

The Role of Social Support and Spiritual Health in Predicting Death Anxiety in Patients with Cancer

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Abstract

Background: Understanding the relationship between social support and spiritual health with death anxiety in patients with cancer is crucial for developing effective interventions to improve their quality of life and reduce distress.

Objectives: The objective of this study was to investigate the impact of social support and spiritual health on death anxiety in cancer patients, with a specific focus on determining the relative contributions of each factor.

Methods: This descriptive-correlational study included all patients with cancer in Tehran as the study population in 2023. A total of 302 patients with cancer were selected as the sample using a convenience sampling method. The instruments included questionnaires on death anxiety, social support, and spiritual health. Data were analyzed using the Pearson correlation coefficient and stepwise regression.

Results: Findings revealed a significant negative association between social support and death anxiety ($P < 0.001$). Additionally, a significant negative association was found between spiritual health and death anxiety ($P < 0.001$). According to the results, spiritual health had a greater association with death anxiety in patients with cancer.

Conclusion: Based on these findings, both social support and spiritual health contribute to mitigating death anxiety among cancer patients. Notably, spiritual health appears to have a more pronounced impact on reducing death anxiety compared to social support in this population. These findings highlight the importance of incorporating psychosocial interventions that address both social support and spiritual well-being into comprehensive cancer care.

Keywords: Spiritual Health, Social Support, Death Anxiety, Cancer

1. Background

Cancer, despite advancements in treatment, remains a life-threatening disease that often evokes significant psychological distress, including death anxiety.¹ This fear of death can be exacerbated by various factors, such as the perceived proximity of death, the uncertainty of prognosis, and the loss of control over one's life.^{2,3} Understanding the predictors of death anxiety in cancer patients is crucial for developing effective interventions to alleviate this distress and improve their quality of life.⁴

One common psychological complication in patients with cancer is death anxiety.⁵ Upon receiving a cancer diagnosis, patients may experience fear, stress, depression, and worry about their uncertain future, suggesting a strong association between cancer and depression.⁶ Studies have revealed a significantly higher prevalence of depression (54.9%) and anxiety (49.69%) among adult patients with cancer compared to the general population (17.5% and 37.18%, respectively).⁷ The presence of depression and anxiety not only prolongs recovery time

but also impairs immune response and reduces quality of life in these individuals.^{8,9}

Depression, a prevalent mood disorder, significantly affects patients with cancer despite its frequent occurrence and substantial impact.¹⁰ Characterized by a lack of pleasure, social withdrawal, diminished motivation, and intolerance of failure, depression also manifests in somatic symptoms like decreased libido, altered appetite and weight, reduced energy, fatigue, and sleep disturbances.¹¹ Despite its clear implications, depression is often overlooked in cancer treatment. Physicians may fail to screen depression symptoms due to various factors, including difficulties in eliciting these symptoms and the concurrent presence of depression alongside cancer.¹² However, depression can have severe consequences for patients with cancer, including reduced quality of life, heightened pain sensitivity, impaired relationships, decreased responsibility, increased burden on caregivers, elevated suicide risk, prolonged hospitalization, and diminished hope.¹³

The nature of interactions between these patients and their spouses, children, parents, siblings, friends, and other social network members often differs from pre-diagnosis relationships. These individuals, to varying degrees, become dependent on others and are less capable of providing support. Consequently, their interpersonal interactions become limited, potentially leading to social isolation. As a result, their need for social support intensifies.¹⁴ Social support refers to interpersonal exchanges among members of a social network, characterized by reciprocal, informal, and typically voluntary relationships that serve a beneficial purpose. It encompasses two functional domains: perceived social support and social network size.¹⁵ Perceived social support reflects an individual's perception of the support they receive, while social network size refers to all individuals known by a person or patient.¹⁶ Research has demonstrated that adequate social support for patients with cancer plays a crucial role in maintaining psychological well-being, facilitating adaptation, and coping with cancer.^{17,18} Additionally, social support has positive effects on quality of life, enhancing patients' coping mechanisms and reducing stress and depression.¹⁹

Social support, encompassing emotional, instrumental, and informational support, plays a crucial role in mitigating death anxiety by providing a sense of belonging, reducing feelings of isolation, and enhancing coping mechanisms. It can alleviate emotional distress, improve mood, and foster a positive outlook on life.²⁰ Spiritual health, encompassing both religious and existential dimensions, can also significantly influence death anxiety. Religious health, characterized by a connection with a higher power, can provide solace, hope, and meaning in life, thereby reducing fear of death.²¹ Existential health, which involves a sense of purpose, connection, and self-worth, can enhance coping abilities, promote resilience, and foster a positive outlook on life, all of which can contribute to lower levels of death anxiety.^{22,23} Numerous studies have demonstrated a significant correlation between high levels of spiritual health and various aspects of mental health, including reduced anxiety and depression.^{24,25}

Upon receiving a cancer diagnosis, patients often experience fear, stress, depression, and anxiety about their uncertain future. Despite the frequent occurrence and significant impact of depression in oncology, it is often overlooked in cancer treatment due to factors such as physicians' failure to screen depression symptoms, difficulties in eliciting these symptoms, and the concurrent presence of depression alongside cancer. Given the negative consequences of death-related depression for patients with cancer, the lack of research examining the combination of variables in this study, and the unique circumstances of these patients, this research was deemed essential. Based on the aforementioned literature and

research, there is a clear need to address the challenges faced by these patients.

2. Objectives

The aim of this study was to investigate the role of social support and spiritual health in predicting death-related depression among patients with cancer.

3. Methods

A descriptive correlational study was conducted to investigate the relationship between research variables. The target population for this study comprised all cancer patients in Tehran, Iran, in 2023. A convenience sample of 302 cancer patients was recruited to participate. This sample size was determined through a power analysis to ensure adequate statistical power to detect significant relationships between the variables of interest. To be eligible for inclusion, participants had to have a confirmed cancer diagnosis, be willing and able to participate, and be able to understand and complete the self-administered research questionnaires. Participants were excluded if they had incomplete questionnaires or withdrew consent at any point during the study. To ensure adequate statistical power for testing the proposed model and research hypotheses, a minimum sample size of 270 subjects was required. Considering potential attrition, a slightly larger sample size of 315 subjects was initially selected. Ultimately, 302 subjects completed the questionnaires in full and were included in the final analysis. Missing data were handled using listwise deletion.

3.1. Instruments

3.1.1. The Death Anxiety Scale (DAS)

The Death Anxiety Scale (DAS) is a 15-item self-report measure that assesses multiple dimensions of death anxiety, including thoughts about death, preoccupation with death, fear of a shortened lifespan, and anxieties about the future.²⁶ The DAS has demonstrated strong psychometric properties, with reported internal consistency (alpha) of 0.89 and test-retest reliability of 0.91.²⁷ In the present study, the reliability of the DAS was confirmed using Cronbach's alpha, yielding a coefficient of 0.86.

3.1.2. The Social Support Survey (SSS)

The Social Support Survey (SSS), developed by Sherbourne and Stewart,²⁸ was employed to measure social support. The SSS is a 19-item questionnaire that assesses various dimensions of social support, including tangible support (material and behavioral assistance), emotional support (positive emotions, empathy, and encouragement), informational support (guidance, information, and feedback), affectionate support (love and affection), and positive social interaction (presence of individuals for recreational activities). The SSS has demonstrated good reliability, with an alpha Cronbach

coefficient of 0.85 reported by Musavinasab et al.²⁹

3.1.3. Spiritual Well-being Scale

The Spiritual Well-being Scale, developed by Paloutzian and Ellison,³⁰ is a 20-item self-report measure comprising two subscales: religious well-being, which assesses an individual's experience of a satisfying relationship with God, and existential well-being, which measures feelings of purpose and life satisfaction. The scale uses a 6-point Likert scale ranging from strongly agree to strongly disagree. For positive items, "strongly agree" is scored as 6, and "strongly disagree" is scored as 1. The total spiritual well-being score is calculated by summing the scores of all items. Paloutzian and Ellison³⁰ reported a Cronbach's alpha coefficient of 0.93 for the overall scale. In the present study, the internal consistency of the Spiritual Well-being Scale was assessed using Cronbach's alpha, yielding a coefficient of 0.84.

3.2. Statistical Analysis

For analysis of the data collected in this study, SPSS version 27 was used. Descriptive statistics, including mean and standard deviation, were employed to summarize the data. The normality for variables was assessed using skewness and kurtosis values. Inferential statistics, such as the Pearson correlation coefficient and stepwise regression, were used to examine the prediction of death-related depression based on social support and spiritual health. Stepwise regression was employed to identify the most parsimonious model that includes only the most

significant predictors of death-related depression.

4. Results

The average age of the patients with cancer was 46.04 years, with a standard deviation of 10.23 years. Regarding marital status, 88 (29.1%) patients were single, while 214 (70.9%) were married. In terms of gender, the sample was relatively balanced, with 153 (50.7%) female patients and 149 (49.3%) male patients. The majority of patients (195, 64.6%) held a bachelor's degree, followed by 64 (21.2%) with a high school education. A smaller proportion had middle school (23, 7.6%), master's (17, 5.6%), or Ph.D. (3, 1.0%) education.

Table 1 presents the mean, Standard Deviation (SD), skewness, and kurtosis of the study variables. The mean death anxiety score was 43.31, with a SD of 9.64. The distribution of death anxiety scores was slightly skewed to the left (-0.25) and had a kurtosis of -0.37, indicating a mesokurtic distribution. Regarding social support, the mean score was 55.39 with a SD of 12.27. The distribution of social support scores was nearly symmetrical (-0.02) with a slight positive kurtosis (1.05), suggesting a leptokurtic distribution. For spiritual health, the mean score was 73.99 with a standard deviation of 13.01. The distribution of spiritual health scores was slightly skewed to the right (0.27) with a mesokurtic distribution (-0.28). However, the deviations from normality were relatively minor, suggesting that parametric statistical tests could still be used with caution.

Table 1. Mean, SD, Skewness, and Kurtosis of Study Variables

Variables	Mean	SD	Skewness	Kurtosis
Death anxiety	43.31	9.64	-0.25	-0.37
Social support	55.39	12.27	-0.02	1.05
Spiritual health	73.99	13.01	0.27	-0.28

Table 2. Correlation Coefficients among the Study Variables

Variables	Death anxiety
Death anxiety	1
Social support	-0.33**
Spiritual health	-0.35**

** $p < 0.01$

Table 3. Results of Stepwise Regression Analysis

Model	Predictor variable	F	R	R ²	B	SE	β	t	P
1	Spiritual health	34.19	0.32	0.10	-0.24	0.04	-0.32	-5.85	0.001
2	Social support	31.53	0.42	0.17	-0.22	0.04	-0.27	-5.10	0.001

Table 2 presents the correlation coefficients among the study variables. As shown in Table 2, social support was negatively and significantly correlated with death anxiety ($r = -0.33$), and spiritual health was also negatively and significantly correlated with death anxiety ($r = -0.35$). To determine which variable had a stronger predictive effect on death anxiety, a stepwise regression analysis was conducted. Social support and spiritual health were entered as predictor variables, and death

anxiety was entered as the outcome variable.

The results of the stepwise regression analysis are presented in Table 3. As shown in Table 3, in the first model, spiritual health had the greatest impact on predicting death anxiety. The correlation coefficient between spiritual health and death anxiety was -0.32, and this variable was able to explain 10% of the variance in death anxiety. In the second model, after spiritual health, social support was entered into the equation. The

correlation coefficient between social support and death anxiety was -0.42, and this variable was able to explain approximately 17% of the variance in death anxiety. The entry of the social support variable increased the predictive power by 7%. Accepting the order of the variable entry, spiritual health, with a standardized beta of -0.32, had the greatest contribution to predicting changes in death anxiety, followed by the social support variable, with a standardized beta of -0.27, which played a significant role in predicting death anxiety.

5. Discussion

The study aimed to investigate the relationship between social support, spiritual health, and death anxiety in patients with cancer. The results of the present study indicated a significant negative correlation between social support and death anxiety among patients with cancer. This finding aligns with the results of previous studies by Bibi and Khalid³¹ and Ebrahimi et al.³² For instance, Bibi and Khalid³¹ found that perceived social support was negatively correlated with death anxiety among breast cancer patients in Pakistan. Similarly, Ebrahimi et al.³² reported a significant negative association between social support and death anxiety among the elderly population. Social support, which encompasses the assistance and resources individuals receive from their social networks, can take various forms, including emotional, informational, and tangible support. By reducing feelings of loneliness and isolation, often exacerbated by chronic illnesses, social support can mitigate death anxiety. A robust social network can provide patients with cancer with a sense of security and belonging, thereby decreasing stress and anxiety levels and subsequently reducing death anxiety.³¹

Social support empowers patients to share their concerns and challenges with others, seeking guidance and assistance. This support can facilitate the development and improvement of coping strategies for both the disease and associated psychological issues. By leveraging the guidance and support of others, patients can identify more effective solutions to mitigate death anxiety and alleviate negative emotions.³² Moreover, social support can bolster hope and motivation among patients. When individuals perceive that others care about them and are actively engaged in their well-being, it can enhance their hope and reduce death anxiety. The presence of supportive networks assists patients in better managing their emotions and the stress associated with their illness. Social support can equip patients with effective coping mechanisms to navigate the emotional and psychological challenges of their disease, ultimately reducing the severity of death anxiety and improving their quality of life.

Another key finding of this study was a significant negative correlation between spiritual health and death anxiety among patients with cancer. This finding aligns

with the results of previous research by Taghiabadi et al.,³³ and Feng et al.³⁴ Spiritual health, characterized by a sense of purpose, meaning, and connection to a higher power or spiritual beliefs, can significantly influence an individual's psychological and emotional well-being. These spiritual dimensions can profoundly impact the psychological and emotional experiences of patients, particularly when confronted with significant challenges such as cancer. Spiritual health empowers patients with cancer to find meaning and purpose in their lives.³³ This sense of meaning can alleviate feelings of despair and hopelessness associated with illness and mortality. When individuals discover a deeper meaning in their lives and experiences, it can lead to a reduction in death anxiety. Moreover, spiritual health can enhance an individual's ability to cope with the psychological and physical challenges posed by the specific disease.³⁴

Spiritual and religious beliefs can provide patients with coping mechanisms for managing stress and anxiety, which in turn can reduce death anxiety. Individuals with high levels of spiritual health may benefit from greater spiritual social support, such as participation in religious or spiritual groups.³⁵ This spiritual support can alleviate feelings of loneliness and enhance a sense of belonging, positively impacting their psychological well-being. A strong connection to spiritual beliefs and values can mitigate negative emotions associated with illness. Patients with high spiritual health may experience fewer negative emotions like anxiety and death anxiety, as their spiritual beliefs equip them to cope with challenges in a more constructive manner.²⁵

One limitation of this study was that the convenience sampling method used to recruit participants may limit the generalizability of the findings. The sample was restricted to patients with cancer in Tehran, and therefore, generalizing the results to patients with other chronic illnesses or in different geographical locations should be done with caution. Another limitation was the reliance on self-report measures, which may be subject to social desirability bias, potentially affecting the accuracy of the reported data. Additionally, the cross-sectional design of the study prevents causal inferences, as it does not allow the determination of temporal relationships between variables.

6. Conclusion

Based on the findings of this study, it can be concluded that both social support and spiritual health play a significant role in mitigating death anxiety among patients with cancer. The results demonstrate a robust negative correlation between these factors and death anxiety, suggesting that increased levels of social support and spiritual health are associated with lower levels of fear and apprehension in regards to death. Notably, spiritual health appears to have a more pronounced impact

on reducing death anxiety compared to social support in this patient population. These findings underscore the importance of incorporating psychosocial interventions that address both social support and spiritual well-being into comprehensive cancer care. By fostering a sense of connectedness with others and providing opportunities for spiritual exploration and meaning-making, healthcare providers can potentially alleviate death anxiety and enhance the overall quality of life for patients with cancer. Further research is warranted to delve deeper into the underlying mechanisms through which social support and spiritual health influence death anxiety in patients with cancer. Understanding these mechanisms can inform the development of more targeted and effective interventions to address this distressing aspect of the cancer experience.

Research Highlights

What Is Already Known?

Psychosocial factors, such as social support and spiritual health, are crucial for helping patients with cancer cope with distress. Studies have demonstrated the positive effects of social support on emotional well-being, quality of life, and coping with cancer-related challenges. Additionally, recent research suggests that spiritual health can also play a significant role in alleviating distress and promoting psychological resilience in patients with cancer.

What Does This Study Add?

This study contributes to the existing literature by providing empirical evidence for the significant impact of both social support and spiritual health on death anxiety among patients with cancer. Moreover, the study highlights the greater contribution of spiritual health in mitigating death anxiety compared to social support, suggesting that interventions targeting spiritual well-being may be particularly beneficial for this population.

Author Contributions

PKG: Study concept and design, acquisition of data, analysis and interpretation of data, and statistical analysis. FH and FN: Administrative, technical, and material support, study supervision. MTS and AG: Critical revision of the manuscript for important intellectual content.

Conflict of Interest Disclosures

All authors declared that they have no conflict of interest.

Ethical Approval

The study was approved by the Ethical Committee of Islamic Azad University- Ahvaz Branch (code: IR.IAU.AHVAZ.REC.1403.104).

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