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REVIEW ARTICLE

Islamic Religious–Spiritual Interventions and Their Associations With Anxiety and Physiological Outcomes in Intensive and Coronary Care Settings: A Structured Literature Review

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Abstract. Background: Critical illness can be accompanied by anxiety and physiological instability, prompting interest in supportive spiritual interventions. Objective: This structured literature review critically examined the associations of Islamic religious–spiritual interventions with anxiety, cardiovascular parameters, and respiratory/oxygenation outcomes among adults receiving intensive or coronary care. Methods: Directed literature searches were reported for PubMed/MEDLINE, ScienceDirect, Wiley Online Library, and Google Scholar, covering January 2019 to July 2026. Records available in extraction workbooks were consolidated and assessed against PICOS criteria. Full-text evidence was extracted, appraised using design-appropriate Joanna Briggs Institute checklists, and synthesized narratively without meta-analysis. Results: The documented candidate register contained 30 unique publications: 17 excluded, seven with unresolved eligibility, and six provisionally eligible primary studies (468 participants; four ICU and two CCU studies). Three studies (321 participants) measured anxiety and reported lower scores after Qur'an recitation, although baseline imbalances and statistical limitations restricted causal interpretation. Four studies evaluated cardiovascular outcomes (207 participants) and three reported respiratory or oxygenation outcomes (147 participants), with inconsistent findings. No directly eligible emergency-department study was verified in this set. Conclusions: Qur'an-recitation interventions may help reduce anxiety in selected intensive and coronary care populations, but evidence for hemodynamic stabilization or improved oxygenation remains inconclusive. Incomplete search records and unresolved eligibility classifications limited interpretation to the documented subset of studies. Spiritual support was interpreted as a preference-sensitive adjunct to essential clinical care.

Keywords: Islamic spiritual care; Qurʼan recitation; Anxiety; Intensive care unit; Coronary care unit; Narrative synthesis

INTRODUCTION

Critical care nursing focuses on managing organ dysfunction and life-threatening conditions through prompt clinical monitoring and interventions. However, treatment in Intensive Care Units (ICUs) and Coronary Care Units (CCUs) also exposes patients to prognostic uncertainty, invasive procedures, pain, communication difficulties, and separation from family members, potentially contributing to anxiety and existential distress. Similar conditions may occur in emergency departments (EDs), although the characteristics of care and opportunities for implementing interventions differ. Shdaifat and Al Qadire (2022) identified anxiety and depression as significant concerns among ICU patients. The updated guidelines from the Society of Critical Care Medicine (2025) also recognize anxiety as an important aspect of intensive care management. Therefore, the quality of critical care should encompass patients' psychological and spiritual needs without compromising the priority of clinical stabilization.

Anxiety responses may involve sympathetic nervous system activation and neuroendocrine changes that influence blood pressure, heart rate, and respiration. However, physiological changes in critically ill patients are also influenced by underlying diagnoses, pain, organ perfusion, vasoactive medications, sedation, oxygen therapy, and mechanical ventilation. Consequently, reductions in blood pressure or mean arterial pressure (MAP) do not necessarily indicate clinical improvement, particularly in patients experiencing hypotension or shock. Respiratory rate and peripheral oxygen saturation (SpO_2) should also be distinguished as indicators of respiratory function and oxygenation rather than being classified as hemodynamic measurements. The evaluation of supportive interventions should therefore consider individualized physiological targets and the clinical relevance of observed

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changes rather than relying solely on statistical significance (Li et al., 2025).

The spiritual dimension is an essential component of patient-centered care; however, the terminology used to describe this dimension requires clarification. Spirituality refers to the pursuit of meaning, purpose, connectedness, and transcendence, whereas religiosity refers to beliefs and practices associated with established religious traditions. Spiritual needs encompass the need for hope, peace, meaning, and support, while spiritual distress refers to suffering arising when these needs or sources of meaning are disrupted. Spiritual care represents a professional response to such needs through therapeutic presence, empathetic communication, companionship, exploration of meaning, and facilitation of religious practices according to patients' preferences. Accordingly, spiritual care is not synonymous with religious rituals and remains relevant to patients without a particular religious affiliation. The consensus presented by Puchalski et al. (2014) and the review conducted by Balboni et al. (2022) emphasize the importance of addressing spiritual dimensions in the comprehensive care of individuals experiencing serious illness.

These needs are particularly evident in intensive care settings. An integrative review of 40 studies by Badanta et al. (2022) identified the use of spiritual coping strategies among patients and their families while highlighting limitations in healthcare professionals' preparedness to address spiritual needs. In a survey conducted across 41 ICUs in Spain and Latin America, García Torrejon et al. (2023) reported that 60.2% of patients and 71.7% of family members perceived spiritual suffering, while 50.1% of healthcare professionals considered themselves insufficiently competent to provide spiritual care. Dural (2024) examined ICU nurses' experiences regarding the perceived benefits of and barriers to providing spiritual care. Furthermore, a scoping review by Kappes et al. (2025) and a qualitative meta-synthesis by Cui et al. (2025) highlighted the importance of communication skills, organizational support, interdisciplinary collaboration, and spiritual needs assessment. Collectively, these findings demonstrate both the need for spiritual care and existing gaps in healthcare professionals' capacity to implement it effectively.

From a psychological perspective, spiritual care can be understood through the concepts of spiritual coping, meaning-making, hope, and acceptance. Spiritual coping involves using beliefs, relationships, or spiritual resources to manage the challenges associated with illness. However, Pargament et al. (2011) distinguished positive religious coping from negative religious coping, including feelings of abandonment or punishment by God. Consequently, religiosity does not invariably produce a calming response. According to Park (2010), meaning-making enables individuals to interpret stressful experiences in relation to their existing belief systems. Spiritual support may therefore help patients develop more adaptive appraisals, maintain hope, and accept uncertainty. Although these mechanisms are conceptually plausible, reductions in anxiety or changes in physiological parameters cannot be attributed directly to spiritual interventions without adequate empirical investigation.

The forms of spiritual intervention also vary across cultural contexts. Among Muslim patients, spiritual support may include prayer, dhikr (remembrance of God), listening to Qur'anic recitation (murottal), and assistance with tayammum (dry ablution) and salah (ritual prayer), according to patients' abilities. Rababa and Al-Sabbah (2023) reviewed Islamic spiritual care practices among critically ill adults and emphasized the importance of addressing patients' needs in accordance with their religious beliefs. However, listening to Qur'anic recitation as an auditory experience, prayer as a coping strategy, and assistance with religious practices as a means of fulfilling spiritual needs do not necessarily involve identical components or objectives. Therefore, classifying these practices under a single intervention category requires clear operational definitions, and their psychological and physiological outcomes should be evaluated separately.

ICUs, CCUs, and EDs differ in their clinical characteristics and opportunities for delivering spiritual care. ICU and CCU settings may allow planned or repeated interventions, although sedation, mechanical ventilation, and impaired consciousness can limit patient participation and the assessment of anxiety. In contrast, resuscitation priorities, high patient turnover, and time constraints in EDs may restrict opportunities for providing such interventions. McDonald and Guyer (2025) described both the challenges and opportunities associated with integrating spiritual care into emergency services. Kazemi Najm et al. (2025) demonstrated that ethics training could improve ED nurses' competence in providing spiritual care; however, their study did not establish the effectiveness of spiritual interventions on patient outcomes. Therefore, evidence obtained from ICU or CCU populations cannot be directly generalized to emergency department settings.

Evidence regarding the effectiveness of spiritual care continues to develop, although the outcomes examined remain diverse. A meta-analysis by de Diego-Cordero et al. (2022) identified potential benefits of religious and spiritual interventions for mental, physical, and spiritual health across different nursing contexts. Nevertheless, these findings may not apply uniformly to critically ill populations. Among ICU patients, Li et al. (2025) synthesized 18 studies and reported reductions in anxiety (standardized mean difference = −1.78; 95% CI [−3.06, −0.50]) and MAP (mean difference = −12.12; 95% CI [−23.68, −0.56]). In contrast, the effects on heart rate, respiratory rate, blood pressure, and SpO_2 were not statistically significant. These inconsistencies suggest that psychological benefits are not necessarily accompanied by corresponding physiological changes, nor do they establish the achievement of clinical stabilization.

The development of more structured spiritual interventions also remains under investigation. Repetto et al. (2025) published a feasibility randomized controlled pilot trial protocol designed to evaluate the feasibility of generalist spiritual care and its potential effects on psychological distress following critical illness. Because the publication did not report intervention effectiveness outcomes, it cannot be used as evidence that the intervention successfully reduced anxiety or blood pressure. Distinguishing implementation studies, research protocols, and completed intervention studies with measurable outcomes is therefore essential to avoid overstating the strength of the available evidence.

The Roy Adaptation Model provides a theoretical foundation for interpreting the relationships among critical illness, spiritual support, and patient responses. Roy (2009) conceptualized individuals as adaptive systems that respond to focal, contextual, and residual stimuli. Acute life-threatening illness can be considered a focal stimulus, whereas pain, the ICU or ED environment, communication limitations, family involvement, and spiritual support represent contextual factors. Previous spiritual experiences may function as residual stimuli when their influence on adaptation remains uncertain. Within this framework, spiritual care is not viewed as a stimulus that automatically produces improvement but rather as an intervention that

may modify patients' experiences of stressors and support adaptive processes according to individual needs.

Roy (2009) also distinguished the cognator subsystem, which involves perception, emotion, learning, and judgment, from the regulator subsystem, which encompasses neural, chemical, and endocrine responses. Spiritual support may hypothetically influence threat appraisal and coping through cognator processes, whereas physiological changes may be associated with regulator processes. Adaptive responses can further be examined through four adaptive modes: physiological-physical, self-concept, role function, and interdependence. Accordingly, anxiety and cardiovascular parameters represent only limited indicators of a broader adaptation process. This theoretical framework does not, by itself, establish that spiritual care alters vagal activity, catecholamine levels, or organ perfusion; such mechanisms require direct empirical measurement.

The existing knowledge gap must be considered in relation to previous research. Badanta et al. (2022) and Rababa and Al-Sabbah (2023) examined various spiritual practices in critical care nursing, while the meta-analysis by Li et al. (2025) synthesized psychosocial and physiological outcomes in ICU populations. Kappes et al. (2025) and Cui et al. (2025) primarily addressed nurses' roles and experiences in implementing spiritual care. Therefore, the contribution of the present review is not based on claiming to be the first synthesis of anxiety and hemodynamic outcomes. Rather, it provides a critical appraisal of primary studies available in the documented candidate register by distinguishing the components of religious interventions, outcome domains, ICU and CCU settings, and limitations related to measurement and causal validity. The absence of verified ED studies in the audited evidence set is treated as a limitation of the available evidence rather than as a basis for comparing intervention effectiveness across clinical settings.

Based on these considerations, this review aimed to identify, critically evaluate, and synthesize findings from primary studies examining the associations between religious–spiritual interventions and anxiety and cardiovascular parameters among adults receiving care in ICUs and CCUs. Respiratory and oxygenation indicators were analyzed as additional outcomes, while literature concerning EDs was considered in relation to implementation contexts and evidence gaps when it did not meet the eligibility criteria for the effectiveness synthesis. The review employed the Population, Intervention, Comparison, Outcomes, and Study Design (PICOS) framework, methodological appraisal using Joanna Briggs Institute (JBI) tools, and structured narrative synthesis based on documented candidate studies. The Roy Adaptation Model was used as a conceptual framework for interpreting the findings rather than as evidence of biological mechanisms that were not directly measured.

METHODS

Study Design and Review Approach

This study was conducted as a structured literature review involving a targeted literature search, eligibility assessment based on the Population, Intervention, Comparison, Outcomes, and Study Design (PICOS) framework, methodological appraisal using the Joanna Briggs Institute (JBI) Critical Appraisal Tools, and structured narrative synthesis. The analysis focused on primary research articles examining religious–spiritual interventions and anxiety or cardiovascular parameters among adults receiving intensive or coronary care. Respiratory rate and peripheral oxygen saturation (SpO_2) were analyzed as additional outcomes rather than as hemodynamic indicators. Study selection was documented using a Documented Candidate Study Register because the available records of the initial literature search did not encompass all retrieved records and stages of bibliographic screening.

The unit of analysis was the primary research article recorded in the candidate register. Available data were used to describe intervention characteristics, compare the direction and magnitude of reported changes, and examine limitations affecting causal inference. The Roy Adaptation Model (Roy, 2009) was employed as a conceptual framework for interpreting the findings rather than as evidence that specific neurophysiological mechanisms had been tested.

Information Sources and Literature Search

A targeted literature search was conducted across the reported sources of PubMed/MEDLINE, ScienceDirect, Wiley Online Library, and Google Scholar, covering publications from January 2019 through July 2026. The documented search terms represented three conceptual categories: spiritual interventions (spiritual care, spiritual intervention, Islamic spiritual care, Quran recitation, murottal, prayer, and dhikr); clinical settings (intensive care, ICU, coronary care unit, CCU, emergency department, and critical care); and outcomes (anxiety, hemodynamics, blood pressure, mean arterial pressure, heart rate, respiratory rate, and oxygen saturation). The available documentation identified the search sources and conceptual terms but did not permit reconstruction of the final search syntax used for each platform.

The available search records did not include the number of records retrieved from each source, a verifiable date of the final search, or the number of records screened by title and abstract. Consequently, this review presented a consolidation of documented articles rather than equating the number of publications in the register with the complete set of bibliographic search results. Limitations in the documented search history were considered when interpreting the comprehensiveness of the evidence.

Eligibility Criteria Based on PICOS

The population of interest included adults aged 18 years or older receiving care in an Intensive Care Unit (ICU), Coronary Care Unit (CCU), emergency department (ED), or comparable critical care setting. CCUs were included as specialized cardiovascular critical care settings, although their findings were distinguished from those of ICU studies during synthesis. Interventions were considered eligible when they contained an explicit spiritual or religious component, including Qur'anic recitation (murottal), prayer, dhikr, or spiritual support. Acceptable comparison conditions included standard care, rest, headphones without audio, instrumental music, or other clearly defined comparison conditions described in the primary publications.

The outcomes used to determine eligibility were anxiety or at least one cardiovascular parameter, including systolic or diastolic blood pressure, mean arterial pressure (MAP), or heart rate. Concurrent reporting of both outcome domains was not required for inclusion. Respiratory rate and SpO_2 were extracted as secondary outcomes when

available. Eligible study designs included randomized controlled trials (RCTs), randomized pilot experiments, and quasi-experimental or semi-experimental studies with comparison groups. The assessment was restricted to publications written in English or Indonesian that provided full-text access and evaluable outcome data. Systematic reviews, meta-analyses, scoping reviews, protocols without results, case reports, qualitative studies, pediatric studies, research that did not measure patient outcomes, studies without comparison groups, and relaxation interventions without an explicit spiritual component were excluded from the effectiveness synthesis.

For the studies analyzed, publication year was determined according to the journal volume or issue year recorded in the candidate register, within the period from January 2019 through July 2026. Under this convention, Yadak et al. (2019) was classified as a 2019 publication, although the article first became available online on September 30, 2017. The discrepancy between the online publication date and the journal issue year was documented as a bibliographic characteristic relevant to limitations in the literature search. The two CCU studies were included in accordance with the population scope established by the PICOS framework.

Consolidation of the Candidate Register and Determination of Study Status

Bibliographic information from publications recorded in the extraction workbooks was cross-checked using author names, article titles, publication years, and digital object identifiers (DOIs) to merge entries referring to the same publication. The consolidated results were presented in the Documented Candidate Study Register, which contained 30 unique publications. Of these, 17 publications were excluded based on assessable eligibility criteria, seven lacked sufficient documentation to establish eligibility, and six primary studies met the preliminary eligibility criteria following full-text examination and were included in the narrative synthesis. The distribution of these publications is presented in Figure 1. Duplicate entries across extraction workbooks were distinguished from duplicate records originating from the bibliographic database searches, for which complete documentation was unavailable.

Exclusion decisions were based on publication type, study design, population and clinical setting, intervention components, outcomes, language, or publication period. Seven publications remained categorized as having undetermined eligibility because the register lacked sufficient information regarding bibliographic identity, full-text content, or PICOS compliance at the time of analysis. Accordingly, the six studies reviewed represented the body of evaluable evidence available within the documented register, rather than all potentially eligible studies that might have been identified through a comprehensive systematic search. No documentation was available to establish that independent screening had been conducted by two reviewers.

Classification of Spiritual Interventions

Interventions were classified according to their components and methods of delivery rather than solely according to the use of the term spiritual care in article titles. Operationally, interventions were categorized as religious auditory exposure (e.g., Qur'anic recitation), active religious practices (e.g., prayer or dhikr), spiritual accompaniment or support, and multicomponent interventions when explicitly described in the primary publications. Guided imagery was considered a spiritual intervention only when its procedures incorporated explicit religious or spiritual components; general relaxation imagery without such elements was not automatically classified as spiritual care. This classification was used to distinguish intervention objectives, patient participation, intensity, and potential mechanisms during the synthesis.

Among the six audited studies, five examined audio recordings of Qur'anic recitation, whereas one investigated active dhikr and recitation of Surah Al-Fatihah. Therefore, the empirical findings were limited to Islamic spiritual practices; nonreligious spiritual support and multicomponent interventions were not assumed to be represented.

Data Extraction and Outcome Definitions

Data were extracted from full-text articles using a structured matrix that recorded author and publication year, country, study design, ICU or CCU setting, patient diagnoses and characteristics, sample size and group allocation, intervention procedures, comparison conditions, outcome instruments, measurement time points, and available numerical results. Intervention characteristics, including the type of recitation or practice, delivery medium, duration, frequency, number of sessions, intervention provider, and patient involvement, were recorded with reference to the principles of the Template for Intervention Description and Replication (TIDieR) (Hoffmann et al., 2014). Clinical characteristics potentially influencing intervention feasibility, such as intubation status, ventilatory support, level of consciousness, sedation, and ability to communicate, were documented when reported in the original publications.

Anxiety outcomes were identified according to the instruments actually used in the audited studies, namely the Visual Analogue Scale for Anxiety (VASA), State-Trait Anxiety Inventory (STAI), and anxiety subscale of the Depression Anxiety Stress Scales-21 (DASS-21). Cardiovascular outcomes included systolic and diastolic blood pressure, MAP, and heart rate, whereas respiratory rate (RR) and SpO_2 were classified separately as respiratory and oxygenation outcomes. Extracted data retained reported means, standard deviations, preintervention and postintervention measurements, p values, and group-by-time interaction results when available. Within-group analyses were explicitly distinguished from between-group comparisons. Discrepancies across tables or information unavailable in the original publications were recorded as inconsistencies or "not reported" rather than corrected through estimation.

Methodological Quality Appraisal

Methodological quality was appraised for six primary research articles using the JBI Critical Appraisal Checklists appropriate to their study designs, following the principles outlined in the JBI Manual for Evidence Synthesis (Aromataris et al., 2024). Three RCTs or randomized pilot studies were assessed across 13 domains, whereas three quasi-experimental or semi-experimental studies were evaluated across nine domains. The appraisal examined allocation procedures, blinding, baseline comparability, treatment conditions other than the intervention, completeness of follow-up, reliability of outcome measurements, potential confounding, and appropriateness of statistical analyses. Each domain was rated as Yes, No, or Unclear based on information available in the full-text

articles, with the rationale for each assessment documented.

All JBI assessments were conducted by one reviewer; no independently conducted second assessment was documented. The summary of domain-level judgments presented in Table 3 was used to describe methodological strengths and limitations rather than as a validated overall quality score or formal risk-of-bias classification. Baseline imbalances, unclear randomization and blinding procedures, data inconsistencies, and interpretations based on within-group changes were considered in the synthesis. The review did not apply the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach and therefore did not produce formal certainty-of-evidence ratings.

Synthesis and Interpretation of Findings

Findings were synthesized narratively and systematically according to outcome domain, intervention type, and clinical setting. Outcomes were grouped into anxiety, cardiovascular parameters, and respiratory or oxygenation parameters. ICU and CCU studies were distinguished in the descriptions of study characteristics and interpretation of findings. No directly eligible ED study was verified among the six studies evaluated. Comparisons considered the direction and magnitude of reported changes, type of comparison condition, measurement timing, statistical significance, and limitations in study design and reporting. The narrative synthesis was informed by the principles of Synthesis Without Meta-analysis (SWiM) (Campbell et al., 2020); the number of studies reporting statistically significant findings was not treated as an estimate of intervention effect magnitude.

A meta-analysis was not performed because of variations in clinical conditions, intervention types and doses, outcome instruments, measurement time points, and inconsistent reporting of comparative results and the dispersion measures required for quantitative synthesis. No pooled effect estimates were calculated. Nonsignificant findings were presented alongside positive findings, and reductions in blood pressure or MAP were not automatically interpreted as evidence of hemodynamic stabilization. The Roy Adaptation Model (Roy, 2009) was considered in the Discussion to interpret potential relationships between psychological and physiological responses without assuming causal mechanisms that were not directly measured in the primary studies.

RESULTS OF STUDY

Literature Selection and Study Characteristics

Consolidation of the extracted data yielded 30 unique publications in the Documented Candidate Study Register. Of these, 17 publications were excluded based on assessable eligibility criteria, seven had eligibility statuses that could not be determined from the available documentation, and six primary studies met the preliminary eligibility criteria following full-text assessment and were included in the analysis. The distribution of these publications is presented in Figure 1. The 30 publications represent unique records within the documented register rather than all records retrieved from bibliographic database searches. Accordingly, the synthesis was restricted to six studies for which primary research data were available and could be critically appraised.

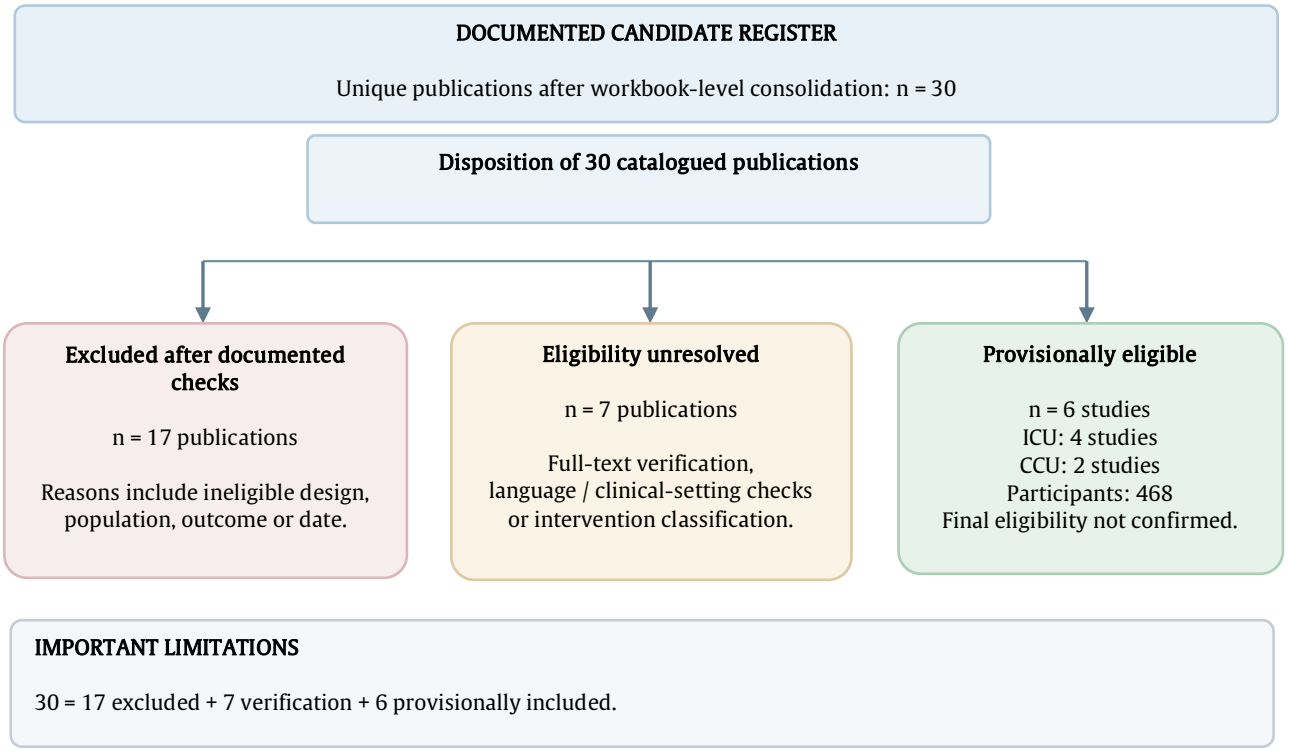


Figure 1. Documented Candidate Study Register and Preliminary Eligibility Assessment

The six studies included in the synthesis were published in journal issues between 2019 and 2025 and collectively involved 468 participants. Three studies were classified as randomized controlled trials (RCTs) or randomized pilot experiments, namely Yadak et al. (2019), AbuRuz et al. (2023), and Rababa et al. (2025), with a combined sample of 252 participants. The remaining three studies employed quasi-experimental or semi-experimental designs, as described in their original publications: Elcokany and Abd El Wareth (2019), Mohammadpoor et al. (2020), and Rajabloo et al. (2019), involving 216 participants. Study design classifications were based on descriptions provided in the primary publications because procedures for random sequence generation and allocation concealment were not consistently reported in sufficient detail.

Geographically, the studies were conducted in Saudi Arabia, Egypt, Iran, and Jordan. Four studies were conducted in intensive care units (ICUs), involving 312 participants, while two studies were conducted in coronary care units (CCUs), involving 156 participants. None of the studies in the audited evidence set specifically evaluated the effectiveness of spiritual interventions among patients receiving care in emergency departments (EDs). Participants' clinical characteristics included patients undergoing weaning from mechanical ventilation, patients with acute coronary syndrome, patients recovering from coronary artery bypass grafting (CABG), and intubated patients undergoing endotracheal suctioning. Detailed characteristics of each study, including design, population, sample size, intervention, comparison condition, and outcomes, are presented in Table 1.

By outcome domain, three studies involving 321 participants evaluated anxiety, four studies involving 207 participants reported cardiovascular parameters, and three studies involving 147 participants measured respiratory or oxygenation indicators. Participant counts across outcome domains could not be summed as independent populations because several studies assessed more than one outcome. Furthermore, differences in measurement instruments, assessment time points, and clinical conditions across study populations necessitated a structured synthesis organized by outcome domain.

Publication years for the six studies were determined according to the journal issue years recorded in the candidate register. Yadak et al. (2019) was first published online on September 30, 2017, but appeared in a 2019 journal volume. This distinction was documented because the two publication-date conventions yield different eligibility boundaries. The two CCU studies were analyzed as part of cardiovascular critical care, consistent with the predefined population criteria. Thus, the scope of the findings followed the operational PICOS definitions adopted in this review, while differences in publication dates remained a limitation when comparing literature search results.

Characteristics of Spiritual Care Interventions

All included studies evaluated spiritual interventions rooted in Islamic religious practices. Five studies used audio recordings of Qur'anic recitation (murottal), whereas one study involved active dhikr and recitation of Surah Al-Fatihah. Therefore, the available evidence primarily represents Islamic religious–spiritual interventions rather than the broader spectrum of spiritual care, which may include existential counseling, nonreligious spiritual support, or multicomponent spiritual care interventions.

Tabel 1. Characteristics of the Audited Primary Studies

Author (Year)	Study Design, Setting, and Sample	Intervention and Comparison	Outcomes
Yadak et al. (2019)	Pilot RCT; ICU, Saudi Arabia; n = 55 (32/23)	One 30-minute session of Surah Al-Baqarah recitation; control group rested without Qur'anic recitation	HR, SBP, DBP, RR, SpO_2, and weaning parameters
Elcokany & Abd El Wareth (2019)	Quasi-experimental study; ICU, Egypt; n = 60 (30/30)	Recitation of Surah Al-Fatihah and Surah Al-Baqarah for 30 minutes daily for three days; control group received no Qur'anic recitation	VASA, HR, MAP, RR, SpO_2, and dyspnea
Mohammadpoor et al. (2020)	Semi-experimental study; CCU, Iran; n = 96 (32/32/32)	Surah Al-Isra recitation for 10 minutes across three sessions; compared with instrumental music and routine care	Anxiety (STAI)
Rajabloo et al. (2019)	Quasi-experimental study; CCU, Iran; n = 60 (30/30)	Dhikr repeated 100 times and Surah Al-Fatihah recited seven times, recommended at least four times daily; control group received routine care	Blood pressure and pulse rate
AbuRuz et al. (2023)	RCT; postoperative CABG ICU, Jordan; n = 165 (82/83)	Surah Ar-Rahman recitation for 10 minutes twice daily over two days; control group received standard care	Anxiety and depression (DASS-21)
Rababa et al. (2025)	Randomized pilot experimental study; ICU, Jordan; n = 32 (16/16)	Approximately 45 minutes of Qur'anic recitation surrounding endotracheal suctioning; control group wore headphones without audio playback	HR, SBP, DBP, SpO_2, and pain (BPS)

Note. Values in parentheses indicate the number of participants in each study group. BPS = Behavioral Pain Scale; CABG = coronary artery bypass grafting; CCU = coronary care unit; DASS-21 = Depression Anxiety Stress Scales-21; DBP = diastolic blood pressure; HR = heart rate; ICU = intensive care unit; MAP = mean arterial pressure; RCT = randomized controlled trial; RR = respiratory rate; SBP = systolic blood pressure; SpO_2 = peripheral oxygen saturation; STAI = State-Trait Anxiety Inventory; VASA = Visual Analogue Scale for Anxiety.

Intervention duration, frequency, and procedures varied across studies. Yadak et al. (2019) administered a single 30-minute session of Surah Al-Baqarah recitation to patients undergoing weaning from mechanical ventilation, whereas Elcokany and Abd El Wareth (2019) provided Qur'anic recitation for 30 minutes daily over three consecutive days. Mohammadpoor et al. (2020) administered Surah Al-Isra recitation for 10 minutes across three sessions. AbuRuz et al. (2023) provided four sessions of Surah Ar-Rahman recitation over two days, with each session lasting 10 minutes. Meanwhile, Rababa et al. (2025) administered approximately 45 minutes of Qur'anic recitation spanning the periods before, during, and after endotracheal suctioning. Unlike the audio-based interventions, Rajabloo et al. (2019) employed an active religious practice involving dhikr repeated 100 times and recitation of Surah Al-Fatihah seven times, with participants advised to perform the practice at least four times daily.

These differences demonstrate heterogeneity in intervention procedures, intensity, patient participation, and delivery contexts. Qur'anic recitation interventions generally involved auditory exposure, whereas dhikr required active patient participation. Furthermore, the measurement objectives differed between studies assessing anxiety and those focusing on physiological responses during clinical procedures. Accordingly, findings were organized by outcome domain to ensure appropriate interpretation.

Effects of Spiritual Interventions on Anxiety Levels

Three studies directly evaluated changes in anxiety using the Visual Analogue Scale for Anxiety (VASA), State-Trait Anxiety Inventory (STAI), and anxiety subscale of the Depression Anxiety Stress Scales-21 (DASS-21). All three studies reported reductions in anxiety scores among patients receiving Qur'anic recitation, although the magnitude of change and strength of evidence varied according to study design, baseline participant characteristics, and comparison conditions. A summary of the numerical findings and their interpretive limitations is presented in Table 2.

Elcokany and Abd El Wareth (2019) reported that mean VASA anxiety scores in the intervention group decreased from 5.86 ± 1.19 to 0.50 ± 0.60, whereas the control group showed a change from 3.10 ± 0.70 to 3.16 ± 1.01. A greater reduction in mean anxiety scores was observed in the intervention group. However, baseline anxiety scores were higher in the Qur'anic recitation group than in the control group. In addition, ICU length of stay differed between the intervention and control groups, at 7.7 ± 5.0 and 15.46 ± 8.5 days, respectively. These baseline differences limited the study's ability to isolate the magnitude of the effect attributable to Qur'anic recitation from other clinical factors and potential regression to the mean.

Mohammadpoor et al. (2020) evaluated anxiety among 96 patients with acute coronary syndrome who were assigned to Qur'anic recitation, instrumental music, or standard care groups. Mean STAI scores in the Qur'anic recitation group decreased from 43.10 ± 6.15 to 38.50 ± 3.82, whereas the instrumental music group showed a reduction from 44.20 ± 1.21 to 39.10 ± 4.17. In the control group, anxiety scores changed from 46.30 ± 3.84 to 44.70 ± 6.21. Analysis of differences in changes across the three groups was reported as statistically significant ($p = .023$). However, examination of the original article revealed discrepancies between several reported change scores and the arithmetic differences between preintervention and postintervention means. Furthermore, the reported post hoc comparisons were insufficiently clear to establish the superiority of Qur'anic recitation over instrumental music. Thus, both auditory interventions showed a reduction in anxiety, but the superiority of either intervention could not be conclusively established.

AbuRuz et al. (2023) reported findings from an RCT involving 165 patients recovering from CABG surgery in an ICU. DASS-21 anxiety scores in the Qur'anic recitation group decreased from 8.32 ± 1.76 to 6.26 ± 1.59, whereas the control group showed a reduction from 8.22 ± 2.46 to 7.48 ± 3.44. The postintervention comparison indicated significantly lower anxiety scores in the Qur'anic recitation group than in the control group ($p < .01$). However, baseline characteristics differed between groups regarding histories of hypertension and smoking, each with $p = .03$. The study did not adequately describe adjustments for these factors in the primary analysis, leaving open the possibility of residual confounding in the estimated intervention effect.

Overall, the three studies demonstrated a consistent direction of reduced anxiety scores following Qur'anic recitation. Nevertheless, differences in measurement instruments, baseline imbalances, comparison conditions, and limitations in statistical analyses prevented consistent estimation of comparative effect magnitudes. These findings suggest that Qur'anic recitation may have beneficial effects on anxiety in selected intensive care populations, but the evidence was insufficient to establish a high level of certainty regarding these benefits.

Effects of Spiritual Interventions on Cardiovascular Parameters

Four studies reported cardiovascular parameters, including heart rate, systolic and diastolic blood pressure, and mean arterial pressure (MAP). Findings varied across studies, with statistically significant changes in certain parameters and nonsignificant findings in others. These comparisons are summarized in Table 2.

Yadak et al. (2019) found no statistically significant physiological changes following a single 30-minute session of Qur'anic recitation among patients undergoing weaning from mechanical ventilation. Mean heart rate in the intervention group changed from 96.7 ± 19.2 to 97.6 ± 21.3 beats per minute ($p = .50$), whereas the control group showed a change from 96.0 ± 19.4 to 96.2 ± 18.5 beats per minute ($p = .60$). Mean systolic blood pressure in the intervention group changed from 136.8 ± 23.7 to 137.4 ± 23.7 mmHg, compared with a change from 134.8 ± 23.8 to 131.1 ± 24.4 mmHg in the control group. The study primarily reported within-group changes; therefore, adequate between-group estimates of the intervention effect were not available.

In contrast, Elcokany and Abd El Wareth (2019) reported a reduction in mean heart rate from 82.8 to 69.3 beats per minute in the Qur'anic recitation group, whereas the control group showed a change from 86.1 to 88.1 beats per minute. MAP decreased from 90.88 to 82.38 mmHg in the intervention group but increased from 87.01 to 94.04 mmHg in the control group. The direction of these changes suggested different physiological responses between groups. However, several reported means, test statistics, and significance values were not fully consistent across the original article's tables. Consequently, interpretation of effect magnitude and statistical significance was constrained by these reporting discrepancies.

Tabel 2. Summary of Selected Outcome Findings and Interpretive Limitations

Study	Main Outcomes and Comparisons	Key Findings	Interpretation
Yadak et al. (2019)	HR, BP, RR, and SpO_2: within-group preintervention and postintervention comparisons	Intervention HR: 96.7 → 97.6 bpm (p = .50); RR: 21.1 → 20.9 breaths/min (p = .80)	No significant changes were detected; between-group effect estimates were insufficient
Elcokany & Abd El Wareth (2019)	VASA, MAP, HR, RR, and SpO_2: preintervention and postintervention comparisons	VASA: 5.86 → 0.50; MAP: 90.88 → 82.38 mmHg	Reductions were observed in the intervention group; baseline imbalances and inconsistencies across statistical tables limited interpretation
Mohammadpoor et al. (2020)	STAI: Qur'anic recitation versus instrumental music versus control	43.10 → 38.50; 44.20 → 39.10; 46.30 → 44.70, respectively; ANOVA for changes: p = .023	Both auditory interventions were associated with reduced anxiety; superiority of Qur'anic recitation over music remained uncertain
Rajabloo et al. (2019)	Blood pressure and pulse rate: preintervention and postintervention comparisons	BP: 136.87 → 128.47 mmHg; between-group postintervention pulse-rate comparison: p = .55	Mean changes were observed, but between-group causal inference was limited
AbuRuz et al. (2023)	DASS-21 anxiety: postintervention comparison between groups	Qur'anic recitation: 6.26 ± 1.59 versus control: 7.48 ± 3.44 (p < .01)	Supported a between-group difference in anxiety; baseline hypertension and smoking characteristics were imbalanced
Rababa et al. (2025)	HR during suctioning; group-by-time interaction	81.00 ± 13.18 versus 100.37 ± 15.56 bpm; interaction p < .001	A difference in HR was observed; intervention-specific effects were not established for BP or SpO_2, and baseline pain scores differed

Note. ANOVA = analysis of variance; BP = blood pressure; DASS-21 = Depression Anxiety Stress Scales-21; HR = heart rate; MAP = mean arterial pressure; RR = respiratory rate; SpO_2 = peripheral oxygen saturation; STAI = State-Trait Anxiety Inventory; VASA = Visual Analogue Scale for Anxiety. Arrows indicate changes from preintervention to postintervention values unless otherwise specified.

Rajabloo et al. (2019) evaluated dhikr and Surah Al-Fatihah recitation among CCU patients. Mean blood pressure in the intervention group decreased from 136.87 ± 16.72 to 128.47 ± 16.32 mmHg, whereas the control group showed a reduction from 140.75 ± 7.98 to 137.53 ± 6.26 mmHg. Mean pulse rate in the intervention group also decreased from 84.80 ± 20.80 to 75.80 ± 13.90 beats per minute, compared with a change from 79.52 ± 10.71 to 77.66 ± 10.59 beats per minute in the control group. Although changes in mean values were observed, the between-group difference in postintervention pulse rate was not statistically significant (p = .55). Furthermore, the statistical reporting did not consistently distinguish within-group changes from comparative between-group effects.

Rababa et al. (2025) evaluated physiological changes during endotracheal suctioning among 32 ICU patients. Mean heart rate during suctioning was 81.00 ± 13.18 beats per minute in the Qur'anic recitation group, lower than the control group value of 100.37 ± 15.56 beats per minute (p = .001). The group-by-time interaction was statistically significant for heart rate, $F(2, 60) = 13.37$, p < .001. However, the corresponding interactions were not statistically significant for systolic or diastolic blood pressure. Baseline pain scores also differed between the intervention and control groups, at 3.06 ± 0.12 and 5.06 ± 2.18, respectively. Accordingly, interpretation of the physiological differences was limited by this baseline imbalance.

Overall, the four studies did not demonstrate consistent effects of spiritual interventions across cardiovascular parameters. Changes in heart rate or blood pressure under particular clinical conditions cannot be generalized as evidence of overall hemodynamic stabilization. Furthermore, interpreting changes in MAP requires information about baseline perfusion pressure, underlying clinical conditions, and individualized therapeutic targets, which were not consistently reported across the primary studies.

Effects of Spiritual Interventions on Respiratory and Oxygenation Parameters

Three studies evaluated respiratory or oxygenation indicators, primarily respiratory rate and peripheral oxygen saturation (SpO_2). These indicators were analyzed separately from cardiovascular parameters because they represent distinct aspects of physiological function. Yadak et al. (2019) reported that mean respiratory rate in the Qur'anic recitation group changed from 21.1 ± 6.0 to 20.9 ± 6.0 breaths per minute (p = .80), whereas the control group showed a change from 22.9 ± 7.1 to 23.4 ± 6.3 breaths per minute (p = .70). Mean SpO_2 in the intervention group changed from 97.4 ± 2.1% to 97.3 ± 2.1%, whereas the control group showed a change from 97.8 ± 2.3% to 97.4 ± 2.3%. No statistically significant within-group changes were identified based on the analyses reported. However, discrepancies were found in several baseline respiratory rate and SpO_2 values for the control group between the baseline characteristics table and the results table in the original article. Accordingly, the numerical values were retained as reported in the source, with the inconsistencies explicitly acknowledged.

Elcokany and Abd El Wareth (2019) reported a reduction in mean respiratory rate from 20.16 ± 2.8 to 13.86 ± 2.4 breaths per minute in the Qur'anic recitation group, whereas mean SpO_2 increased from 96.40 ± 1.30% to 97.30 ± 0.80%. In the control group, SpO_2 remained at 97.36 ± 0.80%

before and after the intervention. Although changes were observed within the intervention group, postintervention SpO_2 values were relatively similar between the two groups. Discrepancies between these numerical findings and the comparative statistical results presented in the original publication limited the certainty of any intervention-specific effect on oxygenation. Rababa et al. (2025) reported a statistically significant effect of time on SpO_2, $F(2, 60) = 5.25$, $p = .008$. However, the group-by-time interaction was not statistically significant. This finding indicated that SpO_2 changed over the observation period but did not establish that the change was specifically attributable to Qur'anic recitation.

Taken together, the three studies did not provide consistent evidence of beneficial effects on respiratory rate or oxygenation. Changes in these indicators may also have been influenced by supplemental oxygen, mechanical ventilation settings, underlying respiratory conditions, and concurrent clinical procedures during the observation period.

Methodological Quality Appraisal

The methodological quality of the six studies was assessed through full-text examination using the Joanna Briggs Institute (JBI) Critical Appraisal Checklists appropriate to their respective study designs. Three RCTs or randomized pilot experiments were evaluated using 13 domains, whereas three quasi-experimental or semi-experimental studies were assessed using nine domains. The appraisal addressed allocation procedures, baseline comparability, blinding, completeness of follow-up, control of confounding factors, consistency of outcome measurement, and appropriateness of statistical analyses. A summary of the appraisal results is presented in Table 3.

Among the randomized studies, Yadak et al. (2019) met five JBI domains, did not meet three domains, and had five domains that could not be determined from the information provided in the publication. The study reported complete follow-up without participant loss after allocation; however, the procedures for random sequence generation and allocation concealment were inadequately described. Rababa et al. (2025) met six domains, did not meet four domains, and had three domains rated as unclear. Its main limitations concerned baseline differences in pain scores, blinding, and the small pilot sample. AbuRuz et al. (2023) met seven domains, did not meet four domains, and had two domains rated as unclear, primarily because of imbalances in baseline characteristics and insufficient reporting of allocation concealment.

Tabel 3. Summary of Full-Text JBI Critical Appraisal Results

Study	Domains	Yes	No	Unclear	Main Methodological Concerns
Yadak et al. (2019)	13	5	3	5	Unclear randomization and allocation concealment; limited between-group analyses
Rababa et al. (2025)	13	6	4	3	Baseline pain imbalance, blinding limitations, and small pilot sample
AbuRuz et al. (2023)	13	7	4	2	Imbalances in baseline hypertension and smoking characteristics; unclear allocation concealment
Elcokany & Abd El Wareth (2019)	9	4	2	3	Baseline differences in anxiety and ICU length of stay; statistical reporting concerns
Mohammadpoor et al. (2020)	9	6	2	1	Demographic imbalances; inconsistencies in sample counts and reported mean changes
Rajabloo et al. (2019)	9	4	1	4	Insufficient details on allocation and confounding control; ambiguous statistical analyses

Note. JBI = Joanna Briggs Institute; ICU = intensive care unit. Domain counts summarize checklist judgments and should not be interpreted as a validated overall quality score or formal risk-of-bias rating. The appraisal was conducted by one reviewer without an independent second assessment.

Among the quasi-experimental studies, Elcokany and Abd El Wareth (2019) met four JBI domains, did not meet two domains, and had three domains rated as unclear. The principal limitations involved baseline differences in anxiety scores and ICU length of stay, together with inconsistencies in statistical reporting. Mohammadpoor et al. (2020) met six domains, did not meet two domains, and had one domain rated as unclear. This study exhibited imbalances in certain demographic characteristics and discrepancies in the information presented in its results tables. Meanwhile, Rajabloo et al. (2019) met four domains, did not meet one domain, and had four domains rated as unclear, particularly regarding allocation procedures, control of confounding factors, and interpretation of statistical analyses.

Overall, the JBI appraisal identified limitations in one or more methodological domains across all six studies. Frequently observed concerns included baseline imbalances, insufficiently described blinding procedures, limited control of confounding, and inconsistencies in statistical reporting. The numbers of Yes, No, and Unclear responses represent summaries of checklist domains rather than a single validated quality score or a formally established risk-of-bias category. The assessments were conducted by one reviewer without independent verification by a second reviewer, and this review did not produce formal certainty-of-evidence ratings using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach.

DISCUSSION

Synthesis of Evidence and Consistency of Findings

The synthesis of six primary studies involving 468 participants indicated that Islamic religious–spiritual interventions may help reduce anxiety among patients receiving intensive care. However, their effects on cardiovascular, respiratory, and oxygenation parameters were inconsistent. All three studies assessing anxiety

reported reductions in anxiety scores following Qur'anic recitation (murottal), whereas studies evaluating physiological parameters demonstrated more variable findings. These results are consistent with the meta-analysis conducted by Li et al. (2025), which reported reductions in anxiety and mean arterial pressure (MAP) but found no statistically significant effects on heart rate, blood pressure, respiratory rate, or peripheral oxygen saturation (SpO_2). Thus, psychological improvements are not necessarily accompanied by corresponding physiological changes.

The strength of the evidence varied according to study design and methodological quality. AbuRuz et al. (2023) reported reduced anxiety in a randomized controlled trial (RCT), whereas Elcokany and Abd El Wareth (2019) and Mohammadpoor et al. (2020) employed quasi-experimental designs with limitations related to baseline group comparability and statistical reporting. These methodological differences necessitate an interpretation that considers potential sources of bias rather than relying solely on the consistency of observed changes. Furthermore, the findings of the six studies cannot be generalized to all forms of spiritual care because five studies evaluated Qur'anic recitation, while one examined dhikr and recitation of Surah Al-Fatihah.

Psychological Responses and Adaptive Coping

Reductions in anxiety represented the relatively most consistent finding of this review. Elcokany and Abd El Wareth (2019) reported a substantial decrease in Visual Analogue Scale for Anxiety (VASA) scores following Qur'anic recitation, whereas Mohammadpoor et al. (2020) observed reductions in State-Trait Anxiety Inventory (STAI) scores in both the Qur'anic recitation and instrumental music groups. AbuRuz et al. (2023) reported lower postintervention anxiety scores in the intervention group than in the control group. Nevertheless, baseline imbalances and inadequate control of potential confounders limited causal inference. Moreover, the reduction in anxiety following instrumental music suggests that auditory stimulation, attentional engagement, and pleasant listening experiences may contribute to psychological responses independently of religious components.

Dallı et al. (2023) provided supporting evidence regarding the potential benefits of music interventions for anxiety among mechanically ventilated ICU patients. In contrast, a multicenter RCT involving 158 patients conducted by Khan et al. (2025) found that a slow-tempo music intervention did not produce statistically significant improvements in anxiety, pain, or delirium. These contrasting findings indicate that auditory interventions are not universally effective and that treatment responses may depend on patient characteristics, intervention dosage, and clinical conditions. Importantly, these two studies served as comparative evidence concerning auditory interventions and were not among the six spiritual care studies included in the present synthesis.

Conceptually, spiritual care may support the development of adaptive coping strategies, sustain hope, facilitate meaning-making in the experience of illness, and reduce uncertainty. The biopsychosocial–spiritual model proposed by Sulmasy (2002) conceptualizes spirituality as an integral dimension of the illness experience that interacts with psychological, social, and biological factors. Nikayin et al. (2016) also identified anxiety as an important concern among survivors of critical illness, highlighting the relevance of psychological well-being beyond the acute phase of care.

However, meaning-making, acceptance, and the strengthening of hope were not directly assessed as mediating mechanisms in the six primary studies. Accordingly, these processes were considered conceptual explanations rather than empirically established mechanisms. Psychological responses to spiritual practices may also be influenced by previous religious experiences, conflicts involving personal beliefs, and individual preferences.

Cardiovascular and Respiratory Outcomes

Cardiovascular findings demonstrated considerable heterogeneity across studies. Rababa et al. (2025) reported a statistically significant difference in heart rate during endotracheal suctioning but found no significant group-by-time interaction for blood pressure. Yadak et al. (2019) observed no statistically significant physiological changes during weaning from mechanical ventilation. Elcokany and Abd El Wareth (2019) and Rajabloo et al. (2019) reported reductions in selected cardiovascular parameters; however, interpretation of these findings was constrained by baseline group imbalances, insufficiently defined statistical comparisons, or inconsistencies in outcome reporting.

These differences indicate that changes in blood pressure or heart rate cannot automatically be interpreted as evidence of hemodynamic stabilization. Hemodynamic status is influenced by the underlying diagnosis, organ perfusion, fluid balance, analgesia, sedation, and administration of vasoactive medications. A reduction in MAP among patients with hypertension may have different clinical implications from a similar reduction among patients experiencing hypotension or shock. The clinical practice guidelines developed by Devlin et al. (2018) emphasize the interrelationships among pain, sedation, agitation, and other conditions affecting ICU patients, underscoring the importance of accounting for clinical factors when evaluating nonpharmacological interventions.

Regarding respiratory outcomes, Yadak et al. (2019) reported no statistically significant changes in respiratory rate or SpO_2. Elcokany and Abd El Wareth (2019) reported improvements in selected indicators, although their statistical findings were not entirely consistent. Meanwhile, Rababa et al. (2025) identified a significant effect of time on SpO_2 without a statistically significant group-by-time interaction. Therefore, the available evidence does not consistently demonstrate that changes in oxygenation were specifically attributable to Qur'anic recitation. Interpretation of SpO_2 also requires consideration of supplemental oxygen therapy, ventilator settings, gas exchange abnormalities, and changes in the underlying clinical condition.

Possible Psychophysiological Mechanisms

The association between reduced anxiety and changes in physiological parameters may hypothetically be explained through the regulation of stress responses. Feelings of calmness may be associated with alterations in sympathetic and parasympathetic activity that influence heart rate, vascular tone, and respiratory patterns. However, none of the six studies directly measured amygdala activity, catecholamine concentrations, vagal activity, or other neuroendocrine biomarkers.

Consequently, reductions in blood pressure or heart rate cannot be considered direct evidence of decreased amygdala activity, reduced adrenaline secretion, or increased parasympathetic activity. Recovery from the underlying illness, medication administration, general

relaxation, and measurement variability may also have contributed to the observed changes. The six studies did not include concurrent measurements of psychological and biological mediators that would have enabled direct evaluation of these proposed mechanistic pathways.

Interpretation Through the Roy Adaptation Model

The Roy Adaptation Model provides a framework for understanding psychological and physiological changes as components of adaptation to critical illness (Roy, 2009). Acute illness can be conceptualized as a focal stimulus, whereas pain, the ICU environment, invasive procedures, family support, and spiritual interventions represent contextual stimuli. Previous spiritual experiences and beliefs may function as residual stimuli when their influence on patient responses remains uncertain.

Within this model, anxiety responses may be conceptually associated with the cognator subsystem, which encompasses perception, emotion, judgment, and coping. In contrast, changes in heart rate, blood pressure, and respiration may be interpreted in relation to the regulator subsystem, which involves neural, chemical, and endocrine processes. However, these proposed relationships were not directly tested in the primary studies and do not establish a causal relationship between the two subsystems.

The interpretation of adaptation in this review also encompasses Roy's four adaptive modes. The physiological-physical mode relates to physiological functioning; the self-concept mode includes anxiety, hope, and spiritual identity; the role function mode concerns changes in an individual's roles during illness; and the interdependence mode reflects the need for family support and interpersonal relationships. Accordingly, patient adaptation cannot be adequately evaluated solely through changes in anxiety and blood pressure.

Clinical Implications and Patient-Centered Implementation

In clinical practice, spiritual care should be guided by an assessment of patients' needs and informed preferences rather than healthcare professionals' assumptions about their religious affiliations or beliefs. Borneman et al. (2010) evaluated the FICA spiritual assessment tool for identifying patients' beliefs, the personal significance of spirituality, supportive communities, and spiritual considerations relevant to care planning. This assessment approach provides a communication framework that can be adapted to patients' clinical conditions and communication abilities.

Family involvement is also relevant, particularly when patients experience impaired consciousness or are unable to communicate their preferences. Davidson et al. (2017) emphasized the importance of communication and family collaboration in ICU care. Akeke et al. (2025) demonstrated the role of spirituality in coping and decision-making among families of critically ill patients, whereas Kaplan et al. (2024) identified spiritual care needs among ICU patients' relatives without finding a statistically significant association with satisfaction with care. These findings suggest that spiritual needs constitute a distinct dimension of healthcare and should not be equated with improvements in patient satisfaction or clinical outcomes.

The delivery of spiritual care requires effective communication skills, cultural sensitivity, and interprofessional collaboration. Canfield et al. (2016) identified educational needs related to spirituality among critical care nurses, while Bone et al. (2018) highlighted the importance of collaboration between nurses and spiritual care providers. Hjerrild et al. (2025) further emphasized empathy, an understanding of patients' values, and appropriate intervention timing within ICU environments where clinical priorities are paramount.

From a patient safety perspective, Qur'anic recitation, prayer, dhikr, and other forms of spiritual support should be provided as complementary interventions based on patients' preferences and without coercion. Their implementation must not replace or interfere with resuscitation, mechanical ventilation, hemodynamic monitoring, medication administration, or emergency procedures. Patient acceptability, comfort, safety, resource requirements, and cultural appropriateness represent important dimensions of implementation evaluation that are distinct from clinical effectiveness.

Limitations and Evidence Gaps

This review had limitations at both the primary study level and the evidence identification and synthesis levels. The primary studies varied in research design, sample size, dosage of Qur'anic recitation or dhikr, measurement instruments, and assessment time points. Some studies exhibited baseline imbalances, inadequate blinding, and inconsistencies in outcome reporting. Preintervention–postintervention analyses without appropriate comparative effect estimates cannot independently establish causal effects. Four studies were conducted in ICUs and two in CCUs, with no direct evidence from emergency departments. Furthermore, all interventions were rooted in Islamic religious practices, limiting the generalizability of the findings to other forms of spiritual care.

At the synthesis level, incomplete documentation of the bibliographic search process limited the assessment of potential selection and publication biases. The JBI critical appraisals were performed by a single reviewer without independent validation, and the certainty of evidence was not formally evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. Given these limitations, the observed pattern of anxiety reduction cannot be classified as high-certainty evidence.

The identified evidence gaps included the limited availability of RCTs with transparent allocation procedures and active comparison groups, inconsistent control of clinical conditions, and insufficient assessment of psychological and biological mediators or long-term outcomes in most studies. Evidence concerning patient acceptability and intervention safety was also limited. Overall, Islamic spiritual interventions involving Qur'anic recitation demonstrated potential benefits for anxiety among selected ICU and CCU patients, whereas evidence regarding changes in hemodynamic parameters and oxygenation remained inconsistent. The clinical implications of these findings support the use of spiritual care as a complementary component of patient-centered care that respects individual preferences and does not replace essential medical treatment.

CONCLUSION

This structured literature review synthesized six provisionally eligible primary studies involving 468 participants (four ICU studies and two CCU studies). Three studies reported lower anxiety scores after Qur'an recitation, although baseline imbalances and

methodological limitations restrict causal interpretation. Cardiovascular, respiratory, and oxygenation findings were inconsistent and do not establish generalized hemodynamic stabilization. No eligible emergency-department intervention study was verified within the audited set. The documented candidate register remains incomplete: 17 of 30 unique publications were excluded, seven require further eligibility verification, and six were assessed in full text. Consequently, conclusions are provisional and the certainty of evidence has not been formally established using GRADE. Spiritual care may be considered as a patient-preference-sensitive adjunct to critical care, provided that it does not interfere with monitoring, emergency procedures, or necessary medical treatment. Further adequately controlled trials and complete, reproducible literature searches are needed.

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Conflicts of interest/Competing interests

The authors declare that they have no competing interests.

Ethics approval and consent to participate

Not applicable. This study was a literature review and did not involve direct data collection from human participants.

Consent for publication

Not applicable.

Availability of data and materials

The data analyzed in this study were obtained from previously published articles and are accessible through their respective publication sources.

Artificial Intelligence-Assisted Technology

AI-assisted tools (Chat-GPT) were used to support manuscript drafting, language editing, and structural harmonization. The authors are responsible for reviewing all AI-assisted revisions, independently checking citations and numerical findings, and approving the final manuscript.

Authors' contributions:

Prio Pratama: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing – original draft. Erna Melastuti: Methodology, Supervision, Writing – review & editing. Indah Sri Wahyuningsih: Methodology, Writing – review & editing. Ahmad Ikhlasul Amal: Supervision, Writing – review & editing.

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ADDITIONAL INFORMATION

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