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PERCEIVED STIGMATIZATION, DEATH ANXIETY, AND FINANCIAL TOXICITY AS PREDICTORS OF QUALITY OF LIFE AMONG CANCER PATIENTS: THE MEDIATING ROLE OF SELF-COMPASSION

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Abstract

Cancer patients often experience psychological, social, and financial challenges that may adversely affect their quality of life. The present study aimed to examine the relationships of perceived stigmatization, death anxiety, and financial toxicity with quality of life among cancer patients, with particular emphasis on the mediating role of self-compassion. A correlational research design was employed, and the sample consisted of 59 cancer patients. Pearson product–moment correlation analysis was conducted to examine the associations among the study variables, while mediation analyses were performed to explore the potential mediating role of self-compassion in the relationships between perceived stigmatization, death anxiety, financial toxicity, and quality of life. The findings revealed that perceived stigmatization ($r = -.42$, $p < .01$), death anxiety ($r = -.51$, $p < .01$), and financial toxicity ($r = -.48$, $p < .01$) were significantly negatively correlated with quality of life. Furthermore, perceived stigmatization was positively associated with death anxiety ($r = .46$, $p < .01$) and financial toxicity ($r = .38$, $p < .01$), while death anxiety was positively associated with financial toxicity ($r = .34$, $p < .01$). The mediation analyses indicated that perceived stigmatization, death anxiety, and financial toxicity negatively predicted self-compassion, whereas self-compassion positively predicted quality of life across the three models. The direct effects of all three predictors on quality of life remained statistically significant after accounting for self-compassion. These findings suggest that perceived stigmatization, death anxiety, and financial toxicity are important correlates of reduced quality of life among cancer patients, while self-compassion may represent a potential psychological resource associated with better quality of life. However, the statistical significance of the indirect effects requires confirmation through bootstrapped confidence intervals. The study

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highlights the potential value of psychosocial support and self-compassion-focused interventions in promoting the well-being of cancer patients.

Introduction

Cancer is a major global health challenge that affects individuals not only through physical symptoms and treatment-related complications but also through substantial psychological, social, and economic difficulties. A cancer diagnosis may disrupt everyday functioning, employment, family responsibilities, social relationships, and expectations about the future. Consequently, the consequences of cancer extend beyond disease progression and survival to include patients' subjective evaluations of their physical health, psychological well-being, social relationships, and living circumstances. Quality of life (QoL) is therefore an essential outcome in comprehensive cancer care because it reflects how individuals experience and adapt to the demands of the disease and its treatment. Although advances in diagnosis and treatment have improved outcomes for many patients, maintaining a satisfactory quality of life remains challenging when patients simultaneously experience emotional distress, social marginalization, and financial hardship (Pangestu & Rencz, 2023). One important psychosocial challenge faced by people with cancer is perceived stigmatization. Cancer-related stigma refers to the negative stereotypes, prejudicial attitudes, discrimination, and social devaluation that patients may experience or anticipate because of their illness. Such stigma can arise from misconceptions about cancer, fear of contagion, beliefs about personal responsibility for disease, changes in physical appearance, or concerns about the social consequences of a cancer diagnosis. Patients who perceive themselves as stigmatized may experience shame, embarrassment, rejection, diminished self-worth, and reluctance to disclose their diagnosis or seek support. These experiences can undermine social participation and psychological adjustment, thereby threatening quality of life. In addition, perceived stigma may intensify feelings of isolation at a time when emotional reassurance and practical assistance are particularly important. Understanding stigma as a subjective social experience is therefore important for identifying the psychological pathways through which cancer-related challenges affect patients' well-being. A second important determinant of well-being is death anxiety, defined as apprehension, fear, or distress associated with the possibility of death and the uncertainty surrounding dying. For patients with cancer, awareness of mortality may become particularly salient following diagnosis, during intensive treatment, when symptoms worsen, or when the future remains uncertain. Death anxiety may involve concerns about pain, loss of independence, separation from family members, unfinished responsibilities, and the possibility of leaving dependents without support. Persistent concerns about death may interfere with emotional adjustment, concentration, interpersonal relationships, and engagement in everyday activities. Patients who struggle to manage these concerns may find it difficult to experience psychological security or maintain a positive outlook on life. Death anxiety is thus a relevant psychological predictor of quality of life, particularly when it becomes persistent and interferes with coping and adaptation (Li et al., 2024). In addition to these psychosocial challenges, financial toxicity represents a significant source of distress for cancer patients. The term describes the material hardship and psychological burden associated with the direct and indirect costs of cancer care. Direct expenses may include consultations, diagnostic investigations, medicines, surgery, chemotherapy, radiotherapy, hospitalization, and supportive care. Indirect expenses may arise from transportation, accommodation, caregiving, reduced employment, loss of earnings, and the need for family members to take time away from work. These pressures can force patients to reduce essential household spending, borrow money, sell assets, depend on relatives, or delay recommended treatment. Financial toxicity can therefore affect quality of life through several interconnected pathways, including economic insecurity, family conflict, emotional distress, and difficulties

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accessing healthcare. A systematic review and meta-analysis by Kitaw et al. (2025), encompassing 428,373 patients across 35 observational studies, reported a pooled prevalence of catastrophic health expenditure of 56.1%. Although catastrophic expenditure is not identical to every dimension of financial toxicity, this finding demonstrates the considerable economic vulnerability experienced by cancer-affected households.

Literature Review

Quality of life among cancer patients

Quality of life is a multidimensional construct that reflects an individual's perceived physical, psychological, social, and functional well-being. Among cancer patients, it may be influenced by pain, fatigue, treatment-related adverse effects, uncertainty about prognosis, changes in body image, limitations in daily activities, and disruptions to family and occupational roles. Quality of life should therefore be understood as a broader outcome than clinical status alone: two patients with similar diagnoses may report substantially different levels of well-being because of differences in psychological adjustment, social resources, financial circumstances, and coping strategies. Quality of life is particularly relevant to cancer care because treatment can create competing demands. Patients may need to balance symptom management and medical appointments with employment, caregiving, household responsibilities, and maintaining social relationships. When these demands exceed available resources, physical symptoms may be accompanied by anxiety, social withdrawal, financial insecurity, and reduced life satisfaction. A comprehensive explanation of cancer-related quality of life should consequently incorporate both disease-related factors and psychosocial determinants. Recent evidence supports this multidimensional perspective. In a systematic review of financial toxicity and health-related quality of life, Pangestu and Rencz (2023) synthesized 31 studies involving 13,481 patients and survivors across more than 25 cancer types. Nearly all included studies reported an association between greater financial toxicity and poorer health-related quality of life. Their meta-analysis found a moderate correlation between financial toxicity and quality of life measured using Functional Assessment of Cancer Therapy instruments. These findings demonstrate that quality of life cannot be adequately understood without considering the material circumstances in which patients receive treatment.

Perceived stigmatization and quality of life

Perceived stigmatization refers to a patient's belief or experience that others devalue, judge, exclude, or discriminate against them because of their cancer diagnosis. It is important to distinguish perceived stigma from objectively documented discrimination: patients may experience direct rejection, anticipate negative reactions, or internalize broader social stereotypes even when no explicit discriminatory event has occurred. These experiences can nevertheless have meaningful psychological consequences. Cancer-related stigma may affect quality of life through several pathways. First, anticipated rejection can encourage patients to conceal their diagnosis or avoid social interactions, reducing opportunities for emotional support. Second, internalized stigma may lead patients to blame themselves for their illness, feel ashamed of their physical appearance, or perceive themselves as burdens on their families. Third, fear of negative judgment may discourage open communication with healthcare professionals and relatives. Such responses can interfere with psychological adjustment and diminish the social and emotional dimensions of quality of life. A systematic review and meta-analysis by Han et al. (2020) examined 31 studies involving 7,114 cancer patients and identified associations between cancer stigma and several adverse psychological characteristics, including depression, anxiety, self-blame, and difficulties with emotional expression. The review also identified a negative association between stigma and quality of life. Although this evidence predates the most recent literature, it provides an important empirical foundation for understanding stigma as a correlate of cancer-related well-being. Evidence from Pakistan is particularly relevant to the proposed study. Sarfraz

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et al. (2025) examined cancer-related stigmatization, quality of life, and fear of death among newly diagnosed cancer patients in Pakistan. Their findings indicated that cancer-related stigma was associated with lower quality of life and greater fear of death, with women reporting higher stigma and fear of death and lower quality of life than men. These findings suggest that social experiences surrounding cancer may be connected to both existential distress and well-being in the Pakistani context.

Death anxiety and quality of life

Death anxiety is the fear, apprehension, or distress associated with mortality, dying, and the uncertainty surrounding death. Although awareness of mortality is a possible response to a cancer diagnosis, persistent or overwhelming death anxiety may interfere with patients' ability to adjust to illness and maintain psychological well-being. It may be associated with worries about pain, treatment failure, loss of independence, separation from loved ones, and the future of dependent family members. Death anxiety may influence quality of life through emotional and behavioral processes. Persistent thoughts about death can increase distress, interfere with concentration and sleep, and make it difficult to participate in meaningful activities. Patients may also become preoccupied with uncertain outcomes, experience reduced confidence in treatment, or withdraw from future planning. When these concerns become overwhelming, patients may find it harder to maintain relationships, experience positive emotions, and preserve a sense of meaning. The systematic review and meta-analysis conducted by Li et al. (2024) included 52 studies examining correlates of death anxiety in patients with cancer. Higher death anxiety was associated with greater psychological distress, anxiety, depression, symptom burden, and fear of recurrence. Conversely, quality of life was among the factors negatively associated with death anxiety, alongside resilience, self-esteem, social support, spiritual well-being, and meaning in life. These findings support the relevance of death anxiety when investigating the psychological determinants of quality of life.

Financial toxicity and quality of life

Financial toxicity is a multidimensional construct encompassing the financial burden of cancer care and the psychological distress associated with that burden. It extends beyond the amount of money spent on treatment to include the perceived difficulty of meeting expenses, depletion of savings, debt, loss of income, and the need to make sacrifices in other areas of life. The consequences of financial toxicity may be especially serious when treatment expenses compete with essential household needs. Patients may struggle to afford transportation, medicines, nutrition, accommodation, and follow-up appointments. They may also experience guilt about the financial burden placed on relatives or anxiety about their family's future. Such circumstances can compromise physical, emotional, and social well-being, even when treatment remains medically available. Jiang et al. (2023) reviewed 37 studies involving 36,132 participants to investigate the relationship between financial toxicity and health-related quality of life among cancer survivors. Their review examined the relationship across diverse populations and assessment approaches, reinforcing the importance of financial burden as a component of survivorship and patient well-being. The findings provide a basis for treating financial toxicity as a psychosocial and material predictor rather than solely an economic indicator. Further, Kitaw et al. (2025) found that catastrophic health expenditure was associated with factors such as low income, lack of health insurance, larger family size, older age, longer disease duration, and multiple treatments. These findings highlight that financial toxicity is shaped by both personal circumstances and healthcare-system conditions. In settings with limited financial protection, even patients who are motivated to follow treatment recommendations may face difficult choices between medical expenses and basic household needs. Financial toxicity may also affect quality of life through psychological mechanisms. Persistent concern about treatment affordability can increase stress, hopelessness, and feelings of helplessness. Patients may perceive themselves as unable to control

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essential aspects of their care, while guilt about dependence on family members can weaken self-worth. Such experiences may be particularly difficult when combined with cancer-related stigma or fear of death. The measurement of financial toxicity also requires careful consideration. Thomy et al. (2024) reviewed measures used to assess financial toxicity among cancer survivors and highlighted the importance of evaluating the content and psychometric properties of available instruments. Financial toxicity should not be operationalized exclusively through income or treatment expenditure because these indicators may fail to capture subjective financial distress. A patient with relatively modest expenses may still experience severe hardship if household resources are limited, whereas another patient with greater expenditure may have adequate financial protection.

Self-compassion as a psychological resource

Self-compassion is a way of relating to oneself during experiences of suffering, failure, vulnerability, or perceived inadequacy. It involves treating oneself with kindness rather than harsh self-criticism, recognizing that suffering and difficulty are shared human experiences rather than evidence of personal inadequacy, and maintaining balanced awareness of painful thoughts and feelings. In cancer care, these qualities may be relevant because patients must often manage uncertainty, changes in physical functioning, difficult emotions, and disruptions to their previous sense of identity. Self-compassion is conceptually distinct from self-esteem, optimism, and self-pity. Self-esteem concerns evaluations of personal worth, whereas self-compassion emphasizes how individuals respond to themselves when they are struggling. It does not require patients to feel positive about cancer, deny the seriousness of their illness, or accept preventable hardship. Instead, it may allow them to acknowledge difficult circumstances without adding unnecessary self-condemnation. Baxter and Sirois (2025) examined the association between self-compassion and psychological distress in people with chronic illnesses through a meta-analysis. Their work provides a broader chronic-illness evidence base for considering self-compassion as a psychological resource. Although findings across chronic conditions cannot automatically be generalized to every cancer population, they support investigating self-compassion in relation to distress and adjustment under prolonged health-related stress. Research has also begun to examine self-compassion in relation to cancer patients' ongoing supportive-care needs. Yu et al. (2024) conducted a longitudinal study of 153 cancer patients assessed at different stages of treatment. Their investigation focused on the relationship between self-compassion and unmet supportive-care needs, extending the evidence beyond cross-sectional associations and emphasizing the relevance of psychological resources during the treatment process. In Pakistan, Ahmad and Khanum (2024) investigated self-compassion, perceived stress, and quality of life among 84 cancer patients. They reported a positive association between self-compassion and quality of life and found that self-compassion mediated the relationship between perceived stress and quality of life. Although the sample was relatively small and the study addressed perceived stress rather than the three predictors proposed in the present research, its findings provide contextually relevant support for examining self-compassion as a potential explanatory mechanism.

Self-compassion as a mediator between perceived stigmatization and quality of life

A mediating variable explains a potential process through which an independent variable is associated with an outcome. In the proposed framework, self-compassion may help explain why perceived stigmatization is associated with quality of life among cancer patients. Stigmatizing experiences can threaten a patient's sense of belonging and personal worth, while internalized negative beliefs may lead to self-criticism, shame, and social withdrawal. These responses can undermine psychological well-being and make it more difficult to maintain meaningful relationships. Self-compassion may influence this relationship by providing an alternative way of responding to negative social experiences. Patients

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who treat themselves with understanding may be less likely to internalize stigmatizing attitudes or interpret rejection as evidence of personal inadequacy. Recognition of common humanity may also help patients understand that illness and vulnerability do not diminish their worth. These processes could help preserve emotional well-being despite adverse social experiences. The relevance of this pathway is consistent with the findings of Ahmad and Khanum (2024), who reported a mediating role for self-compassion in the relationship between perceived stress and quality of life among cancer patients in Pakistan. However, perceived stress and perceived stigmatization are distinct constructs. Therefore, their findings provide indirect support for the proposed pathway rather than direct confirmation of it.

Self-compassion as a mediator between death anxiety and quality of life

Death anxiety can challenge emotional security by directing attention toward uncertainty, loss, and the possibility of death. When patients respond to these concerns with harsh self-judgment or attempts to suppress difficult emotions, their distress may become more difficult to manage. Self-compassion may provide a different response by allowing patients to acknowledge mortality-related fears without judging themselves for experiencing them. The potential importance of this pathway is supported by Yousefi Afrashteh and Masoumi (2021), who investigated psychological well-being and death anxiety among breast cancer survivors during the COVID-19 pandemic and examined self-compassion as a mediating variable. Their work offers cancer-specific evidence for considering self-compassion within the relationship between mortality-related distress and psychological well-being. Self-compassion may be relevant because it emphasizes emotional acceptance, mindfulness, and recognition of shared human vulnerability. Patients may become better able to experience fear without allowing it to dominate every aspect of their lives. This does not mean that fear of death is necessarily pathological or that self-compassion removes existential concerns. Instead, self-compassion may be associated with how patients process and respond to those concerns.

Self-compassion as a mediator between financial toxicity and quality of life

Financial toxicity can produce psychological distress alongside tangible economic hardship. Patients may experience guilt about using family resources, shame about dependence on relatives, or self-blame when they cannot afford recommended care. These reactions may reduce perceived control and contribute to diminished quality of life. Self-compassion may be associated with the psychological component of this relationship. Patients who respond to financial hardship with less self-criticism may be better able to distinguish their financial circumstances from their personal worth. They may also find it easier to communicate their needs and seek assistance without excessive shame. Such responses could support psychological adjustment even when financial challenges remain unresolved. Nevertheless, financial toxicity differs from the other predictors because it includes material conditions that cannot be changed through psychological coping alone. Self-compassion cannot pay treatment expenses, restore lost income, provide insurance coverage, or ensure access to medicines. Its potential mediating role should therefore be interpreted as a possible psychological pathway, not a substitute for financial support or structural reform. An important psychological resource that may help explain individual differences in adjustment is self-compassion. Self-compassion involves responding to personal suffering with kindness, understanding, and balanced awareness rather than excessive self-criticism, self-blame, or emotional avoidance. It encompasses self-kindness, recognition of common humanity, and mindfulness of difficult experiences. In the context of cancer, self-compassion may enable patients to acknowledge fear, uncertainty, social rejection, and financial difficulty without interpreting these experiences as evidence of personal failure. It may also support emotional regulation, adaptive coping, acceptance of limitations, and willingness to seek assistance.

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Evidence from cancer populations in Pakistan suggests that self-compassion is positively associated with quality of life and may help explain the relationship between perceived stress and quality of life (Ahmad & Khanum, 2024).

Statement of the Problem

Cancer patients experience various psychological, social, and financial challenges that may adversely affect their quality of life. Perceived stigmatization can lead to social isolation, shame, and reduced self-esteem, while death anxiety may increase emotional distress and uncertainty about the future. Similarly, financial toxicity arising from treatment expenses, loss of income, and other medical costs can intensify stress and compromise patients' well-being. Although these factors are important, their combined relationships with quality of life remain insufficiently understood. Furthermore, patients may differ in how they cope with these challenges, suggesting that psychological resources could play an important role. Self-compassion may help patients manage distress, reduce self-criticism, and maintain emotional well-being. However, its potential mediating role in the relationships between perceived stigmatization, death anxiety, financial toxicity, and quality of life requires further investigation. This gap is particularly relevant in Pakistan, where socioeconomic constraints and cultural attitudes toward cancer may compound patients' difficulties. Therefore, the present study aims to examine these relationships and determine whether self-compassion mediates the associations between perceived stigmatization, death anxiety, financial toxicity, and quality of life among cancer patients.

Objectives of the Study

To examine the relationships of perceived stigmatization, death anxiety, and financial toxicity with quality of life among cancer patients.
To examine whether self-compassion mediates the relationships between perceived stigmatization, death anxiety, financial toxicity, and quality of life.

Significance of the Study

The present study is significant because it aims to enhance understanding of the psychological, social, and financial factors influencing quality of life among cancer patients. It examines perceived stigmatization, death anxiety, and financial toxicity as important predictors of patients' overall well-being. By investigating these factors together, the study may provide a more comprehensive understanding of the challenges faced by individuals living with cancer. It also highlights the potential role of self-compassion in helping patients manage emotional distress and cope with difficult life circumstances. Examining self-compassion as a mediator may identify a possible psychological pathway linking cancer-related stressors with quality of life. The findings may contribute to existing literature on psycho-oncology and improve understanding of the psychological adjustment of cancer patients. The study may also assist psychologists and healthcare professionals in identifying patients who require additional emotional and psychosocial support. Furthermore, it may encourage the development of self-compassion-based interventions to support patients' emotional well-being. The findings could help healthcare providers recognize the psychological consequences of cancer-related stigma and death anxiety. Additionally, the study may highlight the importance of assessing financial toxicity as part of comprehensive cancer care. In Pakistan, the findings may be particularly useful in understanding the combined effects of social attitudes, economic difficulties, and psychological distress. The research may also provide useful information for policymakers and healthcare organizations planning patient-centered supportive services. Ultimately, the study aims to contribute to improved psychosocial care and better quality of life among cancer patients.

Research Methodology

Research Design

The present study employed a quantitative correlational research design to investigate perceived stigmatization, death anxiety, and financial toxicity as predictors of quality of life among cancer patients, with self-compassion as a

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potential mediating variable. The correlational design was used to examine the relationships among the study variables without manipulating them or introducing an intervention. A quantitative approach enabled the researcher to collect numerical data and analyze the relationships between the predictor variables, the proposed mediator, and the outcome variable.

Population and Sample

The population consisted of cancer patients who met the eligibility criteria established for the study. A sample of 59 cancer patients was selected using a purposive sampling technique. This non-probability sampling method was used to recruit participants who met the study requirements and could provide relevant information about the research variables.

Research Instruments

1. Perceived stigmatization

Cancer-related stigma was assessed using the cancer stigma questionnaire appropriate to the study population (Yılmaz et al., 2017). The instrument measured patients' experiences or perceptions of negative attitudes, social judgment, and stigmatization associated with cancer. Higher scores indicated greater perceived stigma, according to the scoring instructions of the version administered.

2. Death anxiety

Death anxiety was assessed using the Templer Death Anxiety Scale (DAS), developed by Templer (1970). The scale consisted of 15 true/false items designed to measure anxiety and apprehension related to death and dying. Items were scored according to the original scoring key, including reverse-scored items where applicable. Higher total scores indicated greater death anxiety.

3. Financial toxicity

Financial toxicity was assessed using the Comprehensive Score for Financial Toxicity (COST), developed by de Souza et al. (2014). The instrument measured the financial distress associated with cancer and its treatment, including concerns about expenses and financial security. Scores were calculated according to the scoring instructions for the version used. Higher COST scores generally indicated less financial toxicity, whereas lower scores indicated greater financial distress.

4. Self-compassion

Self-compassion was measured using the Self-Compassion Scale (SCS), developed by Neff (2003). The original scale consisted of 26 items measuring self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. Responses were scored according to the original instructions, including reverse-scoring negatively worded subscales. Higher overall scores indicated greater self-compassion.

5. Quality of life

Quality of life was assessed using the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30), developed by Aaronson et al. (1993). The questionnaire consisted of 30 items assessing global health status, functional domains, and cancer-related symptoms. Scores were transformed according to the official scoring guidelines. Higher global health and functioning scores indicated better quality of life, whereas higher symptom scores indicated greater symptom burden.

Data Collection Procedure

Data were collected from 59 eligible cancer patients using the research instruments. The purpose of the study was explained to the participants, and informed consent was obtained before data collection. Participants were informed about the voluntary nature of participation, confidentiality of their responses, and their right to withdraw from the study. The questionnaires were administered according to the established procedures, and completed responses were checked for completeness before being coded for statistical analysis.

Ethical Considerations

Ethical principles were followed throughout the research process. Participants' privacy and confidentiality were maintained, and the collected

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information was used for research purposes. Participation was voluntary, and informed consent was obtained from the participants. Appropriate care was taken to minimize discomfort associated with questions concerning cancer-related stigma, death anxiety, and financial difficulties.

Results

Table 1: Pearson Correlations among Perceived Stigmatization, Death Anxiety, Financial Toxicity, and Quality of Life among Cancer Patients (N = 59)

Variables	1	2	3	4
1. Perceived Stigmatization	—			
2. Death Anxiety	.46**	—		
3. Financial Toxicity	.38**	.34**	—	
4. Quality of Life	−.42**	−.51**	−.48**	—

The correlation analysis revealed a significant positive relationship between perceived stigmatization and death anxiety ($r = .46$, $p < .01$). Perceived stigmatization was also positively correlated with financial toxicity ($r = .38$, $p < .01$), while death anxiety showed a positive correlation with financial toxicity ($r = .34$, $p < .01$). Furthermore, perceived stigmatization ($r = -.42$, $p < .01$), death anxiety ($r = -.51$, $p < .01$), and financial toxicity ($r = -.48$, $p < .01$) were significantly negatively correlated with quality of life. Among these variables, death anxiety demonstrated the strongest negative correlation with quality of life. Overall, the findings suggest that higher perceived stigmatization, death anxiety, and financial toxicity are associated with lower quality of life among cancer patients.

Table 2: The Mediating Role of Self-Compassion in the Relationship between Perceived Stigmatization and Quality of Life (N = 59)

Path	Relationship	B	SE	p
Path a	Perceived Stigmatization → Self-Compassion	−0.35	0.10	.001
Path b	Self-Compassion → Quality of Life	0.42	0.12	.001
Path c	Total effect: Perceived Stigmatization → Quality of Life	−0.48	0.11	.001
Path c′	Direct effect: Perceived Stigmatization → Quality of Life	−0.33	0.11	.004
Indirect effect (ab)	Perceived Stigmatization → Self-Compassion → Quality of Life	−0.15	0.06	—

The mediation analysis indicated that perceived stigmatization significantly negatively predicted self-compassion ($B = -0.35$, $SE = 0.10$, $p = .001$). Self-compassion significantly positively predicted quality of life ($B = 0.42$, $SE = 0.12$, $p = .001$), suggesting that higher self-compassion was associated with better quality of life among cancer patients. The total effect of perceived stigmatization on quality of life was significant and negative ($B = -0.48$, $SE = 0.11$, $p = .001$). After including self-compassion as a mediator, the direct effect remained significant ($B = -0.33$, $SE = 0.11$, $p = .004$). These results suggest a potential partial mediating role of self-compassion; however, confirmation of mediation requires the bootstrapped confidence interval for the indirect effect to establish whether it excludes zero.

Table 3: The Mediating Role of Self-Compassion in the Relationship between Death Anxiety and Quality of Life (N = 59)

Path	Relationship	B	SE	p
Path a	Death Anxiety → Self-Compassion	−0.40	0.10	.001

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Path b	Self-Compassion → Quality of Life	0.38	0.12	.003
Path c	Total effect: Death Anxiety → Quality of Life	−0.52	0.11	.001
Path c′	Direct effect: Death Anxiety → Quality of Life	−0.37	0.11	.002
Indirect effect (ab)	Death Anxiety → Self-Compassion → Quality of Life	−0.15	0.06	–

The mediation analysis revealed that death anxiety significantly negatively predicted self-compassion (B = −0.40, SE = 0.10, p = .001). Self-compassion significantly positively predicted quality of life (B = 0.38, SE = 0.12, p = .003), indicating that higher self-compassion was associated with better quality of life among cancer patients. The total effect of death anxiety on quality of life was significant and negative (B = −0.52, SE = 0.11, p = .001). After including self-compassion as a mediator, the direct effect remained significant (B = −0.37, SE = 0.11, p = .002). These findings suggest that self-compassion may partially mediate the relationship between death anxiety and quality of life; however, the bootstrapped confidence interval for the indirect effect is required to confirm whether the mediation effect is statistically significant.

Table 4: The Mediating Role of Self-Compassion in the Relationship between Financial Toxicity and Quality of Life (N = 59)

Path	Relationship	B	SE	p
Path a	Financial Toxicity → Self-Compassion	−0.32	0.11	.005
Path b	Self-Compassion → Quality of Life	0.40	0.12	.002
Path c	Total effect: Financial Toxicity → Quality of Life	−0.46	0.11	.001
Path c′	Direct effect: Financial Toxicity → Quality of Life	−0.33	0.11	.004
Indirect effect (ab)	Financial Toxicity → Self-Compassion → Quality of Life	−0.13	0.06	–

The mediation analysis revealed that financial toxicity significantly negatively predicted self-compassion (B = −0.32, SE = 0.11, p = .005). Self-compassion significantly positively predicted quality of life (B = 0.40, SE = 0.12, p = .002), indicating that higher self-compassion was associated with better quality of life among cancer patients. The total effect of financial toxicity on quality of life was significant and negative (B = −0.46, SE = 0.11, p = .001). After including self-compassion as a mediator, the direct effect remained significant (B = −0.33, SE = 0.11, p = .004). These findings suggest that self-compassion may partially mediate the relationship between financial toxicity and quality of life; however, the bootstrapped confidence interval for the indirect effect is needed to confirm whether the mediation effect is statistically significant.

Discussion

The present study examined the relationships of perceived stigmatization, death anxiety, and financial toxicity with quality of life among cancer patients, with particular attention to the potential mediating role of self-compassion. Cancer can affect multiple dimensions of patients' lives, including psychological well-being, social relationships, financial security, and everyday functioning. The findings of the present study provide insight into how psychosocial and economic difficulties are associated with quality of life and how self-compassion may represent a psychological resource in the context of cancer-related adversity. Overall, the correlation results indicated that perceived stigmatization, death anxiety, and financial toxicity were negatively associated with quality of life. Furthermore, all three independent variables were positively associated with one another. The mediation analyses also showed that each independent variable was negatively associated with self-compassion, whereas self-compassion was positively associated with quality of life. These findings are discussed in relation to previous

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research and the theoretical framework of the study.

Perceived Stigmatization, Death Anxiety, Financial Toxicity, and Quality of Life

The correlation analysis revealed a significant positive association between perceived stigmatization and death anxiety ($r = .46$, $p < .01$). This finding suggests that cancer patients who reported greater perceived stigmatization also tended to experience greater anxiety concerning death. One possible explanation is that stigmatizing experiences may increase feelings of vulnerability, social isolation, and uncertainty, thereby intensifying the emotional challenges associated with a cancer diagnosis. Patients who perceive themselves as negatively judged or rejected may experience additional psychological distress alongside concerns about illness progression and mortality. This finding is consistent with the work of Sarfraz et al. (2025), who examined cancer-related stigmatization, quality of life, and fear of death among newly diagnosed cancer patients in Pakistan and reported associations between stigma and fear of death. It also supports the broader relevance of cancer-related stigma identified by Han et al. (2020), whose systematic review and meta-analysis linked cancer stigma with adverse psychological outcomes. Taken together, these findings suggest that the social and existential dimensions of cancer-related distress may be interconnected. The results further demonstrated a significant positive association between perceived stigmatization and financial toxicity ($r = .38$, $p < .01$). This finding indicates that patients reporting greater perceived stigmatization also tended to report greater financial toxicity. A possible explanation is that the social and psychological consequences of cancer may coexist with economic insecurity, particularly when patients experience reduced employment opportunities, dependence on family members, or difficulty maintaining their usual social and occupational roles. Feelings of shame or fear of negative judgment may also make it difficult for some patients to disclose their circumstances or seek assistance. Nevertheless, the present correlation does not establish that stigmatization directly causes financial toxicity. Both experiences may reflect overlapping social, economic, and illness-related challenges. The finding is broadly compatible with the multidimensional understanding of cancer-related hardship discussed by Pangestu and Rencz (2023), who emphasized the relationship between financial toxicity and health-related quality of life. Further research is needed to establish the specific mechanisms connecting perceived stigma with financial hardship. Similarly, death anxiety was positively associated with financial toxicity ($r = .34$, $p < .01$). This suggests that patients experiencing greater financial hardship also tended to report greater anxiety about death. Financial insecurity may intensify concerns about treatment affordability, continuity of care, and the future well-being of family members. When patients are uncertain about whether they can afford treatment or manage household responsibilities, existing fears concerning illness progression and mortality may become more difficult to manage. Conversely, patients experiencing substantial death anxiety may perceive their financial circumstances as especially threatening because of uncertainty surrounding the future. The present findings do not establish the direction of this relationship, but they suggest that financial and existential concerns should not necessarily be considered independent experiences in cancer care. This interpretation is consistent with the broader evidence reviewed by Li et al. (2024), who identified death anxiety as an important correlate of psychological distress among patients with cancer, and by Kitaw et al. (2025), who documented the considerable economic burden experienced by cancer-affected households. The findings also revealed a significant negative association between perceived stigmatization and quality of life ($r = -.42$, $p < .01$). This indicates that greater perceived stigmatization was associated with poorer quality of life among the participants. Cancer-related stigma may undermine well-being by increasing shame, social withdrawal, perceived rejection, and concerns about personal worth. When patients anticipate negative reactions from others, they may become reluctant to discuss their diagnosis or seek emotional support, potentially affecting their

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social and psychological functioning. The finding is consistent with Han et al. (2020), whose systematic review and meta-analysis identified a negative association between cancer stigma and quality of life. It is also consistent with the findings of Sarfraz et al. (2025) in the Pakistani context, where cancer-related stigmatization was associated with lower quality of life. The convergence between the present findings and previous research reinforces the importance of addressing patients' social experiences alongside their medical needs. In particular, interventions that promote supportive communication, reduce discriminatory attitudes, and strengthen access to psychosocial care may be relevant to improving cancer patients' well-being. Death anxiety demonstrated the strongest negative correlation with quality of life among the three independent variables ($r = -.51$, $p < .01$). This finding suggests that greater fear and apprehension concerning death were associated with poorer quality of life. Cancer can make mortality more salient and may lead patients to worry about pain, treatment outcomes, separation from loved ones, and the future of their families. When such concerns become persistent, they may interfere with emotional adjustment, concentration, social engagement, and the ability to participate in meaningful activities. The finding is consistent with Li et al. (2024), whose systematic review and meta-analysis identified a negative association between death anxiety and quality of life among patients with cancer. The relatively strong association observed in the present sample highlights the importance of considering existential concerns in cancer care. However, the correlation does not establish that death anxiety is the strongest causal predictor of quality of life, nor does it demonstrate that it explains more unique variance than the other independent variables in a multivariable model. Financial toxicity was also significantly negatively associated with quality of life ($r = -.48$, $p < .01$). This finding indicates that greater financial hardship was associated with poorer quality of life among cancer patients. Financial toxicity can affect patients through both material and psychological pathways, including difficulty paying for treatment, depletion of savings, loss of income, dependence on relatives, and concern about meeting household expenses. Such circumstances may increase stress and limit patients' ability to maintain adequate nutrition, attend medical appointments, and participate in everyday activities. The present finding closely aligns with Pangestu and Rencz (2023), whose systematic review and meta-analysis found a consistent association between greater financial toxicity and poorer health-related quality of life across cancer populations. It is also broadly consistent with the economic vulnerability documented by Kitaw et al. (2025). These findings underscore the importance of financial assessment, practical assistance, and improved access to affordable cancer care as components of comprehensive oncology services. Taken together, the correlation findings support the view that quality of life among cancer patients is associated with interconnected social, psychological, and economic circumstances. Perceived stigmatization may compromise social belonging, death anxiety may undermine emotional security, and financial toxicity may threaten material stability. Although these variables represent distinct experiences, their positive intercorrelations suggest that patients may encounter several forms of adversity simultaneously. The findings therefore support a multidimensional approach to cancer care that considers psychological support, stigma reduction, existential concerns, and financial assistance alongside medical treatment.

The Mediating Role of Self-Compassion between Perceived Stigmatization and Quality of Life

The first mediation analysis examined the potential mediating role of self-compassion in the relationship between perceived stigmatization and quality of life. The results indicated that perceived stigmatization negatively predicted self-compassion ($B = -0.35$, $SE = 0.10$, $p = .001$), whereas self-compassion positively predicted quality of life ($B = 0.42$, $SE = 0.12$, $p = .001$). The total effect of perceived stigmatization on quality of life was negative and statistically significant ($B = -0.48$, $SE = 0.11$, $p = .001$). After self-compassion was included in the model, the direct effect remained significant ($B = -0.33$, $SE = 0.11$, $p = .004$). These findings suggest that perceived

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stigmatization was associated with lower self-compassion and that self-compassion was associated with better quality of life, even after accounting for perceived stigmatization. One possible explanation for the negative association between perceived stigmatization and self-compassion is that stigmatizing experiences may encourage self-blame, shame, and harsh self-evaluation. Cancer patients who perceive themselves as socially devalued may internalize negative attitudes and interpret their illness or its consequences as a reflection of personal inadequacy. Such responses may make it more difficult to treat oneself with kindness and understanding during periods of vulnerability. Conversely, self-compassion may provide a more accepting way of responding to painful social experiences. Through self-kindness, recognition of common humanity, and balanced awareness of difficult emotions, patients may be better able to maintain a sense of personal worth despite negative social judgments. The positive association between self-compassion and quality of life is consistent with the findings of Ahmad and Khanum (2024), who investigated self-compassion, perceived stress, and quality of life among cancer patients in Pakistan. Their study reported a positive association between self-compassion and quality of life and identified a mediating role for self-compassion in the relationship between perceived stress and quality of life. Although perceived stress differs conceptually from perceived stigmatization, the findings of Ahmad and Khanum provide relevant contextual support for the possibility that self-compassion is associated with better adjustment among cancer patients. The present results extend this line of inquiry by examining perceived stigmatization as a distinct psychosocial predictor. The direct effect of perceived stigmatization remained statistically significant after self-compassion was included in the model. This pattern is compatible with the possibility that self-compassion accounts for part, but not all, of the association between perceived stigmatization and quality of life. Stigmatization may continue to affect well-being through other pathways, including social exclusion, reduced support, discrimination, and barriers to healthcare. However, the statistical significance of the indirect effect cannot be established from the reported coefficients alone. A bootstrapped confidence interval for the indirect effect is required to determine whether the proposed mediation is statistically supported. Accordingly, self-compassion should be interpreted as a potential explanatory mechanism unless the indirect effect is confirmed using the appropriate inferential test.

The Mediating Role of Self-Compassion between Death Anxiety and Quality of Life

The second mediation analysis examined self-compassion as a potential mediator between death anxiety and quality of life. The results indicated that death anxiety negatively predicted self-compassion ($B = -0.40$, $SE = 0.10$, $p = .001$), while self-compassion positively predicted quality of life ($B = 0.38$, $SE = 0.12$, $p = .003$). The total effect of death anxiety on quality of life was negative and statistically significant ($B = -0.52$, $SE = 0.11$, $p = .001$). After the mediator was included, the direct effect remained significant ($B = -0.37$, $SE = 0.11$, $p = .002$). This pattern suggests that greater death anxiety was associated with lower self-compassion and poorer quality of life, whereas higher self-compassion was associated with better quality of life. Cancer-related death anxiety may involve persistent concerns about mortality, suffering, treatment outcomes, and separation from loved ones. Such concerns can challenge emotional security and make it difficult for patients to respond to their circumstances with patience and understanding. When patients judge themselves for experiencing fear or struggle to accept their vulnerability, distress may become more difficult to manage. Self-compassion may be relevant because it encourages individuals to acknowledge difficult emotions without excessive self-criticism or attempts to deny their experiences. Patients who respond to mortality-related concerns with greater understanding may be better able to maintain emotional balance and participate in meaningful activities despite uncertainty. The present findings can be considered alongside the work of Yousefi Afrashteh and Masoumi (2021), who investigated psychological well-being and

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death anxiety among breast cancer survivors during the COVID-19 pandemic and examined self-compassion as a mediating variable. Their research provides a relevant conceptual basis for considering self-compassion in the relationship between mortality-related distress and psychological adjustment. The present findings also complement Li et al. (2024), whose systematic review and meta-analysis identified death anxiety as an important correlate of distress and poorer quality of life in cancer populations. Together, these studies suggest that the relationship between death anxiety and well-being may warrant attention not only to the intensity of patients' fears but also to their ways of responding to distress. The continued significance of the direct effect after the inclusion of self-compassion suggests that self-compassion does not fully account for the association between death anxiety and quality of life in the reported model. Other processes, including perceived social support, spiritual well-being, resilience, symptom burden, and meaning in life, may also be relevant. Nevertheless, the reported path coefficients are consistent with the possibility that self-compassion is associated with better quality of life in the context of death anxiety. As with the first mediation model, the indirect effect requires a bootstrapped confidence interval before mediation can be concluded statistically. The findings should therefore be described as consistent with a potential mediating role rather than definitive evidence of mediation.

The Mediating Role of Self-Compassion between Financial Toxicity and Quality of Life

The third mediation analysis examined the potential mediating role of self-compassion in the relationship between financial toxicity and quality of life. The results showed that financial toxicity negatively predicted self-compassion (B = −0.32, SE = 0.11, p = .005), while self-compassion positively predicted quality of life (B = 0.40, SE = 0.12, p = .002). The total effect of financial toxicity on quality of life was negative and statistically significant (B = −0.46, SE = 0.11, p = .001). After self-compassion was included in the model, the direct effect remained significant (B = −0.33, SE = 0.11, p = .004). These findings suggest that greater financial toxicity was associated with lower self-compassion and poorer quality of life, whereas higher self-compassion was associated with better quality of life. Financial toxicity may affect patients not only through the objective costs of treatment but also through the emotional meanings attached to financial hardship. Patients who are unable to meet medical expenses or maintain household responsibilities may experience guilt, shame, helplessness, and concerns about being a burden on family members. These experiences may encourage self-criticism, particularly when patients interpret their financial circumstances as a personal failure rather than as a consequence of illness-related costs and broader economic constraints. Self-compassion may be associated with a less judgmental response to these difficulties. Patients who recognize their vulnerability without condemning themselves may be better able to preserve their sense of personal worth and seek assistance when needed. The positive association between self-compassion and quality of life is consistent with Ahmad and Khanum (2024), who reported that self-compassion was positively associated with quality of life among cancer patients in Pakistan. Although their study focused on perceived stress rather than financial toxicity, it supports the broader relevance of self-compassion to psychological adjustment in a cancer population. The present findings also align with Pangestu and Rencz (2023), who demonstrated a relationship between financial toxicity and poorer health-related quality of life. Considered together, these findings suggest that financial hardship and psychological resources may both be relevant to patients' reported well-being. An important distinction, however, is that financial toxicity includes material and structural conditions that cannot be resolved through psychological coping alone. Self-compassion cannot replace access to affordable treatment, financial assistance, health insurance, employment protection, or social welfare support. Even patients who respond to themselves with considerable kindness may continue to experience poor quality of life when they cannot afford essential care. The potential relevance of self-compassion should therefore be

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understood as one possible psychological dimension of the relationship between financial toxicity and quality of life, rather than as an alternative to addressing patients' material needs. The direct effect of financial toxicity remained significant after self-compassion was included in the model, suggesting that other pathways may contribute to the association between financial hardship and quality of life. These may include treatment delays, reduced access to medicines, unmet basic needs, employment disruption, and family financial strain. Nevertheless, the reported coefficients indicate that self-compassion was positively associated with quality of life in the model examining financial toxicity. As in the other two models, the statistical significance of the indirect effect must be established using its bootstrapped confidence interval before concluding that mediation occurred. Taken together, the findings highlight the importance of considering perceived stigmatization, death anxiety, and financial toxicity as distinct but interrelated correlates of quality of life among cancer patients. All three variables were negatively associated with quality of life, while their positive intercorrelations suggested that social, existential, and financial challenges may occur together. Death anxiety showed the strongest negative bivariate correlation with quality of life in the present sample, followed by financial toxicity and perceived stigmatization. This pattern identifies death anxiety as an especially relevant correlate in these data, although comparative claims about unique predictive importance would require a multivariable analysis. The mediation models further indicated that perceived stigmatization, death anxiety, and financial toxicity were each negatively associated with self-compassion, whereas self-compassion was positively associated with quality of life. These findings are broadly consistent with the conceptualization of self-compassion as a psychological resource that may be relevant to adjustment under conditions of illness-related adversity. They also complement the work of Ahmad and Khanum (2024) and the cancer-specific research on self-compassion and death anxiety discussed by Yousefi Afrashteh and Masoumi (2021). However, the reported path coefficients alone do not establish statistically significant indirect effects. The proposed mediating role of self-compassion must therefore remain provisional until bootstrapped confidence intervals are examined. From a practical perspective, the findings suggest that comprehensive cancer care may benefit from incorporating psychosocial assessment and support alongside medical treatment. Screening for perceived stigma may help identify patients who are experiencing social isolation or negative judgments. Assessment of death anxiety may help clinicians recognize concerns about mortality, treatment outcomes, and family separation that could benefit from sensitive psychological or supportive-care interventions. Assessment of financial toxicity may help identify patients who need financial counselling, assistance with treatment expenses, or support accessing available services. Self-compassion-based approaches may also be worth investigating as an adjunct to psychological care, particularly for patients experiencing self-blame, shame, or persistent emotional distress. However, the present study does not establish the effectiveness of any specific intervention. The findings should be interpreted in light of several limitations. First, the sample consisted of 59 cancer patients, which limits the precision of estimates and the generalizability of the findings to other cancer populations. Second, if the study used a cross-sectional design, the temporal order of the variables cannot be established; consequently, mediation findings cannot demonstrate that perceived stigmatization, death anxiety, or financial toxicity causes changes in self-compassion that subsequently affect quality of life. Third, the interpretation of the mediation analyses depends on the availability of appropriate confidence intervals for the indirect effects. Fourth, the results may be influenced by characteristics such as cancer type, disease stage, treatment status, income, employment, and access to healthcare, which should be considered in future research. Finally, the reported associations do not rule out alternative explanations or reciprocal relationships among the variables. Future studies should use larger and more diverse samples, preferably with longitudinal designs, to

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examine whether changes in perceived stigmatization, death anxiety, financial toxicity, and self-compassion precede changes in quality of life. Researchers should also test indirect effects using bootstrap confidence intervals and consider additional factors, including social support, resilience, spiritual well-being, and socioeconomic circumstances. Intervention studies could investigate whether self-compassion-based approaches improve psychological adjustment while being combined with practical measures to reduce stigma and financial hardship.

Conclusion

The present findings indicate that perceived stigmatization, death anxiety, and financial toxicity were significantly associated with poorer quality of life among the cancer patients studied. Self-compassion was positively associated with quality of life and may represent a relevant psychological resource in the context of cancer-related adversity. Although the patterns of regression coefficients are consistent with potential mediation, definitive conclusions about the indirect effects require bootstrapped confidence intervals. The study contributes to understanding cancer patients' well-being by bringing together social, existential, economic, and psychological dimensions and highlights the value of comprehensive care that addresses both emotional needs and the practical challenges of living with cancer.

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