DEVELOPMENT AND VALIDATION OF SPIRITUAL CARE MODULE FOR BREAST CANCER WOMEN UNDERGOING CHEMOTHERAPY

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DEVELOPMENT AND VALIDATION OF SPIRITUAL CARE MODULE FOR BREAST CANCER WOMEN UNDERGOING CHEMOTHERAPY

by

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LIST OF ABBREVIATIONS

BC	:	Breast Cancer
SC	:	Spiritual Care
SN	:	Spiritual Needs
SNS	:	Spiritual Needs Scale
QoL	:	Quality of Life
USM	:	Universiti Sains Malaysia
HBM	:	Health Belief Model

LIST OF APPENDICES

PEMBANGUNAN DAN VALIDASI MODUL PENJAGAAN SPIRITUAL UNTUK WANITA KANSER PAYUDARA YANG MENJALANI KEMOTERAPI

ABSTRAK

Jururawat memainkan peranan penting sebagai penjaga untuk pesakit kanser, dan memberikan penjagaan spiritual (SC) telah menjadi sebahagian daripada tanggungjawab mereka. Walaupun begitu, keperluan spiritual (SN) pesakit kanser sering diabaikan dalam amalan klinikal. Wanita dengan kanser payudara (BC), tanpa mengira peringkat penyakit, mempunyai SN yang penting dan pelbagai. Kajian ini bertujuan untuk membangun dan mengesahkan modul SC untuk wanita dengan BC yang menjalani kemoterapi. Kajian ini terdiri daripada Fasa1, 2, dan 3. Fasa 1 adalah reka bentuk keratan rentas yang dijalankan di Guangxi Medical University Cancer Hospital di China dari Disember 2022 hingga April 2023. SN dinilai menggunakan Skala Keperluan Spiritual (SNS). 173 wanita dengan BC yang sedang menjalani kemoterapi telah direkrut dalam fasa ini menggunakan persampelan purposif. SPSS 27.0 digunakan untuk analisis statistik dan data dianalisis menggunakan statistik deskriptif. Fasa 2 adalah mereka dan membangun e-modul *Healing Light* berdasarkan SN utama dari Fasa 1 dan sorotan literatur. Fasa 3 adalah pengesahan kandungan menggunakan kaedah *Fuzzy Delphi* dengan lapan pakar daripada perubatan, kejururawatan, pendidikan, dan SC. Keputusan Fasa 1 menunjukkan tahap SN yang tinggi dalam kalangan wanita dengan BC yang menjalani kemoterapi (84.20 ± 12.86). Tiga SN utama yang dikenal pasti ialah "harapan dan kedamaian", "makna dan tujuan", dan "penerimaan kematian". Untuk Fasa 2, *Healing Light* yang dibangunkan terdiri daripada pengenalan kepada BC dan spiritualiti, memupuk harapan dan mencapai

kedamaian batin, mencari makna dan tujuan dalam kehidupan, menerima masa kini dan memandang ke hadapan, dan maklumat sokongan. Keputusan fasa 3 pengesahan kandungan menunjukkan bahawa kandungan *Healing Light* telah mendapat konsensus pakar dengan nilai melebihi 75%, nilai ambang (d) ≤ 0.2, dan skor *fuzzy* (A) ≥ α - nilai potong = 0.5. Kesimpulannya, kajian ini membangunkan dan mengesahkan e-modul SC, *Healing Light* yang disesuaikan dengan konteks budaya Cina. *Healing Light* ini akan berfungsi sebagai rujukan dan asas penting untuk mewujudkan intervensi psikologi yang berkesan untuk wanita dengan BC yang menerima kemoterapi. Selain itu, ia menyediakan jururawat dengan alat yang berharga untuk menyampaikan SC dan memperkasakan wanita dengan BC untuk menguruskan kerohanian mereka, seterusnya meningkatkan kesihatan spiritual dan kualiti hidup (QoL) mereka.

DEVELOPMENT AND VALIDATION OF SPIRITUAL CARE MODULE FOR BREAST CANCER WOMEN UNDERGOING CHEMOTHERAPY

ABSTRACT

Nurses play a crucial role as caregivers for cancer patients, and providing spiritual care (SC) has become an integral part of their responsibilities. Despite this, the spiritual needs (SN) of cancer patients are often overlooked in clinical practice. Breast cancer (BC) women, regardless of the disease stage, have diverse and significant SN. This study aims to develop and validate a SC module for BC women undergoing chemotherapy. This study consisted of Phase 1, 2, and 3. Phase 1 was a cross-sectional design done in the Guangxi Medical University Cancer Hospital in China from December 2022 to April 2023. SN was assessed using the Spiritual Needs Scale (SNS). 173 BC chemotherapy women were recruited using purposive sampling included in this phase. SPSS 27.0 was used for statistical analyses, and the data were analysed using descriptive statistics. Phase 2 was designing and developing an e-module, the "*Healing Light*" based on the key SN of Phase 1 and the literature review. Phase 3 was the content validation using a *Fuzzy Delphi* method with eight experts from medical, nursing, educational, and SC. The results of Phase 1 showed a high level of SN among BC women undergoing chemotherapy (84.20 ± 12.86). Three main SN identified were "hope and peace", "meaning and purpose", and "acceptance of dying". For Phase 2, the developed SC e-module *Healing Light* consists of an introduction to BC and spirituality, cultivating hope and achieving inner peace, finding meaning and purpose in life, accepting the present and looking forward, and supportive information. Phase 3 results of the content validation showed that the content of *Healing Light* had gained expert consensus with a value above 75%, the threshold value (d) ≤ 0.2, and

the fuzzy score (A) ≥ α – cut-off value = 0.5. In conclusion, this study developed and validated an SC e-module, *Healing Light* tailored to the Chinese cultural context. *Healing Light* will serve as a crucial reference and foundation for creating effective psychological interventions for BC women receiving chemotherapy. Additionally, it provides nurses with a valuable tool to deliver SC and empowers BC women to manage their spirituality, thus enhancing their spiritual health and quality of life (QoL).

CHAPTER 1

INTRODUCTION

1.1 Introduction to the Chapter

This study is about developing a spiritual care (SC) module. This chapter starts with the background of the study, problem statement, research questions, research objectives (general and specific), and scope of the study. Finally, the significance of the study and the definition of key terms used in this study are described.

1.2 Background of the Study

According to GLOBOCAN 2020 global cancer statistics, there were nearly 2.3 million new cases of breast cancer (BC) in 2020, accounting for 24.5% of female cancer cases. BC is the most common cancer, with the highest incidence and mortality of female cancers ($47.8/10^5$ and $13.6/10^5$, respectively) (Cao & Chen, 2021).

The number of new cases of BC in Chinese women was 416,000, accounting for 19.9% of female cancer cases, ranking first among female cancers. Although the incidence rate ($39.1/10^5$) and mortality rate ($10/10^5$) of BC in Chinese women are lower than the world average, they are both on the rise. In addition, the average age at which Chinese women are diagnosed with BC is 45-55 years old, younger than Western women (Liu et al., 2021). The situation of BC in China is bleak.

With the continuous development of medical technology, the 5-year survival rate of BC has been significantly improved (Chen et al., 2018). At present, surgery and chemotherapy are still the most important methods for BC treatment. Patients undergoing chemotherapy could develop an inferiority complex due to their image changes, resulting in excessive mental burden. In addition, the long cycle of chemotherapy and the side effects of drugs caused great harm to the physical and

spiritual health of BC patients, thus affecting the quality of life (QoL) (Licaj et al., 2023; Santos et al., 2023; Veiga-Seijo et al., 2023). Heidary et al. (2023) pointed out that improving the QoL of BC patients is an essential goal of BC treatment.

Before the 19th century, the use of the word spirituality was mainly concentrated in the religious field. With the continuous development of modern spirituality, spirituality gradually became an independent system. Spirituality and religion have a close relationship and are different. Dike et al. (2022) believed that there is an overlap between religion and spirituality, and they are both related to resilience, meaning-making, and hope. Hill et al. (2003) defined religion as a fixed system of ideas or ideological commitments that fail to represent the dynamic personal element in human piety. Spirituality is the search for ultimate meaning through religious or other paths (Puchalski et al., 2009). Henning et al. (2021) considered "spirituality" to refer to practices that aim to positively transform our experience of the world and ourselves within it, and they also thought spirituality was independent of institutionalised religion, although there were touchpoints. The results of a scoping review indicated that spirituality in Chinese culture is abstract and personalised and can include the inner life force, experiences of suffering, and traditional Chinese cultural and religious values (Niu et al., 2022). Religion is a way to seek spirituality.

Though religion and spirituality talk of faith, principles, and cosmic learning, there is a difference if we ponder in depth (Agarwal et al., 2020). It is everyone's general tendency to think that spirituality means godliness. However, spirituality is not godliness, but godliness can be justified as a chapter in spirituality (Deshpande et al., 2016), as shown in Figure 1.1. Spirituality is more inclusive in clinical practice than religion (Cook, 2015). Spirituality is broader and includes social work, literature, education, psychology, art, and so on (Wu, 2015).

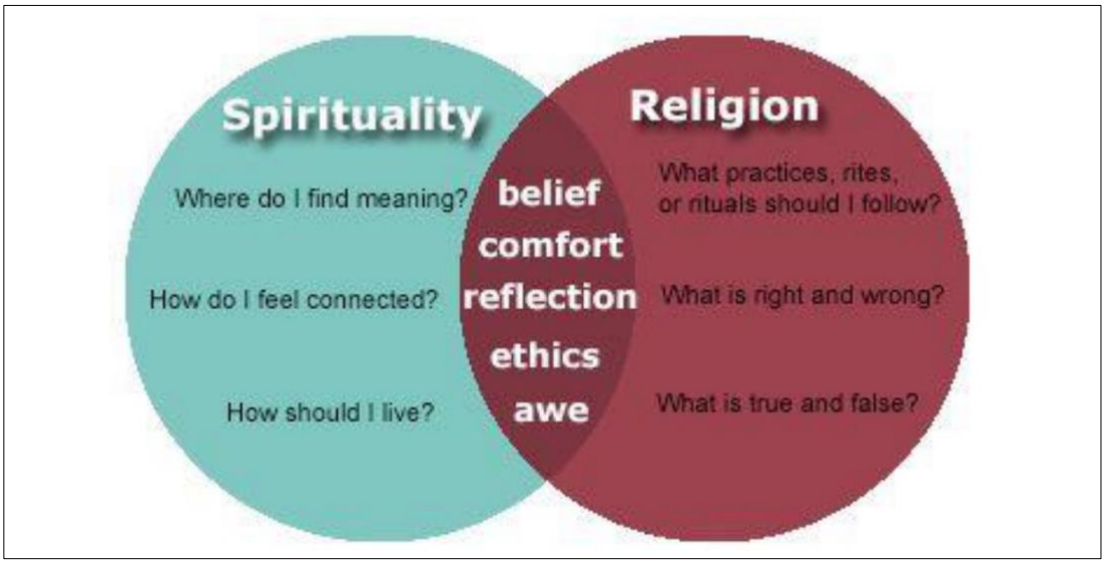

Figure 1.1 Spirituality and Religion: Similarities and differences.

Source from: Deshpande, A. A., Deshpande, A. and Joshi, S. (2016) E-learning as A Tool in Bridging the Gap between Engineering and Spiritual Learning, The Thirteenth International Conference on eLearning for Knowledge-Based Society, PP. 15-16. Fig 1.1, page 3 of 7. (Picture permission obtained from Akhil Deshpande)

Not everyone is religious, but everyone who seeks ultimate or transcendental meaning can be said to be spiritual (Wixwat & Saucier, 2021). Notably, the spirituality is available to any human being, and the principles and methods of spiritual intervention are applicable regardless of religious background or any other distinctions (Henning & Henning, 2021; Pan, 2007). Spirituality is a quality closely related to human health and personal identity, including one's experience of connection with self, others, and the supreme or nature, awareness of the meaning of life, and transcendence from one's daily life and suffering (Xing et al., 2018). When patients achieve their personal life meaning, purpose, and value, they will feel happy and improve their spiritual health (Kissane et al., 2023). Spiritual health should be emphasised and improved as an essential factor in improving the QoL of cancer patients (Mohebbifar et al., 2015).

Regardless of cancer staging, these patients have spiritual needs (SN) in different forms and degrees, especially BC patients who have been physically and

mentally affected by cancer and its treatment (Riklikienė et al., 2020). SC is a purposeful interaction between nurse and patients, providing care or activities that are in line with the individual's culture and beliefs, based on an assessment of the individual's SN/concerns through listening, accompanying, or discussing the meaning and value of life with the patient (Wei et al., 2018), and then help patients seek the meaning of life, establish positive values, achieve inner peace, transcend their suffering, and improve their QoL, ultimately achieving biopsychosocial-spiritual nursing unity (Wang et al., 2021).

Nurses are the primary caregivers for cancer patients, and SC has become part of their work. However, the SN of cancer patients is often overlooked in clinical practice, with only 19.8% of patients reporting that they have received supportive SC from healthcare providers (Palmer Kelly et al., 2021). Nurses should identify and meet patients' SN and implement measures to improve their spiritual health and QoL.

Western countries are relatively mature in spirituality research, and there are many SC methods, such as logotherapy, life review, dignity therapy, meditation, and mindfulness-based stress reduction; each method has its strengths and limitations. The positive role of SC in improving the spiritual health and QoL of cancer patients has been proven (de Diego-Cordero et al., 2022; Xing et al., 2018). Due to the significant cultural differences between China and the West, SC in China started late and developed slowly. There have been few studies on spiritual interventions related to BC. Therefore, considering the lack of research evidence in China, this study aimed to develop an SC module based on SN assessment and validate the module developed through the Fuzzy Delphi method.

1.3 Problem Statement

The disease itself and treatment bring pain to BC patients, and they are prone to negative emotions such as anxiety and depression, which affect QoL and even produce suicide crises. Therefore, SN such as self-worth, intimacy, and trust emerge during this process. Some studies showed that cancer patients are at high levels of SN (Dong et al., 2021; Shi et al., 2019). In China, nurses are the primary caregivers. Studies showed that cancer patients' SN are often ignored in clinical treatment, and the vast majority of patients believe that medical staff should consider patients' SN as part of their cancer treatment and expect to receive SC from medical staff (Balboni et al., 2013; Moosavi et al., 2019).

Affected by different religious habits and cultural backgrounds, SN and SC differ between Chinese and Western patients (Shi et al., 2019; Vilalta et al., 2014). The development and implementation of SC should based on an accurate assessment of patients' SN (Zhang et al., 2018). Problems can be identified by fully understanding the SN of the patients and then providing rational SC based on the actual SN. Therefore, understanding the SN of BC patients is an essential prerequisite for the implementation of SC (Wu et al., 2015).

The positive role of SC in improving the spiritual health and QoL of cancer patients has been proven (de Diego-Cordero et al., 2022; Xing et al., 2018). Spiritual care can help BC women achieve inner peace and feel closer to God (Komariah et al., 2020) while effectively increasing hope (Khezri et al., 2022) and improving spiritual well-being (Komariah et al., 2020). Spiritual care improves BC patients' coping ability with cancer and QoL by reframing illness perceptions and building inner strength (Davari et al., 2022).

A literature review showed that compared with the SN of cancer patients in Western countries, the SN of cancer patients in China had similar connotations, and the main difference was in religious needs (Cheng et al., 2016). Only 10% of people in China claimed to have a religious affiliation, according to the result of the 2012 China Family Panel Studies. Buddhism remains the most influential religion in China, with 6.75% of respondents identifying themselves as Buddhist, almost double the number of adherents of all other religions combined (Lu, 2014). Even so, religion has its value. For example, a study in China provided places of prayer and worship for religious patients and encouraged religious groups and pastoral personnel to visit patients once a week to help them achieve spiritual enlightenment (Zhang et al., 2018).

In Guangxi Medical University Cancer Hospital, Chen et al. (2023) found that advanced colorectal cancer patients tended to adopt positive spiritual coping styles. The spiritual well-being of cervical cancer patients increases with self-esteem and social support (Chen et al., 2022). In SC practices, Li et al. (2020) implemented a 12-week creative storytelling therapy in which nurses showed pictures to cancer patients and guided them to create stories and draw them, which were eventually shared among group members. Zhang et al. (2024) implemented a 3-month mindfulness meditation intervention based on Traditional Chinese Medicine theory (Shaoyang as the pivot), in which nurses instructed BC patients undergoing chemotherapy to practice mindfulness meditation in groups and to create a practice diary. In addition, Tan et al. (2023) combined music with the five elements by listening to half an hour of music twice a day, choosing Shang-toned music in the morning that relieves mental depression and Fe-toned music in the evening that promotes sleep.

The application of SC varies across institutions; for example, regular counselling with patients by clinical psychotherapists, death education and life reviews,

providing a communication platform for patients of the same religion, listening to music, reading, and helping patients find meaning in life through interviews (Cui et al., 2014; Gao et al., 2017; Zhang et al., 2018). The standardized practices of SC are still developing.

Most of the relevant literature investigates the impact of demographic factors on nursing staff's SC implementation ability, and there are few studies on SC intervention (Jiang & Fang, 2022). At the same time, the studies on SC in China mainly focus on critically ill patients with advanced cancer or dying patients (Ning et al., 2018; Wang & Wang, 2018; Ye et al., 2021), but there is less research on BC. Due to the lack of research evidence in this area in China and the differences between Chinese and Western religious and cultural backgrounds, it is necessary to develop and validate the SC module within the Chinese cultural background by referring to the existing research on SC and the characteristics of BC patients in China (Wang et al., 2021).

This study can provide a reference and basis for formulating more reasonable and effective spiritual interventions for BC women undergoing chemotherapy per Chinese cultural background in the future.

1.4 Research Questions

i. What are the spiritual needs of breast cancer patients undergoing chemotherapy in the Guangxi Medical University Cancer Hospital?
ii. What are the components of the spiritual care module for breast cancer patients in the Chinese cultural context?
iii. What is the consensus validation of the spiritual care module for breast cancer patients?

1.5 Research Objectives

1.5.1 General Objective

The general objective of this study is to develop and validate a spiritual care module for breast cancer patients undergoing chemotherapy.

1.5.2 Specific Objectives

i. To determine the spiritual needs of breast cancer women undergoing chemotherapy in the Guangxi Medical University Cancer Hospital (Phase 1).
ii. To design and develop a spiritual care module for breast cancer women in the Chinese cultural context (Phase 2).
iii. To determine consensus validation of the spiritual care program on breast cancer women (Phase 3).

1.6 Scope of the Study

The study' scope involved identifying the SN of Chinese BC women undergoing chemotherapy in Phase 1, designing and developing the SC module in Phase 2, and validating the content of the developed SC module in Phase 3. It was conducted among BC women undergoing chemotherapy at Guangxi Medical University Cancer Hospital and content validation experts from nursing, education, medical, and SC.

1.7 Significant of the Study

The SC module was developed to emphasise the importance of SN and promote spiritual exploration, leading to improved spiritual health and QoL for BC women. In

addition, this e-module overcomes time and space constraints, allowing BC women to choose spiritual practices according to their preferences.

This SC module helps BC women and healthcare providers gain knowledge about SC and increase their understanding and awareness of spirituality. It also serves as a tool for healthcare professionals to provide SC.

In contrast to existing research on spiritual interventions in China, SC modules have yet to be identified. Considering the vast cultural differences between countries and the differences in individuals' SN, developing an SC module that is culturally relevant to China and tailored to meet these SN is necessary, making this e-module more valuable.

1.8 Definition of Operational Terms

The following operational definitions of terms are highly contested notions. Some terms are the subject of the ongoing debate about their theoretical construction, meanings, and practical applications. Therefore, it is necessary to define the way the terms are used in the context of this research study. Key terms and phrases for the study are described in Table 1.1.

Table 1.1 Definition of key terms

Key terms	Conceptual Definition	Operational Definition
Spirituality	It refers to the personal experience of connection with self and others, and/or the Supreme or nature, the awareness of the meaning of life and the transcendence of one's daily life and suffering (Xing et al., 2018).	Spirituality in this study refers to connection with self, others, and nature and does not involve an experience of religion and transcendence. It can be measured by the level of participation in spiritual practices.
Spiritual needs	It refers to the needs and expectations of individuals with or without religious beliefs to find meaning, purpose, and values in life (Büssing et al., 2015).	This study assessed the spiritual need using Spiritual Needs Scale.
Spiritual care	It refers to the provision of care or activities that are in line with the individual's culture and beliefs, based on an assessment of the individual's spiritual needs/concerns, through listening, accompanying, or discussing the meaning and value of life with the patient (Wei et al., 2018).	This study provided spiritual care using a "Healing Light" e-module.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction to the Chapter

In this chapter, the researcher describes the current state of BC and SN of cancer patients, the components and content of SC interventions, and the validation of the module. Finally, it describes the HBM as the conceptual framework. PubMed, Web of Science, Embase, Cochrane Library, Wan Fang, and China National Knowledge Infrastructure Database were searched from inception to February 2023 to collect studies. The following terms were used to find eligible studies: "breast cancer" OR "spirituality" OR "religion" OR "spiritual needs" OR "spiritual distress" OR "spiritual health" OR "spiritual care".

2.2 Breast Cancer and Chemotherapy

Cancer has become the leading cause of death and a significant public health problem in the world (Cao & Chen, 2021). BC is the most common cancer among women in China (He et al., 2021). Although the level of early diagnosis and treatment of BC has dramatically extended the life span of patients, the long cycle of chemotherapy, substantial side effects, and postoperative defects of the body cause significant physical and mental damage to BC patients. A review by Dinapoli (2021) pointed out that anxiety, distress, depression, and post-traumatic stress disorder are the most frequent psychological disorders in BC patients. Cognitive disorders and sexual dysfunction can also be significant in affecting QoL. A qualitative study by Iddrisu (2020) showed that three themes emerged from the data (physical effects of BC, effects of treatment on body image, and emotional effects of BC diagnosis and treatment) through face-to-face individual interviews with 12 BC patients. The study by Wan

(2019) showed that the perceived benefit of BC patients with adjuvant chemotherapy is at a moderately low level, and the psychological pain is at a medium level. The disease perception benefit is closely related to psychological pain.

These negative states were not only unconducive to the treatment of the disease but also accelerated the deterioration and metastasis of the tumour, thus reducing the QoL of patients. With the new concept of health and the change in the medical model, people no longer solely pursue the curative effect of treatment and prolongation of life but pay more attention to the comprehensive health evaluation of life quality. A cross-sectional study by Xie (2021) showed that the total spiritual health score of BC patients during the perioperative period was at a medium level, and the researcher suggested that medical staff should strengthen SC, psychological care, and health education and guide patients to find life significance and value to improve spiritual health and QoL.

QoL includes physical function, psychological state, social and spiritual dimensions. One study found that cancer patients' spiritual distress peaked three months after undergoing chemotherapy, and the value of religious engagement was minimised (Martins et al., 2024). Meanwhile, the physical symptoms that occur during chemotherapy also aggravate spiritual distress and reduce the QoL (Oh & Cho, 2020). A study by Koral (2021) found that BC survivors who reported high spiritual health and psychological resilience scores experienced lower fear of cancer recurrence. Addressing spiritual issues can improve coping mechanisms (Silva et al., 2019), QoL and spiritual health (Dewi et al., 2024).

2.3 Spiritual Needs of Cancer Patients

Spirituality has become increasingly valued from the public's perspective (Papadopoulos et al., 2020). Many people do not have a specific religious or belief background, but that does not mean they do not have SN (Wixwat & Saucier, 2021).

Literature has indicated that the SN of cancer patients is often overlooked in clinical practice, with only 19.8% of patients reporting that they have received supportive SC from healthcare providers (Palmer Kelly et al., 2021). Identifying the SN of patients is a prerequisite for providing high-quality SC (Wu et al., 2015). Nurses need more confidence in addressing the religious and SN of patients. The results of a qualitative study with 25 participants showed that the two main themes, "spiritual competency" and "spiritual inefficiency" in healthcare organisations, were two major barriers to implementing SC practices for cancer patients by oncology nurses (Moosavi et al., 2019). A qualitative study by Zumstein-Shaha (2020) found that nurses trying to make sense of the situation and listening, engaging, and responding to patients' SN are important.

A study found that all patients experience spiritual distress, and more than half of patients expressed SN, while the degree of spiritual distress correlated with disease severity (Klimasiński et al., 2022). When patients face a life-threatening illness, they experience physical and spiritual distress, and SN increases significantly (Zhang et al., 2022). An individual's SN can be felt at any stage and be adjusted to the circumstances.

A cross-sectional study in China described the influencing factors of SN in 268 BC patients. The tool used was the Chinese version of the SNS. The total score of SN was 69.24 ± 28.92, which was at a higher level. Of the five dimensions investigated, the highest score was "hope and peace", and the lowest was "relationship with transcendence". The authors found that BC patients have different SN and medical

staff should pay attention to understanding patients' SN, and provide SC and intervention for them (Shi et al., 2019). A cross-sectional study by Dong (2021) among 309 cancer patients found that the total score of SN was 75.59 ± 14.41 which indicated a higher level. Of the five dimensions investigated, the highest score was "meaning and goals", and the lowest score was "relationship with transcendence", which is similar to the study done by Shi (2019). This similarity could be related to the similar cultural background of China. The researchers also found that the higher the level of hope and education, the higher the SN, and the SN score of painless and urban patients were higher than those of mild pain and rural patients. Thus, developing an individualised SC program in clinical nursing work is important.

Fradelos et al. (2021) conducted a cross-sectional study that involved 110 lung cancer patients undergoing chemotherapy. The results showed that the SN score of Greek lung cancer patients was 0.92 ± 0.59, which was at a low level. The authors attributed this result to the close religious ties present in Greek society. At the same time, the SN of lung cancer patients had a negative impact on spiritual health and QoL ($p < 0.001$) and may increase psychological distress.

Riklikienė et al. (2020) conducted a cross-sectional study among 227 non-terminally ill cancer patients in Lithuania. The result showed that SN was stronger for female patients than male patients, and religious patients had stronger SN than non-religious patients. They also found that patients experience several unmet SN, particularly needs for inner peace and giving/ generativity. Patients with medium or strong pain had significantly stronger needs than those without, which is different from the results of the study by Dong (2021) in China. Those patients who were female and considered themselves religious had stronger SN than male and non-religious. The researchers also suggested that these needs should be addressed and supported by

nurses, other healthcare professionals, pastoral care providers, and patients' relatives in an equal and collaborative manner.

It is crucial to consider the spiritual dimension as the first dimension, which has an essential effect on personal health and well-being, to deliver complete and valuable services to patients (Dhamani et al., 2011; Mehl-Madrona et al., 2013). Meeting patients' SN can help promote spiritual health and relieve anxiety, depression, and other problems caused by illness, which is why it is important to understand the patients' SN before starting SC (Zhang et al., 2018).

The literature review results showed that palliative care patients demonstrate a need for autonomy and want to be treated and viewed as real people; they also desire compassion, love and respect, and a sense of religious belonging. Finally, searching for a meaningful life, maintaining a positive attitude through hope and inner peace, and facing death, they want to die in the way they prefer (Lormans et al., 2021). A study in China by Cheng (2024) was a qualitative study conducted using semi-structured interviews with 13 advanced cancer patients. The themes of SN emerged as being treated as normal and independent individuals, receiving and giving love, seeking inner peace, connecting with spiritual sources, finding meaning and purpose, and preparing for death.

SN are influenced by various factors, such as cultural, religious, and social background (Höcker et al., 2014; Ye et al., 2021), thus showing certain differences and classification diversity. Therefore, it is crucial to identify the SN of Chinese BC women and provide personalised SC.

2.4 Spiritual Care Intervention

SC is a growing healthcare field that is important in nursing care (Rykkje et al., 2022). SC has interdisciplinary and intercultural attributes (Kruizinga et al., 2018). Studies conducted in countries with different cultural backgrounds have contributed to the complexity and diversity of psychiatric interventions (Jiang & Fang, 2022). To promote the full integration of SC and healthcare, Kruizinga et al. (2018) suggest that firstly, a clear definition of spirituality is needed, secondly assessing the SN of the patient is an essential part of the process, and lastly, empirical evidence for SC interventions should be summarised and improved.

The effectiveness of spiritual interventions has been proven. The results of the literature review showed that religious and spiritual interventions effectively reduced pain, decreased insomnia, improved QoL, and promoted health behaviours (de Diego-Cordero, Acevedo-Aguilera, et al., 2022; Gonçalves et al., 2017). Davari et al. (2022) found that religious-spiritual psychotherapy could reshape illness perceptions and enhance inner strength to improve coping with cancer. In addition, spiritual therapy effectively increases spiritual well-being, self-esteem, and self-efficacy (Darvishi et al., 2020; Komariah et al., 2020). As the spiritual dimension and its components have become more researched and described, spiritual interventions have been widely used in palliative care (Balboni et al., 2017; Jaman-Mewes et al., 2024). However, due to the highly individualised and culturally relevant nature of spirituality, Balboni et al. (2017) argued that spiritual interventions are untargeted primarily to the specific groups for whom the intervention may be most useful; for example, spiritual interventions have achieved good results in end-of-life patients (Batstone et al., 2020), BC (Komariah et al., 2020), mothers of premature neonates (Roveshty et al., 2020) and hemodialysis patients (Darvishi et al., 2020).

Spiritual interventions have been slow to develop in China (Wang et al., 2021). Most studies have focused on spiritual assessment (Dong et al., 2021) and nurses' SC competences (Jiang & Fang, 2022). Another study focused on a holistic care model that combines Western counselling techniques with traditional Chinese culture, offering patients physical, psychological, social, and SC, including spiritual counselling and support from SC practitioners (Peng et al., 2014). However, there is a lack of culturally tailored SC interventions, especially for Chinese BC women undergoing chemotherapy.

For this section, literatures were searched using the following terms to find eligible studies: "breast neoplasms OR breast cancer OR breast tumour OR breast carcinoma OR mammary cancer," AND "spiritual therapies OR spiritual healing OR pastoral care OR spirituality OR religion OR faith healing OR hospice care," AND "quality of life OR life quality OR health-related quality of life OR spiritual health OR spiritual well-being." In addition, previous relevant systematic reviews were checked to identify additional studies and gray literatures were excluded from the search because their diverse formats presented a challenge to the systematic search.

The studies which were conducted to test spiritual interventions for improving the QoL and spiritual health of BC patients were considered for the review. Study selection included three stages: title, abstract, and full-text review. In addition to the authors, publication year, and country, the extracted data included sample size, target group, and study design. Results for each intervention, including the formats, durations, interventionists, definitions, and contents of the studies, were synthesized.

Following inclusion and exclusion criteria, a total of 9435 articles were obtained after the preliminary search, and 7223 articles remained after duplicates were eliminated. A total of 170 records were included after the title and abstract screening.

A total of 30 eligible articles were included in the scoping review after full-text review. Examining the reference lists of the included articles and previous relevant reviews revealed no additional studies. Figure 2.1 shows the flowchart of the study selection.

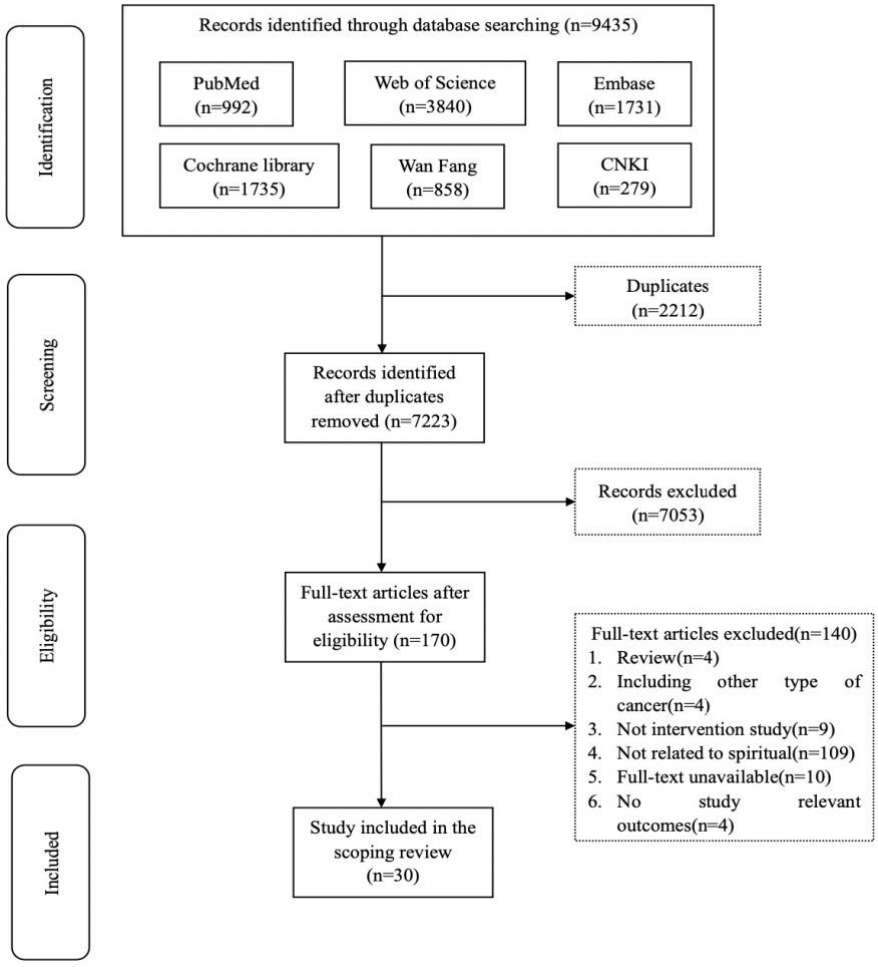

Figure 2.1 Flowchart of study selection

2.4.1 Role of Spirituality and Religion in Spiritual Care

Both spirituality and religion play important roles in clinical spiritual practice and are closely related to mental health (Aldwin et al., 2014). However, some researchers have indicated that spirituality and religion have a weak positive effect on mental health (Garssen et al., 2021). Cook (2015) argued that people's positions could be broadly categorised as spiritual and religious, spiritual but not religious, religious but not spiritual, and neither spiritual nor religious. The results of a study in the United

Kingdom showed that people with religious beliefs had lower suicidal tendencies compared to those with no religious beliefs (Jacob et al., 2019). Religious beliefs are beneficial in reducing the risk of suicide, especially in Muslim countries (Eskin et al., 2020; Poorolajal et al., 2022). One study found that positive religious coping did not prevent suicide attempts and that negative religious coping promoted suicide attempts (Eskin et al., 2020). Results of a meta-analysis showed that spiritually-oriented interventions helped to improve the spiritual health and QoL of cancer people and reduced anxiety, depression, and hopelessness (Chen et al., 2018; Xing et al., 2018).

Spirituality and religion are not entirely independent, and in SC studies, researchers often include both spiritual and religious elements, depending on the situation. For example, SC in Muslim countries will focus on religion. One study in Indonesia encouraged BC patients to adopt Islamic prayer as part of their daily care and encouraged them to practice it at home; the result showed that the patient's spiritual health improved, and they gained inner peace, closer to God, and spirit for further life (Komariah et al., 2020). Another study in Iran encouraged repetition of the holy word, trust in God, and prayer for BC patients. Unfortunately, the result did not improve patients' coping responses and QoL (Ghahari et al., 2017).

In contrast, some countries with less religious culture, such as China, would focus more on spirituality. Although Buddhism is the most recognised religion in China, only 18% of Chinese people claim to believe in Buddhism, and only 3.2% believe in Christianity (Yang, 2012). A SC intervention in China focused on discussing spiritual themes such as building relationships, releasing the self, forgiving each other, and living in the present moment, and it did not go into detail about religion (Liu et al., 2023). Although Wang et al. (2023) pointed out the great difficulties and challenges in how to integrate religion into SC in China, researchers are still trying. Peng et al.

(2014) developed holistic care programs that provide a platform for BC patients with the same religious beliefs to communicate. Overall, the caregiving process needs to consider how to respect religious beliefs in SC without causing religion to be guided and spread. Therefore, the components of the SC module should consider and respect an individual's religion and cultural beliefs and should be based on cultural sensitivity to be effective.

2.4.2 The Role of the Nurses in Spiritual Care

The SC process involves identifying SN and resources and developing, implementing, and evaluating an SC program (Nissen et al., 2021). Nissen et al. (2021) argued that although developing a stringent approach that encapsulates SC is difficult, healthcare providers must consider the appropriate components and method of dissemination of information.

Many researchers have acknowledged and supported the irreplaceability of the roles of nurses in SC (Connerton & Moe, 2018; Puchalski et al., 2019; Yuan & Porr, 2014). Connerton et al. (2018) pointed out that nurses play an essential role in assessing, diagnosing, and responding to the needs of each patient. Interestingly, most SC studies conducted in China were nurse-led or even only involved nurses (Li et al., 2018; Li et al., 2020; Liu, 2018). By contrast, studies performed in other countries had diverse intervention team members, such as spiritual counsellors (Afrasiabifar et al., 2021), clergy members (Kuepfer et al., 2022b), and social workers (Kuepfer et al., 2022a). This discrepancy may have resulted from differences in healthcare resources across countries (Kuepfer et al., 2022b).

A 2009 consensus conference addressed the importance of interdisciplinary collaboration in SC (Puchalski et al., 2009). Tunks et al. (2023) proposed that SC

professionals, such as trained chaplains, should be a part of healthcare teams in clinical settings. These professionals can compensate for the limitations of nurses in providing pastoral, emotional, and SC. The results of a 9-month pilot interdisciplinary intervention involving five chaplains and 13 psychiatrists who discussed shared oncology cases showed that the multidisciplinary cooperation model is promising (Kao et al., 2017). Most chaplains are volunteers in clinic practice, and this situation acted as a barrier when considering using chaplains as a support resource (Tunks Leach et al., 2023). Therefore, the nurse-led multidisciplinary cooperation model can make full use of limited medical resources and provide professional care to patients.

As the healthcare personnel with the most contact with patients, nurses can solve problems within their competence. The results of a study by Palmer Kelly et al. (2021) showed that healthcare providers did not discuss spirituality/religion with patients because of offending patients (56.5%) and time constraints (47.7%). However, all doctors and nurses recognised the positive role of SC; nurses and other cancer care providers are more likely than physicians to talk about spirituality and religion with patients (Kelly et al., 2021). It may also be why nurses have become the primary providers of SC. The SC needs of cancer patients are often overlooked, with the majority of patients (80.2%) reporting that they have never received supportive SC (Kelly et al., 2021). However, studies showed that the ability of nurses to provide SC is limited and inconsistent. A study found that nurses could utilise their knowledge to adequately address patients' SN and provide SC (Karaman & Sagkal Midilli, 2022). Another study showed that oncology nurses in China rarely provide SC (Wu et al., 2021), and nurses' SC competence was at the lower-middle level, especially referral competence (Jiang et al., 2022; Zhang et al., 2021). Nurses' income, communication

skills, due diligence, and ability to self-monitor emotions positively predict oncology nurses' SC competence (Jiang et al., 2022). Such a limitation introduces challenges to clinical spiritual practice. One study found that nurses who received training in SC teams achieved higher mental health and SC competencies (Hu et al., 2019).

2.4.3 The Components of Spiritual Care

The SC components are complex, and their forms and methods were described to guide the module's development better.

Forms of SC can be categorised as group/individual and face-to-face/online, each with advantages and disadvantages. Most studies applied group learning methods, like lectures, group discussions, and group activities/ training. Peng et al. (2014) invited experts to give BC health education lectures on Thursday afternoons during each month's first and third weeks. Although it contributed to improving the knowledge of BC women, it did not improve the positiveness of patients and was constrained by particular times and places (Valizadeh et al., 2016). Barnett et al. (2016) proposed that information-sharing and experience-sharing between patients with cancer can help relieve social isolation and obtain a sense of belonging. Ghahari et al. (2017) encouraged BC patients to engage in discussions on holy words repetition, forgiveness, patience, and trust in God in group sessions while sharing the experience of spiritual exercises (meditation and prayer). Still, the effect seems to be less pronounced. Nakamura et al. (2021) developed a short-term existential group therapy that encourages BC patients to discuss specific topics in a group, and the results showed that the therapy was effective in improving the overall QoL of and reducing existential anxiety and feelings of hopelessness. The group learning approach helps

improve the understanding of spirituality and specific topics by developing intrinsic motivation and application skills.

Individualised SC also appears effective. Perez et al. (2022) provided four chaplain to visits advanced patients, and the chaplain provided tailored interventions based on assessing the patient's needs, the results showed an improvement in the patient's spiritual well-being. Personalised counselling, relaxation, and coping techniques provided by counsellors also improved BC patients' sleep, QoL, and spiritual health (Lin et al., 2022; Yao et al., 2022; Zeng et al., 2020). Nurses interacting with cancer patients with the help of spiritual counsellors effectively improve the cancer patients' hope and spiritual health (Afrasiabifar et al., 2021). This individualised model requires more specialised medical resources, time, and effort than the group model.

Positive socialisation, both online and offline, is beneficial in relieving cancer-related stress, and gaining support through social media has also proven effective because it breaks time and space constraints (Mikal et al., 2020). Singh and Sagar (2022) pointed out the growing popularity of online psychotherapy due to its accessibility, affordability, and acceptability; however, when patients encounter emergencies, such as suicidality, face-to-face counselling seems more effective than online psychotherapy. There is no single form of SC, and to maximise the effect, researchers chose different forms according to the specific situation. For example, face-to-face group discussions can be organised for BC patients (Nakamura & Kawase, 2021), or an online communication platform can be established to share experiences and information (Peng et al., 2014). BC patients can meditate under the guidance of professionals (Cramer et al., 2015; Park et al., 2020a) or practice on their own using learning materials (Cramer et al., 2015); BC patients can receive personalised SC

provided by spiritual healers (Jafari et al., 2013; Peng et al., 2014) or attend the lecture (Cramer et al., 2015; Peng et al., 2014).

A systematic review showed that yoga and meditation are the most common spiritual practices and are beneficial for improving the cancer patients' mental health and QoL (Chen et al., 2018). Another systematic review of spiritual and religious interventions mentioned spiritual practices such as Bible reading, prayer, guided imagery, and breathing relaxation (Gonçalves et al., 2017). The Mind-body-spirit group program developed by Targ and Levine (2002) included a health series of group discussions, dance/yoga practice, writing/drawing practice, meditation, and guided imagery. Skill training and supervision can contribute to the growth of spiritual knowledge (Spelt et al., 2009). Nurses reported that they can discover patients' spirituality through spiritual or religious communication with them. By supporting them spiritually, they can help patients find meaning in their lives and come to terms with illnesses. At the same time, this process profoundly impacts the nurses' lives and promotes personal growth (Zumstein-Shaha et al., 2020a).

2.4.4 The Relationship Between Spiritual Need and Spiritual Care

The SN assessment is a prerequisite for the implementation of SC, which can be assessed not only through structured questionnaires (quantitative analysis) (Nissen et al., 2021) but also through semi-structured interviews (qualitative analysis) (Selman et al., 2018). A cross-sectional study using the SN Scale to assess the SN of 173 BC patients showed that the SN of BC women undergoing chemotherapy was at a high level (84.20 ± 12.86) and influenced by educational level (Cheng et al., 2024). A qualitative study found that the SN of cancer patients included "the use of spirituality/religion and rituals", "struggling with the disease", "finding meaning", and