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Effectiveness of Nurse-Led Spiritual Interventions on Psychological, Spiritual, and Quality of Life in Patients with Cardiovascular Disease: A Systematic Review

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ABSTRACT

Cardiovascular diseases (CVDs) impact not only physical health but also psychological and spiritual well-being, affecting patient recovery and outcomes. This systematic review aimed to identify and evaluate the effectiveness of nurse-led spiritual interventions in improving psychological and spiritual outcomes among patients with cardiovascular disease. A literature search was conducted across PubMed, CINAHL, Scopus, and ScienceDirect for studies published between 2014 and 2025, including RCTs, quasi-experimental, and qualitative designs involving adult cardiovascular patients. Outcomes of interest were anxiety, depression, spiritual well-being, resilience, and quality of life. Nineteen studies were included: eight RCTs, ten quasi-experimental, and one qualitative study, involving a total of 1.027 participants. Interventions were categorized into four types: Islamic-based spiritual therapy, structured counselling and education, technology-assisted programs, and experiential models. Most studies demonstrated significant improvements in anxiety, depression, spiritual well-being, and life satisfaction. The qualitative study emphasized practical spiritual care strategies, such as distraction techniques and involving family. Nurse-led spiritual interventions are effective, especially in culturally religious contexts, and their integration into routine nursing care is strongly recommended. Further research should assess their long-term effectiveness and explore how these interventions can be adapted to secular or diverse cultural settings to support holistic, patient-centred care.

INTRODUCTION

Cardiovascular diseases (CVDs) remain the leading cause of death worldwide, accounting for an estimated 17.9 million fatalities in 2019—approximately 32 % of all global deaths—and contributing substantially to premature mortality in people under 70 years of age [1,2]. These diseases contribute to both premature mortalities, especially among those under 70, and long-term morbidity. In addition to

their physical impact, CVDs impose a heavy psychological burden. Many patients experience emotional distress—including anxiety, depression, and hopelessness—throughout their illness journey. These psychological symptoms not only reduce quality of life but may also negatively affect treatment adherence, prognosis, and overall recovery [3].

In response to these complex, multidimensional needs, contemporary nursing has adopted the biopsychosocial spiritual model as the foundation for holistic care. The World Health Organization recognizes spiritual well-being as an essential component of health, while the International Council of Nurses (ICN) highlight the importance of integrating spiritual support and culturally competent care into nursing and cardiovascular practice, particularly in managing chronic illness [4,5]. This model recognizes that effective care requires addressing all dimensions of the human experience: physiological, psychological, sociological, cultural, and spiritual [6]. Within this holistic framework, the spiritual dimension holds a central place, characterized by two key elements: belief or faith, which offers patients meaning, hope, and inner strength; and charitable behaviour, which reinforces compassionate nurse–patient relationships and connects both caregiver and client to a higher, transcendent purpose.

Spiritual nursing interventions are defined as structured actions or therapeutic practices that aim to support patients' spiritual well-being. These may include spiritual counselling, guided reflection, mindfulness practices, religious support, prayer facilitation, or helping patients find meaning through their illness experience. Such interventions have been widely studied in oncology and palliative care, where they have demonstrated measurable benefits in improving emotional adjustment, resilience, and perceived quality of care [7]. However, in cardiovascular nursing, the integration of spirituality into routine practice remains limited and often overlooked, despite the clear relevance of spirituality to recovery, coping, and patient satisfaction.

This marginalization may stem from the intangible nature of spiritual care, the clinical prioritization of physiological symptoms, and the misconception that spiritual concerns lie outside the domain of nursing practice [8]. Yet, spirituality not only supports patients in coping with serious illness but also enhances the quality and humanity of care delivered by nurses. Evidence further suggests that nurse-led spiritual engagement contributes to better therapeutic relationships, ethical decision-making, and holistic recovery [9]. Despite this, there is currently no comprehensive synthesis of how nurse-led spiritual interventions are applied in cardiovascular care, nor how effective they are in improving key patient outcomes. Previous studies, including a recent qualitative synthesis by Mousavizadeh et al.[10], have explored nurses' perspectives on spirituality in cardiovascular care. However, existing literature lacks a systematic synthesis focused specifically on the structure, delivery, and outcomes of nurse-led spiritual interventions in this population. To our knowledge, this is the first systematic review that maps and evaluates these interventions with a focus on psychological and spiritual well-being, particularly in culturally diverse and Muslim-majority contexts. This contributes novel insights for integrating spirituality into mainstream nursing practice.

This systematic review aimed to explore nurse-led spiritual interventions in cardiovascular care by examining the types, delivery methods, and structures used across studies; evaluating their effectiveness in improving psychological well-being, spiritual health, and quality of life; and identifying methodological limitations to inform future research and enhance spiritual nursing practices.

METHOD

Design

This study is a systematic review conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Fig.1). This review will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines to ensure transparency, rigor, and reproducibility [11].

Eligibility Criteria

The inclusion and exclusion criteria were defined using the PICOS framework (Population, Intervention, Comparison, Outcomes, Study design): Population: Adults (≥ 18 years) diagnosed with cardiovascular diseases (e.g., coronary artery disease, heart failure, myocardial infarction). Intervention: Spiritual nursing interventions led or facilitated by nurses (e.g., spiritual counselling, prayer, religious rituals, mindfulness, reflection). Comparison: Usual care, no intervention, or other non-spiritual interventions. Outcomes primary: Psychological Distress (Anxiety, Stress, and Depression); Secondary: Quality of Life (QoL), Spiritual Well-Being, Resilience, Pain and Physical Comfort, Life Satisfaction. Study design: Original peer-reviewed quantitative, qualitative, or mixed-methods studies; RCTs, quasi-experimental. Publication Year 2014–2025. Exclusion criteria were Studies focusing on paediatric or non-cardiovascular populations. Interventions not led by nurses (e.g., chaplain-only care, pastoral-only programs). Studies not reporting psychological or quality of life outcomes. Study type: Editorials, reviews, conference abstracts, theses, commentaries.

Data Sources and Search Strategy

A comprehensive literature search was conducted in the following databases: PubMed/MEDLINE, CINAHL, Scopus, ScienceDirect. The search period was limited to studies published between January 2014 and April 2025. This time frame was selected to capture the most recent decade of evidence, reflecting contemporary nursing practices, updated spiritual care frameworks, and evolving cardiovascular care guidelines. The search used combinations of MeSH terms and keywords such as: ("cardiovascular diseases" OR "heart disease" OR "coronary artery disease" OR "heart failure") AND ("nursing" OR "nurse-led") AND ("spiritual care" OR "spirituality" OR "spiritual intervention" OR "faith-based care") AND ("outcomes" OR "quality of life" OR "psychological well-being" OR "anxiety" OR "depression" OR "stress"). The reference lists of all included studies were also manually screened to identify additional relevant publications.

Study Selection Process

Two reviewers independently screened titles/abstracts, assessed full texts, and resolved discrepancies via consensus. A PRISMA flow diagram documented the process.

Data Extraction

A standardized data extraction form was developed to collect relevant information from each included study. The following data were extracted: Study characteristics: author(s), year, country, design, setting. Sample: population type, sample size, mean age, gender distribution. Intervention details: type of spiritual nursing intervention, duration, delivery format, provider (nurse/nurse-led team). Outcomes assessed: psychological well-being (e.g., anxiety, depression), quality of life (HRQoL), spiritual well-being, other relevant outcomes. Any discrepancies were resolved through discussion or by consulting a third reviewer (Table. 1).

Risk of Bias Assessment

Risk of bias was assessed using the Cochrane Risk of Bias 2.0 tool for randomized controlled trials (RCTs). For non-randomized studies, including quasi-experimental designs, the ROBINS-I (Risk of Bias In Non-randomized Studies - of Interventions) tool was used to ensure equivalent and structured evaluation across study types. For the single qualitative study included, formal risk of bias assessment was not applicable, but issues related to methodological transparency and credibility were considered narratively.

RESULTS AND DISCUSSION

Study Selection

A total of 1,380 records were identified through database searching and other sources. After removing 300 duplicates, 1,080 records were screened by title and abstract. Of these, 995 were excluded for not meeting inclusion criteria. The remaining 85 full-text articles were assessed for eligibility, and 67 were excluded (due to irrelevant interventions, population, or non-original design). A total of 19 studies met the eligibility criteria and were included in the final synthesis. The PRISMA flowchart in Figure 1 summarizes the selection process. A PRISMA 2020 flow diagram.

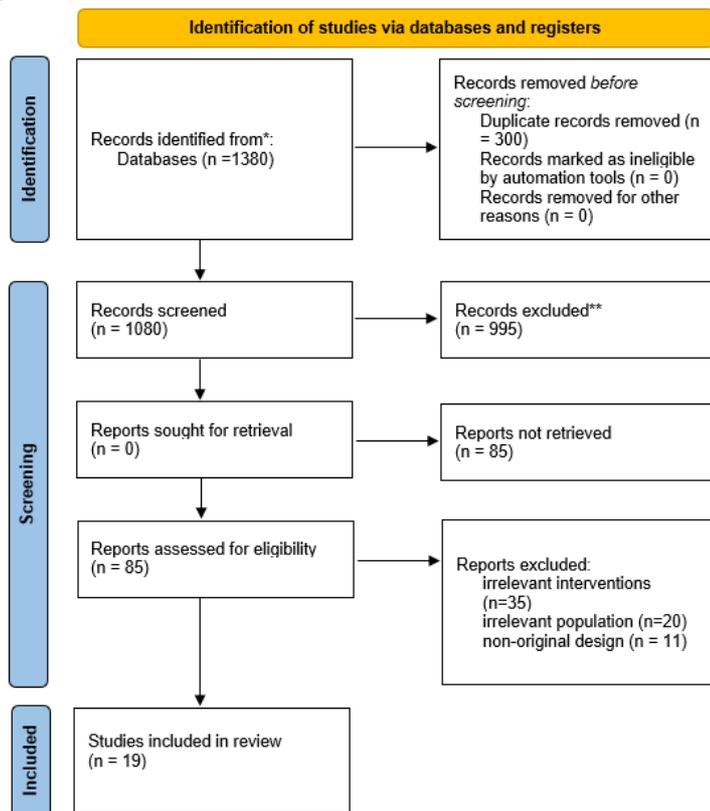


Figure 1. PRISMA 2020 Flow Diagram illustrating the selection process for included studies in the systematic review of nurse-led spiritual interventions in cardiovascular care.

Study Characteristics

The included studies were published between 2014 and 2024. The 19 included studies were conducted in Iran (13), Indonesia (3), India (1), USA (1), and UK (1). Study designs comprised: 8 randomized controlled trials (RCTs), 10 quasi-experimental or pilot intervention studies, 1 qualitative study using phenomenological approach.

Sample sizes for the quantitative studies ranged from 23 to 111 participants. The qualitative study included 8 nurses interviewed in-depth. Based on the synthesis of 18 studies, the spiritual nursing interventions were categorized into four major types: 1) Qur'anic and Islamic-based therapies, 2) Spiritual counselling and education, 3) Technology-assisted spiritual interventions, and 4) Experiential and exploratory models.

Qur'anic and Islamic-Based Therapies

These interventions included direct engagement with Islamic spiritual practices such as *dhikr* (remembrance of God), prayer, Qur'anic recitation, and models rooted in Islamic theology such as *Qalb*

Salim (Sound Heart). One study employed *dhikr*, guided prayer, and Qur’anic healing as core interventions [12]. Islamic-based spiritual therapy and self-care modules were delivered in two studies [13,14]. The “Sound Heart” (*Qalb Salim*) model was applied to support emotional and spiritual well-being [15,16]. A quality-of-life enhancement intervention post-myocardial infarction was conducted using the Ghalbe Salim framework [17]. Another study developed a structured education intervention based on Islamic spiritual care principles inspired by Richards and Bergin’s model [18]. A spiritual palliative care model rooted in Islamic teachings was implemented to improve resilience and reduce anxiety [19]. A combination of Qur’anic *murottal* audio therapy and structured spiritual support was used in another study [20].

Spiritual Counselling and Education

These studies provided structured counselling sessions, reflective discussions, or hope-promoting interventions grounded in religious values. Spiritual counselling for patients undergoing PCI or experiencing heart failure—using prayer and reflection—was conducted in two studies [21,22]. Structured spiritual education sessions specifically addressing death anxiety were organized in one study [23]. A hope-promoting religious intervention was implemented to support psychological well-being [24]. A feasibility trial of spiritual support combining reflection, presence, and spiritual conversation was delivered in another study [21]. Religious-spiritual support was also introduced during post-surgical cardiac recovery [25].

Technology-Assisted Spiritual Interventions

With the rise of mobile health, several studies used digital platforms to deliver spiritual support remotely. implemented WhatsApp-based and mobile-assisted educational programs delivering spiritual messages, reflections, and prayers to patients [26,27]

Experiential and Exploratory Approaches

Only one study was qualitative, focusing on the experiences of nurses in delivering spiritual care. This phenomenological study explored how nurses provided spiritual support to patients with acute coronary syndrome, emphasizing the use of distraction techniques, involvement of family members, and management of existential fear [28].

Risk of Bias Assessment

Risk of bias was assessed using the Cochrane RoB 2.0 tool for randomized controlled trials (RCTs) and the ROBINS-I tool for quasi-experimental studies. For the single qualitative study, a narrative appraisal was conducted, focusing on methodological transparency, reflexivity, and credibility. In RCTs (Fig. 2), the most frequent concern was identified in Domain 2 (deviations from intended interventions), primarily due to lack of blinding and limited intervention fidelity checks. While outcome measurement (D6) and selection of reported results (D7) were consistently rated low risk, bias due to confounding (D1) and missing data (D5) were moderate in most studies. The feasibility RCT showed low overall bias, confirming acceptable internal validity despite its exploratory nature. In quasi-experimental studies (Fig. 3), bias due to confounding (D1) was a common issue due to lack of randomization and control for external variables, resulting in moderate risk across all studies. However, other domains such as outcome measurement, classification of interventions, and reporting were generally low risk. Notably, Tadwalkar et al. (2014) showed serious risk of bias, especially in D1 (confounding) and several other domains, marking it as the only study with a red flag. Overall, of the 18 quantitative studies: eight studies (RCTs) had some concerns (moderate risk), nine quasi-experimental studies had moderate risk of bias due to non-random allocation but robust measurement and reporting procedures, one study was judged to have serious risk of bias, one study was a feasibility RCT with acceptable risk profile.

Outcomes

Spiritual nursing interventions across the 19 studies addressed a variety of patient outcomes relevant to cardiovascular care. The outcomes can be categorized as follows:

Psychological Distress (Anxiety, Stress, and Depression)

A total of 10 studies reported outcomes related to psychological distress. Most of these found statistically significant reductions in anxiety, stress, and depression following spiritual care interventions. These included structured counselling, dhikr/Qur’anic therapy, and integrated models [12,14,18–23,25,29,30]. In several studies, reported effect sizes (e.g., Cohen’s d) for spiritual interventions on psychological outcomes such as anxiety and depression ranged from 0.60 to 0.85, indicating moderate to large effects [13,17,18,25].

Study	Risk of bias domains					Overall
	D1	D2	D3	D4	D5	
Binaei et al. (2016)	+	-	+	+	+	+
Dalal et al. (2018)	+	-	+	+	+	+
Inaloo et al. (2025)	+	-	+	+	+	+
Azaimian et al. (2019)	+	-	+	+	+	+
Fasihizadeh & Nasiria (2020)	+	-	+	+	+	+
Babamohamadi et al. (2020)	+	-	+	+	+	+
Moghadamovahedi et al. (2021)	+	-	+	+	+	+
Miles et al. (2021)	+	-	+	+	+	+
Movahedimoghadam et al. (2022)	+	-	+	+	+	+

Domains:
 D1: Bias arising from the randomization process.
 D2: Bias due to deviations from intended intervention.
 D3: Bias due to missing outcome data.
 D4: Bias in measurement of the outcome.
 D5: Bias in selection of the reported result.

Judgement
 - Some concerns
 + Low

Figure 2. Risk of bias assessment of the included quantitative studies using the Cochrane RoB 2.0 tool. D1: Bias arising from the randomization process; D2: Bias due to deviations from intended intervention; D3: Bias due to missing outcome data; D4: Bias in measurement of the outcome; D5: Bias in selection of the reported result. Green = Low risk, Yellow = Some concerns.

Study	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Wahyuningsih et al. (2025)	-	+	+	-	+	+	+	-
Tajbakhsh et al. (2018)	-	+	+	-	+	+	+	-
Soltani et al. (2017)	-	+	+	-	+	+	+	-
Salimi et al. (2017)	-	+	+	-	+	+	+	-
Babamohamadi et al. (2019)	-	+	+	-	+	+	+	-
Abdi et al. (2019)	-	+	+	-	+	+	+	-
Wisuda et al. (2024)	-	+	+	-	+	+	+	-
Hosseini et al. (2016)	-	+	+	-	+	+	+	-
Tadwalkar et al. (2014)	X	-	-	-	+	+	-	X

Domains:
 D1: Bias due to confounding.
 D2: Bias due to selection of participants.
 D3: Bias in classification of interventions.
 D4: Bias due to deviations from intended interventions.
 D5: Bias due to missing data.
 D6: Bias in measurement of outcomes.
 D7: Bias in selection of the reported result.

Judgement
 X Serious
 - Moderate
 + Low

Figure 3. Risk of Bias Assessment for Non-Randomized Studies Using ROBINS-I Tool. Each study was evaluated across seven domains: D1: bias due to confounding; D2: bias due to selection of participants; D3: bias in classification of interventions; D4: bias due to deviations from intended interventions; D5: bias due to missing data; D6: bias in measurement of outcomes; D7: bias in selection of the reported result. Judgement categories include Green = Low risk, Yellow = Moderate risk, Red = Serious.

Table 1. Summary of included studies

Authors and Year	Country	Study Design	Sample Size	Spiritual Nursing Intervention	Duration	Outcomes Measured	Main Findings
Wahyuningsih et al., (2025)	Indonesia	Quasi-experimental	60	Dhikr, prayer, and Qur'anic healing	5 days	Physical and environmental comfort	Improved comfort in ICU patients
Binaei et al., (2016)	Iran	RCT	50	Hope-promoting religious intervention	6 sessions	Quality of Life	Significant QoL improvement
Dalal et al., (2018)	India	RCT	66	Spiritual therapy pre/post PCI	1 session	Anxiety and satisfaction	Reduced anxiety, increased satisfaction
Inaloo et al., (2025)	Iran	RCT	52	Spiritual palliative care education	4 sessions	QoL, death anxiety, resilience	Significant improvement in all outcomes
Tajbakhsh et al., (2018)	Iran	Quasi-experimental	76	Religious-spiritual support	2 sessions	Post-CABG stress	Reduced post-surgical stress
Soltani et al., (2017)	Iran	Quasi-experimental	40	Sound Heart model (Qalb Salim)	3 sessions	Pain and spiritual well-being	Pain reduction and increased spiritual well-being
Salimi et al., (2017)	Iran	Quasi-experimental	40	Spiritual self-care education	6 sessions	Life satisfaction	Improved life satisfaction
Azaimian et al., (2019)	Iran	RCT	60	Spiritual care program	3 sessions	Death anxiety	Non-significant improvement
Babamohamadi et al., (2019)	Iran	Quasi-experimental	60	Ghalbe Salim model	4 sessions	Quality of Life	Improved QoL in MI patients
Fasihzadeh & Nasiria (2020)	Iran	RCT	60	Spiritual therapy	3 sessions	Anxiety and depression	Significant reductions
Babamohamadi et al., (2020)	Iran	RCT	100	Sound Heart model	5 sessions	Spiritual well-being	Improved spiritual well-being
Moghadamovahedi et al., (2021)	Iran	RCT	80	WhatsApp-based spirituality program	4 weeks	Quality of Life	QoL improved
Tadwalkar et al., (2014)	USA	Pilot study	25	Spiritual counseling	2 sessions	Spiritual well-being	Improved outlook
Miles et al., (2021)	UK	Feasibility RCT	32	Spiritual support	6 weeks	Anxiety, depression, spiritual well-being	Modest improvements
Movahedimoghadam et al., (2022)	Iran	RCT	76	Mobile-based spiritual education	4 weeks	Resilience	Significant increase
Abdi et al., (2019)	Iran	Quasi-	50	Islamic spiritual education	5 sessions	Depression and life	Positive changes

Authors and Year	Country	Study Design	Sample Size	Spiritual Nursing Intervention	Duration	Outcomes Measured	Main Findings
Wisuda et al., (2024)	Indonesia	Quasi-experimental experimental	111	Integrated spiritual care + murottal therapy	7 days	satisfaction Anxiety and depression	Reduced symptoms
Hosseini et al., (2016)	Iran	Quasi-experimental	68	Religious-spiritual care based on Islamic counseling model (Qur'an recitation, prayer, and group reflection)	5 sessions (45–60 min)	Anxiety (DASS-21)	Significant reduction in anxiety after intervention
Rahmawati et al., (2018)	Indonesia	Qualitative study (phenomenology)	8	Exploration of spiritual care experiences	1-time interviews	Themes of spiritual support	Nurses emphasized distraction, prayer, and family presence for patient comfort

Notes:

RCT = Randomized Controlled Trial

QoL = Quality of Life

MI = Myocardial Infarction

PCI = Percutaneous Coronary Intervention

CABG = Coronary Artery Bypass Grafting

DASS-21 = Depression Anxiety Stress Scale–21

ICU = Intensive Care Unit

Quality of Life (QoL)

Seven studies evaluated QoL as a primary or secondary outcome. Patients receiving spiritual interventions—particularly through mobile platforms and structured care programs—reported significantly improved QoL [17,19,22,24,26,27,29].

Spiritual Well-Being

Four studies measured spiritual well-being directly, often using tools tailored to Islamic values or spiritual health frameworks. All reported significant improvements post-intervention [15,16,29].

Resilience

Two studies focused on the concept of resilience, particularly in patients with chronic heart failure or acute cardiac conditions. Both used mobile-assisted education and palliative spiritual models to improve patients' ability to cope with illness [19,27].

Pain and Physical Comfort

Two studies evaluated pain and comfort, especially in ICU or post-surgical settings. The use of dhikr, murottal therapy, and spiritual presence significantly improved patients' perceptions of comfort [12,15].

Life Satisfaction

Two studies—one in elderly populations and one in chronic heart failure patients—demonstrated enhanced life satisfaction after receiving structured spiritual guidance [13,18].

Qualitative Themes (Spiritual Support Experiences)

The qualitative study identified three key themes from nurse interviews: the use of spiritual distraction techniques, family involvement, and addressing existential fear in acute settings such as emergency rooms. These insights enrich the quantitative findings by revealing practical implementation challenges and culturally embedded strategies in delivering spiritual care [28].

Discussion: This systematic review aimed to evaluate the effectiveness and forms of spiritual nursing interventions in improving psychological, spiritual, and quality of life outcomes among patients with cardiovascular diseases (CVDs). The results support the original objective by showing that spiritual care, delivered through culturally appropriate and religiously aligned models, significantly benefits patients' mental and emotional well-being.

Psychological distress was the most frequently addressed outcome, with 10 of 18 studies reporting statistically significant reductions in anxiety and depression. Interventions such as Islamic-based prayer, religious counseling, and dhikr or murottal therapy were effective in helping patients cope with fear, uncertainty, and existential suffering, especially in acute or post-surgical settings [12,21]. These findings are aligned with existing theoretical models suggesting that spiritual care provides emotional grounding, fosters hope, and promotes meaning-making—mechanisms crucial for chronic illness recovery.

The consistent improvement in quality of life (QoL)—reported in seven studies—demonstrates that spiritual interventions have a holistic impact extending beyond symptom control. Interventions such as mobile-based spiritual support and hope-promoting religious sessions suggest that when spirituality is integrated into care, it facilitates long-term well-being and resilience, especially for patients with heart failure or post-infarction stress [19,24,27].

The qualitative findings provide a complementary perspective, emphasizing the nurse's role in spiritual care delivery. Key strategies such as distraction techniques, family involvement, and addressing spiritual fears are not easily captured in quantitative outcomes but are vital in emergency cardiac care. This aligns with other qualitative literature that recognizes the importance of the nurse-patient relationship and spiritual presence in critical care settings [28].

These results are generally consistent with prior integrative reviews and meta-analyses demonstrating that spiritual interventions can enhance patient coping, reduce anxiety, and improve psychological and spiritual outcomes in both palliative and cardiovascular care contexts. For example, spiritual pain has been shown to be closely associated with increased psychological distress among patients with advanced cancer, and addressing these needs significantly improves emotional well-being. Integrating spirituality into supportive and palliative care further helps patients find meaning and hope, which are critical for adapting to life-limiting illness [31,32].

Similarly, a more recent systematic review concluded that spiritual interventions—including music therapy, dignity therapy, and religious counselling—significantly enhanced quality of life among patients in palliative care. These findings underscore the universal relevance of spiritual care and its applicability across a range of chronic health conditions, including heart disease. However, despite the global recognition of spiritual care, few studies outside of Muslim-majority countries have replicated Islamic-based spiritual interventions, such as Qalb Salim (Sound Heart) or Ghalbe Salim models. These culturally embedded frameworks, while effective in their local contexts (e.g., Iran and Indonesia), may face challenges in external validity and broader application within secular or religiously diverse health systems. Therefore, there remains a critical need to adapt and evaluate spiritual care models that are both culturally respectful and broadly generalizable [33].

While Islamic-based models such as Qalb Salim and Ghalbe Salim provide structured frameworks rooted in theological meaning, the underlying concepts—such as hope, transcendence, forgiveness, and meaning-making—are not exclusive to any single faith tradition. These elements can be reframed in secular terms or adapted into multi-faith spiritual care models that respect patient diversity. For instance, mindfulness-based spiritual practices, dignity therapy, or narrative interventions can serve as neutral yet powerful tools to foster spiritual well-being in religiously diverse or secular settings. Future trials should explore the contextual flexibility of spiritual care frameworks, ensuring relevance not only in Muslim-majority health systems but also across culturally pluralistic populations.

Not all studies showed uniformly positive effects. For example, non-significant changes in death anxiety were reported in one study, and some trials lacked rigorous randomization or blinding, increasing risk of bias. Moreover, while many interventions were embedded within Islamic contexts, only one qualitative study was included, indicating a need for more experiential evidence that explores how patients and nurses perceive spiritual care. Lastly, the generalizability of results to non-religious or secular populations remains uncertain [23].

From a methodological perspective, most RCTs were of acceptable quality, with common biases related to limited blinding and intervention fidelity. Outcome measurement and reporting were generally low risk. Non-randomized studies showed moderate bias, mainly due to confounding and participant selection. One study [22] had high risk across multiple domains. The feasibility RCT [29] confirmed the practicality of structured spiritual care. Overall, reported effect sizes ranged from moderate to large, supporting the clinical relevance of these interventions.

Among the three studies judged to be at high risk of bias, common issues included inadequate randomization procedures, lack of blinding, and insufficient detail about intervention fidelity. In some cases, outcome measures relied solely on self-report with no mention of validation or triangulation, increasing the potential for measurement and reporting bias. Although these studies often reported

positive results, their internal validity is limited, and findings should be interpreted cautiously. These limitations highlight the need for stronger methodological design in spiritual care trials, especially given the subjective nature of outcomes like well-being and satisfaction.

Overall, this review affirms that spiritual nursing interventions are not only feasible but clinically relevant for cardiovascular patients. They offer emotional support, foster spiritual well-being, and enhance quality of life, especially when aligned with patient values. The evidence encourages greater integration of spiritual care into nursing curricula, clinical protocols, and community-based health promotion—particularly in settings where religion plays a central role in identity and coping.

Conclusion

This review highlights the effectiveness of nurse-led spiritual interventions in improving psychological well-being, spiritual health, quality of life, and resilience among cardiovascular patients. Interventions—ranging from Islamic-based models to mobile and counselling-based approaches—were particularly impactful in culturally religious contexts. To enhance practice, nurses should be trained in culturally sensitive spiritual care, and institutions encouraged to integrate spiritual assessment into routine care. Nursing education should embed core competencies in spiritual communication and ethical sensitivity. Limitations of this review include the predominance of studies from Muslim-majority countries, inconsistent reporting of effect sizes, and limited qualitative evidence. These factors affect the generalizability and depth of interpretation. Future research should examine long-term outcomes and the applicability of spiritual care in diverse or secular settings. Spiritual nursing remains an essential yet underutilized dimension of holistic cardiovascular care.

Author Contributions

Safri: Conceptualization, Methodology, Literature Search, Study Selection, Data Extraction, Data Curation, Writing – Original Draft, Visualization, Project Administration. Elly Nurrachmah: Supervision, Conceptualization, Methodology, Writing – Review & Editing. Budhi Setianto: Supervision, Writing – Review & Editing, Validation. Bahrul Hayat: Supervision, Theoretical Framework, Writing – Review & Editing. Sri Yona: Risk of Bias Assessment, Formal Analysis, Writing – Review & Editing. Rr. Tutik Sri Hariyati: Formal Analysis, Writing – Review & Editing, Validation. Aria Wahyuni: Data Extraction, Visualization, Writing – Original Draft, Writing – Review & Editing

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