





The Effectiveness of Meanin-Centered Therapy on the Dimensions of Quality of Life in Women with Grief Syndrome Following Cancer-Related Amputation

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ABSTRACT

Objective: The aim of this study was to investigate the effectiveness of Meanin-Centered Therapy on the dimensions of quality of life in women experiencing grief syndrome following cancer-related amputation.

Methods and Materials: This study employed a quasi-experimental design with a pretest–posttest control group and a follow-up phase. The statistical population consisted of women with breast cancer experiencing death anxiety and grief symptoms following amputation, who were recruited from specialized oncology centers in Isfahan. A total of 36 participants were selected using purposive sampling and randomly assigned to an experimental group (n = 18) and a control group (n = 18). The experimental group received an eight-session group-based Meanin-Centered Therapy intervention, while the control group did not receive any psychological intervention during the study period. Data were collected using the WHOQOL-BREF, the Grief Experience Questionnaire, and the Death Anxiety Scale. Data analysis was conducted using repeated measures ANOVA and Bonferroni post-hoc tests in SPSS-27, with a significance level set at $p < 0.05$.

Findings: The results indicated significant effects of time, group, and the interaction between time and group on all dimensions of quality of life ($p < 0.001$). Participants in the experimental group showed significant improvements in physical health, psychological health, social relationships, and environmental health at posttest compared to pretest, while no significant changes were observed in the control group. Bonferroni post-hoc analyses revealed that the differences between pretest and posttest, as well as between pretest and follow-up, were statistically significant ($p < 0.001$), whereas no significant differences were found between posttest and follow-up ($p > 0.05$), indicating stability of the intervention effects over time. Effect size indices demonstrated large practical significance across all variables.

Conclusion: Meanin-Centered Therapy is an effective intervention for improving multiple dimensions of quality of life in women experiencing grief syndrome following cancer-related amputation, and its effects are sustained over time, suggesting its utility as a meaning-centered therapeutic approach in psychosocial oncology care.

Keywords: Meanin-Centered Therapy, Quality of Life, Grief Syndrome, Cancer, Amputation, Death Anxiety, Meaning in Life

1. Introduction

Breast cancer is one of the most prevalent chronic and life-threatening diseases among women worldwide, often accompanied by profound physical, psychological, and social consequences that significantly disrupt patients' quality of life. Beyond the immediate threat to survival, the disease trajectory frequently involves invasive medical procedures such as mastectomy or limb amputation, which not only alter bodily integrity but also impose deep emotional and existential burdens on patients. These experiences can trigger complex psychological responses, including grief, loss of identity, and heightened death anxiety, ultimately contributing to a multifaceted syndrome of psychological distress that extends far beyond the physical domain of illness (Talebi, Bagherian-Sararoudi, Rezaei, Jamaloei, et al., 2025; Talebi et al., 2023). In particular, the phenomenon of grief associated with amputation in cancer patients represents a unique form of loss that combines elements of bereavement, trauma, and existential crisis, requiring specialized psychological attention.

Amputation, whether due to cancer progression or as part of therapeutic intervention, constitutes a life-altering event that challenges patients' sense of self, autonomy, and future orientation. Qualitative evidence suggests that individuals undergoing amputation often experience profound emotional reactions, including shock, denial, anger, and persistent sadness, as they attempt to cope with the loss of a body part and the symbolic meanings attached to it (Aguado et al., 2024; Valizadeh et al., 2023). These reactions are not merely transient but may evolve into chronic grief states characterized by persistent rumination, emotional numbness, and impaired social functioning. Furthermore, studies have indicated that patients with non-traumatic amputations, particularly those related to cancer, exhibit significant challenges in psychological adjustment and behavioral adaptation, which can negatively impact their rehabilitation and long-term well-being (Maffoni et al., 2025). Such findings underscore the necessity of addressing the psychological dimensions of amputation alongside its physical consequences.

Quality of life, as a comprehensive construct encompassing physical health, psychological state, social relationships, and environmental context, has emerged as a critical outcome measure in cancer care. Research consistently demonstrates that cancer patients, especially those undergoing aggressive treatments or experiencing

functional impairments, report significantly lower levels of quality of life compared to the general population (Carreiro et al., 2025; Štánerová et al., 2025). In this regard, factors such as perceived social support, coping strategies, and psychological flexibility play a crucial role in shaping patients' subjective well-being. For instance, social support has been shown to mediate the relationship between coping styles and quality of life, highlighting the importance of interpersonal resources in the adjustment process (Carreiro et al., 2025). Similarly, interventions targeting psychological flexibility and emotional processing have been found to improve various dimensions of quality of life in individuals with chronic illness (Bahrani Tanha et al., 2024).

Among the psychological factors influencing quality of life in cancer patients, the concept of meaning in life occupies a central position. According to existential and positive psychology perspectives, the ability to find meaning in suffering and adversity serves as a fundamental resource for coping with life-threatening conditions. Empirical studies have demonstrated that a higher sense of meaning in life is associated with greater psychological well-being, resilience, and life satisfaction, even in the presence of severe health challenges (Kyriazos & Poga, 2024; Shahbazi Bandani & Atashpour, 2024). Conversely, the absence of meaning or existential emptiness can exacerbate feelings of hopelessness, depression, and distress, thereby undermining patients' overall quality of life. In this context, meaning-centered interventions have gained increasing attention as effective approaches to enhancing psychological adjustment in clinical populations.

Meaning-Centered Therapy, developed by Viktor Frankl, is a therapeutic approach grounded in the premise that the primary motivational force in humans is the search for meaning. This approach emphasizes the role of personal responsibility, existential awareness, and value-based living in overcoming psychological suffering. In recent years, Meaning-Centered Therapy and related meaning-centered interventions have been applied to various clinical populations, including cancer patients, with promising results. For example, studies have shown that meaning-centered group therapy can significantly improve death attitudes and distress tolerance in women with breast cancer experiencing death anxiety (Talebi et al., 2024). Similarly, other research has demonstrated the effectiveness of meaning therapy in enhancing resilience and quality of life in patients with chronic conditions, suggesting its potential as a powerful intervention for addressing existential distress (Miragha Pour Tarrah et al., 2024; Najafi et al., 2024).

In addition to Meaning-Centered Therapy, other therapeutic approaches such as mindfulness-based interventions and acceptance and commitment therapy have also been shown to positively influence psychological outcomes in cancer patients. Meta-analytic evidence indicates that mindfulness-based interventions can reduce symptoms of anxiety and depression while improving quality of life in individuals undergoing cancer treatment (Štánerová et al., 2025). Likewise, spiritual-religious interventions and positive psychotherapy have been associated with enhanced mental health and increased sense of meaning among patients with chronic illness (Baghaei & Aghaei, 2025; Geravand et al., 2025). However, despite the growing body of evidence supporting these approaches, the specific role of Meaning-Centered Therapy in addressing grief associated with amputation in cancer patients remains underexplored.

Another important dimension in the psychological experience of cancer patients is death anxiety, which often intensifies following diagnosis and invasive medical procedures. Death anxiety has been identified as a key factor influencing emotional distress, coping behavior, and quality of life in patients with life-threatening illnesses. Interventions that effectively reduce death anxiety and promote adaptive coping can therefore have a significant impact on patients' overall well-being. Recent randomized clinical trials have demonstrated that psychological interventions such as emotional schema therapy and mindfulness-based cognitive therapy can improve attitudes toward death and enhance hope in women with breast cancer (Talebi, Bagherian-Sararoudi, Rezaei Jamaloui, et al., 2025; Talebi, Bagherian-Sararoudi, Rezaei Jamaloei, et al., 2025). These findings highlight the importance of addressing existential concerns in the psychological treatment of cancer patients.

Despite the advances in psychosocial oncology, there remains a gap in the literature regarding interventions specifically tailored to the unique experiences of women who have undergone amputation due to cancer and are suffering from grief-related symptoms. While previous studies have examined the effects of various therapeutic approaches on quality of life and psychological well-being, few have focused on the intersection of amputation-related grief, death anxiety, and meaning-making processes. Moreover, cultural and contextual factors may influence how patients perceive and cope with these experiences, necessitating further research in diverse settings (Karimi Dastaki & Mahmudi, 2024; Modderkolk et al., 2025).

Understanding the effectiveness of Meaning-Centered Therapy in this specific population can therefore contribute to the development of more targeted and culturally sensitive interventions.

In light of the above considerations, the present study seeks to address an important gap in the existing literature by examining the effectiveness of Meaning-Centered Therapy on the dimensions of quality of life in women with grief syndrome resulting from cancer-related amputation. Given the central role of meaning in coping with existential suffering and the promising evidence supporting meaning-centered interventions, it is hypothesized that Meaning-Centered Therapy can significantly improve physical, psychological, social, and environmental aspects of quality of life in this population.

The aim of this study is to investigate the effectiveness of Meaning-Centered Therapy on the dimensions of quality of life in women with grief syndrome following cancer-related amputation.

2. Methods and Materials

2.1. Study design and Participant

This study was conducted using a quasi-experimental design with a pretest–posttest control group and a follow-up phase. The statistical population consisted of women diagnosed with breast cancer who were experiencing death anxiety and had undergone amputation, and who were referred to Seyed al-Shohada Hospital and Ala Cancer Prevention and Control Center. From this population, 36 participants were selected through purposive sampling based on inclusion criteria such as confirmed diagnosis of breast cancer, history of amputation, presence of grief-related symptoms, and willingness to participate in psychological intervention sessions. The participants were then randomly assigned into two groups: an experimental group ($n = 18$) receiving Meaning-Centered Therapy intervention and a control group ($n = 18$) receiving no intervention during the study period. The intervention was implemented in structured group sessions based on the principles of Meaning-Centered Therapy, focusing on meaning-making, existential awareness, and coping with suffering.

2.2. Measures

The data collection tools included standardized and widely validated psychological instruments. The first instrument was the World Health Organization Quality of

Life Questionnaire (WHOQOL-BREF), developed by the World Health Organization in 1998. This instrument consists of 26 items designed to assess four major domains of quality of life: physical health, psychological health, social relationships, and environmental health. Each item is rated on a five-point Likert scale ranging from 1 (very poor/very dissatisfied) to 5 (very good/very satisfied). The WHOQOL-BREF provides a comprehensive assessment of individuals' perceived quality of life across multiple dimensions. Higher scores indicate better quality of life. The psychometric properties of this instrument have been extensively evaluated across diverse populations, demonstrating strong internal consistency, construct validity, and test-retest reliability in numerous international and clinical studies.

The second instrument was the Grief Experience Questionnaire (GEQ), originally developed by Barrett and Scott in 1989. This scale measures multiple aspects of grief reactions, including somatic reactions, search for meaning, guilt, anger, and despair. The questionnaire contains 55 items rated on a Likert scale, typically ranging from strongly disagree to strongly agree. It is designed to capture both normative and maladaptive grief responses, particularly in populations experiencing complex or traumatic loss. Scoring is conducted by summing item responses, with higher scores indicating more intense grief experiences. The GEQ has demonstrated satisfactory validity and reliability across clinical and non-clinical samples, and its factorial structure has been supported in various cultural contexts.

The third instrument used in this study was the Death Anxiety Scale (DAS), developed by Donald Templer in 1970. This scale includes 15 dichotomous items (true/false) that assess individuals' anxiety related to death and dying. The DAS measures various dimensions of death-related fear, including fear of the dying process, fear of the unknown, and fear of non-existence. Scores range from 0 to 15, with higher scores reflecting greater levels of death anxiety. The scale has been widely used in clinical and research settings and has demonstrated acceptable levels of reliability and validity. Previous studies have confirmed its internal consistency and criterion-related validity in different populations, including patients with chronic illnesses and cancer.

2.3. Intervention

The intervention protocol was based on a structured Meaning-Centered Therapy program implemented in a group

format over eight weekly sessions, each lasting approximately 90 minutes. The sessions were conducted by a trained clinical psychologist and followed a progressive sequence grounded in Viktor Frankl's meaning-centered therapeutic principles. The initial sessions focused on establishing rapport, introducing the concept of meaning in life, and enhancing participants' awareness of their existential conditions, including grief, loss, and death anxiety. Subsequent sessions emphasized identifying personal values, exploring sources of meaning through creative, experiential, and attitudinal pathways, and facilitating cognitive reframing of suffering and illness-related experiences. Participants were guided to reinterpret their amputation and cancer journey within a broader existential framework, fostering acceptance and responsibility toward life despite limitations. Techniques such as Socratic dialogue, dereflection, paradoxical intention, and narrative exercises were employed to help participants shift focus from distress to purpose. Later sessions addressed strengthening resilience, enhancing hope, improving interpersonal relationships, and integrating meaning into daily life. The final session was dedicated to consolidation of learned concepts, relapse prevention, and development of individualized meaning-oriented life plans to sustain therapeutic gains beyond the intervention period.

2.4. Data Analysis

Data analysis was performed using inferential statistical methods appropriate for repeated-measures designs. After verifying the assumptions of normality, homogeneity of variances, and sphericity, a repeated-measures analysis of variance (ANOVA) was conducted to examine differences between the experimental and control groups across the pretest, posttest, and follow-up stages. Additionally, Bonferroni post-hoc tests were applied to identify specific pairwise differences between measurement points. Effect sizes were calculated to determine the magnitude of the intervention's impact. All statistical analyses were conducted using IBM SPSS Statistics (version 27), and the significance level was set at $p < 0.05$.

3. Findings and Results

The demographic characteristics of the participants indicated that the mean age of the women in the experimental group was 47.38 years ($SD = 6.21$), while in the control group it was 46.91 years ($SD = 5.87$), suggesting a relatively homogeneous age distribution across groups. In

terms of marital status, the majority of participants in both groups were married (experimental: 72.2%, control: 77.8%), with the remaining participants being widowed or divorced. Regarding educational level, most participants had completed secondary education or held a diploma (experimental: 55.6%, control: 50.0%), followed by those with higher education degrees. The average duration since cancer diagnosis was 3.84 years ($SD = 1.27$) in the experimental group and 3.76 years ($SD = 1.19$) in the control

group. Additionally, all participants had undergone mastectomy due to breast cancer and reported moderate to high levels of grief and death anxiety at baseline. Independent samples t-tests and chi-square analyses confirmed that there were no statistically significant differences between the experimental and control groups in terms of demographic variables ($p > 0.05$), indicating baseline equivalence and supporting the internal validity of the study.

Table 1

Descriptive Statistics of Quality of Life Dimensions Across Groups and Measurement Phases

Variable	Group	Pretest Mean (SD)	Posttest Mean (SD)	Follow-up Mean (SD)
Physical Health	Experimental	42.37 (5.68)	58.91 (6.12)	56.74 (5.95)
	Control	43.02 (5.41)	44.16 (5.73)	43.88 (5.66)
Psychological Health	Experimental	39.84 (6.03)	61.27 (6.45)	59.11 (6.28)
	Control	40.11 (5.92)	41.35 (6.08)	40.97 (5.99)
Social Relationships	Experimental	41.26 (5.77)	60.84 (6.19)	58.92 (6.01)
	Control	41.73 (5.69)	42.88 (5.91)	42.54 (5.83)
Environmental Health	Experimental	43.58 (5.94)	59.73 (6.37)	57.89 (6.12)
	Control	43.91 (5.88)	44.79 (6.05)	44.33 (5.97)

The descriptive statistics presented in Table 1 demonstrate notable changes in all dimensions of quality of life among participants in the experimental group following the Meanin-Centered Therapy intervention. At the pretest stage, both groups exhibited relatively similar mean scores across all dimensions, confirming baseline equivalence. However, at the posttest stage, the experimental group showed substantial increases in physical health ($M = 58.91$), psychological health ($M = 61.27$), social relationships ($M = 60.84$), and environmental health ($M = 59.73$), compared to

only marginal changes in the control group. These improvements were largely sustained at the follow-up stage, with only slight decreases that still remained significantly higher than baseline levels. In contrast, the control group exhibited minimal fluctuations across all measurement points, indicating the absence of meaningful change without intervention. These patterns suggest a strong positive effect of Meanin-Centered Therapy on enhancing multiple aspects of quality of life in women experiencing grief due to cancer-related amputation.

Table 2

Repeated Measures ANOVA Results for Quality of Life Dimensions

Variable	Source	SS	df	MS	F	p	η^2
Physical Health	Time	3218.47	2	1609.24	48.36	0.001	0.58
	Group	2894.12	1	2894.12	42.91	0.001	0.55
	Time \times Group	3057.63	2	1528.81	46.18	0.001	0.57
Psychological Health	Time	3487.29	2	1743.64	52.77	0.001	0.60
	Group	3126.54	1	3126.54	47.03	0.001	0.58
	Time \times Group	3348.71	2	1674.35	50.29	0.001	0.59
Social Relationships	Time	2984.65	2	1492.33	44.82	0.001	0.56
	Group	2761.33	1	2761.33	41.57	0.001	0.54
	Time \times Group	2897.48	2	1448.74	43.96	0.001	0.55
Environmental Health	Time	3105.82	2	1552.91	46.91	0.001	0.57
	Group	2849.76	1	2849.76	42.35	0.001	0.55
	Time \times Group	2976.54	2	1488.27	45.17	0.001	0.56

The results of the repeated measures ANOVA presented in Table 2 indicate statistically significant effects of time, group, and the interaction between time and group across all

dimensions of quality of life ($p < 0.001$). The significant main effect of time suggests that participants' quality of life scores changed significantly across the three measurement

stages. The significant group effect indicates that overall differences existed between the experimental and control groups. Most importantly, the significant time \times group interaction effect across all variables confirms that the observed changes over time differed significantly between the two groups, demonstrating the effectiveness of the

Meanin-Centered Therapy intervention. The effect sizes (η^2 ranging from 0.54 to 0.60) indicate large practical significance, suggesting that a substantial proportion of variance in quality of life outcomes can be attributed to the intervention.

Table 3

Bonferroni Post-hoc Comparisons for Quality of Life Dimensions (Experimental Group)

Variable	Comparison	Mean Difference	Std. Error	p
Physical Health	Pretest vs Posttest	-16.54	1.82	0.001
	Pretest vs Follow-up	-14.37	1.76	0.001
	Posttest vs Follow-up	2.17	1.45	0.148
Psychological Health	Pretest vs Posttest	-21.43	1.95	0.001
	Pretest vs Follow-up	-19.27	1.89	0.001
	Posttest vs Follow-up	2.16	1.52	0.163
Social Relationships	Pretest vs Posttest	-19.58	1.88	0.001
	Pretest vs Follow-up	-17.66	1.81	0.001
	Posttest vs Follow-up	1.92	1.49	0.187
Environmental Health	Pretest vs Posttest	-16.15	1.91	0.001
	Pretest vs Follow-up	-14.31	1.84	0.001
	Posttest vs Follow-up	1.84	1.47	0.201

The Bonferroni post-hoc test results presented in Table 3 provide detailed insights into pairwise differences across measurement stages within the experimental group. Significant differences were observed between pretest and posttest, as well as between pretest and follow-up, across all quality of life dimensions ($p < 0.001$), indicating substantial improvement following the intervention. However, the differences between posttest and follow-up were not statistically significant ($p > 0.05$), suggesting that the gains achieved through Meanin-Centered Therapy were largely maintained over time without significant decline. This pattern confirms both the immediate and sustained effectiveness of the intervention in improving the quality of life among women with grief syndrome following cancer-related amputation.

4. Discussion

The present study aimed to examine the effectiveness of Meanin-Centered Therapy on the dimensions of quality of life in women experiencing grief syndrome following cancer-related amputation. The findings demonstrated that Meanin-Centered Therapy led to significant improvements in all dimensions of quality of life, including physical health, psychological health, social relationships, and environmental health, compared to the control group. Furthermore, these improvements were sustained at the follow-up stage, indicating not only the immediate

effectiveness but also the relative stability of the intervention outcomes over time. The significant interaction effects between time and group across all variables confirm that the observed changes were attributable to the Meanin-Centered Therapy intervention rather than to the passage of time or external factors.

One of the central findings of this study was the substantial improvement in psychological health among participants in the experimental group. This result can be interpreted in light of the core principles of Meanin-Centered Therapy, which emphasize meaning-making, existential awareness, and the reinterpretation of suffering as a source of personal growth. Women with cancer-related amputation often experience profound psychological distress due to the loss of bodily integrity and the associated existential challenges. By facilitating the discovery of meaning in suffering, Meanin-Centered Therapy appears to reduce negative affect and enhance psychological resilience. This finding is consistent with previous studies demonstrating that meaning-centered interventions significantly improve psychological well-being and reduce distress in cancer patients (Najafi et al., 2024; Talebi et al., 2024). Moreover, the enhancement of psychological health observed in this study aligns with evidence suggesting that a strong sense of meaning in life is positively associated with emotional stability and overall well-being (Kyriazos & Poga, 2024).

The observed improvement in physical health scores, although seemingly less direct, can be explained through the psychosomatic pathways linking psychological well-being and physical functioning. Psychological distress, including grief and death anxiety, has been shown to exacerbate physical symptoms and reduce patients' ability to engage in health-promoting behaviors. By alleviating existential distress and fostering a more positive outlook, Meaning-Centered Therapy may indirectly contribute to better physical functioning and perceived health status. This interpretation is supported by research indicating that psychological interventions can have significant effects on physical aspects of quality of life in patients with chronic illnesses (Štánerová et al., 2025). Additionally, studies on supportive and assistive interventions for individuals with amputation highlight the importance of addressing psychological factors to improve overall rehabilitation outcomes (Ghoseiri et al., 2018).

Another important finding of this study was the significant improvement in social relationships among participants receiving Meaning-Centered Therapy. Social functioning is often impaired in individuals with cancer-related amputation due to feelings of stigma, altered body image, and reduced self-esteem. Meaning-Centered Therapy, by promoting self-acceptance and a sense of purpose, may enhance individuals' ability to engage in meaningful interpersonal relationships. The emphasis on values and responsibility in Meaning-Centered Therapy encourages patients to reconnect with others and to find meaning in their social roles, thereby improving the quality of their relationships. This finding is consistent with previous research demonstrating that interventions targeting meaning and emotional processing can enhance social functioning and perceived social support (Bahrani Tanha et al., 2024; Carreiro et al., 2025). The mediating role of social support in the relationship between coping strategies and quality of life further underscores the importance of social dimensions in the adjustment process (Carreiro et al., 2025).

The improvement observed in the environmental dimension of quality of life also merits attention. This dimension encompasses factors such as access to resources, sense of safety, and satisfaction with the living environment. While these factors may appear less directly related to psychological interventions, it is plausible that changes in perception and cognitive appraisal contribute to improved environmental satisfaction. Meaning-Centered Therapy encourages individuals to adopt a more constructive perspective toward their circumstances, which may lead to a

more positive evaluation of their environment. This interpretation is consistent with studies indicating that psychological flexibility and meaning-making are associated with greater satisfaction across various life domains (Shahbazi Bandani & Atashpour, 2024).

The sustained effects of the intervention at follow-up further highlight the durability of Meaning-Centered Therapy outcomes. Unlike some interventions that produce short-term improvements, Meaning-Centered Therapy appears to facilitate deeper cognitive and existential changes that persist over time. This finding is in line with research demonstrating the long-term benefits of meaning-centered therapies in enhancing resilience and reducing distress (Modderkolk et al., 2025). The ability of Meaning-Centered Therapy to produce enduring changes may be attributed to its focus on fundamental aspects of human existence, such as meaning, purpose, and values, which continue to influence individuals' experiences beyond the intervention period.

The results of the present study also contribute to the growing body of evidence supporting the role of meaning-centered approaches in cancer care. In comparison with other therapeutic modalities, Meaning-Centered Therapy offers a unique framework for addressing existential concerns, which are particularly salient in patients facing life-threatening illnesses and irreversible physical changes. Previous studies have shown that interventions such as mindfulness-based cognitive therapy and emotional schema therapy can improve attitudes toward death and increase hope in women with breast cancer (Talebi, Bagherian-Sararoudi, Rezaei Jamaloui, et al., 2025; Talebi, Bagherian-Sararoudi, Rezaei Jamaloei, et al., 2025). However, Meaning-Centered Therapy specifically targets the search for meaning, which may provide a more comprehensive approach to addressing the complex psychological needs of patients with grief related to amputation.

Furthermore, the findings of this study are consistent with qualitative research highlighting the profound psychological impact of amputation and the need for comprehensive support systems. Patients undergoing amputation often report insufficient preparation and lack of psychological support, which can exacerbate their distress and hinder adjustment (Aguado et al., 2024). Similarly, factors influencing the acceptance of amputation, such as personal beliefs, social support, and coping mechanisms, play a crucial role in patients' adaptation to their condition (Valizadeh et al., 2023). By addressing these factors through

a meaning-centered framework, Meanin-Centered Therapy may facilitate a more adaptive adjustment process.

In addition, the present findings align with meta-analytic evidence supporting the effectiveness of spiritual and meaning-based interventions in improving mental health and quality of life among cancer patients (Geravand et al., 2025). These interventions, by integrating psychological and existential dimensions, offer a holistic approach to patient care that goes beyond symptom reduction. The emphasis on meaning and purpose may be particularly relevant for individuals experiencing grief and loss, as it provides a framework for reconstructing their identity and finding new sources of fulfillment.

5. Conclusion

Overall, the results of this study provide strong empirical support for the effectiveness of Meanin-Centered Therapy in enhancing multiple dimensions of quality of life in women with grief syndrome following cancer-related amputation. By addressing the existential aspects of suffering and promoting meaning-making, Meanin-Centered Therapy appears to offer a valuable therapeutic approach for this vulnerable population.

6. Limitations and Suggestions

The present study has several limitations that should be considered when interpreting the findings. First, the relatively small sample size may limit the generalizability of the results to broader populations. Second, the use of purposive sampling and the focus on a specific clinical setting may introduce selection bias. Third, the reliance on self-report measures may be subject to response bias and may not fully capture objective changes in quality of life. Fourth, the absence of long-term follow-up beyond the study period limits the ability to assess the durability of the intervention effects over extended time frames. Finally, potential confounding variables such as individual differences in coping styles, social support, and disease severity were not fully controlled.

Future research should aim to address these limitations by employing larger and more diverse samples, as well as randomized controlled trial designs to enhance internal and external validity. Longitudinal studies with extended follow-up periods are needed to evaluate the long-term sustainability of Meanin-Centered Therapy outcomes. Additionally, future studies could explore the comparative effectiveness of Meanin-Centered Therapy and other

therapeutic approaches, such as mindfulness-based interventions or acceptance and commitment therapy, in improving quality of life among cancer patients. Investigating the mediating and moderating factors underlying the effectiveness of Meanin-Centered Therapy, such as meaning in life, resilience, and social support, could also provide valuable insights into the mechanisms of change.

From a practical perspective, the findings of this study suggest that integrating Meanin-Centered Therapy into psychosocial care programs for cancer patients can significantly enhance their quality of life. Healthcare providers, including psychologists, counselors, and oncology professionals, should consider incorporating meaning-centered interventions into routine care to address the existential needs of patients. Training programs for healthcare professionals can be developed to equip them with the skills required to deliver Meanin-Centered Therapy effectively. Additionally, group-based Meanin-Centered Therapy interventions can be implemented in clinical and community settings to provide accessible and cost-effective support for patients experiencing grief and psychological distress.

Authors' Contributions

Authors equally contributed to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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