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The Relationship Between Death Anxiety and Hopelessness with Perceived Social Support in Hospitalized Cancer Patients: An Evidence from Southeastern Iran

Anahita Behzadi [1], Sina Etemadi [2], Mohammad Hasan Mardani [3], Marjan Hedayati Pour [2], Atefeh Zolfagharnasab Hajizadeh [3,*]

[1] Social Determinants of Health Research Center, Institute for Future Studies in Health, Kerman University of Medical Science, Kerman, Iran
[2] Faculty of Management and Medical Information Sciences, Kerman University of Medical Science, Kerman, Iran
[3] Health Services Management Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

[*] ***Corresponding Author:*** Health Services Management Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran. Email: forsateman@gmail.com

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Abstract

Background: Death anxiety and hopelessness represent major psychological challenges for hospitalized cancer patients. Insufficient social support can adversely affect their psychological adjustment and quality of life.

Objectives: This study aimed to investigate the relationship between perceived social support, hopelessness, and death anxiety in hospitalized cancer patients.

Methods: This descriptive-correlational study was conducted among 187 hospitalized cancer patients in the oncology ward of Shahid Bahonar Hospital, Kerman, Iran, in 2020. Participants were selected through convenience sampling. Data were collected using the Beck Hopelessness Scale (BHS), Templer Death Anxiety Scale (DAS), and the Multidimensional Scale of Perceived Social Support (MSPSS). Descriptive statistics, Pearson correlation coefficients, and linear regression analyses were employed for data analysis.

Results: Perceived social support showed a significant negative correlation with both hopelessness and death anxiety ($P < 0.001$). Regression analysis indicated that perceived social support accounted for 41.1% of the variance in hopelessness ($R^2 = 0.411$, $P < 0.001$) and 32.6% of the variance in death anxiety ($R^2 = 0.326$, $P < 0.001$). Patients who reported higher levels of perceived social support experienced lower levels of hopelessness and death anxiety.

Conclusions: The findings underscore the pivotal role of social support as a protective factor in mitigating death anxiety and hopelessness among cancer patients. Integrating psychosocial interventions into oncology care, particularly during the early stages of diagnosis and hospitalization, may promote psychological well-being and enhance patients' adjustment.

Keywords: Cancer, Death Anxiety, Hopelessness, Social Support, Psycho-oncology, Existential Distress

1. Background

Cancer is among the most challenging chronic illnesses of the present century, imposing not only physical consequences but also considerable psychological burdens on patients. Despite significant advances in treatment and supportive care, many individuals with cancer continue to experience death anxiety, hopelessness, and diminished social support. These interrelated factors can collectively undermine patients' quality of life and influence treatment outcomes (1, 2). Death, as an inevitable aspect of human existence, has always been a source of concern and anxiety. Psychological perspectives, including Terror Management Theory, suggest that awareness of mortality gives rise to an internal conflict between the instinct for self-preservation and the recognition of

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death's inevitability. This conflict ultimately manifests as existential anxiety and a search for meaning in life (3, 4). Such anxiety intensifies when an individual is confronted with a terminal illness such as cancer, forcing them to face death as an imminent reality (5, 6).

Empirical evidence indicates that the level of death anxiety among cancer patients is generally moderate and varies according to several demographic and cultural factors. Studies have shown that Asian cancer patients experience higher levels of death anxiety than their European and American counterparts. Furthermore, women and married patients report greater anxiety than others. The type of cancer and marital status have also been identified as key determinants of death anxiety (2). In particular, women with breast cancer — due to alterations in body image and social roles — are more vulnerable to negative emotions related to death (7). Hence, death anxiety should be understood not only as a psychological phenomenon but also as a social and cultural construct influenced by religious beliefs, family support, and the individual's perception of the disease's treatability (8).

Recent research, particularly in patients with advanced cancer, has highlighted death anxiety as a core component of existential distress. Walbaum et al. found that approximately 37% of patients with advanced cancer and 75% of their family caregivers experience clinically significant levels of death anxiety. This anxiety primarily concerns worries about the impact of death on loved ones, fear of pain and suffering during the dying process, and the sense that life's time is running out. Notably, women and younger individuals reported higher levels of anxiety. The study also revealed that death anxiety is prevalent not only among patients but also among their family members. Caregivers often experience heightened anxiety due to fear of losing their loved one or feeling powerless to alleviate the patient's suffering (1). These findings underscore the need to evaluate the psychological wellbeing of both patients and caregivers concurrently, as their close emotional connection may facilitate the bidirectional transmission of psychological distress (9).

Conversely, hopelessness is recognized as a cognitive and emotional consequence of death anxiety and plays a central role in predicting quality of life, illness acceptance, and even the willingness to continue treatment among cancer patients (10). A sense of helplessness in controlling the future or the absence of hope for recovery can heighten existential anxiety and ultimately lead to depression (11). Furthermore, research has demonstrated a significant inverse relationship between hopelessness and perceived social support; that is, the broader and deeper a patient's social support network, the lower their levels of anxiety and hopelessness are likely to be (12, 13).

Within the cultural context of Iran, social support for cancer patients, particularly during hospitalization and treatment, holds exceptional importance. Studies conducted in Iran reveal that deficiencies in insurance and financial assistance, limited healthcare resources, and the social pressures associated with illness can all exacerbate death anxiety (14-16). In such circumstances, family and social networks serve as key coping resources for patients, providing a protective buffer against hopelessness and death anxiety (17).

2. Objectives

This study concurrently examines death anxiety, hopelessness, and social support among hospitalized cancer patients in Kerman, southeastern Iran. These interrelated factors shape psychological responses to life-threatening illness. The research aims to enhance understanding of Iranian patients' mental states and inform culturally sensitive supportive interventions.

3. Methods

3.1. Research Design and Study Population

This study employed a descriptive-correlational (cross-sectional, correlational) design to assess the levels of hopelessness and death anxiety among hospitalized cancer patients and to examine their relationship with perceived social support. The research was conducted in the oncology department of Shahid Bahonar Hospital in Kerman during 2020. The study population comprised all hospitalized cancer patients who met the specified inclusion criteria.

The inclusion criteria were as follows: Full awareness of the cancer diagnosis, age 18 years or older, not being in the terminal stage of the disease, receiving cancer treatment at the aforementioned hospital, at least two months having passed since diagnosis, no history of psychological or social misconduct, and willingness and informed consent to participate in the study. The exclusion criteria included physical or cognitive inability to complete the study instruments or

voluntary withdrawal from participation. Sampling was conducted using the convenience sampling method among hospitalized patients.

3.2. Sample Size Estimation

Sample size was determined using G*Power software with $\alpha = 0.05$, $\beta = 0.80$, and a medium effect size of 0.15 for linear regression with one predictor. The minimum required sample was calculated, and considering potential attrition, the final sample size was set at 187 participants, increasing statistical power to over 90% and ensuring adequate precision for analyzing relationships among research variables and generalizability of findings.

3.3. Measures

Demographic and clinical information were collected using a self-report questionnaire that included age, gender, marital status, educational level, employment status, perceived economic status, duration of cancer since diagnosis, and cancer stage. Medical data were extracted from patients' clinical records to verify the accuracy of diagnostic and treatment information. Three standardized instruments were used to assess the main psychological variables of the study: The Beck Hopelessness Scale (BHS), the Templer Death Anxiety Scale (DAS), and the Multidimensional Scale of Perceived Social Support (MSPSS).

3.3.1.Beck Hopelessness Scale

Hopelessness was assessed using the 20-item BHS, which measures negative expectations, pessimism, and uncertainty about the future. Items are rated on a five-point Likert scale (1 - 5), yielding scores from 20 to 100, with higher values indicating greater hopelessness. The Persian version has shown strong reliability and validity in studies among chronic disease patients, including cancer.

3.3.2.Templer Death Anxiety Scale

Death anxiety was measured using the 15-item Templer DAS. Each item is answered with "true" or "false" (yes/no), where a "true" response indicates the presence of anxiety. The total score ranges from 0 to 15, with higher scores reflecting higher levels of death anxiety. According to standard guidelines, a score of 8 or above indicates clinically significant death anxiety.

3.3.3. Multidimensional Scale of Perceived Social Support

Perceived social support was measured using the 12-item MSPSS by Zimet et al. (1988). Respondents rated items on a five-point Likert scale (1 - 5). Mean scores were calculated for total and subscales, with higher scores reflecting greater perceived social support from family, friends, and significant others.

3.4. Data Collection

After identifying eligible patients, a trained researcher visited the oncology ward in person to explain the study's objectives and procedures. Following the provision of informed consent, semi-structured interviews were conducted. The questionnaires were completed through self-reporting under the direct supervision of the researcher to ensure question clarity and response accuracy. For patients experiencing fatigue or weakness, data collection was divided into two sessions to preserve data quality. All data were coded immediately after collection and entered into electronic forms.

3.5. Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee of Kerman University of Medical Sciences (IR.KMU.REC.1399.200). Participants were informed about the study's purpose, procedures, and voluntary participation. Written consent was obtained, and confidentiality was strictly maintained, with no identifying information included in reports or analyses.

3.6. Statistical Analysis

Descriptive statistics summarized participants' demographic and clinical data. Normality of variables was tested using the Kolmogorov-Smirnov test. Analyses were performed in SPSS v24. Pearson correlation examined relationships, and linear regression assessed social support's predictive effect, with $P < 0.05$ considered significant.

4. Results

Table 1 presents the demographic and disease-related characteristics of the participating patients. Approximately two-thirds of the participants (65.2%)

were women. The highest age distribution (38%) belonged to the 56 - 65-year age group. The vast majority of patients (71.7%) were married, while only about one-fifth (22.5%) had attained an education level above a high school diploma. More than half of the participants (63.1%) were reported as unemployed. Regarding perceived economic status, a substantial majority (63.1%) classified themselves as having a moderate-income level. Nearly two-thirds of the patients (69%) had been living with a cancer diagnosis for between 2 and 6 months. The most frequently reported cancer stages were stage II (27.8%) and stage III (23.5%), while for 28.3% of the patients, the stage of cancer had not been determined.

Table 1. Demographic Characteristics of Patients Participating in the Study

Variables	No. (%)
Age (y)	
Under 45	42 (22.5)
Between 45 and 55	48 (25.7)
Between 56 and 65	71 (38.0)
Over 65	26 (13.9)
Gender	
Male	65 (34.8)
Female	122 (65.2)
Marital status	
Married	134 (71.7)
Single	53 (28.3)
Education level	
Illiterate	31 (16.6)
Below high school diploma	114 (61.0)
Above high school diploma	42 (22.5)
Employment status	
Employed	69 (36.9)
Unemployed	118 (63.1)
Perceived economic status	
High income	15 (8.0)
Moderate income	118 (63.1)
Low income	54 (28.9)
Duration since cancer diagnosis (mo)	
2 - 6	129 (69.0)
Over 6	58 (31.0)
Cancer stage	
I	38 (20.3)
II	52 (27.8)
III	44 (23.5)
Undetermined	53 (28.3)

Table 2 presents the relationship between perceived social support, hopelessness, and death anxiety among patients. The results of linear regression analysis indicated that perceived social support was significantly and negatively associated with both primary psychological variables. According to Pearson correlation coefficients, social support was strongly and negatively correlated with hopelessness ($R = -0.641$, $P < 0.001$) and with death anxiety ($R = -0.771$, $P < 0.001$).

In the regression model, perceived social support was a significant predictor of hopelessness ($B = -0.182$, $SE = 0.051$, $t = -11.302$, $P < 0.001$), explaining 41.1% of the variance in hopelessness ($R^2 = 0.411$; $F = 102.437$, $P < 0.001$). Additionally, perceived social support exerted a significant negative effect on death anxiety ($B = -0.437$, $SE = 0.063$, $t = -7.692$, $P < 0.001$), accounting for 32.6% of the variance in death anxiety ($R^2 = 0.326$; $F = 152.261$, $P < 0.001$).

5. Discussion

The findings revealed that perceived social support was significantly associated with lower death anxiety and hopelessness. This aligns with Walbaum et al., who reported that death anxiety in advanced cancer patients relates to demographic factors including age, gender, and time since diagnosis (1). Although not analyzed separately here, results suggest social support may moderate these factors' impact. Patients with stronger support networks experienced reduced hopelessness and anxiety, consistent with Soleimani et al. (2) and Sharif Nia et al. (17) in Iran. Soleimani et al.'s (2) systematic review indicated death anxiety is typically moderate and associated with female gender, marital status, and disease progression. In Asian cultures, including Iran, religious and family contexts may either alleviate anxiety through spiritual frameworks or intensify dependency and hopelessness without genuine support. Similarly, Tan and Karabulutlu found higher social support reduced hopelessness and depression among Turkish cancer patients (18).

The findings of this study are supported by extensive empirical evidence confirming the protective role of social support in mitigating negative psychological consequences among cancer patients. A meta-analysis by Li et al. of 52 studies identified a significant negative correlation between social support and death anxiety, emphasizing that social support enhances patients' quality of life and mental well-being (19). Similarly, Pehlivan et al. reported that perceived family support was significantly associated with lower hopelessness among Turkish cancer patients (13). Jimenez-Fonseca et

Table 2. Effect of Perceived Social Support on Hopelessness and Death Anxiety

Dependent and Predictor Variables	B	SE	β	*t*	P	R^2	F
Hopelessness						0.411	102.437
Constant	15.852	0.879	-	17.731	< 0.001		
Perceived social support	-0.182	0.051	-0.641	-11.302	< 0.001		
Death anxiety						0.326	152.261
Constant	79.179	3.662	-	21.205	< 0.001		
Perceived social support	-0.437	0.063	-0.771	-7.692	< 0.001		

al. found that social support, hope, and optimism significantly reduced anxiety and depression risks in 600 Spanish cancer patients, with high prevalence rates (49.8% anxiety, 36.6% depression) underscoring the urgent need for mental health attention (20). In the Iranian context, Farahbakhsh et al. demonstrated that perceived social support reduced death anxiety and enhanced self-efficacy in women with breast cancer, accounting for 21% of self-efficacy variance (21). Hadian et al. reported a significant negative relationship between social support and death anxiety in 160 women with breast cancer (22). Nezami et al. found significantly higher death anxiety among women with breast and cervical cancers compared to gastrointestinal cancers, highlighting the psychological distress associated with female identity (23). Dadashi et al. identified that sense of coherence, along with demographic factors, predicted 85% of death anxiety variance (24). These findings underscore social support's vital role in psychosocial interventions across diverse cultural settings, including Iranian society.

Perceived social support strongly predicts hopelessness (41.1%) and death anxiety (32.6%) through several mechanisms. It fosters belonging and self-worth, helping patients retain existential meaning when facing cancer, especially in family-centered Iranian culture. Emotional and instrumental support enhance control and reduce isolation, buffering against negative thoughts. The greater effect on hopelessness suggests its stronger dependence on support, while death anxiety involves religious and experiential factors. These findings highlight the need for multidimensional interventions including family education, existential dialogue, and supportive environments and for integrating social support within culturally informed, longitudinal research and clinical assessments.

5.1. Conclusions

This study reveals that perceived social support plays a crucial role in reducing death anxiety and hopelessness among cancer patients. Consistent with prior research, the findings emphasize its importance for mental health and the need to integrate psychosocial care with medical treatment. Interventions aimed at strengthening family support, improving coping skills, fostering meaningful communication, and enhancing social interactions can improve patients' quality of life. Integrating social support assessment into routine care, especially for younger and female patients, is vital to prevent severe psychological distress.

5.2. Limitations

The findings of this study should be interpreted considering several key limitations. First, the cross-sectional design precludes causal inferences between social support and psychological variables; longitudinal studies are required to establish the directionality of these relationships. Second, the study population was limited to hospitalized patients in the city of Kerman, restricting the generalizability of the results to other cancer patients in different regions of Iran or other cultural contexts. Replication in more diverse samples is therefore necessary. Third, the data were collected through patient self-reports, which may be subject to response bias, especially concerning sensitive variables such as death anxiety and hopelessness. Future research could provide a more comprehensive understanding of the dynamics of social support and psychological outcomes in cancer patients by employing longitudinal

designs, incorporating cultural and religious dimensions, and investigating moderating or mediating roles of relevant variables.

Footnotes

AI Use Disclosure: The authors declare that no generative AI tools were used in the creation of this article.

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