

A BIBLIOMETRIC ANALYSIS OF ICU NURSES' EXPERIENCES AND FAMILY INTERACTIONS DURING DEATH AND DYING: INSIGHTS FROM ISLAMIC PERSPECTIVES

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Abstract: *This bibliometric analysis, utilizing 376 articles from Scopus (2005-2024) and employing VOSviewer and Biblioshiny, examines the experiences of Intensive Care Unit nurses and their interactions with families during end-of-life care within Islamic cultural and spiritual contexts. While scholarly interest in spirituality and family involvement in end-of-life care is increasing, research from Islamic-majority nations remains underrepresented. Findings reveal that ICU nurses frequently encounter significant emotional, ethical, and spiritual challenges when supporting dying patients and their families, often lacking adequate training in spiritual care practices and culturally sensitive communication, particularly within Islamic frameworks. The COVID-19 pandemic further amplified these challenges by disrupting established end-of-life practices. This study emphasizes the critical need for context-specific research within Islamic-majority settings and the integration of Islamic bioethics into nursing curricula. Such initiatives are essential to equip nurses with the necessary competencies to deliver holistic, culturally sensitive care, ultimately improving the experiences of patients, families, and healthcare providers alike.*

Keywords: *Critical care, spiritual care, nurses, Islamic perspective, death and dying, bibliometric analysis*

Introduction

Critical care nurses face significant challenges in providing care during death and dying, particularly in integrating Islamic cultural and religious values into their practice. This is especially true for critical care nurses, who work closely with patients to provide essential care. In critical care, the goal of end-of-life care, or palliative care, is to ensure the patient's final moments are peaceful, dignified, and comfortable (Suprayitno & Setiawan, 2021). However, achieving this goal can be difficult due to challenges in the critical care environment, such as burn out which may lead to psychological problem to the nurses involved (Al-Abd et al., 2024). Nurses also face obstacles like doctors being overly optimistic about patient recovery and families not fully understanding life support measures, making communication and decision-making harder. It is a common occasion for a critical care nurse to experience different kind of emotion during the caring including sadness, anger, and frustration, as they try to provide compassionate care in emotionally charged situations (Al-Abd et al., 2024; Iglesias et al., 2013). For newer nurses, experiences such as anticipating death, witnessing the transition from life to death, supporting the family during these moments, and continuing with their duties afterwards can be incredibly challenging (Borhani et al., 2014; Botes & Mabetshe, 2022).

Islamic values, as noted by Khalid, (2019) highlight the importance of showing kindness and compassion until the end of a patient's life, which can shape how nurses approach their work in culturally diverse settings and enrich the healthcare experience for all involved. Issue regarding organ donation also frequently mentioned as it usually involved patient in the death and dying. It including the ethical decision made by the family member and the patients themselves to decide. Borhani et al., (2014) in their articles stated that there only few studies talking about death and dying process in Islamic country as there were more Western context to look into which means that there was lack of studies that focusing on Islamic or spiritual practices in the hospital setting when nursing the patients. In Islamic contexts, cultural and religious values further shape these dynamics. Practices like Qur'anic recitations, Shahadah, and family presence at the bedside are integral to ensuring a dignified death and dying. Despite the critical role of ICU nurses in facilitating family-centered care, there is insufficient guidance on how to address Islamic perspective and spiritual needs during death and dying. This bibliometric review examines the breadth and trends in research focusing on nurses' experiences in family interactions during death and dying, particularly in Islamic contexts.

Problem Statement

Malaysia's multicultural society views death and dying through diverse religious and cultural lenses, posing significant challenges for ICU nurses providing end-of-life care. These nurses frequently encounter emotionally charged interactions with families who may hold high expectations for patient recovery or struggle with denial about impending death. Communication barriers, as noted by Utami et al. (2020), further complicate nurses' ability to provide emotional and spiritual support, leading to misunderstandings and distress among families. Besides communication challenges, ICU nurses experience significant emotional distress due to repeated exposure to death. Studies, such as Bloomer et al. (2022), reveal that nurses often prioritize patient and family needs at the expense of their own well-being, leading to burnout and reduced empathy. Furthermore, Becqué et al. (2021) emphasize the critical role nurses play in providing spiritual care to families, helping them navigate grief and complex end-of-life decisions. However, despite the well-documented emotional and psychological burden on nurses, limited research exists on how they manage these experiences, particularly within an Islamic healthcare context.

A key concern that causes these is the lack of formal training in culturally and religiously appropriate end-of-life care. Ghaemizade Shushtari et al. (2022) found that 55.7% of nurses reported insufficient training in death and dying care. Evidence suggests that structured training enhances nurses' competency and confidence in delivering end-of-life care, as demonstrated in Jeong et al. (2023). While Jeong et al., (2023) study showed improvements in physical and psychological care with significant different in pre and post-test, it revealed a critical gap in spiritual care training with no significant different, stated the need for a dedicated program focused on Islamic spiritual support which in addition can reduce the stress levels of nurses. Despite Islamic principles being deeply embedded in Malaysia's healthcare system, there are no standardized guidelines for integrating religious and cultural practices into end-of-life care. As a result, ICU nurses rely on personal judgment, leading to inconsistencies in care delivery where some believed a proper tools or guidelines needed to assess for the families need as well. This lack of institutional policies exacerbates challenges in managing family expectations, spiritual concerns and the overall end-of-life experience for Muslim patients. Due to these challenges, a review is essential to explore the experiences of ICU nurses in navigating family interactions and providing culturally sensitive care within an Islamic framework. Addressing these gaps will contribute to the development of structured training programs, standardized guidelines and institutional policies, ultimately improving the quality of spiritual and culturally competent nursing practices in Malaysia.

Literature review

Nurses encounter significant emotional and professional challenges while providing care, often influenced by the patient's condition, family dynamics, and systemic issues. For instance, Bloomer et al., (2023) emphasize that a patient's age and condition profoundly impact nurses' emotional responses, highlighting the complexity of critical care scenarios. Khalid (2019) underscores the principle of "dying with care," advocating for the dignity and comfort of older adults, which aligns with the compassionate approach nurses strive to maintain. Despite their best efforts, Iglesias (2013) & Almansour et al., (2019) identifies frequent obstacles, such as difficulties in decision-making, misunderstandings with families, and communication barriers, especially with foreign patients (Alshehri et al., 2022). Additionally, systemic issues exacerbate these challenges. A pervasive nursing shortage, as noted by Matrook et al., (2024), increases workload and stress, leaving nurses feeling overwhelmed. A result from study done by Anshasi et al., (2020) shows that most nurses agree that heavy workload took a toll on their emotional and physical wellbeing. Emotional bonds formed with patients can further complicate care, as nurses often experience grief when these patients pass away (Wazqar, 2019). Compounding these emotional strains, nurses frequently lack organizational support to address their stress and burnout (Dilmaghani et al., 2022). These unaddressed challenges not only impact their professional effectiveness but also extend into their personal lives, affecting emotional wellbeing at home.

Religious and cultural values form the foundation of Islamic during death and dying process, yet research on these perspectives remains scarce. Muishout et al., (2018) stress the importance of understanding how Muslim patients experience death and dying, as religious beliefs profoundly influence their attitudes and decisions regarding medical treatments. Islamic teachings emphasize predestination, where Allah's will shape life, yet individuals are encouraged to pursue righteous actions and adhere to Islamic principles. Khalid (2019) highlights that illness, suffering, and death should be approached with patience, reflection, and

prayer, framing these experiences as natural parts of life. Building on this, Tipwong et al., (2022) reveal that older patients in during death and dying often exhibit acceptance of their condition, driven by strong religious faith. Spiritual practices retain importance even when patients are unable to perform them independently due to their physical condition. Laures-Gore and Griffey (2024) argue that understanding the rationale behind these practices can enhance clinical services and patient satisfaction. This perspective underscores the unique role of spirituality in fostering acceptance and peace during life's final chapter.

Spiritual support in ICU settings serves as a critical aspect of holistic care, benefiting patients, families, and nurses alike. Soylu et al., (2023) emphasize that spiritual care enhances patients' emotional resilience, helping them cope with pain and illness while alleviating distress. Islamic traditions encourage visiting the sick as a form of moral and spiritual encouragement. Khalid (2019) highlights the comfort patients find in listening to Qur'anic recitations or engaging with Islamic teachings through media. Encouraging the recitation of the Shahadah—the declaration of faith—provides further solace, particularly in the presence of nurses or family members. Family members also play a vital role in providing spiritual support. Mahmoud, (2022) explains that family members often assist patients in reciting the Shahadah, or they recite verses from the Qur'an on behalf of unconscious patients to ensure a peaceful transition. This active participation strengthens familial bonds and provides emotional relief. It was emphasized by Lo et al., (2020) in their study that improving end-of-life care by having families on bedside can enhance the quality of death and dying. Providing spiritual support requires cultural competence and specific training for nurses. Cuellar-Pompa et al., (2024) stress the importance of equipping nurses with the necessary skills to support dying patients and their families effectively. Additionally, Suprayitno & Setiawan (2021), highlight the need for nurses to understand Muslim traditions around death and dying. Maintaining respect and modesty while handling deceased patients, as emphasized by Mahmoud et al., (2022), is equally important. Beyond patient care, nurses must also prioritize their spiritual well-being to manage the psychological and physical burdens of their work, a view supported by Koenig (2020, cited in Soola et al., 2022).

Family presence during the death and dying process is of paramount importance, providing essential emotional, physical, and spiritual support to patients. Botes and Mabetshe (2022) highlighted the amplified significance of family involvement during the COVID-19 pandemic, as visitation restrictions often prevented patients from receiving this crucial support. In resource-constrained settings, and notably even in high-income countries, the absence of family members can impose additional burdens on nursing staff, increasing their caregiving responsibilities. Beyond emotional support, families play a vital role in decision-making processes, particularly when patients are nearing the end of life. Their presence at the bedside can facilitate care delivery, as noted by Shibily et al., (2021). Furthermore, Tipwong et al. (2022) emphasize the pivotal role of families in facilitating a "good death," ensuring that the patient's wishes are honoured, and ethical standards are maintained. Acting as advocates for the patient, family members collaborate with healthcare providers in making critical decisions, underscoring the necessity of clear communication and a shared understanding of the patient's goals of care. In the absence of family involvement, proceeding with medical interventions without informed consent would raise significant ethical concerns.

Research objectives

1. To explore the existing literature addressing cultural perspectives, emotional challenges, and the role of Islamic principles in shaping ICU nurses' interactions with families during death and dying.
2. To identify underexplored research areas related to ICU nurses' experiences in managing family dynamics and communication during death and dying within an Islamic context.
3. To provide insights and recommendations for future research directions based on trends and gaps identified through bibliometric analysis of nurse-family interactions in critical care settings.
4. To provide evidence-based insights from bibliometric findings that can inform policy development and strategies to enhance ICU nurses' roles during death and dying from Islamic perspectives.

Search strategy

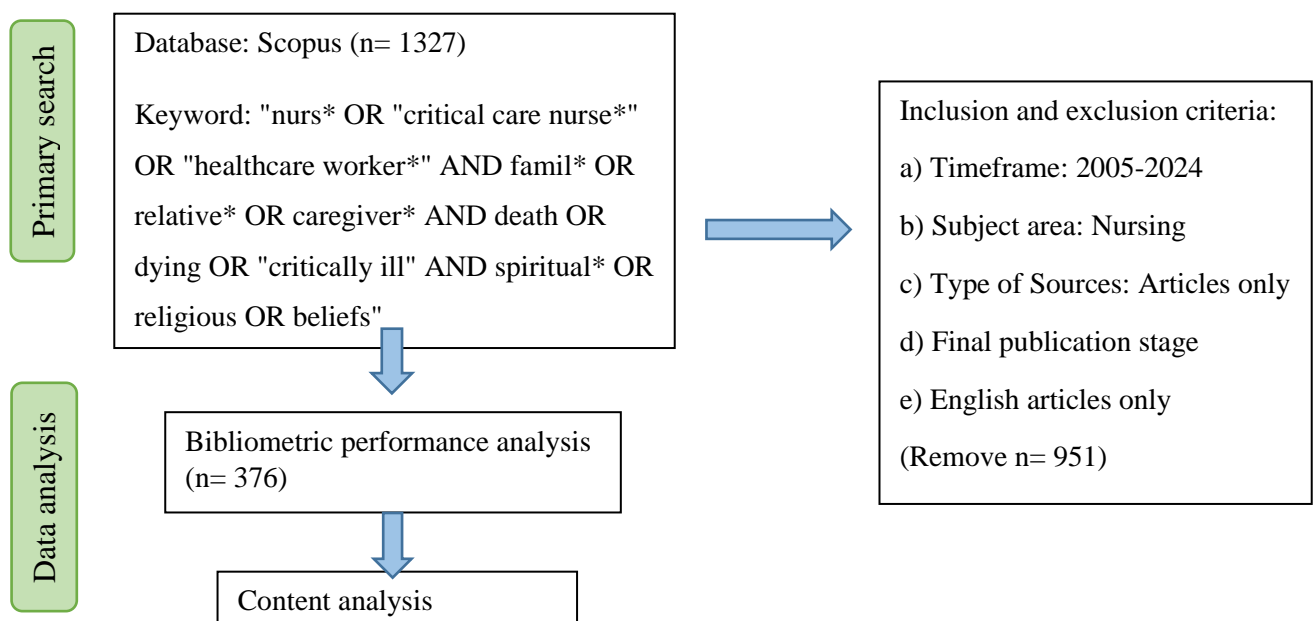


Figure 1: Study Flow Chart

The bibliometric analysis in this study was conducted using the Scopus database. Scopus is the preferred database for bibliometric analysis due to its high-quality, reliable and consistent data. It offers extensive coverage, organized information and robust analytical tools, making it ideal for trend analysis, impact evaluation, and citation tracking. The search on Scopus retrieve a total of 1327 records. The search strategy employed focused on keywords such as "nurs* OR "critical care nurse*" OR "healthcare worker*" AND famil* OR relative* OR caregiver* AND death OR dying OR "critically ill" AND spiritual* OR religious OR beliefs" using Boolean operators, phrase search and truncation which reflecting the study's emphasis on nursing, family and death and dying process. To refine the results, specific inclusion and exclusion criteria were applied. The timeframe was restricted to publications from 2005 to 2024, and the subject area was limited to nursing-related research. 951 articles were filtered out based on the filter. This process produced a final dataset of 376 articles, which were subjected to bibliometric performance analysis and science mapping to identify key trends, followed by

content analysis to explore emerging themes within the field by using VOSviewer and Biblioshiny. These tools generated visualizations of co-authorship, keyword co-occurrence, and citation networks. Content analysis was conducted to identify thematic clusters related to nurses' interactions with family member during death and dying process.

Bibliometric analysis

Bibliometric analysis was selected for this study due to its efficacy in identifying emerging trends within the research area, particularly through visualization of datasets. This approach aligns with Passas's (2024) assertion regarding the utility of bibliometric analysis for trend identification. Scopus, a widely used database for scholarly literature retrieval, served as the primary source for document retrieval, consistent with the practices noted by Kumar et al., (2022). Bibliometric performance analysis and science mapping were conducted using Biblioshiny, a web-based interface for the Bibliometrix R package, in conjunction with VOS viewer and Microsoft Excel. The application of bibliometric analysis is crucial for uncovering unexplored niches within the broader research topic, revealing thematic patterns and overall conceptual frameworks. This study will present both performance analysis and science mapping results, drawing upon document output and visualizations generated by VOS viewer, further supporting the methodological approach advocated by Passas (2024).

Content analysis

Trends and patterns

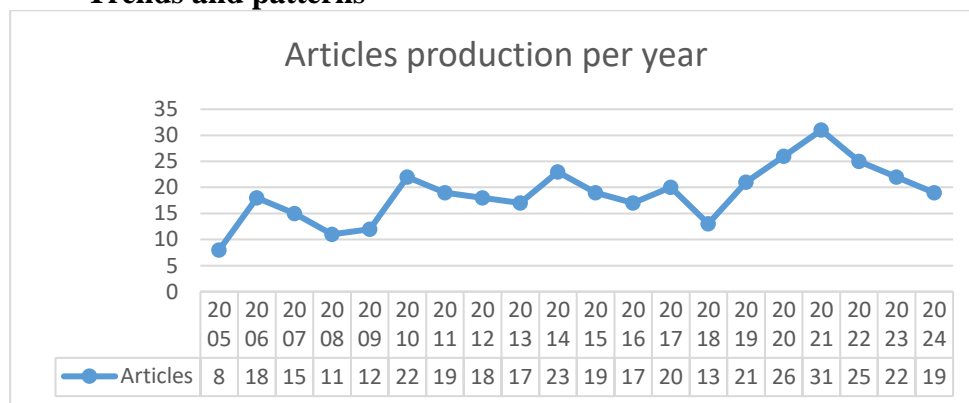


Figure 2: Total Articles Production Count Per Year

The chart displays the trend of article production per year from 2005 to 2024. Initially, there was a steady increase in article production, rising from 8 articles in 2005 to 22 articles in 2010. Following this period of growth, the production fluctuated between 2011 and 2016, peaking at 23 articles in 2014 but declining to 17 articles by 2016. A sharp growth was observed between 2017 and 2021, with the number of articles reaching a maximum of 31 in 2021. Increased number of articles during 2019 and 2020 may be due to pandemic of COVID-19. However, after 2021, the trend reversed, and article production steadily declined, dropping to 19 articles in 2024. This indicates a cyclical pattern of growth and decline, with the most recent years showing a downward trajectory.

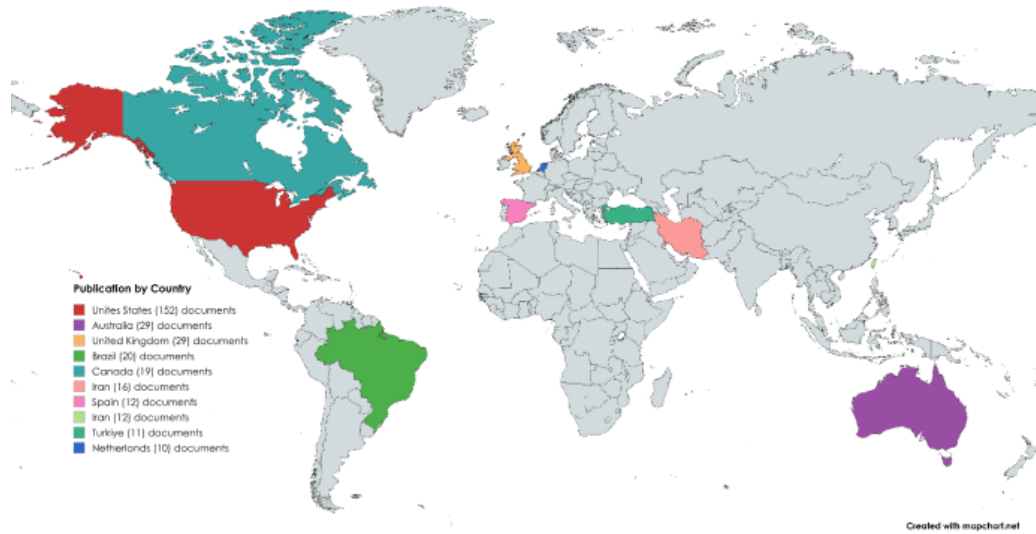


Figure 3: Publication of Articles By Country

The map illustrates the distribution of top ten publications by country, highlighting global contributions to research. The USA leads with 152 documents, followed by Australia and United Kingdom with same number of productions, 29 articles. Other significant contributors include Brazil (20), Canada (19), Iran (16), This indicates a strong concentration of research in Western countries and a noticeable contribution from certain non-Western nations, emphasizing the global interest in the topic, albeit with regional disparities in productivity.

Bibliometric performance analysis

Most influential countries and publication

Figure 4 below identifies the ten countries with the highest total number of citations for research related to ICU nursing and death and dying process. The United States, China, Australia, Canada and United Kingdom rank among the top five, reflecting their leading roles in contributing to research within this field.

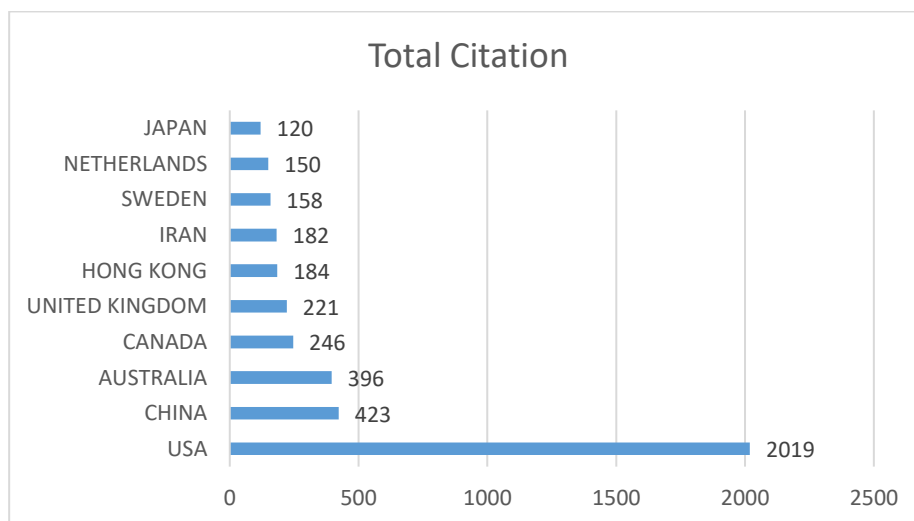


Figure 4: Top Ten Most Cited Countries Based on Total Count

Unlike Figure 4, which measures total output only, Figure 5 highlights the average citation impact of articles by country. Ethiopia, Hong Kong, Greece, Norway and Australia lead this category, suggesting that although few of these countries may produce fewer articles, their contributions are highly influential in the field.

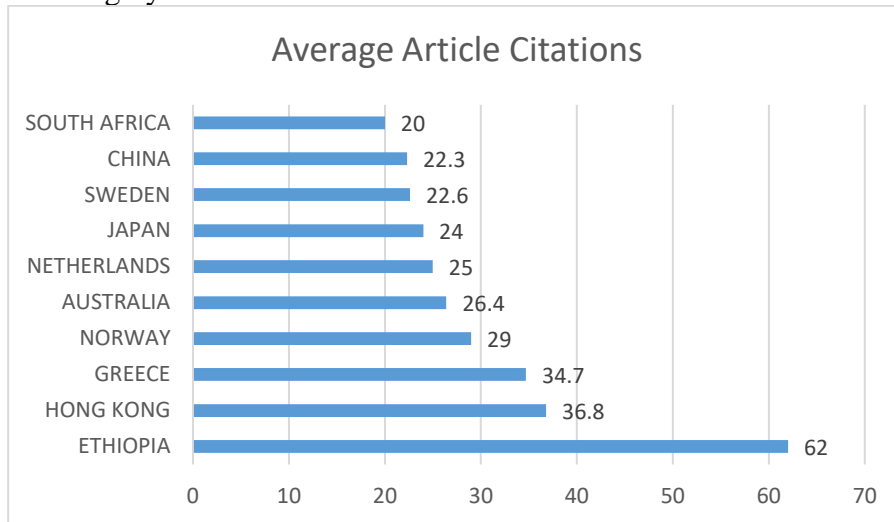


Figure 5: Top Ten Cited Countries Based on Average Articles Citation

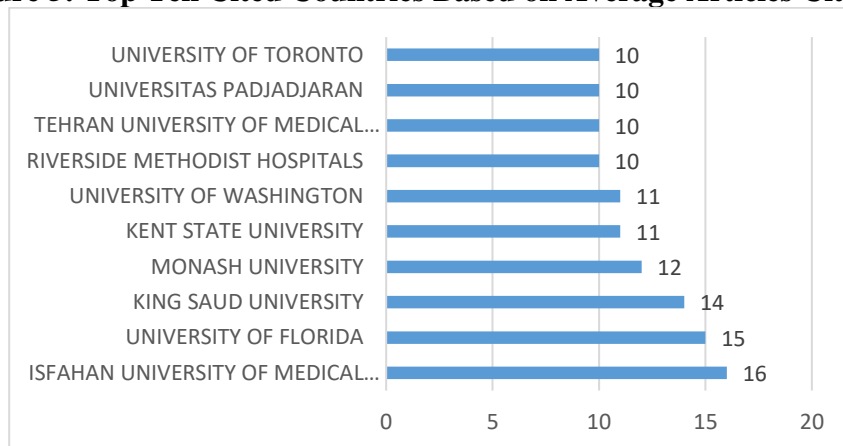


Figure 6: Most Influential Institutions from Number of Citation Perspective

The bar chart above shows the top contributing institutions to the study, with **Isfahan University of Medical Sciences** leading with 16 publications, followed by the **University of Florida** (15) and **King Saud University** (14). Other notable contributors include **Monash University** (12), **Kent State University**, and the **University of Washington** (11 each). Institutions like **Riverside Methodist Hospitals**, **Tehran University of Medical Sciences**, **Universitas Padjadjaran** and the **University of Toronto** each contributed 10 publications. This highlights the global involvement of universities and medical institutions in the research field.

Most influential journal and authors

Table 1: Top ten most relevant journal based on total documents

Rank	Journal	Articles
1	Journal of Hospice and Palliative Nursing	31

2	Journal of Palliative Medicine	23
3	International Journal of Palliative Nursing	16
4	Journal of Pain and Symptom Management	14
5	Journal of Clinical Nursing	13
6	Journal of Advanced Nursing	11
7	Journal of Religion and Health	9
8	Nurse Education Today	9
9	Cancer Nursing	7
10	Nursing Ethics	7

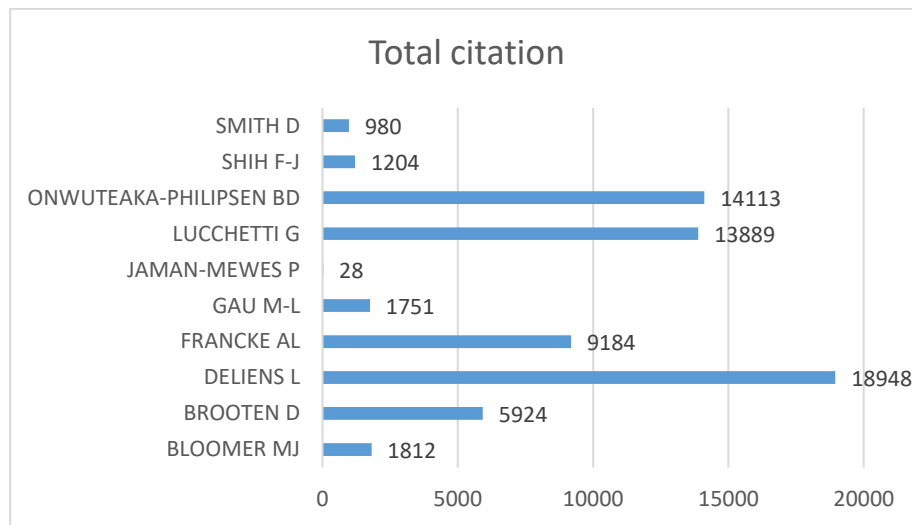


Figure 7: Most Impactful Authors by Total Citation Index

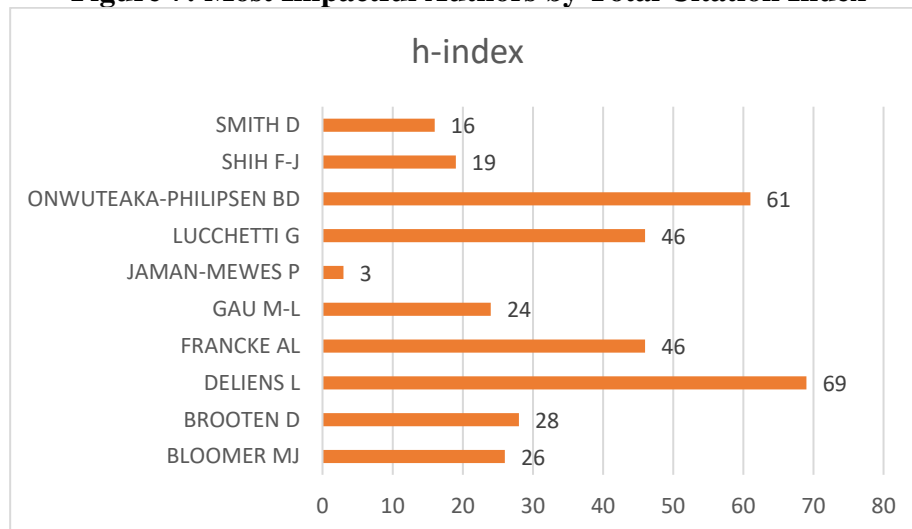


Figure 8: Most Impactful Authors by H-Index

Figures 7 and 8 above visualize the authors' rank by their total citation counts and H-index scores. The graphs provide insight into key contributors whose research significantly influences the field of ICU nursing and death and dying, shedding light on their expertise and collaborative networks. Among ten of them, Deliens L remain consistent with being the highest total citation counts and H-index scores.

Most influential articles

Table 2: Most Relevant Publication

	Author	Title	Journal	Total Citations
1	Holloway et al., 2014	Palliative and end-of-life care in stroke: A statement for healthcare professionals from the American heart association/american stroke association	Stroke	236
2	Hudson et al., 2012	Guidelines for the psychosocial and bereavement support of family caregivers of palliative care patients	Journal of Palliative Medicine	138
3	Dimoula et al., 2019	Undergraduate nursing students' knowledge about palliative care and attitudes towards end-of-life care: A three-cohort, cross-sectional survey	Nurse Education Today	102
4	Gordon et al., 2021	The Experiences of critical care nurses caring for patients with COVID-19 during the 2020 pandemic: A qualitative study	Applied Nursing Research	99
5	Gerow et al., 2010	Creating a curtain of protection: Nurses' experiences of grief following patient death	Journal of Nursing Scholarship	97
6	Zheng et al., 2015	Chinese oncology nurses' experience on caring for dying patients who are on their final days: A qualitative study	International Journal of Nursing Studies	97
7	Ferrell et al., 2020	The Urgency of Spiritual Care: COVID-19 and the Critical Need for Whole-Person Palliation	Journal of Pain and Symptom Management	96
8	Wong & Chan, 2006	The qualitative experience of Chinese parents with children diagnosed of cancer	Journal of Clinical Nursing	93
9	Latour et al., 2009	Efccna survey: European intensive care nurses' attitudes and beliefs towards end-of-life care	Nursing in Critical Care	86
10	Melvin, 2012	Professional compassion fatigue: What is the true cost of nurses caring for the dying?	International Journal of Palliative Nursing	81

Table above describes the most relevant publications along with the authors for each of them which the most cited one is Palliative and end-of-life care in stroke: A statement for healthcare professionals from the American heart association/american stroke association by Holloway et al., (2014) with 236 citations.

Science mapping

Figure 9 below is the analysis of 42 authors shown for a co-authorship which they are divided into 5 clusters that also visualizing the most impactful teams of authors which are Deliëns L, Francke AL, De Vet HCW.

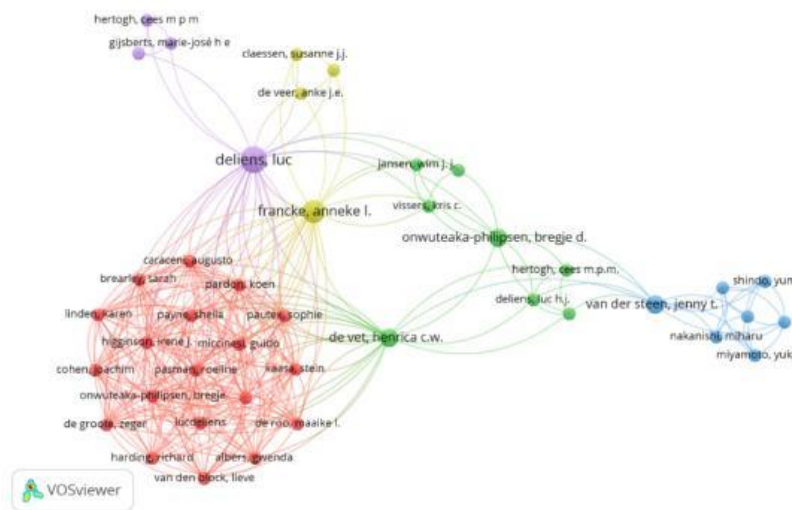


Figure 9: Co-Authorship Analysis

Figure 10 below shows the co-citation analysis of sources. The threshold selected was 30 due to many sources and redundancy of the journal name and thesaurus function was used. Out of 4810 sources, 40 of it meet the threshold. The most prominent looking sources are Journal of Palliative Medicine, International Journal of Palliative Nursing and Journal of Advanced Nursing.

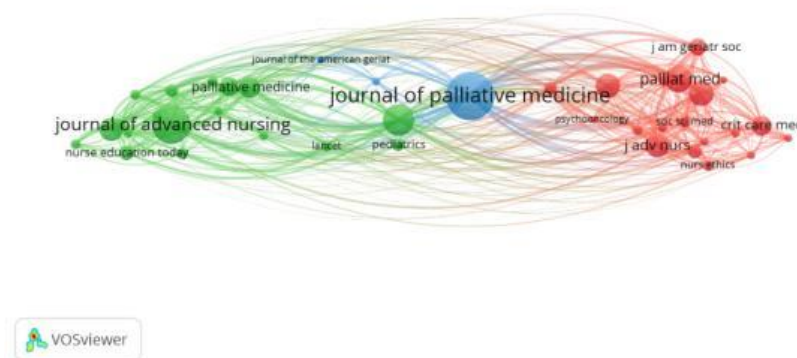


Figure 10: Co-Citation Source Analysis

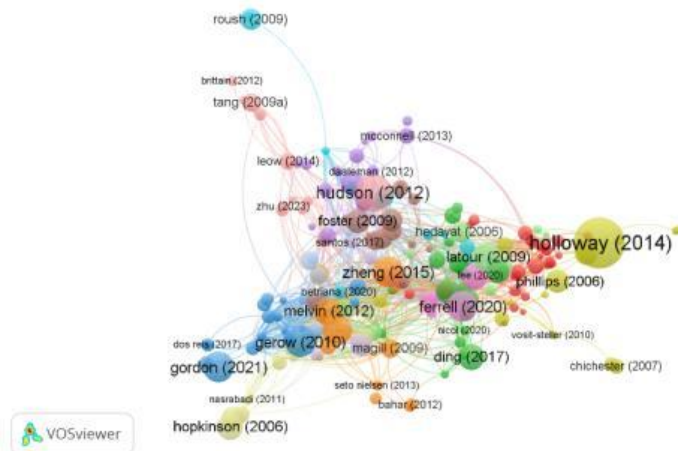


Figure 11: Bibliographic Coupling

For this bibliographic coupling, minimum seven threshold was used, resulting 204 items and 14 clusters.

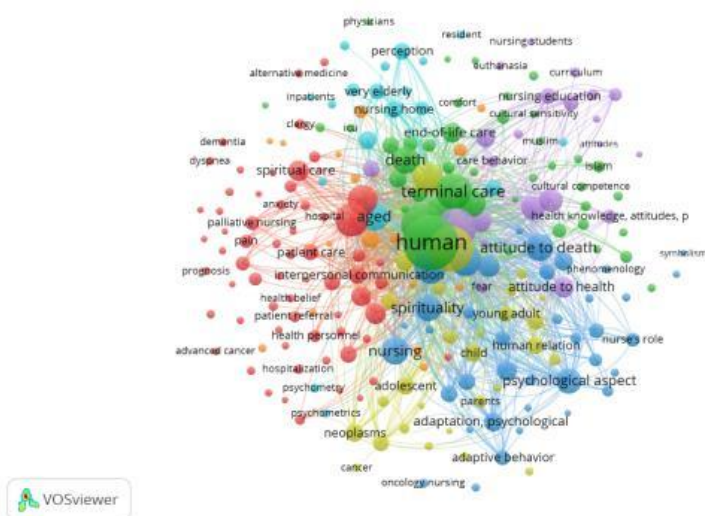


Figure 12: Keyword Co-Occurrence Networks

This network visualization shows the key themes and relationships in the study, with larger nodes representing more frequently occurring terms. Central topics like "human," "terminal care," "death," and "palliative care" dominate the visualization, indicating their importance. The colours group related terms into clusters, such as spirituality and psychological aspect (blue), hospital and nurse's roles (blue), decision making and communication (green), and emotional aspects like grief and bereavement (yellow). The connections between nodes represent how often these topics appear together, showing how concepts are interrelated in the research. These relationships should guide future studies to address gaps in ethical training and policy support.

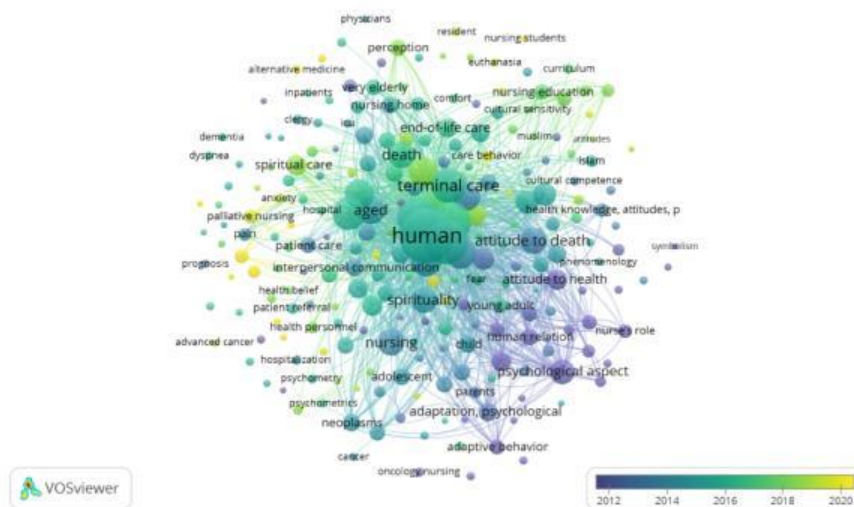
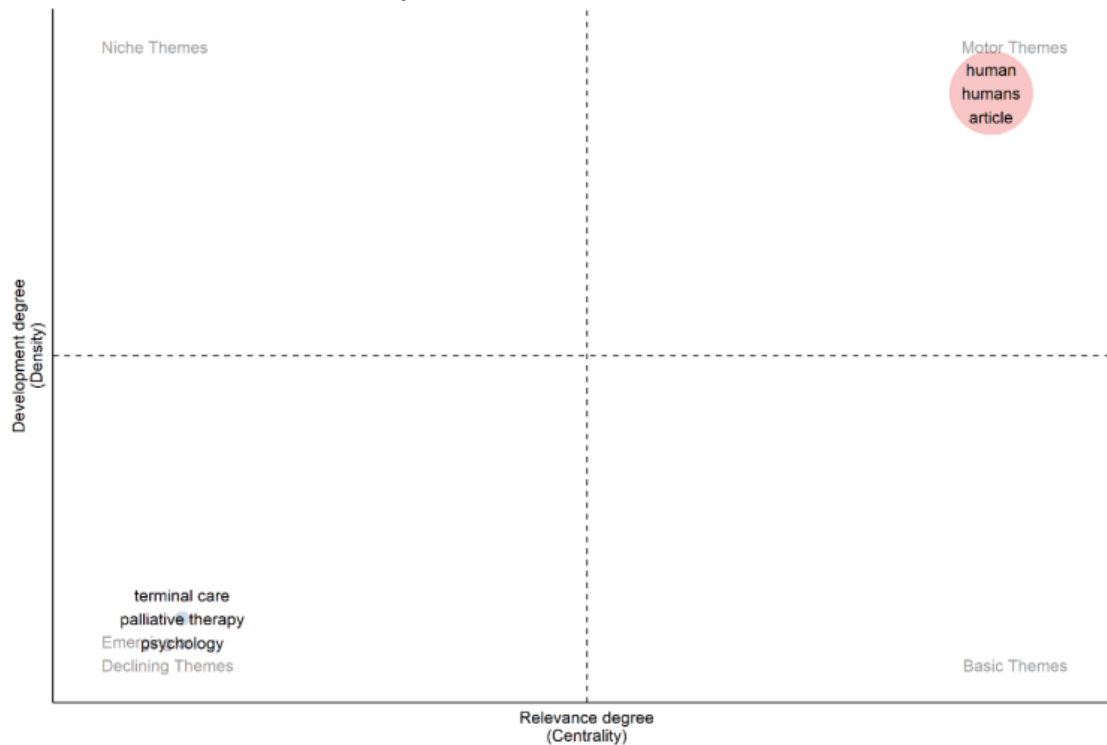


Figure 13: Overlay Visualization Over the Years

Figure 13 above presents the overlay visualization of keywords used in research from 2005 to 2024, illustrating evolving trends in the field. During the earlier years (2012–2014), research largely focused on foundational topics such as human relationships, psychological aspects, and the role of nurses. Over time, there has been a noticeable shift toward addressing sensitive topics, including death, terminal care, health beliefs, and spiritual care. This evolution reflects an increasing awareness of the holistic needs of patients and families, particularly in diverse cultural and religious contexts. The growing emphasis on "spiritual care" and "terminal care" aligns with the need to provide culturally sensitive care, especially in settings where death and dying are deeply influenced by spiritual and religious beliefs. Keywords such as "Islam," "cultural competence," and "attitude to death," which highlight the intersection of spirituality and healthcare delivery. However, the visualization also reveals potential gaps, such as the limited exploration of nurses' roles in addressing family members' needs during the dying process. This underscores the importance of research into themes like ICU nurses' experiences with families, particularly from an Islamic perspective. The use of VOSviewer to generate this visualization offers valuable insights into the progression of research priorities, highlighting both advancements and opportunities for further exploration.

Thematic Analysis



Theme 1: Spirituality as a Core Component of Care

Spirituality is deeply woven into the experience of death and dying in Islamic cultures, where it provides comfort and meaning during critical moments. For ICU nurses, supporting spiritual practices such as the recitation of the *Shahadah* (declaration of faith), Quranic verses and *Dua* (supplications) is central to their interactions with families of critically ill patients. These rituals not only prepare the patient for their transition but also offer solace and a sense of divine connection to grieving family members (Glyn-Blanco et al., 2023). Family members often engage in prayer or perform other Islamic rituals when they sense that their loved one is nearing death. Nurses play an essential role in facilitating these practices by creating a supportive environment that respects the family's religious needs. Providing such care requires sensitivity to cultural norms and an understanding of Islamic beliefs about death, including the emphasis on preparing the soul for the afterlife (Abbasi et al., 2022). Other than that, nurses also need to encourage the family to do spiritual care for the patient especially those who are religious as well as offering comfort for them as most family will feel down at this point of time.

Despite its importance, many nurses report feeling ill-equipped to deliver spiritual care during death and dying situations, citing a lack of training in culturally and religiously sensitive practices. This gap in professional development highlights the need for formal education that focuses on the spiritual and emotional dimensions of death and dying in diverse cultural contexts (Heydari et al., 2020). By fostering spiritual care competencies, nurses can not only provide comfort to patients and families during their most vulnerable moments but also help families find meaning and peace in the dying process. Spiritual support aimed at family members can alleviate their distress, enhance their ability to cope with loss and ensure that care aligns with the holistic principles of Islamic practices for death and dying.

Theme 2: Role of Family during death and dying

Family involvement during death and dying emerges as a pivotal element, particularly in the Middle Eastern context, where strong cultural and religious ties deeply influence healthcare practices. Studies highlight that families often struggle with accepting death or life-saving interventions, a challenge rooted in emotional attachment, cultural norms and limited health literacy (Asadi & Salmani, 2024). This resistance can create barriers to effective care and place significant emotional and psychological strain on family members, sometimes leading to disruptions in family unity or daily routines. Notably, Heydari et al., (2020) observed that spouses of critically ill patients are especially vulnerable to developing post-traumatic stress disorder (PTSD) due to the emotional toll of the experience.

The family's presence during critical moments, such as the recitation of religious texts or when a patient is being weaned off ventilation, aligns with Islamic traditions that frame death as a communal journey. Salmani et al., (2022) emphasized that involving the family during such transitions can reduce anxiety for both the patient and the family, fostering a sense of shared support and comfort. However, these situations often require sensitive and effective communication between nurses and family members to manage expectations and ensure alignment with both medical goals and cultural values.

The findings underscore the need for culturally tailored communication training for healthcare providers, particularly ICU nurses, to navigate these dynamics effectively. Respectful dialogue that accounts for cultural sensitivities and involves families in decision-making processes can bridge the gap between emotional needs and medical realities. Such approaches not only enhance the family's understanding of the situation but also empower them to participate meaningfully in care, ultimately improving the overall experience for both patients and their loved ones.

Theme 3: Challenges during death and dying

ICU nurses often face profound emotional distress while providing care, particularly when navigating complex interactions with family members of critically ill patients. Nurses on critical care often emphasize the emotional toll on nurses due to cultural and familial expectations surrounding care decisions. Babapour et al., (2022) identified critical challenges nurses encounter in managing family expectations, addressing miscommunication and navigating denial among family members. These interactions often lead to strained nurse-family relationships, particularly when families struggle to reconcile their hopes for recovery with the reality of the patient's condition. To address these challenges, Babapour et al., (2022) recommended implementing organizational and educational programs to enhance nurses' communication skills and emotional resilience.

Ethical dilemmas further complicate nurse-family interactions, especially in culturally sensitive contexts where familial involvement in decision-making is significant. For instance, Abbasi et al., (2020) and Parsa et al., (2019) highlighted the pivotal role of family consent in organ donation, especially in cases where patients are unable to express their wishes. Nurses are frequently placed in the position of mediating between families' expectations and ethical considerations, such as life-support withdrawal or disagreements about the patient's care trajectory.

In navigating these interactions, nurses frequently rely on Islamic values such as patience, compassion, and reflection to provide care that aligns with both spiritual and moral frameworks. However, systemic gaps, including the lack of structured emotional support for nurses or the absence of ethics committees, exacerbate the challenges of engaging with families. These gaps contribute to burnout and grief among nurses, which can further hinder effective communication with families. To improve nurse-family relationships and mitigate these challenges, it is essential to develop formal mechanisms for emotional support, communication training, and ethical decision-making frameworks tailored to culturally and spiritually sensitive settings.

Discussion

Within Islamic cultures, spirituality and family deeply intertwine with end-of-life care in the ICU. Nurses play a crucial role in navigating the delicate balance between medical practices and culturally sensitive approaches to death and dying. Recognizing the diverse responses of patients and families, shaped by cultural, religious, and personal beliefs, is paramount. As such, providing care for the dying and supporting their families becomes a central responsibility for nurses, especially in palliative and end-of-life settings.

Spirituality as a Core Component of Care

The increasing integration of spirituality into end-of-life care reflects its importance as a source of comfort, meaning, and purpose for both patients and families facing death, particularly within Islamic traditions (Suprayitno & Setiawan, 2021). Spiritual care in this context extends beyond addressing physical needs to encompass emotional, psychological, and spiritual well-being, acknowledging the interconnectedness of these dimensions. This holistic approach is especially relevant in Islamic settings where faith and spirituality are often central to coping with illness, suffering, and death.

The roles of nurses and other healthcare professionals in the ICU are evolving beyond a primarily therapeutic focus to encompass a more comprehensive caregiving approach in end-of-life management (Tzenalist et al., 2023). This shift emphasizes the growing need for emotional, spiritual, and psychosocial support alongside medical treatment. It requires a broader skillset, enabling healthcare providers to facilitate meaningful conversations about end-of-life wishes, offer spiritual guidance, and support grieving families.

Effective care within Islamic contexts necessitates a deep understanding and sensitivity to Islamic beliefs and cultural norms (Abdullah et al., 2020). This includes respecting the significance of preparing for the afterlife, adhering to specific religious practices surrounding death, and recognizing the role of family and community in decision-making. Cultural sensitivity also involves acknowledging the diversity of practices and beliefs within the Muslim community, avoiding generalizations, and tailoring care to individual needs.

Consequently, ICU nurses are adapting to encompass these vital dimensions of care. This adaptation requires ongoing professional development and training to ensure competency in delivering culturally and religiously sensitive care. Nurses must possess the knowledge, skills, and attitudes necessary for compassionate communication, addressing spiritual concerns, and facilitating culturally appropriate end-of-life rituals. This includes understanding Islamic teachings related to death, recognizing diverse cultural practices within the Muslim community, and developing the skills to navigate complex ethical dilemmas that may arise. By

embracing this expanded role, ICU nurses can significantly contribute to ensuring holistic, compassionate, and culturally sensitive care for Muslim patients and their families during this vulnerable time.

Research on death and dying has seen increased interest, likely reflecting a growing societal awareness of the emotional and spiritual needs of critically ill patients and their families. The COVID-19 pandemic further highlighted these concerns, as restrictions on hospital visits often prevented families from being present during a loved one's final moments (Hugelius et al., 2021), emphasizing the importance of family-centered care and the need for nurses trained in emotional and spiritual support.

A study of 219 ICU clinicians' views on chaplain involvement (Choi et al., 2018) found chaplains universally helpful during patient deaths or when spiritual topics arose. Physicians perceived chaplains as less helpful in other situations, while nurses were more inclined to consult them for challenging family meetings or during patient recovery. Infrequent communication between clinicians and chaplains, both directly and through medical records, highlights the need for improved multidisciplinary spiritual care.

The focus on "spirituality" and "family" in leading palliative care journals underscores the importance of culturally sensitive nursing practices, especially integrating Islamic practices like Quranic recitations and Shahadah into holistic care. However, limited research on how Islamic ethics and rituals influence critical care leaves nurses with insufficient guidance on culturally sensitive family support. Family involvement, a crucial theme, requires further exploration, particularly regarding training programs that equip nurses for their mediating role between patients and families (Paterson & Maritz, 2024). ICU nurses face emotional challenges in balancing family expectations with medical realities, especially in end-of-life decisions, highlighting the need for institutional support and resilience training (Alodhialah et al., 2024). Culturally and spiritually sensitive care demands not only understanding Islamic ethics but also practical training in addressing the emotional and spiritual challenges families face during the dying process.

Role of Family during death and dying

Families respond to death and dying situations in diverse ways. This supported by the finding from a narrative review by Glyn-Blanco et al., (2023), identified themes were the preference to practice the ritual and family involvement during this period and preference of place to die. Many of them go through the stages of grief before reaching acceptance (Mahmood, 2016). They often struggle to accept the critical condition of their loved ones, and their reactions can vary widely based on individual circumstances. During this emotionally challenging time, the support of nurses can be invaluable in providing comfort and closure. Simple gestures, such as offering a kind word, expressing condolences, or even a reassuring touch, can help soothe grieving families. For Muslim families, nurses can suggest engaging in religious practices like reciting *zikir* (remembrance of Allah) or encourage them to practice patience (*Sabr*), as emphasized in Islamic teachings (Baharuddin et al., 2024). Understanding the stages of grief enables nurses to guide families more effectively, helping them cope with the emotional turmoil and find peace in the process (Tyrrell et al., 2023). In absence of family member, it was encouraged for the nurses themselves to go forward by giving the spiritual care for the patient such as reading the Quran for them (Mani, 2024).

Challenges during death and dying

Patients admitted to the intensive care unit (ICU) may face terminal illness situations, which may lead to death. In this case, the role of critical care nurses shifts from life-sustaining to end-of-life care (EOLC). Nurses' involvement in EOLC varies between countries, even in one country due to differences in religion, culture, organization, laws, cases and patient quality. A qualitative study with a phenomenological approach was conducted on ten critical care nurses having the experiences of caring for dying patients in an Indonesia hospital (Utami et al., 2020). The results of the study found five themes, including the challenge of communication with the family, support for the family, support for the patient, discussion and decision making, and nurses' emotions. Hence, the challenges during death and dying experienced by ICU nurses are diverse and a constant adaptation to these challenges very much needed to optimise care provided to them.

Limitation

While this bibliometric review provides valuable insights into research trends on critical care nurses' experiences in Islamic contexts, several limitations must be noted. First, the study relied exclusively on the Scopus database, which, although comprehensive, may not include relevant studies from other databases like Web of Science or PubMed. Additionally, restricting the review to English-language publications could have excluded important research in other languages, particularly Arabic, limiting the representation of studies from Islamic-majority countries. Bibliometric analyses are inherently focused on quantitative metrics, such as citation counts and publication volume, which can overemphasize older, highly cited works and underrepresent emerging but impactful studies.

Conclusion

This review examines the experiences and difficulties faced by ICU nurses caring for dying Muslim patients. Nurses manage emotional, ethical, and cultural complexities, providing both medical and spiritual support. Family involvement and spiritual practices are crucial for patient comfort, yet nurses encounter communication barriers, lack of spiritual care training, and systemic issues like staff shortages, hindering holistic care. Therefore, improved training, policies, and support systems are needed. Culturally sensitive practices and better institutional support can enhance the end-of-life experience for patients and families, aligning with Malaysia Madani's vision. Recommendations include comprehensive training for nurses on Islamic perspectives on death and dying, culturally sensitive communication, and spiritual care; developing spiritual care resources in ICUs, including access to spiritual care providers and materials on Islamic rituals; establishing clear communication protocols; addressing systemic issues like staff shortages and inadequate resources; and developing policies promoting culturally and spiritually sensitive end-of-life care. These recommendations aim to create a more supportive environment for Muslim patients and families, ensuring their cultural, spiritual, and emotional needs are met with respect.

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Conflicts of interest

The authors declare no conflict of interest.

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