

# Correlation Between Spirituality and Anxiety Levels in Patients with Cancer

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## Abstract

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**Background:** Cancer is one of the non-communicable diseases that causes significant anxiety in patients, both during the diagnosis process and treatment. This anxiety can affect the patient's quality of life, so a holistic approach is needed in treatment, including aspects of spirituality.

**Objective:** The aim of this study was to identify the correlation between spirituality and anxiety levels of patients with cancer.

**Methods:** This study was conducted quantitatively with a cross-sectional approach using sociodemographic questionnaire, Spiritual Well-Being Scale (SWBS), and Hamilton Anxiety Rating Scale (HARS). This study involved 60 cancer patients in a hospital in Makassar.

**Results:** Majority of respondents did not experience anxiety, amounting to 27 respondents (46.7%) and over half respondents had good spirituality level, which accounting for 31 (51.7%) respondents. In addition, the Chi Square test analysis obtained a p-value of 0.001, indicating that there was a significant correlation between spirituality and anxiety level of respondents.

**Conclusion:** There is a significant relationship between spirituality and anxiety levels of patients with cancer. Therefore, the integration of spiritual support in cancer care, especially chemotherapy and palliative patients, is highly recommended to improve the psychological well-being of patients.

**Keywords:** Anxiety; cancer; spirituality

## Introduction

Cancer is one of the most serious global health problems and a leading cause of death worldwide (World Health Organization (WHO), 2024). The International Agency for Research on Cancer (IARC) in 2022 recorded 20 million new cases and 9.7 million deaths worldwide (Globocan, 2024). In 2020, there were 606,520 deaths due to cancer in the United States. This figure increased to 608,570 in 2021, and rose to 609,360 deaths in 2022, then continued to increase to 609,820 in 2023. This increase shows an alarming trend in cancer mortality rates (American Cancer Society, 2024).

Cancer patients often experience high levels of anxiety, especially during the process of diagnosis, treatment and relapse (PDQ Supportive and Palliative Care Editorial Board., 2023). When the patient's anxiety becomes a clinical problem when its intensity and duration exceed reasonable limits (Grassi *et al.*, 2023). Not only that, cancer can also cause patients to experience various physical, psychosocial, spiritual, anxiety and other problems (Fitriani and Agus, 2023). Therefore, it is important to pay attention to the anxiety experienced by cancer patients. Anxiety can affect a patient's quality of life and worsen their health condition. Spirituality, as an important dimension in holistic care, is believed to play a role in reducing anxiety levels in cancer patients. However, despite many studies addressing this relationship, there are still limitations in terms of methodology, the population studied, and the cultural context.

Spirituality is a source of strength for patients because it can help in dealing with anxiety and provide psychological well-being (Zarzycka *et al.*, 2024). It is evident that spiritual distress often comes with a decline in physical or mental health, especially as the disease progresses or the prognosis becomes worse (Connolly and Timmins, 2021). Religious and spiritual beliefs

can contribute to positive mental health through mechanisms such as religious morality, religious countermeasures, and social connectedness due to shared beliefs (Aggarwal et al., 2023). Spiritual needs during illness are often underestimated. By understanding the meaning of life, spiritual care helps patients find inner peace and can overcome anxiety about illness, besides being spiritually beneficial for mental health, physical health and coping with challenging situations (Torabi) *et al.*, 2023). Therefore, it is necessary to develop a clear approach to encapsulate the entire spiritual care process because each case of spiritual care is unique (Nissen et al., 2021).

Therefore, it is important to understand the spirituality aspect in the well-being of the patient. This study aimed to explore correlation between spirituality and anxiety levels of cancer patients. Thus, this study is expected to answer the question: "Is there a relationship between the level of spirituality and the level of anxiety in cancer patients?".

## Methods

### Study Design

This study employed a cross-sectional design.

### Samples/Participants

The sample in this study was all types of cancer patients with the number of samples involving 60 patients. The sampling technique used a non-probability sampling method with a purposive sampling technique based on certain criteria set by the researcher. Inclusion criteria included: 1) patients who have been diagnosed with any type of cancer; 2) aged 20-65 years; 3) cancer patients who experienced anxiety; 4) patients underwent active treatment in a hospital; 5) cancer patients with certain stages (I,II,III,IV). Exclusion criteria included: 1) cancer patients with serious mental disorders; 2) cancer patients with loss of consciousness; and 3) patients who were unable to communicate well.

### Instruments

Data were collected using sociodemographic questionnaire, Spiritual Well-Being Scale (SWBS), and Hamilton Anxiety Rating Scale (HARS). The SWBS questionnaire was adopted from Mulidah et al. (2024) to determine the patient's spirituality. This questionnaire used Likert scale, which consisted of 20 question items. This questionnaire consisted of 6 scale which were a scale of 1 (Strongly Disagree), 2 (Strongly Disagree), 3 (Strongly Disagree), 4 (Agree), 5 (Strongly Agree), 6 (Strongly Agree), which comprised 3 indicators of individual beliefs, religious practices, and individual satisfaction. The SWBS instrument has been tested for validity and reliability with Cronbach Alpha 0.879 (Mulidah et al., 2024). The HARS questionnaire was used to assess the level of anxiety, which adopted from Rismawan and Widya (2020). This questionnaire used a likert scale totaling 14 questions, comprising 4 scales of 0 (No Anxiety), 1 (Mild Anxiety), 2 (Moderate Anxiety), 3 (Severe Anxiety), 4 (Panic). The indicators included feelings of anxiety, feelings of tension, feelings of fear, sleep disorders, intelligence disorders, depressive disorders, somatic disorders (muscles), cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, urogenital symptoms, autonomic symptoms and behavioral symptoms. The HARS instrument has been tested for reliability and validity with Cronbach Alpha 0.793 (Rismawan and Widya, 2020).

### Data Collection

This research was conducted for a month at Ibnu Sina YW-UMI Makassar Hospital in three treatment rooms. All types of cancer patients and information was obtained from the head of the room or the implementing nurse in the treatment room. This research involved the research coordinator with the task of compiling a research plan, setting a schedule, allocating resources, ensuring that the research runs well and communicating with other research teams, then the research assistant helps in collecting respondent data in accordance with predetermined criteria. The first data collection process was through communication to the nurse of patients diagnosed with cancer, the type of cancer experienced and the room, then respondents who met the criteria were given informed consent. If the patients agreed, the researchers gave the questionnaires to be filled out to cancer patients who experienced anxiety.

## Data Analysis

This study used the Chi-Square statistical test to determine the relationship between variables. The Chi-Square test provided a methodologically appropriate approach to test the hypothesis especially in this study whether there was a relationship between the spirituality and the anxiety level of cancer patients.

## Ethical Considerations

Before data collection, ethical clearance was secured from the Health Research Ethics Committee (KEP) of Universitas Muslim Indonesia with approval number: 675/A.1/KEP-UMI/XII/2024 and register number UMI 012411779. The study procedures adhered to the ethical standards outlined in the Declaration of Helsinki. All participants received a clear explanation of the study's objectives, were informed that their participation was entirely voluntary, and were assured of their right to withdraw at any point without any adverse consequences.

## Results

### Demographic Characteristics

Table 1 shows that of 60 respondents, most of respondents were female, which was 54 people (90.0%). Based on age, majority of respondents were early elderly, accounting for 21 (35%). Furthermore, most of them were at the high school education level totaling 27 people (45.0%), unemployed with a total of 53 people (88.3%), and at an income level of IDR <3,500,000 with a total of 46 people (76.7%). Based on the characteristics of the stage of cancer, majority were at stage 1 with a total of 37 people (61.7%) with mostly diagnosed with ca mammae amounted to 21 people (35.0%).

Table 1. Respondents' Characteristics (n= 60)

Characteristics	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	6	10.0
Female	54	90.0
<b>Age</b>		
Late Teens (17-25 years old)	3	5.0
Early Adult (26-35 years)	5	8.3
Late Adult (36-45 years)	14	23.3
Early Elderly (46-55 years old)	21	35.0
Late Elderly (56-65 years old)	17	28.3
<b>Education</b>		
Elementary School	14	23.3
Junior High School	16	26.7
Senior High School	27	45.0
College and Above	3	5.0
<b>Work</b>		
Employed	7	11.7
Unemployed	53	88.3
<b>Family Income</b>		
< 3,500,000	46	76.7
≥ 3,500,000	14	23.3
<b>Stage of Cancer</b>		
Stage 1	37	61.7
Stage 2	12	20.0
Stage 3	9	15.0
Stage 4	2	3.3
<b>Types of Cancer</b>		
Ca Mammae	21	35.0
Ca Ovary	16	26.7

Cervix	12	20.0
Ca Colon	2	3.3
Lung Disease	3	5.0
Ca Endometrium	6	10.0
<b>Total</b>	<b>60</b>	<b>100</b>

Source: Primary Data, 2025

### Descriptive Findings of Study Variables

Table 2 shows that majority of respondents did not experience anxiety amounting to 27 respondents (46.7%) and over half respondents had good spirituality level, which accounting for 31 (51.7%) respondents.

Table 2. Distribution of Respondent Based on the Anxiety and Spirituality Level

	Anxiety	n	%
<b>Anxiety</b>			
Not anxious		27	46.7
Mild anxiety		15	25.0
Moderate anxiety		15	25.0
Severe anxiety		2	3.3
<b>Spirituality</b>			
Less		29	48.3
Good		31	51.7
<b>Total</b>		<b>60</b>	<b>100</b>

Source: Primary Data, 2025

### Correlation among Study Variables

Table 4 shows the results of the Chi Square test analysis obtaining a p-value of 0.001, indicating that there was a significant relationship between spirituality and anxiety level in cancer patients at Ibnu Sina YW-UMI Makassar Hospital.

Table 4. Correlation Analysis Between Spirituality and Anxiety Levels in Cancer Patients

Category	Anxiety Level				Total	p-value
	Not Anxious		Anxious (mild, moderate, severe)			
Spiritual	n	%	n	%	n	%
Less	20	33,3	9	15.0	29	48.3
Good	7	11.7	24	40.0	31	51.7
Total	27	45.0	33	55.0	60.0	100.0

Source: Primary Data, 2025

## Discussion

The finding of this study highlights that there is correlation between spirituality and anxiety level in patient with cancer. The results of this study are in line with previous study which states that low family support leads to low spirituality. Support from family, especially close family such as parents or spouses, is needed to fulfill the patient's spirituality. Patients are also directed to get closer to God. High spirituality will help the patient in a more positive direction. In addition, the coping mechanism also depends heavily on a person's character and anxiety level when facing what is happening. Such beliefs are reflected in the individual's relationship with himself, others and ongoing conditions. Coping sources such as spirituality will help develop adaptive coping so that anxiety levels are in mild or moderate levels (Haris et al., 2024).

Other evidence suggested that spiritual needs during illness are often underestimated, by understanding the meaning of life, spiritual care helps patients find inner peace and can overcome anxiety about illness (Torabi et al., 2023). It is also in accordance with a study which stated that spirituality can reduce anxiety, improve quality of life and be an appropriate treatment strategy for patients suffering from cancer. Positive spiritual well-being can help individuals to overcome the problems experienced when they are sick and feel connected to something higher, find meaning and purpose in life so that they can improve the quality of life of cancer patients (Wiksuarini et al., 2022).

In this study, the respondents had good spirituality (40.0%) but it was still found that patients experienced anxiety either mild, moderate or severe due to age factors, in this study patients with old age have good spirituality but patients will still feel worried about death and loss so that it can cause anxiety. Spirituality has an effect on reducing the level of anxiety or depression of cancer patients, because with good spirituality it can be used as strength and coping of individuals who can provide support or enthusiasm for life in facing the reality of their disease.

Based on the researchers' assumptions, when patients feel connected to their spiritual values, they will be better able to accept their circumstances and develop a sense of peace. Integrating the spiritual aspect in the care of cancer patients is essential, by providing interventions that integrate the spiritual aspect with emotional and psychological support can help elderly patients manage their anxiety more effectively. This study has limitations including the limited number of samples which limits the generalization of results to a wider population.

## Conclusion

The conclusion of this study is that there is a significant relationship between spirituality and anxiety levels of cancer patients. Therefore, the integration of spiritual support in cancer care, especially chemotherapy and palliative patients, is highly recommended to improve the psychological well-being of patients.

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