

**SPIRITUAL NEEDS AND ITS ASSOCIATED
FACTORS AMONG CANCER PATIENTS IN
SHANXI BETHUNE HOSPITAL, TAIYUAN,
CHINA**

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by

WANG TING

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LIST OF SYMBOLS

n/N	Sample size
Z	Standard score (for sample size calculation)
σ	Population standard deviation
Δ	Estimated difference from population mean
α	Significance level
power	Statistical power
m	Number of groups or comparisons in power analysis
SD	Standard Deviation
Mean	Arithmetic average of a set of values
p/p-value	Probability value
χ^2	Chi-square statistic
df	Degrees of freedom
Z-statistic	Wilcoxon signed-rank test result
F	F-statistic
R^2	Coefficient of determination
B	Unstandardized regression coefficient
β	Standardized regression coefficient
t	t-statistic
CI	Confidence Interval

LIST OF ABBREVIATIONS

USM	Universiti Sains Malaysia
IPS	Institute of Postgraduate Studies
SpNQ	Spiritual Needs Questionnaire
SpNQ-Ch-27	Spiritual Needs Questionnaire – Chinese Version (27 items)
PHQ-9	Patient Health Questionnaire-9
C-PHQ-9	Chinese version of the Patient Health Questionnaire-9
MSPSS	Multidimensional Scale of Perceived Social Support
SCLC	Small Cell Lung Cancer
NSCLC	Non-Small Cell Lung Cancer
HADS	Hospital Anxiety and Depression Scale
HAMD	Hamilton Depression Scale
SDS	Self-Rating Depression Scale
SSRS	Social Support Revalued Scale
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
PSSS	Perceived Social Support Scale
SPSS	Statistical Package for the Social Sciences
JEPeM	Human Research Ethics Committee of Universiti Sains Malaysia

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**KEPERLUAN KEROHANIAN DAN FAKTOR BERKAITANNYA
DALAM KALANGAN PESAKIT KANSER DI HOSPITAL SHANXI
BETHUNE, TAIYUAN, CHINA**

ABSTRAK

Latar Belakang: Keperluan spiritual merupakan komponen penting dalam penjagaan holistik pesakit kanser, khususnya dalam menangani kesejahteraan emosi dan psikologi mereka. Walau bagaimanapun, kajian berkaitan keperluan ini dalam kalangan populasi pesakit kanser di China masih terhad. Objektif: Kajian ini bertujuan menilai keperluan spiritual serta faktor-faktor yang berkaitan dalam kalangan pesakit kanser yang dimasukkan ke hospital di Hospital Shanxi Bethune, China. Kaedah: Satu kajian keratan rentas telah dijalankan ke atas 189 pesakit kanser menggunakan versi sah Bahasa Cina bagi Spiritual Needs Questionnaire (SpNQ-Ch-27), Patient Health Questionnaire (PHQ-9), dan Multidimensional Scale of Perceived Social Support (MSPSS). Statistik deskriptif serta analisis regresi linear mudah dan berganda telah digunakan. Keputusan: Peserta menunjukkan tahap keperluan spiritual yang sederhana (Min = 37.23, SD = 16.91). Keperluan tertinggi adalah dalam dimensi “Memberi Secara Aktif” (Min = 8.59, SD = 3.47), manakala keperluan paling rendah adalah dalam “Sumber Keagamaan” (Min = 1.21, SD = 1.37). Analisis regresi linear berganda menunjukkan bahawa keperluan spiritual adalah lebih tinggi dalam kalangan pesakit yang baru didiagnosis dalam tempoh 6 bulan ($B = 15.68$, CI: 11.90–19.45, $p < 0.001$), tinggal di kawasan luar bandar ($B = 4.94$, CI: 1.72–8.16, $p = 0.003$), berpendidikan sekolah menengah ($B = 4.23$, CI: 0.39–8.06, $p = 0.031$), pendapatan bulanan kurang daripada 3000 RMB ($B = -4.41$, CI: -8.35 hingga -0.47, $p = 0.028$), dan mereka yang didiagnosis dengan kanser perut ($B = 5.04$, CI: 0.75–9.33, $p = 0.022$). Skor

kemurungan juga menunjukkan hubungan positif dengan keperluan spiritual ($B = -4.41$, CI: -8.35 hingga -0.47, $p = 0.028$). Model regresi akhir menerangkan sebanyak 79.8% varians dalam keperluan spiritual ($R^2 = 0.798$). Kesimpulan: Keperluan spiritual dalam kalangan pesakit kanser di China dipengaruhi oleh faktor klinikal, psikologi, dan sosiodemografi. Penilaian awal dan sokongan spiritual yang sesuai dengan budaya adalah penting bagi meningkatkan kualiti hidup dan kesejahteraan emosi pesakit semasa rawatan.

**SPIRITUAL NEEDS AND ITS ASSOCIATED FACTORS AMONG
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ABSTRACT

Background: Spiritual needs are an essential component of holistic cancer care, particularly in addressing patients' emotional and psychological well-being. However, limited research has explored these needs among Chinese cancer populations. Objectives: This study aimed to assess the spiritual needs and their associated factors among hospitalized cancer patients in Shanxi Bethune Hospital, China. Methods: A cross-sectional survey was conducted among 189 cancer patients using validated Chinese versions of the Spiritual Needs Questionnaire (SpNQ-Ch-27), Patient Health Questionnaire (PHQ-9), and Multidimensional Scale of Perceived Social Support (MSPSS). Descriptive statistics, simple and multiple linear regression analyses were applied. Results: Participants exhibited a moderate level of spiritual needs (Mean = 37.23, SD = 16.91). The highest needs were in the "Actively Giving" dimension (M= 8.59, SD= 3.47), while the lowest were in "Religious Sources" (M= 1.21, SD= 1.37). Multiple liner regression revealed that spiritual needs were significantly higher among patients diagnosed within the past 6 months (B= 15.68, CI: 11.90–19.45, $p < 0.001$), living in rural areas (B = 4.94, 95% CI: 1.72–8.16, $p = 0.003$), with high school education (B = 4.23, 95% CI: 0.39–8.06, $p = 0.031$), monthly income below 3000 RMB (B = -4.41, 95% CI: -8.35 to -0.47, $p = 0.028$), and those diagnosed with stomach cancer (B = 5.04, 95% CI: 0.75–9.33, $p = 0.022$). Depression scores were positively associated with spiritual needs (B = -4.41, 95% CI: -8.35 to -0.47, $p = 0.028$). The final regression model explained 79.8% of the variance in spiritual needs ($R^2 = 0.798$).

Conclusion: Spiritual needs among Chinese cancer patients are shaped by clinical, psychological, and sociodemographic factors. Early assessment and culturally appropriate spiritual support are essential to enhance patients' quality of life and emotional well-being during treatment.

CHAPTER 1

INTRODUCTION

1.1 Background of The Study

Cancer is a prevalent disease in contemporary society, however it is not a novel affliction it has existed for nearly as long as human civilization (Zhu et al., 2025). Despite significant advancements in science and medical technology, cancer remains one of the leading primary global public health challenges. Approximately 60% of the world's population resides in Asia, which accounts for 50% of cancer cases and is projected to contribute to 58% of global cancer-related deaths (Deo et al., 2022). Nearly 22% of new global cancer cases occur in China, making it a significant public health concern (Jenny A Shih et al., 2019). This situation poses formidable challenges to both social and medical resources.

As cancer poses an increasing threat to human health, its associated symptoms are also receiving growing attention. In China, the prevalence of depression among cancer patients ranges from 32% to 40% (Mejareh et al., 2021). For many cancer patients, the journey through diagnosis, symptoms, treatment, and decision-making represents uncharted territory something they may have previously only witnessed from a distance. Receiving a cancer diagnosis can be emotionally devastating for many individuals. Faced with the dual burden of cancer and its treatment, an increasing number of patients are turning to nurses and other healthcare providers for spiritual care.

Previous studies have shown that spirituality is often regarded as a psychological construct through which individuals seek meaning and hope for survival. Spiritual needs are a multidimensional phenomenon influenced by religious, cultural, emotional,

and existential contexts (Riklikiene et al., 2020). According to Büssing and Koenig (2010), spiritual needs encompass four main dimensions: connection, inner peace, meaning or purpose, and transcendence, all of which are shaped by psychosocial, emotional, existential, and religious factors. Spiritual needs in patients may include seeking hope, alleviating fear and loneliness, and receiving emotional support during hospitalization (Azizi et al., 2021). Healthcare professionals often fail to address the psychosocial and spiritual needs of patients and may not fully recognize their importance in holistic care. Patients and their families frequently express a desire to discuss emotional and spiritual concerns with healthcare providers, particularly when facing life-threatening illnesses such as cancer (Ellington et al., 2017). Patients expect healthcare personnel to address their spiritual needs and integrate them into cancer treatment, however, the clinical reality presents disparities with these aspirations providers to address their spiritual needs and integrate them into cancer care; however, clinical reality often falls short of these expectations. Approximately 75% of cancer patients receiving palliative care reported that their spiritual needs were either inadequately addressed or completely ignored. This gap persists in outpatient settings, where 82% of patients report unmet emotional or spiritual needs despite multiple clinical encounters (Ellington et al., 2017). There is compelling evidence that spiritual care can improve cancer patients' spiritual well-being and alleviate symptoms of anxiety and depression (Sun et al., 2021). Therefore, addressing spiritual needs is imperative—not only for meeting patients' spiritual care expectations, but also for promoting their overall well-being. However, providing high-quality spiritual care first requires a clear understanding of cancer patients' spiritual needs. In China, it is evident that many cancer patients lack awareness of their own spiritual needs (Cheng et al., 2018).

To address the unmet spiritual needs of cancer patients, it is essential to develop a comprehensive understanding of their individual expectation and concerns. Therefore, these needs must be identified and assessed so that healthcare professionals and caregivers can respond effectively (Nejat et al., 2023). Accordingly, it is of paramount importance to investigate the current status and influencing factors of spiritual needs among Chinese cancer patients. Such findings will provide a theoretical foundation for future spiritual care interventions and ultimately contribute to improving patients' quality of life and overall well-being.

1.2 Problem Statement

Cancer is a major global health issue that poses a significant threat to human life. In China, cancer is also one of the most pressing public health challenges. It not only threatens individuals' physical and mental health but also imposes significant economic burdens (Chen et al., 2023). Cancer is one of the leading causes of death in China and accounted for the highest number of deaths in 2019. The cancer mortality rate has increased from 74.2 to 108.3 per 100,000 population annually (Chen et al., 2023). However, changes in cancer patterns in China are evident not only in overall mortality rates but also in site-specific cancer mortality trends. According to the China Cancer Trends report, lung cancer mortality increased by 465% over the past three decades and has become the leading cause of cancer-related death (Li et al., 2023). Lung cancer is also the most commonly diagnosed cancer in China, followed by colorectal, stomach, breast, and liver cancers (Deo et al., 2022). Although the Chinese government is actively pursuing solutions, significant challenges remain due to factors such as an aging population and environmental degradation.

With growing attention to cancer, the spiritual needs of cancer patients have become an increasingly important topic of study. Although cancer patients come from diverse cultural backgrounds, spiritual needs appear to be universal— most patients, regardless of cancer type, experience at least one form of spiritual need (Azizi et al., 2021). A study identified two primary spiritual needs among cancer patients: the desire to understand the reality of their illness and the need to preserve dignity through interactions with others (Lormans et al., 2021). In contrast, Chinese patients often emphasize the importance of receiving emotional support from family and friends to gain hope and strength in the face of death (Q. Cheng et al., 2024). Regardless of cultural differences, addressing spiritual needs remains essential for improving the overall well-being of cancer patients.

Spiritual needs among cancer patients are also influenced by sociodemographic and disease-related factors. Among these factors, age, gender, marital status, education level, family income, and religious affiliation have been widely studied as potential predictors of spiritual needs. A study of Korean cancer patients revealed that spiritual needs are associated with gender, marital status, and family income (Kang & Choi, 2020). The relationship between age and spiritual needs remains inconclusive. However, elderly individuals with religious belief tend to require higher levels of spiritual care (Büssing, 2021). Western research suggests that spirituality is closely linked to religious belief (Bradford, 2023). This correlation has been confirmed in a survey of cancer patients in China (Zhao et al., 2019), individuals with religious beliefs tend to have higher spiritual needs. Similarly, a recent survey of cancer patients in China confirmed that individuals with religious beliefs exhibit higher levels of spiritual needs (Du et al., 2022). In addition, patients' education levels have also been shown to affect their spiritual needs (Shi et al., 2023).

Among disease-related factors, the spiritual needs of cancer patients have been found to correlate with the type and stage of cancer (Zhao et al., 2019). Additionally, some scholars suggest that the time elapsed since diagnosis may also influence a patient's spiritual needs (Du et al., 2022).

Depression may prompt patients to seek spiritual fulfilment as a means of coping (Büssing, 2021). A survey conducted in China among gynecological cancer patients receiving palliative care also confirmed that spiritual needs are associated with anxiety and depression, good mental health can help alleviate emotional distress and psychological issues such as anxiety and depression (Chen et al., 2021).

Cancer patients require support from family, friends, medical institution, and even religious organizations to cope with the emotional distress associated with the disease (Ciria-Suarez et al., 2021). The love, understanding and emotional support from family members are crucial in helping patients find the strength to confront death. Addressing patient's social needs can enhance their ability to cope with cancer and may contribute to improved treatment outcomes (Du et al., 2022).

Furthermore, unmet spiritual needs have been shown to affect not only patients' mental health but also their overall well-being and quality of life.

However, current evidence in mainland China remains fragmented. Most existing studies have focused on patients with advanced cancer or those receiving palliative or hospice care, and many are qualitative in nature with small sample sizes (Zhu et al., 2025). Few quantitative studies have systematically examined spiritual needs among general hospitalized cancer populations using validated instruments. In addition, limited research has simultaneously explored how sociodemographic characteristics,

cancer-related factors, depressive symptoms, and perceived social support interact to influence spiritual needs, particularly in Northern China and Shanxi Province.

This lack of comprehensive, locally relevant evidence makes it difficult for nurses to identify which patient groups require priority spiritual support and to design targeted interventions. When spiritual care is not routinely incorporated into oncology nursing, patients may experience persistent existential distress, higher levels of depression and anxiety, poorer treatment adaptation, and reduced quality of life (S. L. Cheng et al., 2024; Nagy et al., 2024). Therefore, there is an urgent need for context-specific data on spiritual needs and their associated factors to guide nursing assessment, care planning, and resource allocation in Chinese oncology settings.

1.3 Research Question

1. What is the level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China?
2. What are the sociodemographic characteristics among cancer patients in Shanxi Bethune Hospital, Taiyuan, China?
3. What is the level of depression among cancer patients in Shanxi Bethune Hospital, Taiyuan, China?
4. What is the level of social support among cancer patients in Shanxi Bethune Hospital, Taiyuan, China?
5. Are the sociodemographic (age, gender, income, religion, education, marital status), cancer characteristics (type of cancer, time since diagnosis), psychological factors (depression) and social support significantly associated with high level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China?

1.4 Research Objectives

1.4.1 General objective

To determine the spiritual needs and their associated factors among cancer patients at Shanxi Bethune Hospital, Taiyuan, China.

1.4.2 Specific objectives

1. To examine the level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
2. To describe the sociodemographic factors (age, gender, religion, income, education, marital status) and cancer characteristics (type of cancer, time since diagnosis) among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
3. To assess the level of depression among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
4. To evaluate the level of social support among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
5. To determine the association between sociodemographic factors (age, gender, religion, income, education, marital status), cancer characteristics (type of cancer, time since diagnosis), psychological factors (depression), and social support with high level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.

1.5 Research Hypothesis

1. There is a high level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
2. There is a high level of depression among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.

3. There is a high level of social support among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.
4. There is a significant association between sociodemographic factors (age, gender, religion, income, education, marital status), cancer characteristics (type of cancer, time since diagnosis), psychological factors (depression) and social support with high level of spiritual needs among cancer patients in Shanxi Bethune Hospital, Taiyuan, China.

1.6 Conceptual and Operational Definition

Table 1.1 Conceptual and Operational Definitions of Key Terms

Terms	Conceptual Definition	operational definition
Spiritual needs	Spiritual needs refer to the needs and expectations of individuals—regardless of their religious affiliation—who seek meaning, purpose, and values in life. Even non-religious individuals share a desire to discover life’s meaning (Washington DC, 1997).	In this study, spiritual needs are measured using the Chinese version of Spiritual Needs Questionnaire (SpNQ-Ch-27) (Büssing, Zhai, et al., 2013).
Cancer patients	Cancer patients are individuals experiencing outcomes such as anaemia, wasting, fatigue, and even death due to the uncontrolled growth, abnormal proliferation, and metastasis of malignant cells (Litwin & Tan, 2017).	In this study, cancer patients refer to those admitted to the cancer wards of Shanxi Bethune Hospital, Taiyuan, China.
Depression	Depression is a state of low mood arising from setbacks and difficulties. It includes emotional distress and mental illness, typically characterized by persistent sadness, hopelessness, irritability, loss of appetite, fatigue, and behavioural abnormalities (Stringaris, 2017).	In this study, depression is measured using the Chinese version of the Patient Health Questionnaire-9 (PHQ-9) (Wang et al., 2014). The PHQ-9 is a simple and effective tool for early detection of depression.
Social support	Social support refers to the social resources, information, and skills that individuals acquire through participation in social interactions (Barrera 1986). A support system includes both formal and informal relationships and groups (Usta, 2012).	In this study, social support is measured using the Chinese version of Multidimensional Scale of Perceived Social Support questionnaire (MSPSS) (Zimet, 2010).

1.7 Significant of the Study

In China, the exploration of spiritual needs among cancer patients has only gained attention in recent years, and a precise, widely accepted definition remains lacking. Most existing research on spiritual needs in this population tends to adopt a qualitative approach (Zhao et al., 2019). Notably, academic investigations have predominantly focused on patients with advanced-stage cancer or those receiving hospice care, resulting in a gap in comprehensive and generalizable data. The findings are expected

to provide healthcare professionals in China with a deeper understanding of patients' spiritual concerns and related variables, thereby informing the development of culturally sensitive and patient-centred spiritual care strategies. Ultimately, this study seeks to contribute to the ongoing development and integration of spiritual care into routine oncology practice in China.

In terms of nursing practice, the findings of this study will provide oncology nurses with a clearer profile of patients' spiritual needs and their key predictors. This information can be used to guide routine spiritual assessment, facilitate early identification of patients at higher risk of unmet spiritual needs, and support the development of individualized care plans. The results may also inform in-service training programmes, helping nurses enhance their competence and confidence in providing culturally appropriate spiritual care (Anshasi et al., 2024; Shamsi et al., 2022). At the organizational level, the study can contribute to the integration of spiritual care into nursing standards, clinical guidelines, and quality improvement initiatives in Chinese oncology settings.

CHAPTER 2

LITERATURE REVIEW

2.1 The cancer burden in China

2.1.1 Cancer incidence and mortality in China

Cancer has evolved into a formidable global public health challenge, posing a significant threat to human life and well-being (Rabitti et al., 2020). Amid an aging population, China has experienced significant economic and lifestyle changes, with cancer emerging as a major threat to public health (Cao et al., 2022). Alarming, nearly 22% of all newly diagnosed cancer cases worldwide now occur in China (Sung et al., 2021). In 2015 alone, approximately 3.93 million new cancer cases were reported in the country (S. Zhang et al., 2021).

The GLOBOCAN 2022 update on China's cancer burden reveals that both incidence and mortality rates exceed the global average (Bray et al., 2024). Projections indicate that China's cancer mortality rate is expected to continue rising, driven primarily by its large and aging population (Xia et al., 2022). In response to the growing social and economic burden imposed by cancer, the Chinese government has intensified efforts to improve the health and well-being of affected individuals. This highlights the urgent need for comprehensive strategies to address the multifaceted challenges associated with the rising cancer burden in China.

According to the GLOBOCAN 2022 data (Cao et al., 2024), the incidence of lung cancer in China increased from 34.8 per 100,000 population in 2020 to 40.8 per 100,000 in 2022, remaining the most commonly diagnosed cancer. Colorectal cancer and thyroid cancer rank second and third in incidence, respectively. Liver cancer ranks fourth in incidence, followed by gastric cancer, breast cancer, and oesophageal cancer, which rank fifth to seventh, respectively. Although these three cancers remain highly

prevalent, the estimated numbers of new cases have shown a declining trend in recent years.

In terms of cancer-related mortality in China, lung cancer remains the leading cause of cancer death. The top five cancer types contributing to mortality are lung, liver, gastric, colorectal, and oesophageal cancers. The mortality distribution of these leading cancers showed minimal variation between 2015 and 2022 (Cao et al., 2024). This comprehensive overview underscores the complex landscape of cancer incidence and mortality in China, necessitating tailored strategies for prevention, diagnosis, and treatment.

2.1.2 Characteristic and treatment

As the leading cancer type in terms of both incidence and mortality in China, lung cancer is classified into two major subtypes: small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). SCLC is known for its aggressive growth and early metastasis, with approximately 90% of cases diagnosed at an advanced stage due to the absence of early symptoms (Howlader et al., 2020).

Smoking and the use of tobacco products account for nearly 90% of lung cancer cases. However, other risk factors—such as exposure to radon gas, asbestos, air pollution, and chronic infections—also contribute to lung carcinogenesis (Li et al., 2023). Common clinical manifestations include persistent cough, sputum production, dyspnoea, chest pain, and unintentional weight loss.

Treatment for early-stage lung cancer may involve surgical tumour resection. In recent years, significant advances have been made in therapeutic approaches, including radiation therapy, chemotherapy, targeted therapy, and immunotherapy. A multidisciplinary treatment strategy is typically employed, with personalized plans based on tumour stage, histological type, and the patient's overall condition.

Colorectal cancer is the second most common cancer in China, primarily originating in the colon or rectum (Sung et al., 2021). In its early stages, symptoms may be absent; however, as the disease progresses, patients often report changes in bowel habits, abdominal pain, diarrhoea, or constipation.

Treatment of early-stage colorectal cancer generally involves surgical resection, often followed by chemotherapy or radiation therapy. For advanced or metastatic cases, comprehensive treatment plans may include targeted therapies and immunotherapy. Despite advances in treatment, prognosis remains poor for metastatic cases, with 70–75% of patients surviving beyond one year, and fewer than 20% surviving beyond five years (Biller & Schrag, 2021).

Breast cancer treatment is largely determined by the clinical stage at diagnosis. Standard treatment modalities include surgery, radiation therapy, endocrine therapy, chemotherapy, and immunotherapy (Trayes & Cokenakes, 2021).

Stomach cancer remains one of the most lethal malignancies in China, with a five-year survival rate of only around 20% (R. Zhang et al., 2021). Well-established risk factors include *Helicobacter pylori* infection, unhealthy dietary patterns, tobacco use, obesity, and radiation exposure (Poorolajal et al., 2020). The most effective prevention strategies focus on risk factor reduction, along with population-based screening and early detection programs (Ilic & Ilic, 2022).

Globally, liver cancer is considered one of the most fatal malignancies. In China, its mortality burden appears to be even greater. A study published in 2020 reported that liver cancer is the second leading cause of cancer-related death in China, following only lung cancer (Sung et al., 2021). Due to the asymptomatic nature of early-stage liver cancer, many cases are diagnosed at advanced stages, resulting in poor outcomes. Over 90% of liver cancers are hepatocellular carcinomas, for which chemotherapy and

immunotherapy currently serve as the primary treatment options (Anwanwan et al., 2020).

2.2 Spiritual Needs of Cancer Patients

2.2.1 Understanding spirituality and emotional crisis

Spirituality can be seen as an inner aspect of human nature that helps people understand their inner world and seek the ultimate meaning of life. When people face major life setbacks such as cancer, the pain and helplessness caused by the illness often prompt them to think more deeply about life (Jenny A Shih et al., 2019). A cancer diagnosis can lead to feelings of fear, anxiety, depression, and despair, while hospitalization may induce loneliness. These experiences can eventually result in a spiritual crisis (Azizi et al., 2021).

2.2.2 Prevalence and variation of spiritual needs

People with all types of cancer have spiritual needs, and the overall level of such needs is generally high (Sastra et al., 2021). A study of breast cancer patients found that their spiritual needs were associated with individual characteristics and psychosocial factors (Du et al., 2022). Stomach cancer patients also exhibit higher spiritual needs (Ghiglieri et al., 2023). Additionally, spiritual needs have been found to significantly impact the mental health of lung cancer patients (E. C. Fradelos et al., 2021). Shi et al. (2023) compared patients with head and neck, lung, digestive tract, and breast cancers, finding that all groups had high spiritual needs, with breast cancer patients reporting the highest.

Spiritual distress is not uncommon among cancer patients, and unmet spiritual needs may be one of the sources of their suffering (J. A. Shih et al., 2019). A study among advanced cancer patients revealed that their spiritual needs include gaining a full

understanding of their illness (Lormans et al., 2021). A study conducted in mainland China also showed that cancer patients urgently want to know the truth about their condition—viewing it as one of their most essential needs (Cheng et al., 2018). However, this is often difficult to achieve because families may withhold such information in an effort to protect the patient (Rabitti et al., 2020).

In addition, the need to be respected is often overlooked. Patients expect to be treated as normal individuals rather than being constantly reminded of their illness. Repeated expressions of pity from others may lead to emotional breakdowns (Mejareh et al., 2021).

2.2.3 Spiritual care practices and support system

According to Florence Nightingale's philosophy of nursing, a person should be treated as a whole, and spirituality is considered the purest source of healing. One of the nurse's core responsibilities is to identify the spiritual needs of patients and provide appropriate spiritual care (Stev & Hertina, 2025). Zumstein-Shaha (2020) emphasized that nurses should use available resources to meet the spiritual needs of patients, including encouraging them to talk about their emotions and feelings. Moreover, professional spiritual support from the care team can help guide pastors and family members to offer further assistance, making the transition to hospice care more manageable (J. A. Shih et al., 2019). Most patients also consider doctors and nurses as key providers of spiritual care (Stev & Hertina, 2025).

In the past decade, research on spirituality and religion in cancer care has increased significantly (Nagy et al., 2024). Bradford et al. (2023) found that 50% of patients with advanced cancer believed that religious ceremonies, such as prayer, were necessary. Religious activities can also provide a source of emotional and spiritual support (Evangelos C Fradelos et al., 2021).

Family and friends play an important role in providing spiritual care. Support from family and friends is especially vital for patients with terminal cancer (Azizi et al., 2021). Spending time with family is the most frequently mentioned spiritual need, with 90% of patients hoping to stay with their families during the final stages of illness (Forouzi, 2017). In Chinese culture, patients are more likely to rely on their relatives for emotional strength and hope (Cheng et al., 2023).

Spiritual care for cancer patients requires a team-based approach that involves medical staff, religious counsellors, and family members. This collaborative effort helps patients address their spiritual needs more effectively and holistically (J. A. Shih et al., 2019).

2.3 Associated Factors for Spiritual Needs Among Cancer Patients

2.3.1 Age

The study by Ramezani et al. (2019) indicated that all elderly cancer patients over the age of 60 reported spiritual needs. A similar study conducted in Iran also showed that as patients grow older, their spiritual needs may evolve. In particular, individuals older than 78 years exhibited the highest psychological needs (Forouzi, 2017). Elderly patients tend to experience more urgent spiritual needs compared to younger individuals, which may be attributed to declining physical health and increased mental preparedness for the end of life (Cheng et al., 2023). This was further confirmed by J. Chen et al. (2021) in a study involving patients with advanced gynaecological tumours. Although there is no universally agreed definition of “elderly” worldwide, in China, individuals aged 60 and above are widely recognized as senior citizens—a definition supported by both social norms and legal frameworks. This group often possesses greater life experience and more complex emotional needs, making them a key

demographic for mental health and spiritual care interventions. As such, older adults offer a broader scope for psychosocial and spiritual support (Cheng et al., 2023).

2.3.2 Gender

Gender is a significant determinant influencing spiritual needs, often resulting in differing levels of spiritual requirements between male and female patients (Shi et al., 2023). A study conducted by Kang et al. (2020) among Korean cancer patients revealed that women are more likely to express a stronger need for spiritual care. These findings are consistent with a cross-sectional survey, which reported that approximately 25% of female cancer patients expressed a desire for psychological support, compared to only 10% of male patients.

This gender-based discrepancy may be attributed to differing perceptions and interpretations of spiritual distress. Women may be more likely to acknowledge and express emotional and existential concerns, whereas men might underreport or fail to recognize such needs (Rassoulilian et al., 2021). These findings underscore the importance of incorporating gender-sensitive approaches into the provision of spiritual care for cancer patients.

2.3.3 Marital status

Marital status is an important sociodemographic factor influencing spiritual needs. Family relationships are often central to the spiritual well-being of cancer patients, and marital status plays a crucial role in shaping an individual's sense of meaning and emotional support (Kang & Choi, 2020).

A cross-sectional survey of patients with breast cancer found that individuals without a partner reported higher levels of spiritual needs compared to those who were partnered (Du et al., 2022). Similarly, a study by Shi et al. (2023), involving 200 hospitalized cancer patients, indicated that widowed or divorced individuals scored,

on average, 8.531 points higher on spiritual needs compared to married patients. Furthermore, cancer patients in stable and supportive marital relationships tended to report lower spiritual needs, possibly due to the emotional reassurance and companionship provided by their spouses.

2.3.4 Religion

Spirituality is frequently linked to religion in Western studies, where religious beliefs often form the foundation of spiritual experiences (Bradford, 2023). Religious cancer patients may interpret their illness as a manifestation of divine will and find comfort through prayer and other religious practices (Rassoulilian et al., 2021). A study conducted by Y. Zhao et al. (2019) among Chinese cancer patients confirmed a positive correlation between spiritual needs and religious beliefs.

However, a survey by Cheng et al. (2018) involving Chinese patients with chronic diseases, including cancer, found that religious needs were not considered highly important in the process of coping with illness. Most participants reported not feeling the presence of God during their illness experience. This divergence may stem from differing cultural understandings of spirituality and the role of religion among Chinese populations, where spirituality is often more connected to personal reflection, family values, and emotional balance than to organized religious practice.

2.3.5 Education

Different levels of education have also been found to influence the degree of spiritual needs. Büssing et al. (2013) compared spiritual needs across education levels and observed that individuals with a high school education or above reported higher spiritual needs. This may be related to their greater awareness of and willingness to actively seek spiritual care. Patients with lower educational attainment demonstrated

higher spiritual needs, possibly reflecting a greater reliance on spiritual or existential resources when coping with illness-related stress (Stripp et al., 2023).

However, a study by Alford (2017) conducted among older adults with cancer in the United States found no significant association between education level and spiritual needs. This finding contrasts with previous research and highlights the complexity of factors influencing spiritual needs, warranting further investigation.

2.3.6 Income

A study on the spiritual needs of advanced cancer patients and their caregivers in South Korea found that spiritual needs were significantly associated with income. Specifically, individuals reporting a monthly income greater than 6,000,000 won exhibited higher levels of spiritual needs compared to those earning between 2,000,000 and 3,990,000 won (Kang & Choi, 2020). A stable income provides cancer patients with a stronger economic foundation to cope with disease-related stress, and individuals with higher incomes generally experience less psychological distress (Shi et al., 2023).

However, the extent to which spiritual needs are acknowledged and supported may also shape patients' experiences of financial and psychosocial burden. Stripp (2023) emphasized that unaddressed spiritual distress can exacerbate overall suffering, influence patients' coping with illness-related stressors, and indirectly intensify perceived burden during cancer care. In contrast, integrating spiritual assessment and support into routine oncology care may help patients achieve greater inner peace, clarify care preferences, and reduce distress-driven healthcare utilization. These findings suggest that addressing spiritual needs may not only enhance emotional well-being but also contribute to more sustainable and patient-centered care, particularly for individuals facing economic vulnerability.

2.4 Cancer Characteristic Among Cancer Patients

2.4.1 Type of cancer

A survey conducted by Y. Zhao et al (2019) involving 457 cancer patients in Xinjiang, China, found varying levels of spiritual needs depending on cancer type. Shi et al. (2023) reported that, among several high-incidence cancers, patients with breast cancer exhibited higher spiritual needs. Similarly, a study by Kim et al. (2007) investigating the impact of different cancer types on spiritual distress revealed that patients diagnosed with kidney cancer, lung cancer, non-Hodgkin lymphoma, and cutaneous melanoma experienced higher levels of spiritual distress compared to those with breast or ovarian cancer.

2.4.2 Time since diagnosis

Research on the relationship between time since diagnosis and spiritual needs is relatively limited. However, some Chinese scholars have noted that spiritual needs are associated with disease duration. Specifically, patients diagnosed with stage IV cancer or who had been diagnosed within the past 6 to 12 months reported higher levels of spiritual needs (Cheng et al., 2018). Likewise, a study on female breast cancer patients also demonstrated a link between time since diagnosis and psychological or spiritual demands (Du et al., 2022). Due to the limited number of existing studies on this topic, the relationship between timing of diagnosis and spiritual needs remains an area with considerable potential for further exploration.

2.5 Depression Among Cancer Patients

Depression is one of the most common and severe psychological complications among cancer patients. It is typically characterized by anhedonia, loss of appetite, emotional withdrawal, a sense of hopelessness, and frequent crying (Mejareh et al., 2021).

However, diagnosing depression in cancer patients is often challenging due to the overlap between depressive symptoms and the physical manifestations of cancer itself. Mejareh (2021) noted that the clinical presentation of depression may be masked by cancer-related fatigue, weight loss, and sleep disturbances. A systematic review by Essue et al. (2020) highlighted the substantial psychosocial cost burden associated with cancer, including productivity loss, reduced work participation, and long-term socioeconomic consequences, underscoring the importance of early psychological assessment and intervention to mitigate these downstream impacts.

Several studies have shown that depression can intensify patients' spiritual needs. Büssing and Koenig (2010) found that individuals with higher levels of depression often exhibited a stronger desire for spiritual support. In China, Chen et al. (2021) conducted a study among gynaecological cancer patients receiving palliative care and found, using the Hospital Anxiety and Depression Scale (HADS), that better mental health was associated with reduced anxiety and depression, both of which were significantly related to spiritual needs.

In China, various validated instruments have been employed to assess depression among cancer patients. These tools have been adapted to the Chinese cultural and linguistic context to enhance reliability and clinical applicability. A summary of commonly used depression assessment instruments in recent cancer-related studies is presented in Table 2.1. Among these tools, the PHQ-9 is widely preferred for its brevity, ease of use, and proven reliability and validity in both general and cancer-specific populations (Hinz et al., 2016). It enables efficient self-assessment of depression, making it particularly suitable for large-scale clinical application.

Table 2.1 Commonly Used Depression Assessment Instruments Among Cancer Patients in China

Researcher	Year	Assessment instrument
Qiu et al.	2012	Chinese version of Hamilton Depression Scale (HAMD)
Y. Zhao et al.	2019	Chinese version of Hospital anxiety and depression scale (HADS)
Huang et al.	2020	Chinese version of Hospital anxiety and depression scale (HADS)
Wu et al.	2021	Chinese version of patient Health Questionnaire (PHQ-9)
R. Zhao et al.	2022	Self-Rating Depression Scale (SDS)

2.6 Social Support Among Cancer Patients

Social support is a multifaceted construct that encompasses both formal and informal networks, including relationships with family, friends, healthcare professionals, and community organizations (Ruiz-Rodriguez et al., 2022). During the course of cancer treatment, patients often experience a range of negative emotions, including self-doubt, social withdrawal, and emotional isolation. The erosion of social roles and communication difficulties can lead to unmet emotional and psychological needs. Many patients are unable or unwilling to share their distress with family and friends, and thus rely on multiple sources of support—including family members, healthcare institutions, and other social groups—to cope with the psychological burden of illness (J. A. Shih et al., 2019).

Meeting patients' social support needs has been shown to enhance their ability to manage chronic illnesses, including cancer, and to improve health outcomes (Stev & Hertina, 2025). Ciria-Suarez et al. (2021) confirmed the positive effect of social

support on psychological coping mechanisms among cancer patients. Similarly, a study by Du et al. (2022) involving 228 Chinese breast cancer patients revealed that higher levels of perceived social support were associated with lower rates of anxiety and depression, whereas insufficient support was linked to heightened emotional distress.

In addition to family and friends, nurses and religious groups also play a vital role in providing emotional assistance to cancer patients (Zumstein-Shaha et al., 2020). Social support can promote psychological resilience by helping patients resolve emotional conflicts through positive coping mechanisms (Stev & Hertina, 2025). A growing number of patients have expressed a willingness to discuss their emotional concerns with healthcare professionals (Bradford, 2023). This trend underscores the need for medical professionals to not only address patients' physical symptoms but also to be attentive to their psychological and spiritual well-being. With the expansion of holistic care models, nurses are increasingly expected to identify patients' spiritual needs and provide appropriate support (Shi et al., 2023). Zumstein-Shaha (2020) emphasized that nurses should leverage available resources to meet these needs, such as encouraging patients to articulate their emotions and feelings.

Several validated instruments have been employed to assess social support in cancer patients. The Social Support Revalued Scale (SSRS) is commonly used to measure social support in patients with advanced cancer (Shi et al., 2023). Another widely applied tool is the Multidimensional Scale of Perceived Social Support (MSPSS), which evaluates perceived support from family, friends, and significant others (Zimet, 1988).

2.7 Conceptual Framework

This study is conceptually guided by the Neuman Systems Model, which views the patient as an open system that constantly interacts with environmental stressors (NEUMAN & YOUNG, 1972). In the context of cancer, disease-related factors and depressive symptoms act as major stressors that may disrupt system stability, while perceived social support functions as a key protective resource. When stressors exceed the individual's coping capacity and available resources are insufficient, disturbances may extend to the spiritual domain, resulting in increased spiritual needs. Guided by this theoretical perspective, the conceptual framework of this study proposes that sociodemographic characteristics, cancer-related factors, depression, and social support jointly influence the level of spiritual needs among hospitalized cancer patients (Neuman, 2011) .

The conceptual framework of the present study is illustrated in Figure 2.1. It depicts the proposed relationships among sociodemographic characteristics, cancer-related factors, depressive symptoms, perceived social support, and spiritual needs among hospitalized cancer patients. Sociodemographic characteristics and cancer-related factors are conceptualized as background and disease-related variables, while depression represents a key psychological factor and social support serves as a protective psychosocial resource. All four domains are hypothesized to exert direct influences on patients' spiritual needs. In addition, cancer-related factors are proposed to influence depressive symptoms, and social support is expected to have a direct effect on depression, reflecting the interplay between clinical, psychological, and social dimensions.