

Effectiveness of Spiritual-Based Interventions in Enhancing Quality of Life Among Breast Cancer Patients: A Systematic Review

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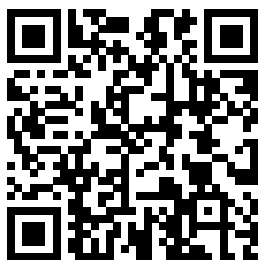
ABSTRACT

Breast cancer is the most prevalent cancer among women and significantly affects patients' quality of life. Beyond physical symptoms, patients often experience emotional and social burdens that deteriorate their overall well-being. While medical and psychosocial interventions are widely applied, spiritual aspects are often underemphasized. Therefore, spiritual-based interventions are needed to support recovery by fostering hope, emotional stability, and a sense of life meaning. To explore the effectiveness of spiritual-based interventions in improving the quality of life of breast cancer patients. This study employed a systematic review design. Articles were retrieved from three databases CINAHL, PubMed, and Scopus using the main keywords: "breast cancer," "quality of life," "spiritual care," and "spiritual intervention." Inclusion criteria were original research articles, written in English, published between 2011 and 2025, and involving breast cancer patients. Data were extracted using structured tables and analyzed descriptively using qualitative synthesis. Seven eligible studies demonstrated that spiritual-based interventions, such as prayer, group therapy, meditation, and religious counseling, positively affect the quality of life of breast cancer patients. Key outcomes included enhanced hope, reduced pain, improved emotional, physical, and social well-being, stronger spiritual resilience, better coping mechanisms, and increased social support through group-based activities. Spiritual-based interventions significantly improve the quality of life of breast cancer patients through a holistic approach, integrating physical, emotional, social, and spiritual dimensions.

Key Messages:

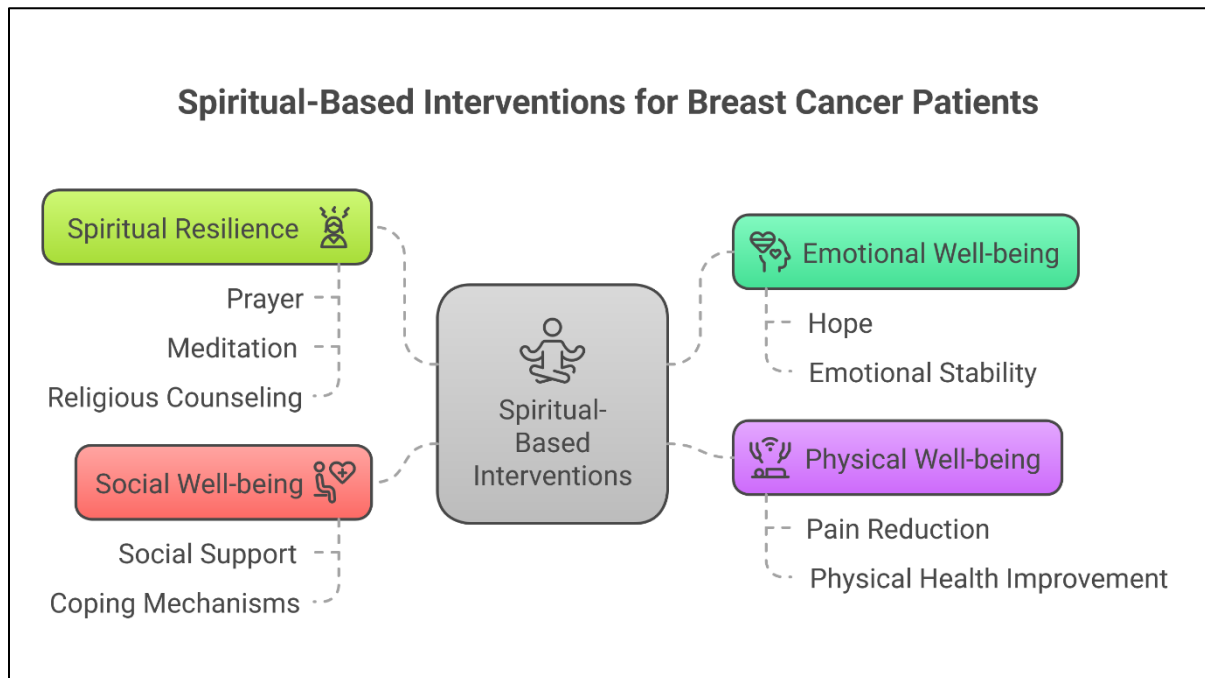
- Spiritual-based interventions significantly enhance the quality of life for breast cancer patients by addressing physical, emotional, social, and spiritual aspects.
- Integrating spiritual care into cancer treatment strengthens coping mechanisms and emotional well-being, offering a comprehensive support system for patients.
- Group-based spiritual therapy fosters social support and solidarity, helping to increase hope and improve overall well-being for breast cancer patients.

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INTRODUCTION

Breast cancer is a global health burden and remains the leading cause of morbidity and mortality among women. Based on GLOBOCAN data in 2020, breast cancer is listed as the most common type of cancer, with more than 2.3 million new cases each year, accounting for about 11.7% of all cancer cases (1). The death rate from this cancer is also relatively high, reaching 685,000 cases in the same year (2). In Indonesia, breast cancer is the type of cancer with the highest number of cases, which is about 16.6% of the total new cancer cases, with an incidence rate of 44 cases per 100,000 women (3).

Breast cancer has a significant impact on a patient's quality of life, spanning physical, emotional, social and spiritual aspects. Physically, patients often experience pain, fatigue, side effects from treatments such as chemotherapy and radiotherapy, and body changes due to mastectomy or other procedures that can affect self-image (2). From an emotional perspective, a breast cancer diagnosis often triggers anxiety, stress, and depression, especially related to uncertainty about prognosis and fear of recurrence. The social impact is no less significant, where patients often feel isolated or lose their role in their family and society due to limited activities or stigma related to the disease (4). In addition, the spiritual aspect is becoming increasingly relevant, as many patients seek meaning in life, hope, and strength through their spiritual or religious beliefs to face these challenges (5). Spiritually, many patients begin to confront existential questions, seek purpose and meaning in life, and turn to faith as a source of strength during illness (6).

Quality of life has become an important indicator in cancer patient care, as it reflects the overall well-being experienced by patients throughout the course of the disease and treatment. Beyond therapeutic outcomes, enhancing QoL is essential for holistic patient care. Studies suggest that higher QoL correlates with improved emotional resilience, better treatment adherence, and reduced stress. The focus on quality of life not only considers the clinical success of therapy, but also includes the physical, emotional, social, and spiritual dimensions that affect the patient's experience (6). Spiritual-based interventions refer to healthcare approaches that address patients' spiritual needs, helping them find meaning, inner peace, and connection amid adversity. Improved quality of life has a significant relationship with successful cancer management, as a good quality of life can provide physical, emotional and psychosocial support for patients in dealing with the course of the disease. In addition, an optimal quality of life plays an important role in reducing stress and anxiety levels, which are known to affect the body's immune response and

treatment effectiveness (7). Conversely, poor quality of life is often associated with high levels of fatigue, emotional distress, and social isolation, which may hinder therapeutic success and worsen prognosis (8).

Spiritually-based interventions in the context of health care refer to approaches designed to meet the spiritual needs of patients, helping them find meaning, purpose, and a sense of calm amid the challenges of illness (9). These interventions focus on the spiritual dimension involving beliefs, values, relationships with oneself, others, the universe, or a greater transcendental power. Spiritual-based interventions include prayer, which can provide calm and a sense of closeness to God, meditation, which helps patients manage stress and increase self-awareness, spiritual counseling, which provides a space for patients to explore existential and emotional issues, and religious practices such as reading scripture or attending worship services (10).

Spiritual-based interventions contribute significantly to improving patients' physical, mental, and emotional well-being through complex and interrelated mechanisms. Physically, spiritual practices such as meditation or prayer have been shown to lower levels of stress hormones, such as cortisol, and increase the body's relaxation response, thereby helping to reduce blood pressure, pain, and fatigue that are often experienced by cancer patients (11). Mentally, spiritual interventions help patients find meaning and purpose in life, which can reduce anxiety, depression, and uncertainty that arise from cancer diagnosis and treatment. Spiritual support also encourages patients to build hope and optimism, which indirectly increases their motivation to undergo treatment and maintain a healthy lifestyle (12). From an emotional perspective, spiritual practices provide a space for the expression of feelings, the strengthening of beliefs, and the formation of deeper relationships with oneself, others, or transcendental powers (13).

Previous literature has tended to be dominated by medical and psychosocial interventions, such as pharmacological treatment, radiation therapy, chemotherapy, and psychological and social support. While these approaches have been shown to be effective in addressing the physical and emotional aspects, the spiritual dimension of patients has often received less attention (14–16). The lack of exploration of spiritual-based interventions suggests a gap in the holistic approach that should be applied to address the complex impact of breast cancer. In fact, spiritual needs are often increased in patients with chronic diseases such as cancer, especially when they are facing major life changes, uncertainty about the future, and the search for meaning in life. Despite the documented importance of spirituality in coping with illness, most existing interventions in breast cancer care focus on medical and psychosocial domains... Therefore, this study aims to systematically review spiritual-based interventions in an effort to improve the quality of life of breast cancer patients.

METHODS

This study adopted a systematic review design to examine existing literature on spiritual-based interventions aimed at improving the quality of life of breast cancer patients (17). The design was selected because it allows for a comprehensive synthesis of research findings, helps identify gaps in the literature, and provides a solid conceptual basis for future studies. The review followed a structured and transparent process, which included the formulation of a research question, systematic article search, study selection based on inclusion and exclusion criteria, quality appraisal, structured data extraction, and descriptive analysis. To ensure transparency and reproducibility, the selection process was documented using a PRISMA flowchart (Figure 1).

Search Strategy and Inclusion Criteria

A literature search was conducted from January 2011 to April 2025 across three major databases: Scopus, PubMed, and CINAHL. These databases were chosen because of their wide coverage of publications in the fields of health and nursing. The search strategy applied Boolean operators and MeSH terms, using the combination: "breast cancer" AND ("spiritual intervention" OR "spiritual care") AND "quality of life". The search syntax was adapted to each database's system to maximize relevant results. The review was guided by the research question: "How does spiritual-based intervention affect the quality of life of breast cancer patients?" Inclusion and exclusion criteria were developed using the PICO framework, where the Population (P) was breast cancer patients, the Intervention (I) was spiritual-based intervention, there was no Comparison (C), and the Outcome (O) was improved quality of life. Articles were included if they were

original studies written in English, published between 2011 and 2025, involved breast cancer patients, and explicitly evaluated spiritual-based interventions and their impact on quality of life. Articles were excluded if they were literature reviews, only available in abstract form, lacked full-text access, or did not specifically address spiritual-based interventions.

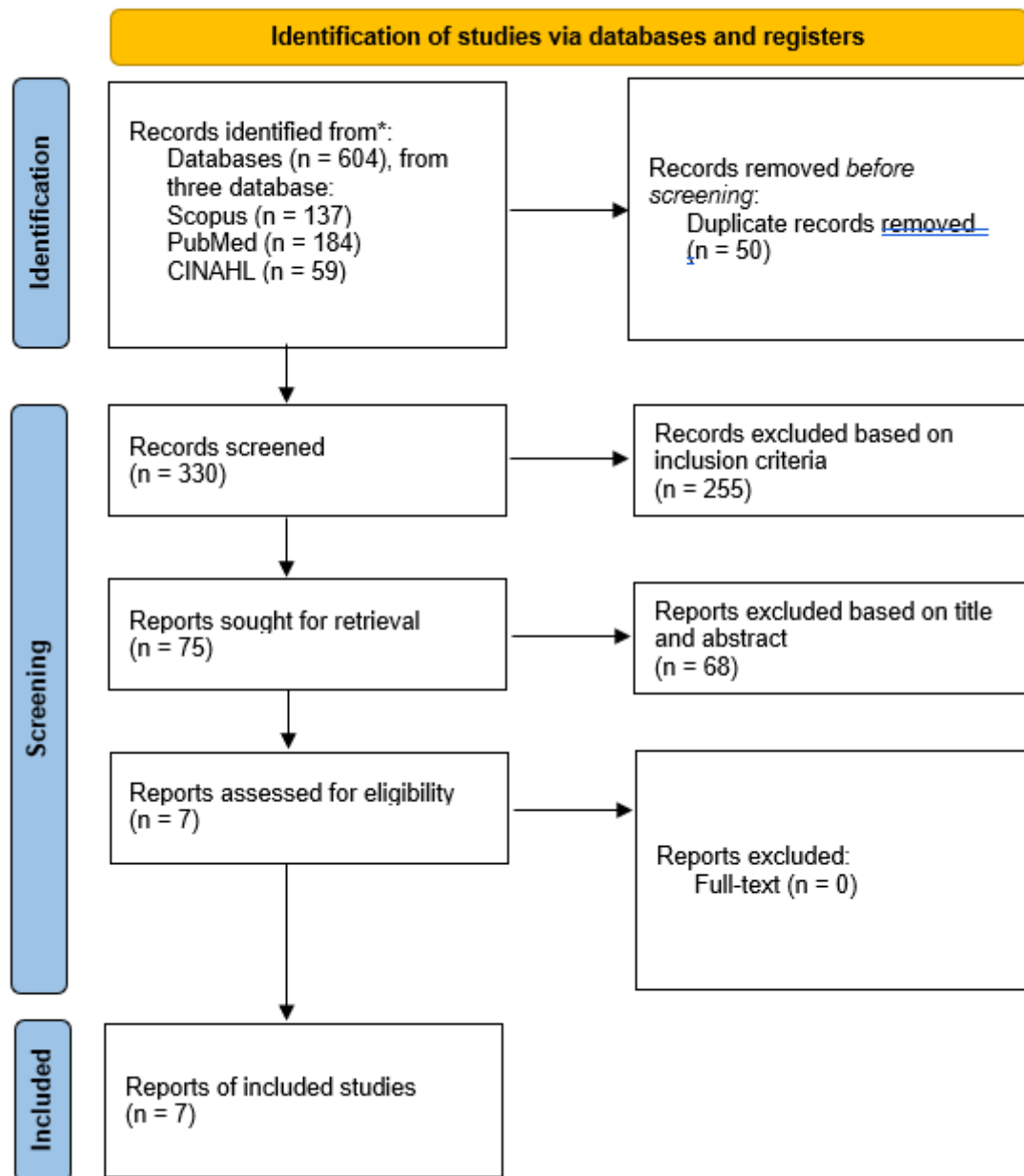


Figure 1. PRISMA Flow Diagram

Quality Appraisal

The quality of the selected articles was assessed using appraisal tools developed by the Joanna Briggs Institute (JBI). For randomized controlled trials (RCTs), a 13-item checklist was used, and for quasi-experimental studies, a 9-item checklist was applied. Each item was rated as "Yes" (score = 1), "No," "Unclear," or "Not Applicable" (score = 0). An article was considered of good quality if it achieved a score of at least 70%. Two reviewers independently conducted the quality assessments. Any disagreements were resolved through discussion, and if necessary, a third reviewer with expertise in systematic reviews was consulted to reach consensus and maintain the validity of the review.

Data Extraction

Data extraction was carried out manually using a standardized extraction form to ensure consistency and completeness. The data collected included the author's name and year of publication, study objective, research design, sample size and characteristics, study location, the type of spiritual-based intervention applied, and the key findings related to quality of life. The extraction was performed independently by two reviewers. In the event of discrepancies, discussions were held, and if needed, a third reviewer was involved to reach agreement. This process was intended to minimize bias and ensure the integrity of the data.

Data analysis

The data analysis was conducted using thematic analysis through an inductive approach, allowing themes to emerge naturally from the data. Information was grouped based on recurring themes such as types of interventions, targeted quality of life dimensions (physical, emotional, social, and spiritual), and the effectiveness of each intervention. Two reviewers independently coded and categorized the themes. Disagreements were discussed and resolved, and when necessary, a third reviewer was involved to ensure the reliability and validity of the analysis. Although no software was used in the process, coding was done manually and checked for consistency. The results of this analysis were presented in narrative form, supported by tables where appropriate, to capture the impact of spiritual-based interventions on the quality of life of breast cancer patients in a comprehensive and accessible manner.

RESULTS

The initial search across the three databases—Scopus, PubMed, and CINAHL—yielded a total of 604 articles. Using Mendeley reference management software, 50 duplicate entries were removed. Subsequent screening based on the inclusion criteria excluded 255 articles. The remaining articles were further evaluated by reading their titles and abstracts, resulting in the exclusion of another 67 articles that did not align with the study objectives. After a full-text review, seven articles were identified as relevant and included in this systematic review. All included articles underwent quality appraisal using the Joanna Briggs Institute (JBI) assessment tool, and each received a score above 75%, indicating high methodological quality.

These seven studies, summarized in Table 1, were conducted in Iran and varied in design, including randomized clinical trials, controlled clinical trials, and quasi-experimental studies. Interventions ranged from group spiritual therapy and religious counseling to combined cognitive-behavioral and spiritual approaches. Most interventions were delivered in multiple sessions and incorporated components such as prayer, meditation, spiritual discussions, and reflections on life meaning. All studies reported positive outcomes related to quality of life and its associated domains.

Table 1. Data Extraction

No	Reference	Objective	Country	Design	JBI Score	Sample	Intervention	Results
1.	(18)	Determining the effects of a spiritually based care model on increasing patient hope.	Iran	Controlled clinical trials	84,6% (11/13)	72 breast cancer patients, aged 18-65 years (mean: 48.2 years)	6 sessions of spiritual-based care model. Each session is 1 hour long, involving education and spiritual support to patients and caregivers, conducted by trained nurses.	The increase in mean hope scores was significant in the intervention group compared to the control ($p < 0.05$).
2.	(19)	Determining the effect of spiritual care on	Iran	Clinical trials	84,6% (11/13)	50 patients with chronic	10 group spiritual therapy sessions, each	Significant reduction in pain intensity

No	Referen ce	Objective	Country	Design	JB1 Score	Sample	Intervention	Results
		pain in breast cancer patients				pain, aged 30-55 years	60 minutes long, including spiritual reflection, group discussion, and communal prayer, led by a clinical psychologist.	and its impact on daily life after intervention ($p < 0.001$).
3.	(20)	Assessing group spiritual therapy on quality of life and empowerment of breast cancer patients	Iran	Randomized clinical trial	84,6% (11/13)	74 breast cancer patients, aged 18-60 years	5 group spiritual therapy sessions, each lasting 1 hour, including discussions of spiritual values, reading of religious texts, and collective prayer, conducted by a spiritual expert.	Significant improvement in quality of life ($p < 0.05$), but no significant difference in empowerment ($p = 0.62$).
4.	(11)	Assessing spiritual therapy on the quality of life of breast cancer patients	Iran	Controlled clinical trials	76,9% (10/13)	65 breast cancer patients, aged 35-65 years	6 sessions of spiritual therapy based on a religious approach, each session lasts 90 minutes. Activities include group prayer, meditation, and reflection, facilitated by a spiritual counselor.	Significant improvement in global quality of life ($p < 0.001$).
5.	(21)	Determining the effectiveness of group spiritual therapy on quality of life and spirituality	Iran	Quasi-experimental	77,8% (7/9)	24 breast cancer patients, aged 40-60 years	12 sessions of group spiritual therapy, each session lasting 1 hour. Focusing on strengthening faith and exploring the meaning of life, facilitated by psychologists and counselors.	Significant improvement in quality of life and spirituality of the intervention group compared to control ($p < 0.05$).
6.	(22)	Evaluating CBT and spiritual-religious interventions on improving coping and	Iran	Quasi-experimental	77,8% (7/9)	45 breast cancer patients, aged 30-65 years	8 sessions of CBT or spiritual therapy, each session lasting 90 minutes. Activities include coping	Both interventions (CBT and spiritual) improved quality of life and

No	Referen ce	Objective	Country	Design	JB1 Score	Sample	Intervention	Results
		quality of life					training, meditation, and spiritual discussions, conducted by a clinical psychologist.	coping compared to control ($p < 0.01$).
7.	(23)	To evaluate the impact of spiritual interventio n on spiritual well-being and quality of life (QOL) of breast cancer patients.	Iran	Controlled clinical trials	76,9% (10/13)	96 patients were followed, with 65 completi ng 6 intervent ion sessions. Patients consisted of women with a mean age of 47.9- 48.1 years who were mostly married and Muslim.	Six spiritual therapy sessions (weekly) that include discussions on the meaning of life, inner conflict, relaxation, meditation, and spiritual strengthening. Also accompanied by manual materials and CD-ROM.	- Spiritual well-being scores increased significantly (from 29.76 to 37.24, $p < 0.001$). - All FACIT-Sp 12 subscales (meaning, peace, faith) showed significant improvement. - Quality of life (EORTC QLQ-C30) showed improvement on all functional scales.

Thematic analysis revealed six dominant themes: raising hope, pain reduction, better quality of life, spiritual well-being, coping and patient empowerment, and social and emotional support. These themes are discussed as follows:

Raising Hope

Two studies highlighted that spiritually-based care models and group spiritual therapy significantly increased hope among breast cancer patients (11,18). One study reported a notable improvement in mean hope scores from 40.4 to 46.7 ($p < 0.05$) after six sessions of spiritual education facilitated by nurses. Additionally, an improvement in global quality of life by 24.26 points ($p < 0.001$) underscored the emotional and psychological benefit of such interventions.

Pain Reduction

Spiritual therapy was found to significantly reduce pain intensity and its psychological burden. In one study Jahanizade et al., (2018), patients participating in 10 sessions of group spiritual therapy including prayer and reflection experienced a decrease in pain score from 7.3 to 5.1 ($p = 0.004$), alongside improvements in daily functioning and reduced emotional stress ($p < 0.001$).

Better Quality of Life

Four studies consistently demonstrated that spiritual interventions improved patients' quality of life (21–24). Increases were observed in both global and domain-specific measures (emotional, physical, and social). For example, quality of life scores improved from an average of 62.5 to 70.2 ($p < 0.05$) after 12 sessions of spiritual therapy involving meditation, scripture reading, and discussion.

Spiritual Well-being

Spiritual well-being significantly improved following spiritual interventions. One study reported an increase in scores from 29.8 to 37.2 ($p < 0.001$) (11). These interventions incorporated personal and

group sessions focused on enhancing spiritual connection through practices such as reflection, meditation, and prayer.

Coping and Patient Empowerment

Combined spiritual and cognitive-behavioral therapy interventions were found to improve coping mechanisms and patient empowerment (25). In one study, the CRI (Coping Responses Inventory) score increased from 5.8 to 7.6 ($p < 0.01$), indicating better psychological resilience and emotional regulation in the face of illness.

Social and Emotional Support

Group-based interventions fostered social support, significantly reducing feelings of isolation. Studies reported a 15% increase in social well-being scores ($p < 0.01$) as patients shared their experiences and built solidarity through structured group sessions (21).

These findings are summarized in Table 2, which maps each theme to the supporting studies and highlights key evidence.

Table 2. Research Findings

Theme	Reference	Explanation
Raising Hope	(11,18)	Spiritual-based care models and group spiritual therapy have been shown to be effective in increasing the hope of breast cancer patients through spiritual education and emotional support approaches.
Pain Reduction	(19)	Group spiritual therapy can reduce the intensity of pain and its impact on patients' daily lives through spiritual reflection and group support.
Better Quality of Life	(21–24)	Spirituality-based interventions, including group therapy and CBT, improve patients' quality of life with a holistic approach encompassing emotional, physical, and spiritual aspects.
Spiritual Well-being	(21,23)	Spiritual activities such as meditation, group prayer, and reflection on the meaning of life significantly improve patients' spiritual well-being.
Coping and Patient Empowerment	(22,24)	Interventions such as CBT and spiritual therapy help patients develop better coping mechanisms and increase their sense of self-confidence and empowerment.
Social and Emotional Support	(11,21)	Group spiritual therapy provides social and emotional support through group interaction, which helps reduce feelings of loneliness and boosts patient morale.

DISCUSSION

Hope plays a crucial role in the recovery process of breast cancer patients, acting as a psychological booster that helps them navigate the physical, emotional, and social challenges of the disease. Previous studies have shown that spiritual activities, such as group prayer and reflection on the meaning of life, provide essential emotional support and reduce the uncertainty often experienced by cancer patients (26). The studies included in this review confirm these findings, where spiritual interventions provide a psychological boost that strengthens hope and helps patients maintain a positive outlook toward their future (27). Specifically, meaning-centered therapy and guided reflection have proven effective in addressing existential concerns, thereby reducing anxiety and enhancing optimism for the future (28,29). These spiritual approaches not only foster a stronger sense of control over their condition but also contribute to a sense of purpose, which is vital for emotional well-being in the face of cancer (30). Moreover, the consistency of the findings across different study designs—whether randomized controlled trials (RCTs) or quasi-experimental studies—suggests that these results are robust. While RCTs offer stronger evidence through controlled comparisons, quasi-experimental designs provide insights into real-world application and further strengthen the validity of these interventions in diverse settings.

Pain is one of the most frequently reported clinical symptoms by breast cancer patients, both during and after treatment. This symptom not only affects physical functioning but also has profound emotional and psychological implications, ultimately reducing overall quality of life. In this context, spiritual

interventions have shown efficacy as non-pharmacological approaches for reducing pain perception. Studies indicate that spiritual reflection and communal prayer can create a sense of calm, alleviate anxiety, and shift patients' focus from pain, thereby lowering pain intensity (31). These spiritual practices help patients create an inner peace that reduces their perception of pain. Additionally, other studies have found that spiritual approaches can strengthen coping mechanisms for chronic pain, giving patients a more constructive and adaptive way to deal with physical discomfort (32).

In addition to pain, other physical symptoms such as fatigue and low energy are major challenges faced by breast cancer patients, especially during chemotherapy, radiotherapy, or hormonal treatments. These conditions significantly disrupt daily activities and reduce patient confidence and productivity. Several studies have shown that spiritual interventions, including self-reflection, meditation, and spiritual group discussions, can contribute to improving physical quality of life. Ream *et al.*, (2020) reported a significant improvement in patients' physical quality of life scores, from an average of 62.5 to 70.2 ($p < 0.05$) after undergoing spiritual intervention. The primary mechanism of this effect is the reduction of stress levels and the increased sense of meaning in life, which indirectly strengthens the immune system and reduces the psychological burden caused by physical symptoms. Spirituality also helps patients reframe their physical condition more positively, thus supporting energy levels and the ability to engage in daily activities (33). Therefore, spiritual interventions not only impact the emotional realm but also have a tangible therapeutic effect on the physical dimension of breast cancer patients' quality of life.

The emotional dimension is a key aspect affecting the quality of life of breast cancer patients. Emotional states such as anxiety, depression, and deep-seated fear can significantly reduce quality of life and hinder social interactions. Spiritual-based interventions have been shown to be effective in reducing these psychological symptoms (34). Several studies found that spiritual activities, such as meditation, reflection on life values, and meaning-centered therapy, significantly reduced levels of anxiety and depression in cancer patients (35,36). A spiritual approach allows patients to develop a more positive outlook on their suffering, helping them face life's uncertainties with a greater sense of peace and acceptance. Spiritual-based therapy also plays a crucial role in providing emotional support, particularly by helping patients discover deeper meaning in life and reconcile existential fears. Furthermore, spiritual practices such as prayer and meditation have been shown to reduce physiological stress responses, including lowering blood pressure and stress hormone levels, thereby contributing to emotional stability and overall psychological balance (37). These findings confirm that integrating the spiritual dimension into cancer care not only strengthens the spiritual aspect but also serves as an effective therapeutic approach in balancing the emotional health of patients.

The social dimension is another important factor in the quality of life of cancer patients, as positive social interactions can help reduce loneliness and increase feelings of connectedness. Group spiritual therapy significantly reduced feelings of loneliness among patients and increased their social relationships by up to 15% (38). Social support serves as a buffer against psychological stress, particularly in challenging situations such as a cancer diagnosis. Group therapy not only provides emotional support but also creates a sense of solidarity, helping patients feel less isolated in their journey (39). Spiritual activities such as group prayer, meditation, and reflection on the meaning of life play a vital role in supporting the recovery process of cancer patients, particularly in the emotional and psychological aspects. Spiritual approaches help patients rediscover the meaning of their lives, which significantly improves spiritual well-being and emotional stability (5). Meaning-centered therapy can provide a sense of purpose and peace to patients with terminal illness. Moreover, spiritual activities help reduce stress, anxiety, and existential fear, which are commonly experienced by cancer patients (40).

Finally, spiritual therapy not only helps patients develop better coping mechanisms but also significantly increases their self-confidence and empowerment. Patients who underwent spiritual therapy experienced a significant increase in their ability to cope with stress and life challenges, as reflected by an increase in their Coping Responses Inventory (CRI) score from 5.8 to 7.6 ($p < 0.01$) (41). Spirituality strengthens feelings of self-control, allowing patients to be more confident in their treatment. Additionally, spiritual therapy provides a space for patients to explore their life purpose, which contributes to more proactive and informed decision-making regarding disease management (42). This empowerment not only

improves patients' quality of life but also helps them approach treatment with a more positive and optimistic attitude (43).

The social support and solidarity cultivated in group therapy are essential in enhancing the morale and quality of life for cancer patients. This support acts as a buffer, alleviating the emotional strain and stress faced by individuals battling chronic illnesses (44). Moreover, the solidarity that forms among patients within the group not only fosters a sense of connection but also allows them to draw strength from each other's experiences and stories. Guided by a therapy facilitator, the group becomes a safe space for sharing emotions, confronting fears, and nurturing hope. This solidarity fosters collective motivation, which, in turn, enhances the overall optimism and quality of life for patients (43).

CONCLUSION

This systematic review examined seven research studies that assessed the impact of spiritual therapy on cancer patients, with a particular focus on those with breast cancer. The analysis revealed six key themes: increased hope, pain relief, improved quality of life across physical, emotional, and social aspects, spiritual well-being, patient coping and empowerment, and social support through group therapy. The findings indicated that spiritual therapy, including activities such as group prayer, reflection on life values, and group discussions, significantly enhanced patient hope ($p < 0.05$), reduced pain intensity ($p = 0.004$), and improved overall quality of life across physical, emotional, and social dimensions ($p < 0.05$). Additionally, the therapy strengthened spiritual well-being and increased patients' confidence in managing their illness.

In nursing practice, nurses are well-positioned to integrate or facilitate spiritual care as an essential component of holistic cancer care. Nurses can facilitate activities such as group prayer or life-value reflection, offering emotional support to help patients feel accompanied throughout their journey. Providing training programs for nurses focused on spiritual care approaches is crucial to enhancing their ability to deliver culturally sensitive, compassionate, and value-based care.

Moreover, further research is needed to develop and evaluate spiritual therapy models that align with local cultural beliefs and practices. Future studies should explore the effectiveness of specific spiritual interventions, possibly comparing different types of spiritual therapies head-to-head, to identify which approaches best enhance the quality of life for breast cancer patients in diverse cultural settings.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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