the patient nearing the end of life	4	Tailoring care for final stages
Ethical and legal aspects	2	Applying ethical and legal standards

Each item required three responses from participants regarding their perceived competence, practice, and education, rated on a 0-5 Likert scale. Education scores ranged from no education (0) to extensive education (5), practice from never (0) to always (5), and perceived competence from none (0) to almost perfect (5). Responses were normalized to a 0-100 scale, with higher scores, greater perceived competence, frequent practice, and a more wide-

ranging education. The instrument validity and reliability have been confirmed with a Cronbach's alpha of 0.9 and an ICC of 0.9 (Eltaybani et al., 2021a; Eltaybani et al., 2021c).

Data Collection

Data were collected in September 2023 using an anonymous online questionnaire, available on Google Forms, distributed to individuals who voluntarily accepted the request to participate in the study. Research coordinators visited adult ICUs in the chosen hospitals and briefed the staff nurses about the study's objectives. After providing this explanation, nurses were invited to participate in the study voluntarily and were given a link to access the questionnaire.

Data Analysis

Statistical analysis was conducted using SPSS Statistics software, Version 29.0 from IBM. Descriptive statistics (mean and standard deviation SD) were calculated. ANOVA and *t*-tests were employed to compare the means of continuous variables. Multiple regression analysis explored palliative care practice and perceived competence predictors. The focus was on clinical practice and perceived competence rather than education, as the 'education' component in the context specifically refers to undergraduate education, which was not anticipated to influence these aspects of palliative care substantially. The normality of data was assessed, and assumptions were validated. Computed with a confidence interval of 95% and with a *p*-value <0.05, all analyses were considered statistically significant.

Ethical Considerations

The Hail Region Ethics Committee approved this research (approval no 2023-52). Each participant's confidentiality and anonymity were guaranteed. Each participant received a clear explanation of the study's purpose, consent statements, and information regarding their rights and the expected time commitment for completing the questionnaire.

Results

In the selected hospitals, 12 nurse managers and 142 ICU staff nurses participated in the survey. All ICUs had a strict one-hour visitation policy, with each visitor limited to five minutes and required to wear full PPE. Each ICU also featured a room where families and patients could meet and follow standard institutional guidelines for end-of-life care. The patient-to-nurse ratio was between 1.2 and 1.3. A significant proportion of patients could not communicate, ranging from 60% to 80%, and patients' stays varied from a day to a month.

Table 2 Socio-demographic and work-related data (*N* = 142)

Socio-demographic and work-related data	*n* (%) or Mean ± SD	Education	Clinical Practice	Perceived Competence
		Mean ± SD	Mean ± SD	Mean ± SD
Age (in years)[c]				
<25	15 (10.6)	64.96 ± 16.84	66.08 ± 15.74	66.13 ± 15.72
25-35	96 (67.6)	70.26 ± 16.01	71.81 ± 16.03	72.64 ± 16.22
>35	31 (21.8)	70.14 ± 14.79	70.94 ± 16.06	71.05 ± 15.75
Gender[b]				
Male	15 (10.6)	72.80 ± 19.00	75.25 ± 17.21	76.64 ± 18.57
Female	127 (89.4)	69.30 ± 15.44	70.51 ± 15.83	71.01 ± 15.74
Years of nursing experience[c]				
<5	59 (41.5)	68.53 ± 17.24	70.12 ± 17.26	71.16 ± 16.98
5-10	50 (35.2)	70.19 ± 15.66	71.39 ± 15.22	71.73 ± 16.21
>10	33 (23.2)	70.93 ± 13.52	72.05 ± 15.14	72.22 ± 14.64
Years of ICU experience[c]				
<5	89 (62.7)	70.62 ± 16.87	71.68 ± 16.84	72.75 ± 16.75
5-10	38 (26.8)	67.41 ± 13.12	69.39 ± 13.12	69.16 ± 13.69
>10y	15 (10.6)	69.81 ± 15.98	71.20 ± 18.07	71.04 ± 17.92
Qualification[c]				
Diploma	10 (7.0)	73.04 ± 15.79	74.08 ± 15.58	73.44 ± 15.63
Bachelor's	126 (88.7)	69.15 ± 15.97	70.40 ± 16.16	71.10 ± 16.30
Master's	6 (4.2)	75.07 ± 12.69	78.80 ± 11.81	79.07 ± 11.52
Work shifts[c]				
Day	14 (9.9)	65.83 ± 16.24	67.60 ± 18.00	68.46 ± 16.41
Night	2 (1.4)	62.80 ± 3.96	62.80 ± 3.96	62.80 ± 3.96
Alternate	126 (88.7)	70.21 ± 15.87	71.52 ± 15.87	72.10 ± 16.16
Overall job satisfaction[a]	3.27 ± 1.30	0.240*	0.279*	0.274*
Previous caring for a dying patient[b]				
No	27 (19.0)	65.87 ± 15.38	65.87 ± 16.66	67.08 ± 15.88
Yes	115 (81.0)	70.57 ± 15.85	72.22 ± 15.66	72.67 ± 16.01
The stress of dealing with death and dying[a]	3.27 ± 1.30	0.656	0.637	0.641
In-service training on palliative care or end-of-life[b]				
No	99 (69.7)	66.73 ± 14.72**	67.96 ± 15.38**	68.37 ± 15.20**
Yes	43 (30.3)	76.45 ± 16.33**	78.05 ± 15.28**	79.05 ± 15.75**
Nursing authority to communicate[a]	2.18 ± 1.75	0.022	0.012	0.011

Note: [a] Pearson's correlation coefficient (f) | [b] t-statistics of *t*-test | [c] F-statistics of ANOVA | * p <0.05 | ** p <0.001

The majority of nurse managers were females, with only two males; most held a bachelor's degree and were aged between 25 and 35. Out of a population of 171 ICU nurses, 142 took part in the survey. This robust participation translates to a response rate of 83.04%. Of these, 89.4% (*n* = 127) were female, and 10.6% (*n* = 15) were male. The majority (81%) had prior experience in caring for dying patients, while only 30.3% (*n* = 43) received in-service training on PEOL care (**Table 2**).

Overall, the mean education score was 69.67 (SD = 15.81). Clinical practice and perceived competence mean scores were similar at 71.01 (SD = 15.99) and 71.61 (SD = 16.08), respectively (**Table 3**). Job satisfaction demonstrated a weak correlation with education, clinical practice, and perceived competence (p <0.05). Participants who had attended in-service training on PEOL care had significantly higher education, clinical practice, and perceived competence than those who did not (p <0.05) (**Table 2**). Cronbach's alpha was calculated for each of the study's eight domains. The mean score was 0.962, ranging from 0.962 to 0.973, indicating a high level of internal reliability.

Table 3 Description of PEOL Care Index Scores

PEOL Care Index Scores	Education	Clinical Practice	Perceived Competence
	Mean ± SD	Mean ± SD	Mean ± SD
Domain 1: Structure and process of care	68.59 ± 17.00	71.44 ± 17.41	72.85 ± 17.26
Domain 2: Physical aspect of care	75.59 ± 17.73	76.81 ± 17.48	77.28 ± 17.90
Domain 3: Psychological and psychiatric aspects of care	70.21 ± 17.46	72.01 ± 18.22	72.15 ± 18.48
Domain 4: Social aspect of care	69.72 ± 19.38	70.70 ± 19.07	71.31 ± 19.32
Domain 5: Spiritual, religious, and existential aspects of care	67.14 ± 20.13	66.95 ± 20.50	67.61 ± 20.17
Domain 6: Cultural aspect of care	68.24 ± 19.29	68.10 ± 19.86	69.72 ± 19.24
Domain 7: Care of the patient nearing the end-of-life	68.45 ± 18.97	70.21 ± 18.52	69.89 ± 18.08
Domain 8: Ethical and legal aspects of care	69.51 ± 20.01	70.56 ± 19.16	71.27 ± 18.86

Adjusted R-squared values indicate that PEOL care in-service training, increased job satisfaction, and having the authority to communicate to dying patients and their families explain 21.6% of the variation in clinical practice and 16.9% in perceived competence for PEOL care (**Table 4**).

Table 4 Multiple regression analysis for nurses' PEOL care perceived competence and clinical practice

	Clinical Practice	Perceived Competence
	B [95% CI]	B [95% CI]
Constant	30.31 [5.80-54.82] *	31.10 [6.46-55.75] *
Qualification	2.55 [-5.26-10.36]	3.16 [-4.69-11.02]
Years of experience	1.27 [-2.25-4.79]	1.04 [-2.50-4.58]
Work shifts	3.06 [-1.02-7.14]	2.91 [-1.19-7.02]
Prior experience in caring for dying patients	4.84 [-1.89-11.57]	4.01 [-2.76-10.78]
In-service training on palliative and end-of-life care	9.45 [3.73-15.16] **	10.23 [4.48-15.98] **
Overall job satisfaction	2.63 [0.67-4.59] *	2.54 [0.58-4.51] *
Stress with dying patients	1.77 [-0.15-3.68]	1.80 [-0.12-3.73]
Authority to communicate	1.70 [0.25-3.14] *	1.70 [0.25-3.15] *
Adjusted R^2	**0.216****	**0.169****

Note: * p <0.05 | ** p <0.001

Discussion

The main findings reveal that participants averaged scores of approximately 71 in perceived competence, clinical practice, and education, indicating proficiency in these areas. While those participating in PEOL care in-service training surpassed their untrained peers, only 30.3% had undergone this specialized training. Multiple regressions highlighted a positive relationship between clinical practice scores, perceived competence, and factors such as in-service training, enhanced job satisfaction, and the authority to converse with dying patients and their kin.

The study's primary discovery is that participants achieved an average score of around 71 in areas like education, clinical practice, and perceived competence. This score suggests proficiency in these domains. Yet, when contrasted with the findings of Eltaybani et al. (2021c), which revealed a marked insufficiency in palliative care perceived competence, practice, and education among Egyptian ICU nurses, the disparities become evident. The inadequacy might be influenced by limited access to palliative care training or potential institutional hurdles.

Observing that those who attended PEOL care in-service training outperformed their peers without this specialized instruction aligns with the fundamental pedagogical understanding that specialized training often leads to more refined skills and better performance outcomes (Salas et al., 2012). Such training not only bolsters the quality of patient care but also significantly elevates the confidence levels of professionals, allowing them to function at their best capacity. However, a concerning conclusion was that only 30% had adequately attended training. This low number can negatively affect patient outcomes while increasing the emotional burden on healthcare professionals due to a perceived lack of competence (Institute of Medicine Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine, 2011). The gap in education, particularly in the realm of PEOL care, has been a recurrent theme in many studies, indicating a systemic issue that transcends individual institutions (Davis & Lippe, 2017;

Eltaybani et al., 2021b; Etafa et al., 2020; Hussin et al., 2018; Muliira et al., 2023; Wang et al., 2022). Addressing this educational gap should be prioritized, and the focus should be on amalgamating PEOL care modules in the foundation of nursing education and continuous professional development programs (Ferrell et al., 2016; Li et al., 2019).

Multiple regression analyses showed a positive correlation between perceived confidence, clinical practice scores, and numerous factors. Foremost, professional competence benefited immensely from in-service training. This brings to the fore the reality that PEOL care education is important both at university and during in-service training (Eltaybani et al., 2021c). Furthermore, enhanced job satisfaction was identified as a critical driver. Satisfaction among healthcare employees results in a natural escalation in competence and confidence levels, leading to improved patient care and better patient satisfaction (Lu et al., 2012). Another salient factor was the authority granted to nurses to communicate with patients nearing the end of their lives and their families. Studies on this subject are limited, yet existing research indicates that nurses were not part of the decision-making to implement the PEOL approach for ICU patients (Hamdan Alshehri et al., 2020). In settings where stress levels are naturally high, such as the ICU, where physicians are at the helm of decision-making and communication roles, Sexton et al. (2018) propose that there is always an urgent need for nurses to be empowered. Several studies support this view and note the challenges faced by nurses as they engage with families when important decisions are made (Alshammari et al., 2023; Alshehri et al., 2022; Griffiths, 2019; Jung & Matthews, 2021; Meilando et al., 2022). When nurses are trusted to make decisions, their perceived expertise and efficacy in PEOL care can be boosted.

Implications for Nursing Practice

The present study brings to the fore the crucial role of specialized training and empowerment in nursing practice. It shows these factors' substantial influence on nurses' proficiency in PEOL care. The results of enhanced opportunities for training and the empowerment of nurses with greater decision-making authority can lead to better patient care and nurse efficacy in environments that are naturally high in stress, like the ICU. These findings highlight the reasons why healthcare systems need to invest in ongoing education and supportive policies that bolster the role of nurses in PEOL care.

Limitations and Recommendations for Future Research

The present study was an inaugural effort in Saudi Arabia to explore the education, practice, and perceived competence in PEOL care among ICU nurses. The holistic nature of the study sought to bring to the fore a broad range of factors influencing PEOL in ICU settings, in the process creating a basis for future studies in the region. Notwithstanding, like all other studies, the present study had its limitations. Some of these included the reality that it focused on a limited geographic area, its data were collected based on self-reporting, and its design was cross-sectional, possibly negatively influencing the generalizability and depth of the insights obtained. Thus, similar studies in the future will need to incorporate a broader and more diverse sample, employing qualitative and longitudinal methods to broaden the comprehension of PEOL practices. This also shows that there is an urgent need for studies focusing on empowering nurses with enhanced communication and decision-making authority in the critical care setting, crucial for a holistic team approach. At the same time, educational interventions play a crucial role in advancing quality PEOL care practices in different ICU settings, aimed at closing knowledge and practice gaps.

Conclusion

The present study highlights the beneficial impacts of in-service training, job satisfaction, and the ability of nurses to effectively communicate with patients and their families on enhancing both clinical practice and perceived competence. The findings underline the necessity of ongoing training programs, the creation of satisfying job environments, and the empowerment of nurses in communication roles. These factors are critical not just for boosting the competence and confidence of nursing professionals but also for improving patient care outcomes. For healthcare systems aiming for excellence in patient care, recognizing and addressing these aspects is essential.

Declaration of Conflicting Interest

The authors confirm that there is no existing conflict of interest in relation to this paper's publication.

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Authors' Contributions

AMA: Conceptualization, Methodology, Data Collection, Data Analysis, Writing - Original Draft, Writing - Review & Editing.
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Data Availability

The data related to this research can be provided upon request.

Declaration of Use of AI in Scientific Writing

There is nothing to declare.

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