Al-Asalmiya Nursing
Jurnal Ilmu Keperawatan *(Journal of Nursing Sciences)*
Volume 15, Nomor 1, Juni 2026
p-ISSN: 2338-2112, e-ISSN: 2580-048
https://jurnal.ikta.ac.id/index.php/keperawatan

DEVELOPMENT OF KOLCABA-BASED ISLAMIC SPIRITUAL NURSING CARE FOR PATIENTS WITH CHRONIC ILLNESSES

Aris Citra Wisuda[(1)]✉, Citra Suraya[(2)], Isrizal[(3)], Dian Emiliasari[(4)]

[(1)]Nursing Profession Study Program, Sekolah Tinggi Ilmu Kesehatan Bina Husada, Palembang 30131, Indonesia
[(2),(3),(4)]Nursing Study Program, Sekolah Tinggi Ilmu Kesehatan Bina Husada, Palembang 30131, Indonesia

ARTICLE INFO

Artikel history

Submitted : 09 mei 2026
Accepted : 07 juni 2026
Publish : 30 juni 2026

Keywords:
Comprehensive Islamic Spiritual Nursing Care, Kolcaba's Theory, Chronic Disease, Psychological Disorders, Patient Comfort.

ABSTRACT

Chronic illnesses account for approximately 74% of global deaths, with cardiovascular disease, diabetes mellitus, chronic kidney disease, and cancer contributing substantially to morbidity and mortality. More than one-third of patients with chronic illnesses experience psychological disorders, including anxiety, depression, and spiritual distress, which negatively affect quality of life, treatment adherence, and recovery outcomes. Despite the importance of spiritual care in holistic nursing, psychospiritual needs often remain inadequately addressed. This study aimed to develop and evaluate the effectiveness of a Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) model for patients with chronic illnesses experiencing psychological distress. A Research and Development (R&D) study with a mixed-methods approach was conducted at Siti Khadijah Islamic Hospital from April to August 2025. Model development involved needs assessment, literature synthesis, integration of Kolcaba's Comfort Theory with Islamic spiritual principles, expert validation, model refinement, and pilot implementation. Effectiveness testing employed a quasi-experimental one-group pretest–posttest design involving 33 patients with chronic illnesses. Outcome measures included comfort, anxiety, depression, and spiritual distress. The developed model demonstrated excellent content validity (S-CVI = 0.92). Following implementation, comfort scores increased significantly, while anxiety, depression, and spiritual distress decreased significantly (all $p < 0.001$). Large intervention effects were observed, with effect sizes ranging from 1.03 to 1.21. The greatest improvement occurred in the psychospiritual comfort domain. The KISNC model was valid, feasible, acceptable, and effective in improving holistic comfort while reducing psychological distress and spiritual suffering among hospitalized patients with chronic illnesses. The model offers an evidence-based, culturally sensitive, and spiritually integrated nursing intervention for comprehensive nursing practice.

✉***Corresponding Author:***
Aris Citra Wisuda
Nursing Profession Study Program, Sekolah Tinggi Ilmu Kesehatan Bina Husada, Palembang 30131, Indonesia
Telp. 085268072009
Email: ariscitrawisuda.edu@gmail.com

INTRODUCTION

Chronic illnesses remain a major global health burden and account for approximately 74% of deaths worldwide, with cardiovascular disease, diabetes mellitus, chronic kidney disease, and cancer contributing substantially to morbidity and mortality. Beyond their physical consequences, chronic illnesses are strongly associated with prolonged psychological distress, impaired quality of life, increased hospitalization rates, and unmet spiritual needs. Patients frequently experience anxiety, depression, hopelessness, fear of death, uncertainty regarding prognosis, and spiritual distress resulting from long-term treatment and declining functional capacity. Previous studies have demonstrated that more than one-third of patients with chronic diseases experience clinically significant psychological disorders that adversely affect treatment adherence, recovery outcomes, and overall well-being (World Health Organization, 2023; Koenig, 2022; Puchalski et al., 2020). Furthermore, spiritual suffering has been linked to decreased coping ability, poor emotional adaptation, lower patient comfort, and reduced quality of life during hospitalization (Timmins & Caldeira, 2019; Musa et al., 2022; Delgado-Guay et al., 2021; Wisuda et al., 2024). These findings highlight the importance of addressing not only physical symptoms but also the psychological and spiritual dimensions of care among patients with chronic illnesses.

Despite growing recognition of holistic nursing care, clinical practice in many healthcare settings remains predominantly focused on biomedical management, while psychosocial and spiritual needs are frequently underassessed and inadequately addressed. Evidence indicates that nurses often face barriers to providing effective spiritual care, including limited competency, lack of structured guidelines, insufficient theoretical integration, and inadequate institutional support (Balboni et al., 2022; Caldeira et al., 2021; Ross et al., 2018). In Islamic healthcare settings, spiritual care is commonly restricted to ritual facilitation, such as prayer reminders or Qur'anic recitation, without systematic assessment, therapeutic communication, individualized care planning, or outcome evaluation (Rassool, 2021; Alharbi & Al Hadid, 2019; Lovering, 2020). Although Islamic spiritual interventions—including murottal therapy, guided dhikr, prayer therapy, and spiritual counseling—have demonstrated positive effects on anxiety reduction, emotional stability, relaxation responses, coping mechanisms, and patient satisfaction, these interventions are generally implemented as isolated activities rather than components of a comprehensive nursing care model (Basit et al., 2021; Hidayati et al., 2022; Fitriani et al., 2023). Consequently, current spiritual care practices remain fragmented, non-standardized, and insufficiently evaluated, indicating a substantial practice gap in evidence-based Islamic spiritual nursing care for patients with chronic illnesses.

From a theoretical perspective, comprehensive spiritual nursing care requires a framework capable of addressing physical, psychospiritual, sociocultural, and environmental dimensions simultaneously. Katharine Kolcaba's Comfort Theory provides a holistic nursing framework emphasizing relief, ease, and transcendence across multidimensional human experiences (Kolcaba, 2003). The theory has been widely applied to improve comfort outcomes among patients with chronic pain, cancer, critical illness, and palliative care conditions (Wilson & Kolcaba, 2020; March & McCormack, 2021). However, most applications of Comfort Theory have focused primarily on physical and psychological comfort, with limited integration of religious and spiritual values, particularly within Islamic nursing contexts. Existing studies on Islamic spiritual care generally emphasize single interventions, such as prayer, dhikr, Qur'anic recitation, or murottal therapy, without incorporating these practices into a comprehensive nursing framework encompassing assessment, diagnosis, intervention, implementation, and evaluation (Mardiyono et al., 2021; Utami et al., 2022; Wahyuni et al., 2023). Moreover, previous studies rarely involved multidisciplinary validation by nursing experts, clinicians, religious scholars, and patients, nor did they simultaneously evaluate

multidimensional outcomes, including comfort, psychological disorders, and spiritual distress (Puchalski et al., 2020; Caldeira et al., 2021; Musa et al., 2022).

The existing literature therefore reveals three important gaps. First, a theoretical gap exists because no established nursing model has systematically integrated Islamic spiritual principles with Kolcaba's multidimensional comfort framework. Second, an empirical gap exists because most studies have focused on isolated spiritual interventions and single outcomes rather than evaluating comprehensive effects on comfort, psychological well-being, and spiritual distress simultaneously. Third, a practice gap exists because nurses lack a standardized, evidence-based, and culturally sensitive model for implementing Islamic spiritual nursing care in routine clinical settings. Accordingly, the novelty of this study lies in the development of a Kolcaba-Based Islamic Spiritual Nursing Care model that integrates Islamic spiritual values with Comfort Theory through a structured nursing process, incorporates multidisciplinary expert validation, and provides a comprehensive framework for addressing psychospiritual needs among patients with chronic illnesses.

Based on these theoretical, empirical, and practice gaps, this study aimed to develop and evaluate the effectiveness of Kolcaba-Based Islamic Spiritual Nursing Care for patients with chronic illnesses experiencing psychological disorders. The proposed model integrates Islamic spiritual values with Kolcaba's concepts of relief, ease, and transcendence within a comprehensive nursing care process involving assessment, diagnosis, intervention planning, implementation, and evaluation. By addressing limitations in existing spiritual care approaches, this study is expected to provide a standardized and applicable framework for nurses to improve patient comfort, reduce anxiety and depression, minimize spiritual distress, and enhance holistic care outcomes. Furthermore, this study contributes to the advancement of spiritual and transcultural nursing science by strengthening the integration of nursing theory and Islamic spiritual care within evidence-based clinical nursing practice.

METHODS

Study Design

This study employed a sequential exploratory mixed-methods Research and Development (R&D) design to develop and evaluate a Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) model for patients with chronic illnesses and psychological disorders. A mixed-methods approach was selected because it enables comprehensive exploration of complex psychosocial and spiritual phenomena while simultaneously evaluating intervention effectiveness quantitatively, as recommended by John W. Creswell and Vicki L. Plano Clark (Creswell & Plano Clark, 2018). The developmental process adopted the R&D framework proposed by Walter R. Borg and Meredith D. Gall, which includes preliminary assessment, model development, expert validation, revision, pilot implementation, and effectiveness evaluation (Borg & Gall, 2003). Furthermore, methodological integration between qualitative and quantitative phases was guided by the Good Reporting of A Mixed Methods Study (GRAMMS) recommendations to enhance methodological transparency and integration rigor (O'Cathain et al., 2008).

The qualitative phase aimed to explore patients' experiences related to chronic illness, psychological distress, spiritual suffering, and comfort needs, as well as nurses' experiences in providing spiritual care within clinical settings. Findings from this exploratory phase informed the development of the intervention model and implementation guidelines. Subsequently, the quantitative phase employed a quasi-experimental one-group pretest–posttest design to evaluate the preliminary effectiveness of the developed intervention in improving comfort and reducing anxiety, depression, and spiritual distress among hospitalized patients with chronic illnesses. A methodological illustrating the sequential stages of the study is recommended as Figure 1 to improve methodological clarity and reporting transparency in accordance with international publication standards

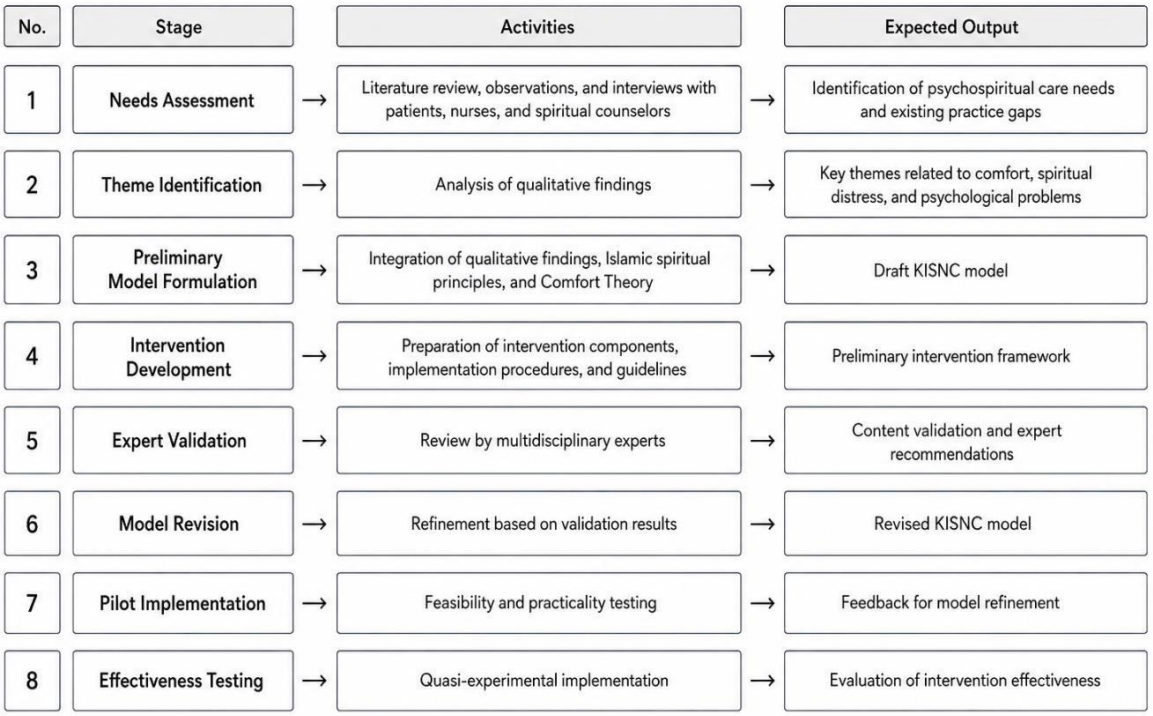

Figure 1. Sequential Exploratory Mixed-Methods R&D Framework of the KISNC Model

Study Setting and Participants

The study was conducted at Rumah Sakit Islam Siti Khadijah from April to August 2025. This hospital is a faith-based healthcare institution that provides comprehensive inpatient services for patients with chronic illnesses, including cardiovascular disease, diabetes mellitus, chronic kidney disease, cancer, and other long-term medical conditions. The hospital was selected because it integrates Islamic values into healthcare services, thereby providing an appropriate context for the development of Islamic spiritual nursing interventions.

Participants consisted of hospitalized patients with chronic illnesses recruited using purposive sampling techniques. Purposive sampling was considered appropriate because participants were selected based on specific characteristics relevant to the study objectives, as suggested by Michael Quinn Patton (Patton, 2015). Inclusion criteria included adult Muslim patients aged 18 years or older who had been diagnosed with chronic illness for at least six months, experienced mild-to-moderate psychological distress, were hospitalized for a minimum of three days, were able to communicate verbally, and voluntarily agreed to participate in the study. Patients with severe psychiatric disorders, impaired consciousness, severe cognitive limitations, unstable hemodynamic conditions, or inability to complete the intervention protocol were excluded to ensure participant safety and data reliability.

A total of 33 participants were included in the effectiveness testing phase. The sample size was considered sufficient for preliminary quasi-experimental intervention studies aimed at evaluating feasibility, applicability, and early intervention effects in nursing model development research, consistent with recommendations for pilot intervention studies in healthcare research (Polit & Beck, 2021). Participant recruitment procedures are recommended to be illustrated using a CONSORT-style flow diagram to strengthen reporting transparency (Figure 2).

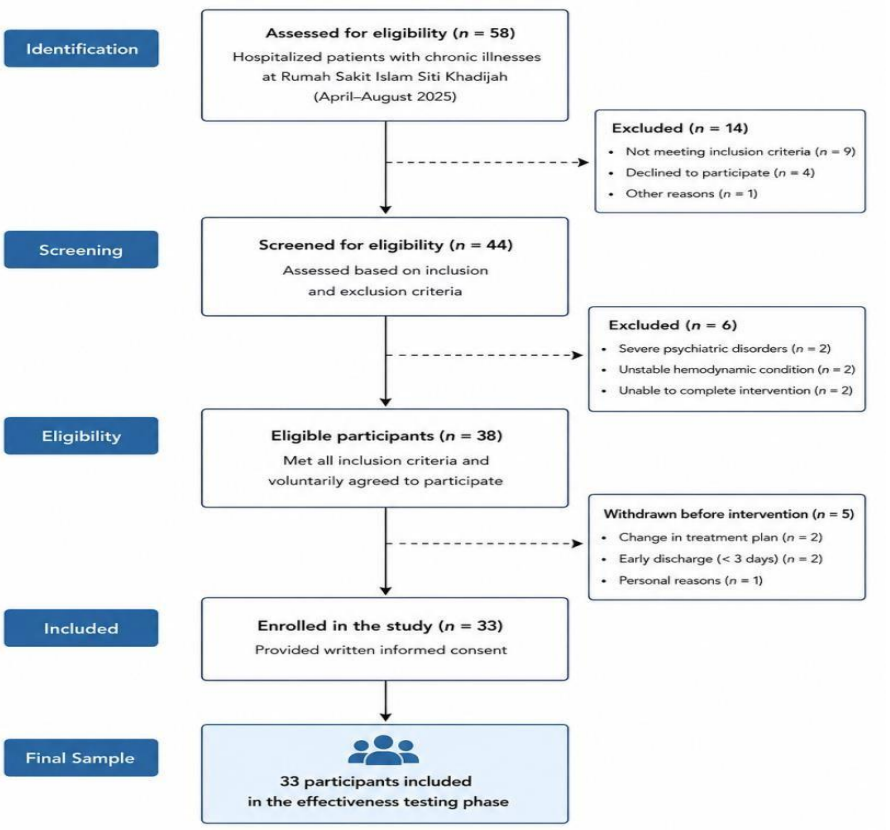

Figure 2. CONSORT-Style Participant Flow Diagram

Preliminary Assessment and Qualitative Exploration

The preliminary assessment phase was conducted to identify unmet spiritual care needs, psychological problems, and limitations in existing nursing practices among patients with chronic illnesses. Data collection during this phase involved literature reviews, non-participant observations, and semi-structured in-depth interviews with patients, nurses, and Islamic spiritual counselors. This exploratory process was intended to generate contextual understanding and support the development of culturally appropriate and clinically applicable interventions.

Semi-structured interviews were conducted face-to-face in private and quiet rooms within the hospital environment to ensure participant comfort and confidentiality. Interview questions explored experiences related to chronic illness, emotional suffering, spiritual distress, coping strategies, perceptions of comfort, expectations regarding spiritual nursing care, and barriers encountered during hospitalization. According to Steinar Kvale and Svend Brinkmann (Kvale & Brinkmann, 2015), semi-structured interviews allow researchers to obtain rich and in-depth descriptions of participants' lived experiences while maintaining flexibility during the interview process. Interviews lasted approximately 30–60 minutes and were audio-recorded with participant consent.

Non-participant observations were conducted during routine nursing care activities to identify patterns of nurse–patient interactions, implementation of spiritual care practices, environmental comfort factors, and integration of Islamic values within clinical care. Data collection continued until thematic saturation was achieved, meaning that no additional themes or significant information emerged from subsequent interviews. Audio recordings were transcribed verbatim and analyzed thematically using the six-step analytical framework developed by Virginia Braun and Victoria Clarke (Braun & Clarke, 2006), consisting of familiarization, coding, theme development, theme review, theme definition, and report

generation. To ensure rigor and trustworthiness, qualitative findings were strengthened through triangulation, member checking, peer debriefing, and maintenance of audit trails, as recommended by Yvonna S. Lincoln and Egon G. Guba (Lincoln & Guba, 1985). These strategies were implemented to enhance credibility, dependability, confirmability, and transferability of the findings.

Development of the Kolcaba-Based Islamic Spiritual Nursing Care Model

The Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) model was developed through a systematic Research and Development (R&D) process grounded in findings from the qualitative exploration phase, comprehensive literature synthesis, Islamic spiritual nursing principles, and Katharine Kolcaba's Comfort Theory. Kolcaba's theory emphasizes the achievement of holistic comfort through the dimensions of relief, ease, and transcendence within physical, psychospiritual, sociocultural, and environmental domains (Kolcaba, 2003). In this study, these dimensions were integrated with Islamic spiritual approaches, including tawakkul, dhikr, prayer facilitation, Qur'anic recitation (murottal), gratitude, patience, spiritual counseling, and therapeutic communication to establish a culturally sensitive and spiritually integrated nursing care model. The development process consisted of eight sequential stages: (1) needs assessment through literature review, observation, and interviews; (2) identification of psychospiritual care needs and key themes; (3) formulation of a preliminary model based on qualitative findings and theoretical synthesis; (4) development of intervention components and implementation guidelines; (5) multidisciplinary expert validation; (6) model revision according to expert recommendations; (7) pilot implementation and feasibility assessment; and (8) effectiveness testing using a quasi-experimental approach. This systematic process ensured that the developed model was theoretically grounded, clinically relevant, culturally appropriate, and responsive to the psychospiritual needs of patients with chronic illnesses.

The finalized KISNC model was structured into five interconnected nursing components: comprehensive spiritual assessment, therapeutic Islamic spiritual communication, Islamic spiritual interventions, comfort enhancement strategies, and evaluation of emotional and spiritual responses. These components were designed to support holistic nursing care and strengthen nurses' competencies in identifying and managing spiritual distress while enhancing patient comfort and psychological adaptation. Consistent with Watson's Theory of Human Caring, spiritually oriented caring approaches contribute significantly to emotional healing, patient comfort, and holistic wellbeing (Watson, 2008). To ensure intervention consistency, reproducibility, and implementation fidelity, a standardized intervention manual and nursing guideline were developed, including intervention objectives, implementation procedures, therapeutic communication guidance, spiritual assessment indicators, intervention duration, documentation procedures, and evaluation criteria. The overall stages of model development and the structure of the intervention are presented in Tables 1 and 2.

Table 1. Stages of Development of the Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) Model

No	Stage	Activities	Expected Output
1	Needs Assessment	Literature review, observations, and interviews with patients, nurses, and spiritual counselors	Identification of psychospiritual care needs and existing practice gaps
2	Theme Identification	Analysis of qualitative findings	Key themes related to comfort, spiritual distress, and psychological problems
3	Preliminary Model Formulation	Integration of qualitative findings, Islamic spiritual principles, and Comfort Theory	Draft KISNC model
4	Intervention Development	Preparation of intervention components, implementation procedures, and	Preliminary intervention framework

		guidelines	
5	Expert Validation	Review by multidisciplinary experts	Content validation and expert recommendations
6	Model Revision	Refinement based on validation results	Revised KISNC model
7	Pilot Implementation	Feasibility and practicality testing	Feedback for model refinement
8	Effectiveness Testing	Quasi-experimental implementation	Evaluation of intervention effectiveness

Table 2. Components of the Kolcaba-Based Islamic Spiritual Nursing Care Intervention

Component	Description	Duration
Spiritual Assessment	Identification of spiritual distress, coping mechanisms, worship needs, and comfort perceptions	15–20 min
Therapeutic Communication	Active listening, empathy, emotional support, and spiritual reflection	15–30 min
Islamic Spiritual Intervention	Guided dhikr, prayer support, Qur'anic recitation (murottal), and spiritual counseling	20–30 min
Comfort Enhancement	Environmental modification and relaxation-oriented nursing support	15–20 min
Evaluation	Assessment of emotional, psychological, and spiritual responses	10–15 min

Expert Validation

The preliminary intervention model underwent expert validation involving five multidisciplinary experts consisting of physicians, nurses, Islamic religious scholars (ustadz), and patient representatives. Expert involvement is essential in nursing intervention development to ensure theoretical relevance, practical applicability, and cultural appropriateness, as emphasized by Denise F. Polit and Cheryl Tatano Beck (Polit & Beck, 2021). Experts were selected based on clinical experience, academic qualifications, and expertise in chronic disease management, spiritual care, and nursing practice.

The validation process evaluated content relevance, theoretical consistency, language clarity, cultural sensitivity, implementation feasibility, and intervention applicability within hospital settings. Experts assessed the intervention model using structured content validation forms employing Likert-scale ratings and qualitative feedback sections. Content validity was analyzed using the Content Validity Index (CVI), including Item-Level Content Validity Index (I-CVI) and Scale-Level Content Validity Index (S-CVI). Scores of 0.80 or higher were considered acceptable indicators of adequate content validity according to Polit and Beck (2021). Suggestions and recommendations from the expert panel were incorporated to revise and refine the intervention model before pilot implementation.

Intervention Procedures

The finalized Kolcaba-Based Islamic Spiritual Nursing Care intervention was implemented by trained nurses over five consecutive days during hospitalization. Prior to intervention delivery, nurses participated in structured training sessions focusing on Islamic spiritual nursing principles, therapeutic communication, standardized intervention protocols, and comfort-oriented nursing approaches based on Katharine Kolcaba's Comfort Theory. Each intervention session lasted approximately 30–45 minutes and was individualized according to participants' spiritual conditions, emotional responses, and comfort needs. The intervention began with comprehensive spiritual and psychological assessments, followed by therapeutic nurse–patient relationship building through empathetic communication, active listening, and emotional support. According to Patricia Benner (Benner, 2001), competency-based therapeutic preparation is essential to improve nursing care quality and patient-centered interactions.

The intervention further incorporated guided dhikr and relaxation sessions, facilitation of obligatory and voluntary worship practices, Qur'anic recitation (murottal therapy), spiritual counseling, and reflection-based comfort evaluation. These interventions aimed to enhance spiritual fulfillment, emotional adaptation, and psychological comfort among patients with chronic illnesses. Previous studies reported that Islamic spiritual interventions, including dhikr and murottal therapy, contribute to reduced anxiety, emotional distress, and improved coping mechanisms in hospitalized patients (Koenig, 2022; Hidayati et al., 2022; Mardiyono et al., 2021). Intervention fidelity was maintained through standardized intervention checklists, supervision by the research team, and regular monitoring meetings. To improve methodological transparency, the intervention schedule is recommended to be presented in tabular format as Table 3.

Table 3. Daily Intervention Schedule

Day	Main Activities
Day 1	Spiritual assessment and therapeutic relationship building
Day 2	Guided dhikr and emotional support
Day 3	Murottal therapy and spiritual reflection
Day 4	Prayer facilitation and coping reinforcement
Day 5	Comfort evaluation and spiritual reinforcement

Data Collection Procedures

Data collection was conducted at two measurement points, namely baseline (pretest) and post-intervention (posttest). Baseline assessments were performed before intervention implementation to measure participants' levels of comfort, anxiety, depression, and spiritual distress. Following completion of the five-day intervention program, posttest assessments were conducted using the same standardized instruments. Quantitative data collection was administered directly by trained research assistants to minimize missing responses and measurement bias. According to Denise F. Polit and Cheryl Tatano Beck (Polit & Beck, 2021), standardized data collection procedures are necessary to strengthen validity and reliability in intervention studies.

In addition to quantitative measurements, qualitative observational notes were documented during intervention implementation to capture participants' emotional responses, spiritual engagement, and contextual factors influencing intervention delivery. Integration of qualitative and quantitative evidence is recommended in mixed-methods nursing research to strengthen contextual interpretation and methodological comprehensiveness (Creswell & Plano Clark, 2018). Demographic and clinical variables collected included age, sex, marital status, educational level, diagnosis, duration of illness, length of hospitalization, and previous experiences related to spiritual support.

Instruments

Several standardized instruments with established psychometric properties were used to evaluate the effectiveness of the intervention. Patient comfort was measured using the General Comfort Questionnaire (GCQ) developed by Katharine Kolcaba (Kolcaba, 2003), which evaluates comfort across physical, psychospiritual, sociocultural, and environmental domains. Anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS) developed by Anthony S. Zigmond and R. P. Snaith (Zigmond & Snaith, 1983), a widely validated instrument for hospitalized patients and chronic illness populations.

Spiritual distress was measured using the Spiritual Distress Scale (SDS), which assesses hopelessness, disrupted meaning, and impaired spiritual connectedness among clinical populations (Caldeira et al., 2017). Demographic and clinical characteristics were collected

using structured questionnaires developed by the research team. All instruments underwent forward–backward translation and readability testing prior to use to ensure linguistic clarity and cultural appropriateness within the Indonesian clinical context.

Data Analysis

Quantitative data were analyzed using IBM SPSS Statistics version 26. Descriptive statistics were used to summarize participant characteristics and variable distributions. Normality tests were conducted prior to inferential analysis. Differences between pretest and posttest scores were analyzed using paired t-tests for normally distributed data or Wilcoxon signed-rank tests for non-normally distributed data, with significance determined at $p < 0.05$. Qualitative interview data were analyzed thematically using the approach of Virginia Braun and Victoria Clarke (Braun & Clarke, 2006). Integration of qualitative and quantitative findings was conducted during interpretation to strengthen understanding of the intervention outcomes and contextual relevance.

Ethical Considerations

Ethical clearance for this study was granted by the Health Research Ethics Committee, Faculty of Medicine, Universitas Sriwijaya (Ref. No. 029-2025). All research procedures adhered to the principles outlined in the Declaration of Helsinki and relevant ethical standards governing research involving children. Prior to participation, written informed consent was obtained from parents or legal guardians, while assent was also obtained from children whenever developmentally appropriate. Participant privacy was safeguarded through the use of coded and de-identified data, and all study activities were implemented in a manner that promoted children's safety, comfort, and voluntary involvement throughout the research process.

RESULTS

Participant Characteristics

Table 4 presents the demographic and clinical characteristics of the 33 participants included in the study, illustrating the distribution of sex, marital status, duration of illness, and primary diagnoses among patients with chronic illnesses.

Table 4. Demographic and Clinical Characteristics of Participants (n = 33)

Characteristics	N	%
Sex		
Female	19	57.6
Male	14	42.4
Marital Status		
Married	24	72.7
Unmarried/Widowed	9	27.3
Duration of Illness		
≥ 1 year	23	69.7
< 1 year	10	30.3
Primary Diagnosis		
Cardiovascular disease	11	33.3
Diabetes mellitus	8	24.2
Chronic kidney disease	7	21.2
Cancer	5	15.2
Others	2	6.1

A total of 33 patients with chronic illnesses completed the intervention and were included in the final analysis. Participant recruitment and retention are presented in Figure 2. Baseline demographic and clinical characteristics indicated that the majority of participants were female (57.6%) and married (72.7%), with a mean age of 54.3 ± 11.2 years. Most participants had been living with chronic illnesses for more than one year (69.7%) and had experienced repeated hospitalizations. Cardiovascular disease was the most prevalent diagnosis (33.3%), followed by diabetes mellitus (24.2%), chronic kidney disease (21.2%), and cancer (15.2%). Several participants also reported symptoms of anxiety, sadness, hopelessness, sleep disturbances, and spiritual discomfort during hospitalization.

Based on Table 4, the study population predominantly consisted of middle-aged and older adults with long-standing chronic illnesses. The high proportion of participants with prolonged disease duration suggests a substantial burden of physical, psychological, and spiritual challenges requiring comprehensive nursing care. Furthermore, the predominance of cardiovascular disease and diabetes mellitus reflects the growing contribution of non-communicable diseases to hospitalization and highlights the need for holistic interventions that address both physical and psychospiritual aspects of patient care.

Findings from Preliminary Qualitative Exploration

Qualitative exploration revealed substantial unmet psychospiritual care needs among hospitalized patients with chronic illnesses. Participants frequently described emotional exhaustion, fear of death, uncertainty regarding illness progression, helplessness, and spiritual emptiness during hospitalization. Many participants perceived that nursing care focused primarily on physical treatment, while emotional and spiritual concerns remained insufficiently addressed. Similar findings have been reported by Koenig (2022), who emphasized that inadequate spiritual support may contribute to anxiety, depression, and poor psychological adaptation among chronically ill patients.

Thematic analysis generated three major themes: unresolved spiritual distress and emotional suffering, unmet holistic comfort needs, and the importance of Islamic spiritual support in facilitating emotional adaptation and illness acceptance.

Table 5. Major Themes from Qualitative Exploration

Themes	Representative Quotations
Spiritual distress and emotional suffering	"I often feel afraid and hopeless because my illness never ends."
Unmet holistic comfort needs	"The nurses focused more on medications than my emotional condition."
Importance of Islamic spiritual support	"Listening to Qur'anic recitation made me calmer and spiritually stronger."

As shown in Table 5, participants consistently expressed a need for greater spiritual support and emotional guidance during hospitalization. The findings suggest that psychospiritual concerns remain inadequately addressed within routine nursing care and support the development of a structured spiritual nursing intervention model.

Development and Expert Validation of the Intervention Model

Based on qualitative findings, literature synthesis, Islamic spiritual nursing principles, and Katharine Kolcaba's Comfort Theory, the Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) model was successfully developed. The intervention integrated physical, psychospiritual, sociocultural, and environmental comfort dimensions with Islamic spiritual

approaches, including therapeutic communication, guided dhikr, prayer facilitation, murottal therapy, spiritual counseling, gratitude reinforcement, and emotional support (Kolcaba, 2003; Watson, 2008).

Table 6. Expert Validation Results of the Intervention Model

Validation Components	I-CVI Score
Theoretical relevance	0.94
Clarity of intervention procedures	0.90
Cultural appropriateness	0.96
Clinical applicability	0.91
Language suitability	0.89
Feasibility in hospital settings	0.92
Overall S-CVI	**0.92**

Based on Table 6, all validation components achieved I-CVI values exceeding the recommended threshold of 0.80. Cultural appropriateness demonstrated the highest rating (I-CVI = 0.96), followed by theoretical relevance (I-CVI = 0.94). The overall S-CVI score of 0.92 indicated excellent content validity, confirming that the intervention was theoretically sound, culturally appropriate, and feasible for implementation in clinical settings.

Feasibility and Acceptability of the Intervention

The intervention demonstrated high feasibility and acceptability among participants and nurses throughout implementation. All participants completed the five-day intervention without withdrawal or adverse events. Nurses reported that the intervention procedures were practical and compatible with routine inpatient care.

Table 7. Feasibility and Acceptability Outcomes

Indicators	Results
Recruitment rate	91.7%
Intervention completion rate	100%
Participant retention	100%
Nurse adherence to protocol	95.4%
Participant satisfaction	93.8%
Adverse events	None reported

As presented in Table 7, participant retention and intervention completion rates reached 100%, indicating excellent adherence and intervention tolerability. High participant satisfaction (93.8%) and nurse adherence (95.4%) further support the practicality and acceptability of the KISNC model within hospital settings.

Effects of the Intervention on Comfort, Anxiety, Depression, and Spiritual Distress

Implementation of the KISNC intervention resulted in statistically significant improvements across all outcome variables.

Table 8. Comparison of Pretest and Posttest Outcome Scores (n = 33)

Variables	Pretest Mean ± SD	Posttest Mean ± SD	Mean Difference	**p-value**	**Effect Size (Cohen's d)**
Comfort	62.4 ± 8.7	81.6 ± 7.9	+19.2	<0.001	1.21
Anxiety	13.8 ± 3.1	7.2 ± 2.4	-6.6	<0.001	1.08
Depression	12.6 ± 2.8	6.9 ± 2.1	-5.7	<0.001	1.03
Spiritual distress	15.1 ± 3.5	7.8 ± 2.7	-7.3	<0.001	1.15

Based on Table 8, comfort scores increased significantly following intervention implementation, whereas anxiety, depression, and spiritual distress scores decreased substantially (all $p < 0.001$). The observed effect sizes ranged from 1.03 to 1.21, indicating large intervention effects according to Cohen's criteria. These findings suggest that the intervention produced both statistically significant and clinically meaningful improvements in participants' psychological and spiritual well-being.

Changes Across Comfort Domains

Further analysis of the General Comfort Questionnaire revealed improvements across all comfort domains.

Table 9. Changes Across Comfort Domains

Comfort Domains	Pretest Mean ± SD	Posttest Mean ± SD	Mean Difference	p-value	Effect Size (Cohen's d)
Physical comfort	15.6 ± 3.2	19.8 ± 2.7	+4.2	<0.001	0.86
Psychospiritual comfort	14.2 ± 3.5	22.4 ± 3.1	+8.2	<0.001	1.34
Sociocultural comfort	16.1 ± 2.8	20.5 ± 2.6	+4.4	<0.001	0.91
Environmental comfort	16.5 ± 3.0	18.9 ± 2.4	+2.4	<0.001	0.62

As shown in Table 9, the greatest improvement occurred in the psychospiritual comfort domain, which increased by 8.2 points and demonstrated the largest effect size ($d = 1.34$). This finding suggests that the intervention was particularly effective in addressing emotional suffering, spiritual distress, and existential concerns. Significant improvements were also observed in physical, sociocultural, and environmental comfort domains, supporting the multidimensional framework proposed by Kolcaba's Comfort Theory.

Integration of Qualitative and Quantitative Findings

The integration of qualitative and quantitative findings demonstrated strong convergence between statistical outcomes and participants' lived experiences. Quantitative improvements in comfort and reductions in anxiety, depression, and spiritual distress corresponded with qualitative reports describing greater emotional calmness, increased spiritual acceptance, stronger hope, and enhanced closeness to Allah following guided dhikr, prayer facilitation, spiritual counseling, and Qur'anic recitation sessions. Observational findings further indicated improved engagement, stronger coping responses, and more effective therapeutic communication. Collectively, these results support the validity, feasibility, cultural relevance, and effectiveness of the KISNC model in enhancing holistic comfort while reducing psychological and spiritual distress among hospitalized patients with chronic illnesses.

Discussion

The present study demonstrated that the Kolcaba-Based Islamic Spiritual Nursing Care model was valid, feasible, and effective in improving holistic comfort while reducing anxiety, depression, and spiritual distress among hospitalized patients with chronic illnesses. The significant improvement in comfort scores following intervention implementation supports Katharine Kolcaba's Comfort Theory, which emphasizes that multidimensional comfort interventions can enhance patients' adaptation, wellbeing, and recovery processes (Kolcaba,

2003). The findings are consistent with recent evidence indicating that spiritually integrated nursing care contributes positively to emotional stabilization, quality of life, and psychosocial adaptation among chronically ill patients (Balboni et al., 2022; Koenig, 2022; Caldeira et al., 2021). The intervention's emphasis on psychospiritual support through therapeutic communication, guided dhikr, prayer facilitation, and murottal therapy appears to have strengthened patients' emotional resilience and spiritual coping during hospitalization.

The substantial reductions in anxiety and depression observed after intervention implementation further reinforce the growing evidence supporting spiritual interventions in mental health management among patients with chronic illnesses. Chronic disease is frequently associated with uncertainty, fear of death, emotional exhaustion, and loss of meaning, all of which contribute to psychological distress and poorer health outcomes (World Health Organization, 2023; Xu et al., 2023; Ahmad et al., 2022). In this study, participants described experiencing emotional calmness, spiritual acceptance, and strengthened hope after engaging in guided spiritual activities. These findings align with previous studies demonstrating that Islamic spiritual practices, including dhikr and Qur'anic recitation, may reduce sympathetic nervous system activation, improve relaxation responses, and decrease anxiety levels among hospitalized patients (Hidayati et al., 2022; Mardiyono et al., 2021; Rahman et al., 2023). The integration of spirituality into nursing care therefore appears to provide not only emotional comfort but also psychophysiological benefits that support holistic recovery.

Another important finding was the marked improvement in psychospiritual comfort, which represented the largest increase among all comfort domains. This finding suggests that spiritual distress and existential discomfort remain central concerns among patients with chronic illnesses and should be addressed systematically within nursing care. According to Jean Watson's Theory of Human Caring, caring relationships that acknowledge spiritual and existential dimensions may strengthen healing processes and enhance patient dignity during illness experiences (Watson, 2008). Similar findings have been reported in recent nursing studies showing that spiritually sensitive care improves emotional wellbeing, illness acceptance, and meaning-centered coping among patients with chronic and life-threatening conditions (Timmins et al., 2023; Puchalski et al., 2020; Selman et al., 2022). The present study therefore supports the importance of integrating culturally relevant spiritual interventions into comprehensive nursing practice, particularly within faith-based healthcare settings.

The high feasibility and acceptability outcomes observed in this study indicate that the intervention model was practical and culturally appropriate for implementation in routine inpatient nursing services. All participants completed the intervention protocol without adverse events, while nurses reported that the intervention was structured, understandable, and compatible with holistic nursing values. These findings are important because implementation barriers such as limited time, insufficient training, and lack of spiritual care guidelines often prevent nurses from integrating spiritual care into clinical practice (Ramezani et al., 2021; Cruz et al., 2023; Musa et al., 2022). The presence of a standardized intervention manual and structured implementation procedures may therefore enhance intervention fidelity and facilitate broader integration of spiritual care into nursing systems. Furthermore, the mixed-method integration findings demonstrated strong convergence between quantitative improvements and participants' qualitative experiences of emotional peace, spiritual closeness, and improved coping, thereby strengthening the credibility and contextual relevance of the intervention outcomes.

Overall, this study contributes important evidence regarding the development of culturally sensitive and theory-based spiritual nursing interventions for patients with chronic illnesses. Unlike many previous studies that focused solely on isolated spiritual activities or single psychological outcomes, the present intervention integrated multidimensional comfort domains, Islamic spiritual principles, and standardized nursing procedures into a

comprehensive care model. The findings therefore address existing gaps related to the limited availability of structured spiritual nursing models, insufficient integration of spiritual care into routine practice, and lack of culturally grounded interventions for Muslim patients with chronic illnesses (Balboni et al., 2022; Timmins et al., 2023; Koenig, 2022). Future studies involving larger multicenter samples, randomized controlled trial designs, and longer follow-up periods are recommended to further evaluate the long-term effectiveness and scalability of the intervention across diverse healthcare settings.

Implications for Nursing Practice

The findings of this study have important implications for nursing practice, education, management, and research. The Kolcaba-Based Islamic Spiritual Nursing Care model provides a structured and culturally appropriate framework for integrating spiritual care into comprehensive nursing services for patients with chronic illnesses. Implementation of this intervention may enhance nurses' competencies in identifying spiritual distress, delivering therapeutic spiritual support, and improving holistic patient comfort. In clinical settings, the model may support more patient-centered and compassionate care while strengthening therapeutic nurse–patient relationships.

For nursing education, the findings emphasize the importance of integrating spiritual care competencies, Islamic spiritual approaches, and comfort-based nursing theories into nursing curricula and clinical training programs. Hospital administrators and nursing managers may also use the intervention model as a practical guideline for developing standardized spiritual nursing services within faith-based healthcare institutions. Furthermore, the study contributes to the growing body of evidence supporting spiritually integrated nursing interventions as effective strategies for improving psychological wellbeing and holistic recovery among patients with chronic illnesses.

Strengths and Limitations

This study has several strengths. First, the study employed a rigorous sequential exploratory mixed-methods design that enabled comprehensive exploration and evaluation of spiritual nursing interventions from both qualitative and quantitative perspectives. Second, the intervention model was developed systematically using Katharine Kolcaba's Comfort Theory, qualitative findings, literature synthesis, and multidisciplinary expert validation, thereby enhancing theoretical rigor and contextual relevance. Third, the integration of Islamic spiritual principles with structured nursing procedures provided a culturally sensitive intervention model specifically tailored to Muslim patients with chronic illnesses.

However, several limitations should also be acknowledged. The study used a quasi-experimental one-group pretest–posttest design without a control group, which may limit causal inference regarding intervention effectiveness. The relatively small sample size and single-center setting may additionally limit generalizability to broader populations and healthcare contexts. Furthermore, the intervention duration was relatively short and did not evaluate long-term sustainability of psychological and spiritual outcomes after hospital discharge. Future studies using randomized controlled trials, multicenter designs, and longer follow-up periods are therefore recommended to strengthen external validity and evaluate long-term intervention effectiveness.

Conclusion

The Kolcaba-Based Islamic Spiritual Nursing Care (KISNC) model developed in this study demonstrated excellent content validity, high feasibility, strong acceptability, and significant

effectiveness in improving holistic comfort while reducing anxiety, depression, and spiritual distress among hospitalized patients with chronic illnesses. The model successfully integrated Katharine Kolcaba's Comfort Theory with Islamic spiritual approaches, including therapeutic communication, guided dhikr, prayer facilitation, murottal therapy, and spiritual counseling, thereby addressing patients' multidimensional physical, psychospiritual, sociocultural, and environmental comfort needs. The intervention achieved high participant retention, strong nurse adherence, and favorable satisfaction rates, indicating its practicality and suitability for routine clinical implementation. Statistically significant improvements were observed across all outcome variables, with large effect sizes demonstrating clinically meaningful benefits, particularly in the psychospiritual comfort domain, which showed the greatest improvement following the intervention. These findings suggest that integrating culturally sensitive and spiritually oriented nursing interventions into standard care can effectively enhance emotional adaptation, spiritual well-being, and overall patient comfort among individuals living with chronic illnesses. Furthermore, this study contributes to the advancement of evidence-based spiritual nursing practice by providing a structured, theory-driven, and culturally relevant intervention model that supports holistic, patient-centered, and compassionate care. Future multicenter studies employing randomized controlled trial designs, larger sample sizes, and longer follow-up periods are recommended to confirm the long-term effectiveness, sustainability, and broader applicability of the KISNC model across diverse healthcare settings.

Author Contribution

ACW contributed to study conception and design, data collection, intervention development, data analysis, interpretation of findings, and manuscript drafting. CS contributed to methodological supervision, critical revision of the manuscript, expert validation processes, and interpretation of the results. I contributed to data analysis, literature review, manuscript editing, and final approval of the submitted version. All authors read and approved the final manuscript and agreed to be accountable for all aspects of the work.

Acknowledgment

The authors would like to express their sincere gratitude to the management and healthcare staff of Rumah Sakit Islam Siti Khadijah for their support and cooperation throughout the study. The authors also extend their appreciation to all participants, nurses, physicians, Islamic spiritual counselors (ustadz), and expert validators who contributed valuable time, experiences, and insights during the development and implementation of this research. Special thanks are given to all individuals and institutions who supported the successful completion of this study.

Conflict of Interest

The author declares no conflicts of interest.

References

Ahmad, M., Al Nazly, E., & Hemnani, T. (2022). Depression, anxiety, and stress among patients with chronic illnesses: A cross-sectional study. *BMC Psychology, 10*(1), 215. https://doi.org/10.1186/s40359-022-00912-8

Alharbi, J., & Al Hadid, L. (2019). Towards an understanding of compassion from an Islamic perspective. *Journal of Clinical Nursing, 28*(7–8), 1354–1358. https://doi.org/10.1111/jocn.14767

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

Basit, A., Hidayah, N., & Nurhayati, T. (2021). Effectiveness of Islamic spiritual therapy in reducing anxiety among chronic disease patients. *International Journal of Nursing and Health Services, 4*(2), 210–218. https://doi.org/10.35654/ijnhs.v4i2.421

Benner, P. (2001). *From novice to expert: Excellence and power in clinical nursing practice*. Prentice Hall.

Borg, W. R., & Gall, M. D. (2003). *Educational research: An introduction* (7th ed.). Allyn & Bacon.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Caldeira, S., Carvalho, E. C., Vieira, M., & Timmins, F. (2017). Spiritual distress—Proposing a new definition and defining characteristics. *International Journal of Nursing Knowledge, 28*(2), 95–99. https://doi.org/10.1111/2047-3095.12134

Caldeira, S., Timmins, F., Carvalho, E. C., & Vieira, M. (2021). Clinical validation of the nursing diagnosis spiritual distress in cancer patients undergoing chemotherapy. *International Journal of Nursing Knowledge, 28*(1), 44–52. https://doi.org/10.1111/2047-3095.12105

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Cruz, J. P., Alshammari, F., Alotaibi, K. A., & Colet, P. C. (2023). Nurses' competence in spiritual care and its relationship with quality of care. *BMC Nursing, 22*(1), 87. https://doi.org/10.1186/s12912-023-01102-0

Delgado-Guay, M., Hui, D., Parsons, H. A., Govan, K., & Bruera, E. (2011). Spirituality, religiosity, and spiritual pain among patients with advanced cancer. *Journal of Pain and Symptom Management, 41*(6), 986–994. https://doi.org/10.1016/j.jpainsymman.2010.07.017

Fitriani, D., Kurniawan, T., & Efendi, F. (2023). Islamic spiritual care intervention and psychological wellbeing among hospitalized patients with chronic disease. *BMC Nursing, 22*(1), 115–124. https://doi.org/10.1186/s12912-023-01152-4

Hidayati, N., Yusuf, A., & Nihayati, H. E. (2022). Murottal Qur'anic therapy and anxiety reduction among hospitalized Muslim patients: A quasi-experimental study. *Journal of Religion and Health, 61*(5), 3771–3784. https://doi.org/10.1007/s10943-021-01445-8

IBM Corporation. (2019). *IBM SPSS statistics for Windows* (Version 26.0). IBM Corp.

Koenig, H. G. (2022). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry, 2022*, 1–33. https://doi.org/10.1155/2022/2787306

Koenig, H. G., Al Zaben, F., & VanderWeele, T. J. (2020). Religion and psychiatry: Recent developments in research. *BJPsych Advances, 26*(5), 262–272. https://doi.org/10.1192/bja.2019.81

Kolcaba, K. (2003). *Comfort theory and practice: A vision for holistic health care and research*. Springer Publishing Company.

Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). SAGE Publications.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.

Lovering, S. (2020). The crescent of care: A nursing model to guide the care of Arab Muslim patients. *Diversity and Equality in Health and Care, 9*(3), 171–178.

March, A., & McCormack, D. (2009). Nursing theory-directed healthcare: Modifying Kolcaba's Comfort Theory as an institution-wide approach. *Holistic Nursing Practice, 23*(2), 75–80. https://doi.org/10.1097/HNP.0b013e3181a110fc

Mardiyono, M., Songwathana, P., & Petpichetchian, W. (2021). Spiritual intervention and emotional responses among Muslim patients with chronic illnesses. *Nurse Media Journal of Nursing*, *11*(2), 144–156. https://doi.org/10.14710/nmjn.v11i2.36211

Musa, A. S., Pevalin, D. J., & Al Khalaileh, M. A. (2022). Spiritual wellbeing, depression, and stress among patients with chronic illnesses: A cross-sectional study. *BMC Nursing, 21*(1), 1–11. https://doi.org/10.1186/s12912-022-00813-7

O'Cathain, A., Murphy, E., & Nicholl, J. (2008). The quality of mixed methods studies in health services research. *Journal of Health Services Research & Policy*, *13*(2), 92–98. https://doi.org/10.1258/jhsrp.2007.007074

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing & Health, 30*(4), 459–467. https://doi.org/10.1002/nur.20199

Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.

Puchalski, C. M., Vitillo, R., Hull, S. K., & Reller, N. (2014). Improving the spiritual dimension of whole person care: Reaching national and international consensus. *Journal of Palliative Medicine, 17*(6), 642–656. https://doi.org/10.1089/jpm.2014.9427

Rahman, M. M., Yusuf, A., & Fitryasari, R. (2023). Islamic spiritual relaxation therapy and psychological wellbeing among hospitalized patients. *Belitung Nursing Journal, 9*(2), 134–142. https://doi.org/10.33546/bnj.2544

Ramezani, M., Ahmadi, F., Mohammadi, E., & Kazemnejad, A. (2014). Spiritual care in nursing: A concept analysis. *International Nursing Review, 61*(2), 211–219. https://doi.org/10.1111/inr.12099

Rassool, G. A. (2021). *Islamic counselling: An introduction to theory and practice* (2nd ed.). Routledge. https://doi.org/10.4324/9781003048348

Ross, L., McSherry, W., Giske, T., van Leeuwen, R., Schep-Akkerman, A., Koslander, T., & Jarvis, P. (2018). Nursing and midwifery students' perceptions of spirituality, spiritual care, and spiritual care competency: A prospective, longitudinal, correlational European study. *Nurse Education Today, 67*, 64–71. https://doi.org/10.1016/j.nedt.2018.05.002

Selman, L. E., Brighton, L. J., Sinclair, S., Karvinen, I., Egan, R., Speck, P., Powell, R. A., & Puchalski, C. (2018). Patients' and caregivers' needs, experiences, preferences and research priorities in spiritual care: A focus group study across nine countries. *Palliative Medicine, 32*(1), 216–230. https://doi.org/10.1177/0269216317734954

Timmins, F., & Caldeira, S. (2019). Understanding spirituality and spiritual care in nursing. *Nursing Standard, 34*(5), 69–74. https://doi.org/10.7748/ns.2019.e11249

Timmins, F., Caldeira, S., Murphy, M., & Neill, F. (2023). Spiritual care in nursing practice: An integrative review of recent evidence. *Journal of Clinical Nursing, 32*(13–14), 3281–3295. https://doi.org/10.1111/jocn.16452

Utami, S., Hidayati, N., & Yamin, A. (2022). The effect of murottal Al-Qur'an therapy on anxiety among hospitalized patients: A systematic review. *Belitung Nursing Journal, 8*(4), 287–295. https://doi.org/10.33546/bnj.2156

Wahyuni, E. D., Yusuf, A., & Fitryasari, R. (2023). Islamic spiritual intervention in nursing care: A literature review. *Journal of Holistic Nursing Science, 10*(1), 1–12. https://doi.org/10.31603/nursing.v10i1.10231

Watson, J. (2008a). *Nursing: The philosophy and science of caring* (Rev. ed.). University Press of Colorado.

Watson, J. (2008b). *Assessing and measuring caring in nursing and health sciences* (2nd ed.). Springer Publishing Company.

Wilson, L., & Kolcaba, K. (2004). Practical application of comfort theory in the perianesthesia setting. *Journal of PeriAnesthesia Nursing*, *19*(3), 164–173. https://doi.org/10.1016/j.jopan.2004.03.006

Wisuda, A. C., Sansuwito, T. bin, & Suraya, C. (2024). Impact of the ARIS Module (Anxiety and Depression Reduction through Islamic Spiritual Care) on Patients with Coronary Heart Disease. *Journal of Nursing Science Research*, *1*, 56–66. https://doi.org/https://doi.org/10.33862/jnsr.v1i2.503

World Health Organization. (2023). *Noncommunicable diseases*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

Xu, Z., Zhang, D., Xu, D., & Li, X. (2023). Psychological distress and quality of life among patients with chronic diseases: A systematic review. *Frontiers in Psychiatry*, *14*, Article 1182457. https://doi.org/10.3389/fpsyt.2023.1182457

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, *67*(6), 361–370. https://doi.org/10.1111/j.1600-0447.1983.tb09716.x