Journal of Religion and Health
https://doi.org/10.1007/s10943-024-02223-0

ORIGINAL PAPER

Spiritual Care Interventions for Adult Patients in Intensive Care Units: A Scoping Review Protocol

Aramid Gomes[1,2,3,7] · **Ana Rosinhas**[1,2,3,6] · **Rosa Silva**[3,4] · **Olga Riklikiene**[5] · **Elisabete Alves**[1,2] · **Francisco Sampaio**[3,4]

Accepted: 6 December 2024
© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Abstract
Caring for patients in intensive care units (ICUs) requires healthcare workers to recognize the importance of a spiritual care approach in these settings. Moving toward a holistic and patient-centered care model that incorporates spiritual care is essential for enhancing patients' healing process. The disease-centered approach of ICU and the perceived deficit of spiritual care highlight the need to add knowledge on integrating spiritual care interventions into daily ICU practices. The aim of this scoping review will be to develop a comprehensive overview of the characteristics of spiritual care interventions for adult patients in ICU according to JBI methodology and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidelines. The inclusion criteria will be informed by the types of participants, concept and context, and types of evidence sources. Quantitative, qualitative and mixed methods studies, editorials, opinion papers and gray literature will be included. Databases such as PubMed (National Library of Medicine), CINAHL, Academic Search Complete, Psychology and Behavioral Sciences Collection, APA PsycINFO, Cochrane Central Register of Controlled Trials (via EBSCOhost), Scopus and Web of Science Core Collection will be searched. No date limit will be set. Titles and abstracts that meet the inclusion criteria, full texts of eligible studies and reference lists of all selected sources will be screened by 2 independent reviewers. Data will be extracted using customized tools, presented in diagrammatic or tabular format and summarized in a final narrative synthesis report. This research represents the first effort to develop a comprehensive overview of the characteristics of spiritual care interventions exclusively targeting adult patients in ICU settings. The findings will offer a thorough review of these interventions, including their main attributes, providers, resources, associated outcomes and assessment tools. Consequently, this knowledge can enhance the spiritual dimension of patient-centered care in the ICU, thereby promoting a shift from the traditional biomedical model to a more holistic perspective and establishing a new standard in critical care.

Extended author information available on the last page of the article

Published online: 23 December 2024

Keywords Intensive care units · Patient-centered care · Scoping review · Spiritual care · Spirituality

Introduction

The intricate blend of technology and human interaction in intensive care units (ICUs) occupies a central role in various healthcare systems worldwide and represents a system of care delivered by a skilled interprofessional team to support the needs of patients and families during a crisis (Marshall et al., 2017; Nawaz et al., 2022).

In terms of patients' clinical characteristics in ICU, conditions such as cognitive decline, frailty, malnutrition, sarcopenia, comorbidity and a reduction in functional autonomy are the most frequent (Vallet et al., 2023). On the other hand, functional status, mortality and quality of life are the major outcome variables (Vallet et al., 2023). These major outcome variables translate a practice of a paradigm known as the biomedical model, also identified as disease-centered medicine, that emphasizes clinical medical interventions (García Torrejon et al., 2023; Nawaz et al., 2022).

In a multinational study that evaluated the critical care practices of 121 ICUs in 34 countries, the most common diagnoses for patients included sepsis, respiratory and heart failure, and the average ICU mortality assessed was 14% (Nawaz et al., 2022).

Thus, critical illness is often perceived straightforwardly as a tragedy, characterized by a disrupted body, life put on hold and the isolation that comes with being separated from family and friends (Puchalski, 2021). This underscores the necessity for healthcare workers in ICU to incorporate a spiritual care approach within these contexts (Puchalski, 2004).

Spiritual Care

Spiritual care is intentional and therapeutic, involving interventions and interactions by healthcare workers aimed at supporting patients' spiritual needs (Tavares et al., 2022). It encompasses addressing their search for meaning, purpose, connection and transcendence, particularly in the context of suffering, while helping patients and families navigate existential crises or cope with critical illness (Puchalski, 2021).

This concept is described as patient-centered and non-denominational, extending beyond physical care to honor individual values and beliefs, while emphasizing both vertical (transcendental) and horizontal (interpersonal) dimensions of spirituality (Tavares et al., 2022). This highlights the distinction from religious care, which is grounded in doctrinal practices, as spiritual care is not necessarily associated with religion and instead focuses on addressing unique spiritual needs (van Leeuwen et al., 2009).

In a study that explored the importance of spirituality to patients in the ICU, 85% indicated that their spirituality was important to them, particularly during moments of illness or crisis (Aslakson et al., 2017). As far as spirituality is concerned, this

concept is subjective, dynamic and multidimensional, existing in all cultures and societies, and can be present in spiritual people who are not religious (de Brito Sena et al., 2021; Jones, 2020).

Moving beyond the traditional biomedical model, ICU can adopt a holistic, patient-centered care model that integrates emotional, mental, physical, social and spiritual care, addressing every aspect of human existence (Davidson et al., 2007, 2017; Grover et al., 2022; McCormack & McCance, 2006). This approach includes routinely incorporating a spiritual history into medical records, which is designed to foster spiritual growth (Balboni et al., 2022).

Spiritual Care Process

The spiritual care process is an integral component of a holistic care system. It involves a deliberate and collaborative approach, fostering an affectionate and intimate connection with oneself, others and a higher power, such as God, the Supreme Being, the Divine or the Creator (Nissen et al., 2021; Paul Victor & Treschuk, 2020; Tavares et al., 2022).

This process includes a range of interventions delivered by a diverse interprofessional team (e.g., nurses, physicians, psychologists) that addresses not only the physical aspects of care but also the emotional, cultural, social and spiritual dimensions of patient well-being, ensuring a patient-centered approach (Balboni et al., 2022; Dobrowolska et al., 2022; Hummel et al., 2009; Steinhauser et al., 2024).

The spiritual care process encompasses 5 phases: the first is identifying spiritual needs and resources, followed by the meaning-making matrix, also known as understanding the patients' needs, the spiritual care treatment plan, providing spiritual care and the last phase known as evaluation (Nissen et al., 2021).

Spiritual Care Interventions

Spiritual care interventions play a crucial role in providing comprehensive care by addressing the emotional, existential and spiritual dimensions of patients' experiences. These interventions consider the entire spectrum of what gives meaning to patients' lives, including their histories, preferences, beliefs, values and experiences, and may involve religious, spiritual, counseling, emotional support and advocacy interventions (Ghorbani et al., 2021; Hummel et al., 2009). They encompass aspects such as purpose and fulfillment, fostering relationships with others, connecting with the natural world and the transcendent (Hummel et al., 2009; Puchalski et al., 2014).

Unlike standard practices, which mainly focus on the procedural aspects of care, spiritual care interventions emphasize a holistic approach and are designed to foster spiritual growth, improve spiritual health and well-being, and contribute to a sense of existential integrity and completeness (Nissen et al., 2021; Puchalski et al., 2014; Tavares et al., 2022).

For a holistic and patient-centered approach, spiritual care interventions must gain insight into the patient's ontological foundation, including personal history,

spirituality and religion, as well as the context (e.g., cultural, country) in which they live (Nissen et al., 2021).

In various contexts such as palliative care, outside of the ICU, spiritual care interventions require discernment to appropriately tailor and strategize them based on their cognitive or practical nature (Best et al., 2020). At the same time, in palliative or mental health care, the literature has shown that daily interventions related to spiritual care can have a potential impact on outcomes, such as quality of life, end-of-life care and well-being (e.g., functional perspective), and reduce discomfort, anxiety and depression (Best et al., 2020; Lucchetti et al., 2021).

Moreover, the American College of Critical Care Medicine has presented guidelines identifying spiritual care interventions as an essential component of patient- and family-centered care in ICU (Davidson et al., 2007, 2017). Despite these guidelines, recent research by García Torrejon et al. (2023) highlights a persistent inconsistency in the actual provision of spiritual care interventions for adult patients in ICU. To bridge this gap, it is important that these guidelines be fully integrated into daily ICU practices, enhancing spiritual care interventions to ensure truly holistic, patient- and family-centered care (Davidson et al., 2007, 2017; García Torrejon et al., 2023).

Addressing an Unmet Need

A substantial majority of patients (60.2%) and families (71.7%) experienced spiritual suffering during their ICU stay, while patients also reported enhanced hopefulness and motivation when spiritual care interventions were implemented (Ehman & Edgar, 2023; García Torrejon et al., 2023). Conversely, only 12% of ICU nurses and 13% of intensivists reported that patients or their relatives had shared their life principles regarding spirituality (Willemse et al., 2018).

The perceived deficit in spiritual care in ICU highlights the need for deeper knowledge about spiritual care interventions for ICU patients as an integral part of daily care. Specifically, to identify their main attributes, such as using the self as a therapeutic tool (e.g., therapeutic bond, practicing active listening, offering unconditional acceptance), the way they are implemented, the spiritual care providers involved, the resources used to implement spiritual care interventions (e.g., spiritual literature, communities, patient support groups) and their associated outcomes (García Torrejon et al., 2023; Puchalski, 2021; Ramezani et al., 2014; Sadras et al., 2024; Willemse et al., 2018, 2023).

Furthermore, the literature tends to show that the facilitation of spiritual and religious interventions in ICU has very specific characteristics that need to be mapped (Puchalski, 2004, 2021). An initial search was performed in PROSPERO, Open Science Framework, JBI Evidence Synthesis, PubMed (National Library of Medicine) and the Cochrane Database of Systematic Reviews. This search revealed that no existing or ongoing scoping reviews or systematic reviews on the topic were identified. Although it was possible to identify 5 previous reviews in this field, their focus varied significantly (Badanta et al., 2022; Gordon et al., 2018; Ho et al., 2018; Rababa & Al-Sabbah, 2023; Willemse et al., 2020).

One review restricts their analysis to specific outcomes (i.e., quality of care, quality of life and education of healthcare workers) (Willemse et al., 2020); others blended interventions directed to patients, families and healthcare workers (Badanta et al., 2022; Ho et al., 2018). Another review focused on the spiritual care needs and experiences of family members (Gordon et al., 2018), while another addresses spiritual practices among critically ill Muslin adult patients (Rababa & Al-Sabbah, 2023).

Therefore, a detailed understanding of the spiritual care interventions provided to adult patients in ICU is crucial for developing an evidence-informed practice that enhances such a process and for providing care in a culturally interconnected and pluralistic world (Nissen et al., 2021).

Purpose

The aim of this scoping review will be to develop a comprehensive overview of the characteristics of spiritual care interventions for adult patients in ICU.

Methods

The JBI scoping review methodology (Peters et al., 2020) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018) will be applied in conducting the proposed scoping review.

In accordance with Peters et al. (2020), the scoping review process will encompass the following steps: (i) review question, (ii) inclusion criteria (i.e., types of participants, concept and context, and types of evidence sources), (iii) search strategy, (iv) source of evidence selection, (v) data extraction, (vi) analysis of evidence and (vii) presentation of the results. As recommended by Tricco et al. (2018) and Peters et al. (2020), this protocol was registered prospectively in the Open Science Framework. Any deviations will be explicitly justified by the researchers, and thoroughly detailed and documented in the scoping review report (Peters et al., 2020).

To provide a clear overview of the research protocol, a diagram illustrating the key steps is presented below. This visual representation summarizes the sequence of actions involved in our scoping review process (Fig. 1).

Review Questions

This scoping review will consider the following main question to identify spiritual care interventions for adult patients in ICU: What are the characteristics of spiritual care interventions for adult patients in ICU?

The subsequent questions will be considered as sub-questions: What are the main attributes of the spiritual care interventions provided to adult patients in ICU regarding its objectives, format (e.g., face-to-face, audio interventions), frequency,

Research problem
What are the characteristics of spiritual care interventions for adult patients in ICU?
Conceptual Framework
Research team
Review question

Inclusion criteria
- Adult patients aged 18 years or older.
- Spiritual care interventions.
- ICU level (i.e., 1, 2 or 3).

Search strategy
- Developing the search string.
- All identified keywords and index terms will be adapted for each of the following databases: PubMed (National Library of Medicine), CINAHL, Academic Search Complete, Psychology and Behavioral Sciences Collection, APA PsycINFO, Cochrane Central Register of Controlled Trials (all via EBSCOhost), Scopus, Web of Science Core Collection, OpenGrey and MedNar.

Source of evidence selection
- Records will be collated and uploaded into Rayyan Intelligent Systematic Review tool (Qatar Computing Research Institute, Doha, Qatar).
- A pilot test will be conducted before starting the screening process.
- Screening of titles, abstracts, and full texts will be conducted by 2 independent researchers.
- The search results will be presented in a *PRISMA* flow diagram.

Discussion or consultation with a third researcher to resolve disagreements.

Data extraction
- Data from the papers included in the scoping review will be extracted by 2 independent researchers.
- The data extraction will include key findings relevant to the review questions, such as patients requiring spiritual care interventions in ICU settings, including the interventions' attributes, format, frequency, delivery, duration, providers participating in the implemented interventions, resources, theoretical framework, outcomes, and corresponding assessment tools.

Analysis of evidence
- Mapping the data aims to identify, characterize, and summarize the research evidence on the topics under study.
- A narrative summary will accompany the tabulated and/or charted results, describing how they relate to the review's objective and questions.

Presentation of the results
- Study characteristics.
- Participants characteristics.
- Concept characteristics.
- Context characteristics.
- Outcomes.
- Main findings from participants' perspectives.
- Additional results.

Peer review process

PUBLICATION OF THE SCOPING REVIEW REPORT

Enhances research credibility through transparency.

Contributes to the rigor of the research process.

Reduces reporting bias.

Current scientific standards.

PUBLICATION OF THE SCOPING REVIEW PROTOCOL

Method: Scoping Review

Purpose: To develop a comprehensive overview of the characteristics of spiritual care interventions for adult patients in ICU

Open Science Framework Registration: https://ost.io/a4hc8

Conducting a Scoping Review Protocol

Fig. 1 Scoping review protocol method

duration, content, resources, theoretical framework and providers? What are the outcomes and corresponding assessment tools associated with spiritual care interventions for adult patients in ICU?

Inclusion Criteria

This section provides a clear roadmap for understanding the authors' proposals and offers a structured framework for determining which studies should be included in the scoping review.

Types of Participants

This review will consider studies that include interventions aimed at addressing spiritual care for adult patients aged 18 years or older admitted to any type of ICU, regardless of length of stay or diagnosis. There will be no restrictions concerning gender, ethnicity, education, socioeconomic status or other personal characteristics. Studies describing only spiritual care interventions to families, relatives, caregivers, surrogates and/or healthcare workers will be excluded.

Concept

Spiritual care interventions are the central concept of this scoping review and an essential aspect of providing holistic and patient-centered care (Tavares et al., 2022). As the central concept, these therapeutic interventions aim to mobilize an individual's inner healing resources and address fundamental questions about pain, suffering, the meaning of life and death (Ramezani et al., 2014).

According to Ramezani et al. (2014), spiritual care interventions have 7 attributes: (i) creating a spiritually nurturing environment, (ii) using intuitive sense to discern the ideal timing for spiritual discussions, (iii) assisting patients through a healing presence combined with altruism, (iv) developing person-centeredness by acknowledging the patient's uniqueness and truth, sources of hope, strength and spiritual needs, (v) engaging in therapeutic relationship-building by providing unconditional acceptance, (vi) meaning-centered therapeutic interventions, through meaningful relationships, religious support and complementary therapies, and (vii) exploration of spiritual perspective.

Context

Most ICUs are classified according to several variables, such as the availability of medical and nursing staff, monitoring capacity, research and referral within the hospital, the community and the country (Marshall et al., 2017). Typically, ICUs are classified on a scale from 1 to 3, with 1 indicating basic care and 3 representing the top level (Marshall et al., 2017).

A level 1 ICU offers ongoing noninvasive monitoring and more dedicated nursing care than a standard hospital ward (Marshall et al., 2017). In contrast, a level 2 ICU

is capable of invasive monitoring and providing essential life support for brief periods (Marshall et al., 2017). The most advanced, a level 3 ICU, delivers a complete range of monitoring and life support technologies and encompasses a skilled interprofessional team (Marshall et al., 2017). For the scope of this review, all levels and settings of ICU will be included, such as general, mixed, medical, surgical, cardiac surgical, coronary, cardiac, neurological, burn, respiratory care and stroke units.

Types of Evidence Sources

This scoping review will include studies with quantitative, qualitative and mixed methods designs. Editorials, opinion papers and gray literature, such as technical or research reports, theses, doctoral dissertations, conference papers, abstracts and official reports, will be considered for inclusion.

Search Strategy

The search strategy enables the reviewers to identify published and unpublished studies and encompasses a three-phase process: (i) identifying the Medical Subject Headings descriptors and key terms important to the search; (ii) developing the search strategy; and (iii) searching across multiple databases using the previously defined search strategy, as well as examining the reference lists of all the studies selected to be part of the scoping review.

The first step included an initial limited PubMed (National Library of Medicine) search to identify articles on the topic. The text words in the titles and abstracts of relevant articles and the index terms used to describe the articles were used to inform the second phase (i.e., developing the search strategy) as detailed in "Appendix A."

All identified keywords and index terms will be adapted for each of the following databases: PubMed (National Library of Medicine), CINAHL, Academic Search Complete, Psychology and Behavioral Sciences Collection, APA PsycINFO, Cochrane Central Register of Controlled Trials (all via EBSCOhost), Scopus and Web of Science Core Collection. Gray literature will also be screened at OpenGrey and MedNar. In this step, the reference lists of all selected sources will be screened for additional papers that meet inclusion criteria.

All languages will be included to reduce the risk of missing relevant sources. Languages other than English, Portuguese or Spanish will be translated by colleagues fluent in the language or through qualified speakers. If those cannot be accessed, digital tools such as DeepL will be used. No time restrictions will be set. Any modifications will be detailed in the full scoping review.

Source of Evidence Selection

Following the search, all identified records will be collated and uploaded into Rayyan Intelligent Systematic Review tool (Qatar Computing Research Institute, Doha, Qatar), and duplicates will be removed. After a pilot test, 2 independent

reviewers will screen titles and abstracts against the eligibility criteria. The remaining studies will be selected for the full-text review. The full text of potentially relevant papers will be retrieved, and the full texts of selected citations will be assessed in detail against the inclusion criteria by 2 independent reviewers. At every step of the selection process, disagreements between reviewers will be settled by conversation or by consulting a third reviewer.

The search results will be reported in full in the final scoping review and presented in a PRISMA flow diagram (Page et al., 2021). Reasons for the exclusion of full-text papers that fail to meet the inclusion criteria will be documented and reported in the scoping review.

Data Extraction

Data extraction from the articles will provide a logical and descriptive summary of the results that answer the main objective, the research question and sub-questions. Data from the papers included in the scoping review will be extracted by 2 independent reviewers using a data extraction tool developed by the reviewers themselves.

The data extracted will include specific details about the inclusion criteria (i.e., types of participants, concept and context, and types of evidence sources) and key findings relevant to the review questions, such as patients requiring spiritual care interventions in ICU settings, including the interventions' attributes, format, frequency, delivery, duration, providers participating in the implemented interventions, resources, outcomes and corresponding assessment tools associated with spiritual care interventions. A draft extraction tool is provided, as presented in "Appendix B."

Throughout the data extraction process for each included study, the reviewers will implement necessary modifications and revisions to the preliminary data extraction tool, with all changes detailed in the full scoping review. Any disagreements between the reviewers will be resolved through discussion or with a third reviewer. The authors of papers will be contacted (e.g., by email) to request missing or additional data, wherever required.

Analysis of Evidence

The elements of the population, concept, context and type of sources of the inclusion criteria guide how the data will be mapped. Mapping the data aims to identify, characterize and summarize the research evidence on the topics under study. A narrative summary will accompany the tabulated and/or charted results, describing how they relate to the review's objective and questions.

Presentation of the Results

The extracted data will be presented in tabular or diagrammatic format, as presented in "Appendix B," in a manner that aligns with the objective and questions of this scoping review. However, other formats may be considered after data analysis if they allow a better representation of the results.

Limitations

Some potential limitations of this study include the exclusion of research not available in the selected databases or studies from developing countries with limited scientific output, which are less likely to be published. To address these limitations and ensure a comprehensive analysis of relevant data, gray literature such as theses and dissertations will be included. Another limitation is the omission of the term *pastoral care* from the search criteria, which refers to the traditional holistic shepherd model of providing bio-psycho-social and spiritual care to clients.

Furthermore, the authors have selected a total of ten databases, thereby expanding the scope to capture a diverse range of qualitative and quantitative studies, thus enhancing the comprehensiveness and inclusivity of the research findings. To address the subjectivity of the concept of spiritual care and acknowledging that research in ICU settings is still in its early stages, the authors have included a variety of databases along with key terms and index terms from the health and social sciences in their protocol.

Conclusion

The publication of protocols for both secondary research (i.e., scoping reviews and systematic reviews) and primary research (e.g., experimental studies) is widely regarded as good practice in a scientific landscape that aims to be increasingly open (Munn et al., 2018). This practice aligns with the open science policies outlined by the European Commission (2020) and the united nations educational, scientific and cultural organization (2021).

The publication of scoping review protocols supports the broader goals of secondary research science, promotes greater openness in accordance with current scientific standards, reduces reporting bias, enhances research credibility through transparency and contributes to the rigor of the research process (Munn et al., 2018).

The proposed scoping review aims to develop a comprehensive overview of spiritual care interventions for adult patients in ICU settings, including their main attributes, the providers involved, the resources utilized, the outcomes achieved and the corresponding evaluation tools.

The authors expect that this protocol will initiate a discussion in the scientific community about religion and spirituality in highly complex healthcare settings like the ICU and promote the integration of spiritual care into daily ICU practices by all stakeholders. This discussion will support a shift from the traditional biomedical model to a more holistic and patient-centered approach. It is expected that the findings of this scoping review not only address the perceived deficit in spiritual care but also promote the establishment of a new standard in critical care, fostering improved healing processes for ICU patients.

Appendix A Search strategy

Search conducted in Porto, November 9, 2024, PubMed (National Library of Medicine).

Search	Query	Records retrieved
#1	"Patients"[MeSH Terms] OR "Adult"[MeSH Terms] OR "Young Adult"[MeSH Terms] OR "Middle Aged"[MeSH Terms] OR "Aged"[MeSH Terms] OR "patient*"[Title/Abstract] OR "adult*"[Title/Abstract] OR "young adult*"[Title/Abstract] OR "Middle Aged"[Title/Abstract] OR "Aged"[Title/Abstract] OR "older adult*"[Title/Abstract]	13,598,877
#2	"spirituality"[MeSH Terms] OR "religion"[MeSH Terms] OR "relig*"[Title/Abstract] OR "spirit*"[Title/Abstract] OR "spiritual care"[Title/Abstract] OR "transcendence"[Title/Abstract]	125,397
#3	"support*"[Title/Abstract] OR "strateg*"[Title/Abstract] OR "program*"[Title/Abstract] OR "practice*"[Title/Abstract] OR "intervention*"[Title/Abstract]	6,300,656
#4	"Intensive care units"[MeSH Terms] OR "Critical care"[MeSH Terms] OR "Coronary care units"[MeSH Terms] OR "Respiratory care units"[MeSH Terms] OR "Burn units"[MeSH Terms] OR "intensive care unit*"[Title/Abstract] OR "Critical care"[Title/Abstract] OR "coronary care unit*"[Title/Abstract] OR "respiratory care unit*"[Title/Abstract] OR "burn unit*"[Title/Abstract] OR "ICU"[Title/Abstract] OR "ITU"[Title/Abstract] OR "Intensive care"[Title/Abstract] OR "stroke unit*"[Title/Abstract]	334,676
#5	(((#1) AND (#2)) AND (#3)) AND (#4) ("Patients"[MeSH Terms] OR "Adult"[MeSH Terms] OR "Young Adult"[MeSH Terms] OR "Middle Aged"[MeSH Terms] OR "Aged"[MeSH Terms] OR "patient*"[Title/Abstract] OR "adult*"[Title/Abstract] OR "young adult*"[Title/Abstract] OR "Middle Aged"[Title/Abstract] OR "Aged"[Title/Abstract] OR "older adult*"[Title/Abstract]) AND ("spirituality"[MeSH Terms] OR "religion"[MeSH Terms] OR "relig*"[Title/Abstract] OR "spirit*"[Title/Abstract] OR "spiritual care"[Title/Abstract] OR "transcendence"[Title/Abstract]) AND ("support*"[Title/Abstract] OR "strateg*"[Title/Abstract] OR "program*"[Title/Abstract] OR "practice*"[Title/Abstract] OR "intervention*"[Title/Abstract]) AND ("Intensive care units"[MeSH Terms] OR "Critical care"[MeSH Terms] OR "Coronary care units"[MeSH Terms] OR "Respiratory care units"[MeSH Terms] OR "Burn units"[MeSH Terms] OR "intensive care unit*"[Title/Abstract] OR "Critical care"[Title/Abstract] OR "coronary care unit*"[Title/Abstract] OR "respiratory care unit*"[Title/Abstract] OR "burn unit*"[Title/Abstract] OR "ICU"[Title/Abstract] OR "ITU"[Title/Abstract] OR "Intensive care"[Title/Abstract] OR "stroke unit*"[Title/Abstract])	770

Appendix B: Data extraction tool

Domain	Extracted information
Study characteristics. If there is no data, write NA	Author(s)- first Author More than 2 authors: XX et al
	Full title
	Country
	Year of publication
	Type of study (e.g., quantitative, qualitative, mixed methods, randomized controlled trial)
	Study objective/aims
Participants characteristics	Adult patients' age
	Patient gender
	Length of stay in the ICU
	Other information related to patients (e.g., long-term conditions, end-of-life/palliative care, critical illness)
Concept characteristics	Main attributes of spiritual care interventions
	Format and delivery strategy for the intervention (e.g., face-to-face, technology-based); illustrated spiritual care communication cards; audio interventions for patients (e.g., recordings of relaxing music or prayers); creating a therapeutic relationship; individual or group sessions
	Frequency (e. g., number of sessions)
	Duration of sessions
	Providers (e.g., healthcare workers)
	Resources (e.g., spiritual literature, communities, patient support groups)
	Theoretical framework
Context characteristics	ICU level (i.e., 1, 2 or 3) ICU setting (e.g., medical, surgical, mixed, cardiac unit)
Outcomes	Primary findings resulting from the intervention, whether identified in the study or not
	Secondary findings resulting from the intervention, whether identified in the study or not
	Correlation of outcomes with the intervention: the relationship between the outcome and the intervention, with positive, negative or null statistical significance, whether identified in the study or not
	Assessment tools for the outcomes, whether identified in the study or not
Main findings from participants' perspectives	Main findings from patients' and/or families' perspectives on spiritual care interventions
Additional results	Other identified relevant results

Author Contributions Aramid José Fajardo Gomes took part in conceptualization. Aramid José Fajardo Gomes, Rosa Carla Gomes da Silva, Elisabete Cristina Macedo Alves and Francisco Miguel Correia Sampaio assisted with methodology. Aramid José Fajardo Gomes, Ana Sofia Novais Rosinhas, Rosa Carla Gomes da Silva, Olga Riklikiene, Elisabete Cristina Macedo Alves and Francisco Miguel Correia Sampaio were responsible for writing—original draft, writing—reviewing and editing, and visualization. Elisabete Cristina Macedo Alves and Francisco Miguel Correia Sampaio were involved in supervision.

Funding The authors declare that no funds, grants or other support were received during the preparation of this manuscript.

Declarations

Competing interest The authors have no relevant financial or non-financial interests to disclose. This review will contribute toward a PhD in Sciences and Technologies of Health and Well-Being for Aramid J. F. Gomes.

Consent to Participate and Publish There is no need for consent to participate or publish as this scoping review involves analyzing existing research literature without direct interaction with human participants or collection of new data.

Ethical Approval This study does not require ethics approval, as data will be sourced from published studies. Ethical practices were upheld through transparency, accuracy and the prevention of plagiarism.

References

Aslakson, R. A., Kweku, J., Kinnison, M., Singh, S., Crowe, T. Y., Aslakson, R. A., Ast, K., Elk, R., Garner, K. K., Gramling, R., Grudzen, C., Kamal, A. H., Lamba, S., LeBlanc, T. W., Rhodes, R. L., Roeland, E., Schulman-Green, D., & Unroe, K. T. (2017). Operationalizing the measuring what matters spirituality quality metric in a population of hospitalized, critically ill patients and their family members. *Journal of Pain and Symptom Management, 53*(3), 650–655. https://doi.org/10.1016/j.jpainsymman.2016.12.323

Badanta, B., Rivilla-García, E., Lucchetti, G., & de Diego-Cordero, R. (2022). The influence of spirituality and religion on critical care nursing: An integrative review. *Nursing in Critical Care, 27*(3), 348–366. https://doi.org/10.1111/nicc.12645

Balboni, T. A., VanderWeele, T. J., Doan-Soares, S. D., Long, K. N. G., Ferrell, B. R., Fitchett, G., Koenig, H. G., Bain, P. A., Puchalski, C., Steinhauser, K. E., Sulmasy, D. P., & Koh, H. K. (2022). Spirituality in serious illness and health. *JAMA Network Open, 328*(2), 184–197. https://doi.org/10.1001/jama.2022.11086

Best, M., Leget, C., Goodhead, A., & Paal, P. (2020). An EAPC white paper on multi-disciplinary education for spiritual care in palliative care. *BioMed Central Palliative Care*. https://doi.org/10.1186/s12904-019-0508-4

European Commission. (2020). *Open Science*. Retrieved August 1, 2024 from https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en

Davidson, J. E., Powers, K., Hedayat, K. M., Tieszen, M., Kon, A. A., Shepard, E., Spuhler, V., Todres, I. D., Levy, M., Barr, J., Ghandi, R., Hirsch, G., Armstrong, D., & American College of Critical Care Medicine Task Force 2004–2005, Society of Critical Care Medicine. (2007). Clinical practice guidelines for support of the family in the patient-centered intensive care unit: American College of Critical Care Medicine Task Force 2004–2005. *Critical Care Medicine, 35*(2), 605–622. https://doi.org/10.1097/01.CCM.0000254067.14607.EB

Davidson, J. E., Aslakson, R. A., Long, A. C., Puntillo, K. A., Kross, E. K., Hart, J., Cox, C. E., Wunsch, H., Wickline, M. A., Nunnally, M. E., Netzer, G., Kentish-Barnes, N., Sprung, C. L., Hartog, C. S., Coombs, M., Gerritsen, R. T., Hopkins, R. O., Franck, L. S., Skrobik, Y., … Curtis, J. R. (2017). Guidelines for family-centered care in the neonatal, pediatric, and adult ICU. *Critical Care Medicine, 45*(1), 103–128.

de Brito Sena, M. A., Damiano, R. F., Lucchetti, G., & Peres, M. F. P. (2021). Defining spirituality in healthcare: A systematic review and conceptual framework. *Frontiers in Psychology, 12*, 756080. https://doi.org/10.3389/fpsyg.2021.756080

Dobrowolska, B., Whelan, J., & Timmins, F. (2022). Managing holistic nursing practice: The need for spiritual care competence in health care practice. *Journal of Nursing Management, 30*(5), 1083–1086. https://doi.org/10.1111/jonm.13538

Ehman, J. W., & Edgar, J. R. (2023). Spirituality and chaplaincy supporting ICU survivorship: A practical overview and strategy for clinicians. *Journal of Religion and Health, 62*(1), 65–82. https://doi.org/10.1007/s10943-022-01730-2

García Torrejon, M. C., Heras de la Calle, G., Martin Delgado, M. C., Franco Garrobo, N., Gordo Vidal, F., Varillas Delgado, D., Caballero Martínez, F., & Álvarez Montero, S. (2023). Spirituality in critical care: an observational study of the perceptions of professionals, patients and families, in Spain and Latin America. *Journal of Religion and Health, 62*(4), 2391–2411. https://doi.org/10.1007/s10943-023-01746-2

Ghorbani, M., Mohammadi, E., Aghabozorgi, R., & Ramezani, M. (2021). Spiritual care interventions in nursing: An integrative literature review. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer, 29*(3), 1165–1181. https://doi.org/10.1007/s00520-020-05747-9

Gordon, B. S., Keogh, M., Davidson, Z., Griffiths, S., Sharma, V., Marin, D., Mayer, S. A., & Dangayach, N. S. (2018). Addressing spirituality during critical illness: A review of current literature. *Journal of Critical Care, 45*, 76–81. https://doi.org/10.1016/j.jcrc.2018.01.015

Grover, S., Fitzpatrick, A., Azim, F. T., Ariza-Vega, P., Bellwood, P., Burns, J., Burton, E., Fleig, L., Clemson, L., Hoppmann, C. A., Madden, K. M., Price, M., Langford, D., & Ashe, M. C. (2022). Defining and implementing patient-centered care: An umbrella review. *Patient Education and Counseling, 105*(7), 1679–1688. https://doi.org/10.1016/j.pec.2021.11.004

Ho, J. Q., Nguyen, C. D., Lopes, R., Ezeji-Okoye, S. C., & Kuschner, W. G. (2018). Spiritual care in the intensive care unit: A narrative review. *Journal of Intensive Care Medicine, 33*(5), 279–287. https://doi.org/10.1177/0885066617712677

Hummel, L., Galek, K., Murphy, K. M., Tannenbaum, H. P., & Flannelly, L. T. (2009). Defining spiritual care: An exploratory study. *Journal of Health Care Chaplaincy, 15*(1), 40–51. https://doi.org/10.1080/08854720802698509

Jones, C. L. C. (2020). Spiritual well-being in older adults: A concept analysis. *Journal of Christian Nursing, 37*(4), E31–E38. https://doi.org/10.1097/CNJ.0000000000000770

Lucchetti, G., Koenig, H. G., & Lucchetti, A. L. G. (2021). Spirituality, religiousness, and mental health: A review of the current scientific evidence. *World Journal of Clinical Cases, 9*(26), 7620–7631.

Marshall, J. C., Bosco, L., Adhikari, N. K., Connolly, B., Diaz, J. V., Dorman, T., Fowler, R. A., Meyfroidt, G., Nakagawa, S., Pelosi, P., Vincent, J.-L., Vollman, K., & Zimmerman, J. (2017). What is an intensive care unit? A report of the task force of the world federation of societies of intensive and critical care medicine. *Journal of Critical Care, 37*, 270–276. https://doi.org/10.1016/j.jcrc.2016.07.015

McCormack, B., & McCance, T. V. (2006). Development of a framework for person-centred nursing. *Journal of Advanced Nursing, 56*(5), 472–479. https://doi.org/10.1111/j.1365-2648.2006.04042.x

Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BioMed Central Medical Research Methodology*. https://doi.org/10.1186/s12874-018-0611-x

Nawaz, F. A., Deo, N., Surani, S., Maynard, W., Gibbs, M. L., & Kashyap, R. (2022). Critical care practices in the world: Results of the global intensive care unit need assessment survey 2020. *World Journal of Critical Care Medicine, 11*(3), 169–177. https://doi.org/10.5492/wjccm.v11.i3.169

Nissen, R. D., Viftrup, D. T., & Hvidt, N. C. (2021). The process of spiritual care. *Frontiers in Psychology, 12*, 674453. https://doi.org/10.3389/fpsyg.2021.674453

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *British Medical Journal (Clinical Research Ed), 372*, 71.

Paul Victor, C. G., & Treschuk, J. V. (2020). Critical literature review on the definition clarity of the concept of faith, religion, and spirituality. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association, 38*(1), 107–113. https://doi.org/10.1177/0898010119895368

Peters, M. D. J., Godfrey, C., McInerney, P., Munn, Z., Tricco, A. C., & Khalil, H. (2020). Scoping reviews. In E. Aromataris, C. Lockwood, K. Porritt, B. Pilla, & Z. Jordan (Eds.), *JBI Manual for Evidence Synthesis.* UK: JBI.
Puchalski, C. (2004). Spirituality in health: The role of spirituality in critical care. *Critical Care Clinics, 20*(3), 487–504. https://doi.org/10.1016/j.ccc.2004.03.007
Puchalski, C. (2021). Spiritual Care in Health Care: Guideline, Models, Spiritual Assessment and the Use of the ©FICA Spiritual History Tool. In A. Büssing (Ed.), *Spiritual Needs in Research and Practice.* Palgrave Macmillan.
Puchalski, C. M., Vitillo, R., Hull, S. K., & Reller, N. (2014). Improving the spiritual dimension of whole person care: Reaching national and International Consensus. *Journal of Palliative Medicine, 17*(6), 642–656. https://doi.org/10.1089/jpm.2014.9427
Rababa, M., & Al-Sabbah, S. (2023). The use of islamic spiritual care practices among critically ill adult patients: A systematic review. *Heliyon, 9*(3), e13862. https://doi.org/10.1016/j.heliyon.2023.e13862
Ramezani, M., Ahmadi, F., Mohammadi, E., & Kazemnejad, A. (2014). Spiritual care in nursing: A concept analysis. *International Nursing Review, 61*(2), 211–219. https://doi.org/10.1111/inr.12099
Sadras, V., Carrese, J. A., Fitz, A., Gatti, M. L. E., & Teague, P. (2024). Exploring patients' and chaplains' perspectives about a spiritual care program in the primary care setting. *Journal of General Internal Medicine, 39*(8), 1400–1406. https://doi.org/10.1007/s11606-024-08669-y
Steinhauser, K. E., Jeffreys, A. S., Perry, K., Parker, R. P., Nieuwsma, J., Olsen, M. K., Johnson, K. S., Kirshner, M. A., Majette, N., & King, H. A. (2024). Validating a tool to measure spiritual beliefs, needs and resources in serious illness: The I-SPIRIT. *Journal of the American Geriatrics Society, 72*(7), 2148–2156. https://doi.org/10.1111/jgs.18887
Tavares, A. P., Martins, H., Pinto, S., Caldeira, S., Pontífice Sousa, P., & Rodgers, B. (2022). Spiritual comfort, spiritual support, and spiritual care: A simultaneous concept analysis. *Nursing Forum, 57*(6), 1559–1566. https://doi.org/10.1111/nuf.12845
Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., & Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of Internal Medicine, 169*(7), 467–473. https://doi.org/10.7326/M18-0850
United Nations Educational, Scientific and Cultural Organization. (2021). *UNESCO recommendation on open science*. https://doi.org/10.54677/MNMH8546
Vallet, H., Guidet, B., Boumendil, A., De Lange, D. W., Leaver, S., Szczeklik, W., Jung, C., Sviri, S., Beil, M., & Flaatten, H. (2023). The impact of age-related syndromes on ICU process and outcomes in very old patients. *Annals of Intensive Care*. https://doi.org/10.1186/s13613-023-01160-7
van Leeuwen, R., Tiesinga, L. J., Middel, B., Post, D., & Jochemsen, H. (2009). The validity and reliability of an instrument to assess nursing competencies in spiritual care. *Journal of Clinical Nursing, 18*(20), 2857–2869. https://doi.org/10.1111/j.1365-2702.2008.02594.x
Willemse, S., Smeets, W., van Leeuwen, E., Heldens, J., ten Napel-Roos, N., & Foudraine, N. (2023). Spiritual care in the intensive care unit: Experiences of dutch intensive care unit patients and relatives. *Dimensions of Critical Care Nursing: DCCN, 42*(2), 83–94. https://doi.org/10.1097/DCC.0000000000000570
Willemse, S., Smeets, W., van Leeuwen, E., Janssen, L., & Foudraine, N. (2018). Spiritual care in the ICU: Perspectives of dutch intensivists, ICU nurses, and spiritual caregivers. *Journal of Religion and Health, 57*(2), 583–595. https://doi.org/10.1007/s10943-017-0457-2
Willemse, S., Smeets, W., van Leeuwen, E., Nielen-Rosier, T., Janssen, L., & Foudraine, N. (2020). Spiritual care in the intensive care unit: An integrative literature research. *Journal of Critical Care, 57*, 55–78. https://doi.org/10.1016/j.jcrc.2020.01.026

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

Authors and Affiliations

Aramid Gomes[1,2,3,7] · **Ana Rosinhas**[1,2,3,6] · **Rosa Silva**[3,4] · **Olga Riklikiene**[5] · **Elisabete Alves**[1,2] · **Francisco Sampaio**[3,4]

✉ Aramid Gomes
ajg.gomes@ensp.unl.pt

1 Nursing Department, University of Évora, Évora, Portugal

2 Comprehensive Health Research Centre (CHRC), University of Évora, Évora, Portugal

3 CINTESIS@RISE, Nursing School of Porto (ESEP), Porto, Portugal

4 Nursing School of Porto, Porto, Portugal

5 Department of Nursing, Faculty of Nursing, Medical Academy, Lithuanian University of Health Sciences, Kaunas, Lithuania

6 Jean Piaget Higher School of Health of Vila Nova de Gaia, Porto, Portugal

7 Local Health Unit of Santo António, Porto, Portugal