

Research Paper





Analyzing the Lived Experiences of End-of-life Cancer Patients

Farah Lotfi Kashani¹ 📵, Shahram Vaziri¹ 📵, Hamid Nasrollahi² 📵, Malihe Rabbani¹* 📵

- 1. Department of Psychology, Faculty of Psychology, Roudehen Branch, Islamic Azad University, Tehran, Iran.
- 2. Department of Radiation Oncology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran.



Please cite this article as Lotfi Kashani F, Vaziri Sh, Nasrollahi H, Rabbani M. Analyzing the Lived Experiences of End-of-life Cancer Patients. Health Spiritual Med Ethics. 2024; 11(3):111-120. http://dx.doi.org/10.32598/hsmej.11.3.88.2



Article info:

Received: 20 Mar 2024 Accepted: 21 Aug 2024 Publish: 01 Sep 2024

ABSTRACT

Background and Objectives: The unique problems and needs of end-of-life cancer patients make it difficult for these patients to adjust to their new living conditions. Examining these problems and needs can provide invaluable information about coping with and adjusting to terminal cancer. Therefore, this study aimed to analyze the lived experiences of end-of-life cancer patients.

Methods: A phenomenological qualitative method was used to conduct this study. The study population included all end-of-life cancer patients admitted to Emam Reza Clinic in Shiraz City, Iran, who were aware of their disease status and had a life expectancy of at least six months (based on the doctor's prognosis). Participants were selected using purposive sampling and the data were theoretically saturated after 14 semi-structured interviews. The data were analyzed using Colaizzi's seven-step approach.

Results: Based on the phenomenological analysis results, five parameters, including family-related factors, culture and economy, the self, the physician and the treatment process, and religion and spirituality, were identified as the main themes of the present study.

Conclusion: Considering the adjustment problems faced by end-of-life cancer patients and the multidimensional nature of cancer-related factors and components, multifaceted interventions can facilitate the adjustment of these patients to their new living conditions.

Keywords:

End-of-life, Lived experience, Cancer

* Corresponding Author:

Malihe Rabbani

Address: Department of Psychology, Faculty of Psychology, Roudehen Branch, Islamic Azad University, Tehran, Iran.

Phone: +98 (93) 90963528 **E-mail:** rabani_malihe@yahoo.com





Introduction

t is estimated that nine million people die from cancer each year, and most of them are in the advanced stages of the disease [1]. The characteristics of end-of-life cancer, such as a high degree of malignancy, treatment resistance, and uncontrollable metastatic lesions, create many challenges [2]. Consequently, diagnosing the disease and confronting it can lead to disturbances and needs that, if not managed, result in severe psychological changes in the affected individuals and disrupt their lives.

End-of-life disease affects human functioning in all areas and causes problems related to identity, autonomy, goals, meaning, etc. It also changes family roles, dynamics, communication, and daily functions [3]. These conditions may appear as a reaction to the disease diagnosis or during the treatment and rehabilitation processes, as cancer patients experience different levels of stress and emotional distress [4].

The end-of-life stage for individuals experiencing emotional turmoil is a complex process characterized by several primary emotions, such as anxiety, stress, depression, and despair, which are related to these stressful conditions. As a result, patients may struggle to manage the stress and disabilities they encounter [5]. Psychiatric symptoms and disorders not only cause significant suffering for patients but also cause intensified physical diseases and reduced quality of life [6].

Reports indicate that cancer has sociocultural aspects in addition to its physical and psychological effects, and providing psychological support to patients can improve their mental health. Cultural beliefs and values influence not only cancer prevention and control behavior but also the psychological and behavioral consequences after cancer diagnosis and treatment [7, 8]. Therefore, analyzing the lived experience of these patients will help their treatment process.

The lived experiences of end-of-life patients have been analyzed in different personal and socio-cultural fields. One of the concerns for end-of-life cancer patients is related to religious and spiritual issues, which may draw patients closer to God and improve their trust and understanding of him. Also, this long journey may have various concerns, such as fear of death, challenges regarding God's justice, and difficulties in interpersonal relationships for some participants [9].

Bakhshalizadeh Irani et al. classified the concerns and needs of end-of-life cancer patients into five groups: Family and friends, socio-economic, self, staff, and treatment process in the hospital, and religious-spiritual [10]. Estebsari et al. introduced seven main issues affecting end-of-life patients' quality of life: Reducing stress and worry, participation, home care, education, independence, support, and resources and facilities [11].

Imanzadeh and Sharifi obtained four main themes in their research: The concept of death from the perspective of patients, disease consequences, causes of death anxiety, and factors reducing death anxiety [12]. Dehghan et al. extracted six conceptual clusters from contextual experiences based on cancer: Unexpectedness, cultural attitude, explanations of the disease, disease metaphors, social feedback, and terrible prophecies [13].

Pinto et al. also identified themes related to healthcare providers' understanding of the needs of end-of-life cancer patients. Three topics were related to interpersonal needs, psychological needs, and expressing unfinished business from the perspectives and experiences. The emerging topics included interpersonal communication, support and closer communication with family, disconnection from family relationships, and creating new communication in the hospital. Psychological needs and concerns included experiencing and expressing negative emotions, mental health concerns, and coping with mortality. Two topics related to unfinished business are the existence of unfinished business and the process of dealing with it [14].

Honey et al. in their research entitled "Lived experience as a resource for recovery" showed that resources promote hope; however, an increase in hope may not be immediately apparent. Also, these resources encourage useful activities, provide positive experiences, enhance valuable knowledge, promote constructive thinking about mental health issues during the journey, help individuals feel less lonely, and assist them in explaining their situations to others [15].

Accordingly, end-of-life patients seem to experience many psychological problems and their perception of life is affected by the disease. Therefore, it is necessary to influence their quality of life with psychological interventions and provide a platform that responds to the needs and concerns of these people because reduced psychological symptoms cause the ability to effectively deal with the disease. Therefore, the current research aims to analyze the lived experiences of end-of-life cancer patients so that a suitable treatment protocol can be prepared for them according to their problems and issues, as well as the related context and cultural structure.



Methods

A phenomenological qualitative method was used in this study. Data were collected through semi-structured interviews and analyzed using Colaizzi's seven-step approach. The statistical population included end-of-life cancer patients in Shiraz City, Iran, who were aware of their disease diagnosis, and for whom the doctor predicted a life expectancy of at least six months based on the progression of the disease. The saturation process served as the criterion for determining the sample size in qualitative studies. In this study, saturation was reached after interviewing the thirteenth and fourteenth participants. The inclusion criteria included having at least 20 years of age, having no psychiatric history before the disease, having a definitive diagnosis of advanced cancer, having a poor prognosis (about six months), and demonstrating physical (speech) and mental (ability to concentrate) abilities. The exclusion criteria included severe physical weakness that would prevent conducting an interview, language differences and communication problems that would hinder the interviewing process, denial or unawareness of being at the end-of-life stage, and lack of informed consent to participate in the interview.

The age range of the individuals participating in the interviews was determined based on the patients at this stage of the disease in Imam Reza Clinic. This study was conducted in Shiraz City, which is home to numerous university, government, and private specialized and super-specialized hospitals that provide a wide range of medical services to both Iranian and non-Iranian patients. Therefore, this diversity in patients in terms of ethnicity, language, and culture enhances the relevance of the research results.

Fourteen end-of-life cancer patients were selected and interviewed at Imam Reza Hospital in Shiraz City, using a purposeful sampling method. The semi-structured interview consisted of open-ended questions designed based on the researcher's goals and in consultation with experts. It included a comprehensive review of the research literature and the experiences of end-of-life cancer patients.

To design the questions, at the beginning of the interviews, the participants were asked to talk about how and when they became aware of the disease and their physical condition, and then they answered the following questions: What is your experience with cancer? Do you have a mental picture of your illness? What do these images mean in your life? What aspects of your life have been affected? What emotions do you experience? What

thoughts do you experience? What behaviors do you experience? What thoughts bring you peace? What behavior makes you feel relaxed?

To accurately implement the data and perform further analysis, the interview conversations were recorded with the participants' permission. To analyze the information obtained with the Colaizzi method, the text of each interview was read several times to acquire a concept of the whole text. In the second stage, crucial phrases and sentences related to people's experience of the phenomenon were extracted. In the third stage, the meaning of crucial expressions was explained by formulating interpretations. In the fourth stage, all formulated interpretations were grouped into categories, creating a unique structure of content clusters. In the fifth stage, thematic clusters were merged to form distinct thematic structures. By integrating all the subjects, the structure of the phenomenon was extracted. The researcher collaborated with an expert in the field of qualitative research to review the results and present a comprehensive description of the participants' experiences. In the sixth stage, redundant descriptions were removed from the entire section by streamlining the findings, which included eliminating some ambiguous and dual-sided structures. Finally, the results were validated and communicated to the participants, who provided feedback to the analyst about the validity of the results and their compatibility with their experiences. Additionally, face validity (based on experts' opinions) was used to validate the interviews.

Results

Table 1 presents the demographic information of the participants. The age range was consistent with that of individuals visiting the clinic and the doctor's diagnosis for end-of-life care. The interviewees included 14 people (four men and ten women), with ages ranging from 34 to 59 years. Also, their educational backgrounds included university education (two individuals), diploma (five individuals), elementary school (four individuals), secondary school (two individuals), and one individual who was illiterate. Ten people were married, one person was single, and the spouse of three people had passed away.

Table 2 presents the themes extracted from the interviews and related codes. Analyzing the phenomenology of the lived experience of end-of-life cancer patients in Iran led to the extraction of primary and secondary themes. The result of the content analysis of the interviews can be divided into five main themes and 16 subthemes. The main themes were family-related factors, culture, economy, self, physician, treatment process,



Table 1. Demographic information of the participants

Code	Gender	Age (y)	Education	Marital Status	Number of Children	Type of Cancer
1	Woman	55	Illiterate	Married	4	Lungs and chest
2	Woman	65	Diploma	Spouse's death	3	Pelvis and lung
3	Woman	54	Elementary	Married	2	Gut and chest
4	Woman	50	Secondary	Married	2	Lungs and chest
5	Man	53	Diploma	Married	3	Stomach and lungs
6	Man	59	Elementary	Married	3	Intestines and stomach
7	Woman	56	Secondary	Spouse's death	7	Lungs and chest
8	Woman	47	Elementary	Married	3	Lung, chest, and intestine
9	Woman	59	Elementary	Spouse's death	4	Stomach and chest
10	Woman	48	Diploma	Single	0	Chest, brain, and lungs
11	Man	36	Diploma	Married	2	Lung and stomach
12	Woman	45	Diploma	Married	2	Brain and lungs
13	Man	54	Bachelor's degree	Married	1	Intestines and lungs
14	Woman	36	Bachelor's degree	Married	2	Brain, lungs, and intestines



Table 2. Primary and secondary themes extracted from the interviews

Main Themes	Sub-themes	Code	
	Spouse-related factors	 Increasing expectations from the spouse during illness Discomfort from the reduction of emotional relationship Blaming the spouse for the illness Satisfaction from the all-round support of the spouse Worry about the spouse's future Feeling guilty about supporting the spouse Decreased communication and sexual desire Worry about being overhead 	
Family-related factors	Children-related factors	- Worry about involving children in treatment	
	Family members-related factors	 - Worry about teaching the family about the disease - Worry after death for the family - The need for emotional support from the family - Hiding the disease from the family - Happiness from the all-round support of the family - Annoyance due to family discomfort and restlessness - Hope to live with love for family - Displeasure regarding the family's hardships - Pretending to play a role - Annoyance at participating in the funeral ceremony - Worry about being overhead 	



Main Themes	Sub-themes	Code
	Job-status	- Job lose
	Financial factors	 Annoyance with financial dependence on the family Difficulty in providing treatment costs Need for financial support
Culture and economy-related factors	Cultural-social attitude	- The prevalence of the disease - Limitations in communication with others - Negative reactions from those around to changes in appearance - The need for unconditional acceptance in society - Illness as a result of evil actions - Illness as a result of an eye injury - Dissatisfaction with the pity of others - The disease as a form of atonement for sins - Annoyance at generalizing the problems of other cancer patients to onesel
	Physical factors associated with the disease	 - Annoyance due to physical pain - Annoyance at changes in appearance - Annoyance with the side effects of medication - Anger at treatment and physical hardships
	Emotions	- Lack of anger control - Lowering the tolerance threshold - Inability to control emotions - Not expressing sadness - Getting angry early - Mental conflict with the cause of the disease - Feeling lonely
	Attitude to illness	 Being shocked by the news of the disease Uncertainty regarding the future of the disease Destruction caused by the disease and subsequent rebuilding Illness equal to death Fighting the disease
Self-related factors	Independence	- The joy of being active - The need for independence - Disturbing disability and remaining at home - Getting angry due to fatigue
	Factors affecting the onset or exacerbation of the disease	 Initial lack of follow-up on symptoms Arbitrarily stopping medication and experiencing a return of the disease Failure to diagnose the condition in a timely manner Inheritance of cancer within the family Exacerbation of the disease due to discomfort Recurrence of the illness following the death of a spouse
	Motivational factors (coping strategies)	- Feeling of peace in nature - Feeling calm in a quiet atmosphere - Gaining energy from reading motivational books - Living in the moment - Hope for recovery - Exercising - Acceptance of illness - Appeal to the divine - Peace in religious places
Factors related to the physician and the treatment process	Factors related to treatment and medical services	- Long waiting times in the hospital - Difficult access to medicines - Difficulty commuting for treatment - Exhausting treatment process - Searching for disease information on the Internet - The need to provide medical services in cities - Annoyance due to lack of good service - The need to expand medical centers - The need for reasonably priced and accessible medications - The need to accelerate the provision of services for metastatic patients - The need for a psychologist to be present alongside the doctor
	Communication with the physician and treatment staff	 Dissatisfaction with feeling rushed by the physician during the visit Satisfaction with the physician's good manners Displeasure regarding the physician's dishonesty Reluctance to see a rude physician Satisfaction with the treatment staff The need for clear disease information from the physician



lain Themes	Sub-themes	Code	
		- Belief in destiny and divine sovereignty	
		- Trust in God	
		- Gratitude towards God	
	Communication with God	 Anger directed at God 	
		 A feeling of peace in the presence of God 	
		- Performing rituals	
s related to re-		- Praying God	
nd spirituality		- Acceptance of death	
		- A positive attitude toward death with good deeds	
		- Not accepting death due to unfulfilled wishes	
	Attitude to death	- Asking God for death during chemotherapy	
	, teledae to dedili	- Death wish due to financial poverty	
		- Not accepting death due to the future of children	
		- Growth of religious beliefs after illness	



religion, and spirituality. The sub-themes were factors related to the spouse, children, family members (father, mother, and siblings), job status, financial, cultural, and social attitude, physical factors related to the disease, emotions, attitude to the disease, independence, factors affecting the onset or exacerbation of the disease, motivational factors (coping strategies), treatment and medical services, communication with the doctor and treatment staff, communication with God, and attitude toward death. In addition, patients' interactions with their families (father, mother, and siblings) were classified as a primary and separate category.

Discussion

The phenomenological analysis determined that factors related to family and relatives, culture and economy, self, physician and treatment process, religion, and spirituality are the main components experienced by end-oflife cancer patients. These results are consistent with the models derived from Bandura's social-cognitive theory, which confirmed the influence of individual and environmental factors on psychological components [4]. Regarding factors related to family, the sub-components of factors related to spouse, children, and family have been extracted. At this stage, patients experience various issues about their spouses, children, and family members (father, mother, and siblings), which lead to the formation of a set of positive and negative needs and emotions that affect the process of adaptation to the disease and treatment management. Awareness of the end-of-life disease as a threatening factor puts the family in a contradictory situation because, on the one hand, due to the unique nature of the relationships, it puts the whole family at risk of collapse, and on the other hand, it fosters greater interdependence within the family to support the patient and alleviate difficulties. Therefore, the patient's interactions

with the family are affected, and the form and manner of relationships undergo more profound changes.

End-of-life patients experience a wide range of emotions and negative emotions, such as anger, worry, sadness, and guilt about their families. At this stage, patients express discomfort about problems related to their families and often consider themselves a burden to others. They are also worried about the future of their relatives, such as children, spouses, and family members, and experience high stress about leaving them behind. Some patients blame others out of desperation to relieve their emotions to some extent. However, patients try to avoid putting pressure on their loved ones as much as possible to calm the family or reduce anxiety in their relationships. They do this by hiding issues related to the disease, pretending to maintain their roles, and preserving individual morale. The results of the present study are consistent with those of Bakhshalizadeh Irani et al., Pinto et al., and Honey et al. [10, 14, 15], which demonstrate that when individuals face end-of-life cancer, they react-ranging from anger to satisfaction-with regard to their support from relatives.

Considering that the family is the primary source of support for the individual and plays a crucial role in adapting and increasing the quality of life of the affected person, the emotions and needs of the patients should be analyzed and managed at this stage to improve the quality of life of the affected individual. If a proper emotional connection, along with financial and emotional support from the family, is established at this stage, it will lead to the development of positive emotions in the affected individuals, who will then feel satisfaction and comprehensive support. In other words, people who view their loved ones as supporters throughout their lives appreciate that support, which increases their sense of worth



and hope. Thus, the role of the patient's relatives and dependents is a critical component in fostering hope in the spirits of cancer patients.

Factors related to culture and economy are the second primary component, from which the sub-components of job status, financial issues, and cultural and social attitude were extracted. The results are consistent with the results of Bakhshalizadeh Irani et al., Dehghan et al., and Honey et al. [10, 13, 15], who stated that due to increased problems caused by the disease, the physical strength and life motivation of people decreases, which causes them to lose their jobs. Therefore, the follow-up of the treatment process is affected due to the increase in financial burden. Also, the person is financially dependent on the family and becomes frustrated and emotionally disturbed. When a low-income person is diagnosed with cancer, both he/she and his/her family are constantly seeking ways to alleviate the financial burden of treatment costs. Financial problems make many cancer patients unable to continue their treatment, ultimately leading to death due to the disease and lack of care and eventually dying due to the disease and lack of treatment.

The results regarding the cultural and social attitudes of the affected patients are consistent with the results of Estebsari et al. and Pinto et al. [11, 14]. They stated that people living in different conditions show different reactions to the experience of the last days of their lives because the beliefs and values arising from a cultural model related to the disease affect people's perceptions about the meaning of their disease. Additionally, social feedback—including social judgments, comments related to appearance, intrusive curiosities, and pity perceived as a result of evil deeds or atonement for sins—plays a significant role. Most of these patients feel anger towards the pity and compassion of others, and the opinions, questions, conversations, behaviors, and reactions of relatives, friends, and strangers lead to resentment, making the experience of cancer more challenging. For this reason, the patient limits his/her relationships with the family and distances him/herself from the relatives. In other words, individuals influenced by their social and cultural learning interpret their illness in ways that can impose an additional psychological burden on them, affecting how they experience cancer and causing emotional turmoil.

It is possible to reduce the psychological burden for a patient with cancer by educating, awareness, and changing social attitudes about the disease, which leads to a better adaptation to the disease. It is also crucial for healthcare providers to understand the cultural context of the patient because culture has a significant influence not only on beliefs about health but also on self-health behaviors, and affects the continuation of treatment, management of complications, and prognosis of the disease [16]. As Keusch et al. and Daher point out, taboos and stigmas related to cancer are critical problems that must be considered because they influence the attitude of people about the disease [17, 18].

The factors related to self are the third principal component, from which the sub-components of factors related to the disease, emotions, attitude toward the disease, independence, factors affecting the onset or exacerbation of the disease, and motivational factors (coping strategies) were extracted. The results are consistent with those of Estebsari et al. and Johnson et al. [11, 19], who stated that the progression of the disease increases physical problems, such as persistent and bothersome pain, as well as heightened emotions, including anger and aggression. The interference of pain with sleep, appetite, and mood leads to anxiety, fatigue, and low quality of life. Consequently, most individuals who are nearing the end of life experience negative emotions; thus, a close relationship is observed between psychological states and cancer. Cancer diagnosis also has its stresses because any change in human life is accompanied by stress. The consequences of the diagnosis of this disease are the emergence of anger, rage, depression, loneliness, emptiness, meaninglessness, jealousy, spitefulness, etc. [19]. All patients express significant fear of losing their control and abilities, as well as their inability to perform tasks. Losing independence, becoming reliant on others, and feeling ineffective contribute to a decrease in selfesteem and a weakening of personal identity. Patients experience emotional disturbance due to their inability to engage in personal, social, and recreational activities as they did before, often being confined to their homes or hospitals.

One factor in reducing emotional turmoil is the patients' coping styles, such as cognitive and behavioral activities that lead to the formation of a positive and constructive view of the disease. In other words, effective coping styles help to reduce stress, tension, and emotional balance. The effect of coping styles on quality of life and emotional distress has been reported [20]. Based on this, one of the crucial factors in the intensity of stress can be the type and coping styles.

This research showed that one of the crucial components of the experience of cancer is morbidity, the vagueness of the future of the disease, being shocked by the news of the disease, and psychological and religious growth. This finding is consistent with reports indicat-



ing that, in most cases, cancer is perceived as a death sentence by prevailing social attitudes [21]. The experiences of morbidity, uncertainty about the disease's future, and the shock of the diagnosis, which are related to the patient's hostile attitudes and beliefs toward cancer, can also be influenced by cultural attitudes toward the disease. The patient's negative attitudes affect coping and make it difficult to cope with the situation and adapt. One of the primary concerns for patients is the notion of a vague and uncertain future, which heightens their anxiety and causes hesitation in their treatment decisions. Therefore, clarifying the dimensions of the disease and how to transmit correct information to the treatment staff is helpful. Although getting cancer is not equal to death, the predominance of attitudes increases stress in patients; however, there are instances when patients adopt a positive attitude toward the disease, viewing cancer as a part of life and actively fighting it, which can lead to higher levels of personal growth.

The fourth principal component was the factors related to the physician and the treatment process, from which sub-components of the factors related to the treatment and medical services and the relationship between the physician and the treatment staff were extracted. The results are consistent with the results of Dürr et al. [22], who stated that sometimes patients blame others, especially the medical staff, as they approach death, which complicates their treatment process. According to the results of the interviews, patients expressed extensive needs related to the factors concerning the physician and the treatment process; addressing these needs can help reduce the anxiety and emotional turmoil experienced by patients, as they spend a significant portion of their lives in treatment settings. Therefore, the expansion of medical services and the increase in government support play a vital role in the treatment process and the quality of life of patients.

Considering the exhausting treatment process and the costs imposed on patients, giving importance to their needs and priorities and providing a favorable treatment environment can facilitate the treatment process for them and lead to increased quality of life. Also, a lack of effective communication and insufficient awareness about the disease from the physician can create feelings of insecurity in patients regarding their physician and treatment, leading to reluctance toward the treatment environment and negatively affecting the treatment process. Therefore, communicating effectively with the physician and providing effective information about the disease from the physician can help alleviate concerns, foster transparency, and increase empathy toward the patient.

The factors regarding religion and spirituality are the fifth main component, from which the sub-components of connection with God and attitude to death were extracted. Activities, such as worship, prayer, tending to visit holy places, attending religious ceremonies, trusting in God, and seeking solace in sacred objects are among the coping strategies for people with cancer that make their lives meaningful. These patients also experience a series of negative attitudes. The principal negative attitudes toward death in these people, not accepting death due to unfulfilled wishes, asking God for death during chemotherapy, wishing for death due to financial poverty, and not accepting death due to the future of children, can lead to anxiety and affect the treatment process. Sometimes, due to their awareness of the timing of their death, they may even react with anger toward God and the source of existence, feeling oppressed and unloved. In other words, these reactions arise from their struggle for life, and they experience significant concerns, such as worrying about the future of their family.

Awareness of end-of-life cancer suddenly causes a kind of spiritual and religious crisis, in such a way that people look for meaning in their life or illness. At this stage, patients find positive and negative attitudes toward death, which can cause anxiety or peace in the affected person. Accepting death and looking at it positively leads to increased patient quality of life, and the person reaches a stage where he/she no longer expresses negative emotions toward death.

The results of this research are consistent with those of Bahrami et al., Estebsari et al., Imanzadeh and Sharifi, and Pinto et al. [9, 11, 12, 14], who stated that most endof-life people have a strong desire for spirituality and strive to adapt to new conditions and value their lives. Some researchers believe that spirituality gives meaning to life and helps a person adapt to cancer. Spirituality is a crucial part of many people's lives and creates a sense of belonging and comfort for them during illness and distress. The religious inclination involves seeking transcendental matters that address material and psychological problems, with God as the center of all affairs. Recent studies emphasize the importance of meeting the spiritual and religious needs of cancer patients and their family caregivers. Meeting spiritual needs is associated with increased satisfaction in the patients' lives.

Conclusion

It seems that facing cancer not only has physical effects but also psychological complications, and even some sociocultural experiences are linked to it, affecting coping



and adapting to the disease. Considering the multidimensional nature of the patient's experience and unpredictably at this stage of the disease, it is necessary to provide psychological services for patients.

Based on the results of the research and the experiences of the patients in this study, the affected people have concerns and needs in different dimensions of personal and social life, particularly in death. Based on this, a comprehensive model can be introduced for the adaptation of end-of-life cancer patients. This model has practical applications for families, medical centers, psychologists, and counselors in facilitating the process of adapting to death in cancer patients. Several suggestions can be made in this regard:

- 1. According to the results, the family and relatives can help the patient experience pleasant feelings and achieve peace, which requires detailed education about the disease and the needs of these people in the family.
- 2. The medical system should have more support and services for end-of-life cancer patients, identify non-compliant patients, connect them to networks of experts, and follow up on their mental health.
- 3. To prevent incompatibility and help patients adapt better, training sessions can be conducted that address the multidimensional nature of their problems (psychological, economic, cultural, individual, and social).
- 4. Due to the frequency of psychological and emotional problems in these patients, it is suggested to conduct other studies for a better understanding of this disease in a broader range of cancer stages and the ethnic diversity of Iranian society so that mental health professionals can use cognitive treatments in the process of therapeutic interventions.

Ethical Considerations

Compliance with ethical guidelines

In this research, the principle of confidentiality of information was respected by not mentioning the participants' names. This study was approved by the Ethic Committee of Islamic Azad University, Rodehan Branch, Rodehan, Iran (Code: IR.IAU.R.REC.1401.00), in this accordance, participants could withdraw from the interview at any point and had the right to provide their contact numbers for the qualitative follow-up study voluntarily. Interviews and conversations were recorded with the consent of the participants, and the principles

of confidentiality regarding both information and results were considered.

Funding

This article was derived from the PhD dissertation of Malihe Rabbani, approved by the Department of Psychology, Faculty of Psychology, Rodehan Branch, Islamic Azad University, Rodehan, Iran.

Authors' contributions

All authors contributed equally to the conception and design of the study, data collection and analysis, interception of the results and drafting of the manuscript. Each author approved the final version of the manuscript for submission.

Conflict of interest

The authors declared no conflicts of interest.

Acknowledgments

The authors extend their gratitude to all those who assisted them in conducting this research, especially the physicians, staff, and patients of Shiraz Imam Reza Clinic for their support and cooperation.

References

- [1] Teo I, Krishnan A, Lee GL. Psychosocial interventions for advanced cancer patients: A systematic review. Psychooncology. 2019; 28(7):1394-407. [DOI:10.1002/pon.5103] [PMID]
- [2] Li Z, Zhou X, Wang S, Shi L, Meng R, Dai X, et al. The efficacy and safety of apatinib in patients with heavily pretreated end-stage cancer: A retrospective study. Transl Cancer Res. 2023; 12(4):904-912. [DOI:10.21037/tcr-22-2080] [PMID]
- [3] Zheng Y, Cotton AC, He L, Wuest LG. Spirituality-integrated interventions for caregivers of patients with terminal illness: A systematic review of quantitative outcomes. J Relig Health. 2021; 60(4):2939-59. [DOI:10.1007/s10943-021-01221-w] [PMID]
- [4] Short CE, James EL, Plotnikoff RC. How social cognitive theory can help oncology-based health professionals promote physical activity among breast cancer survivors. Eur J Oncol Nurs. 2013; 17(4):482-9. [DOI:10.1016/j.ejon.2012.10.009] [PMID]
- [5] Hwang S, White SF, Nolan ZT, Craig Williams W, Sinclair S, Blair RJ. Executive attention control and emotional responding in attention-deficit/hyperactivity disorder-A functional MRI study. Neuroimage Clin. 2015; 9:545-54. [DOI:10.1016/j. nicl.2015.10.005] [PMID]



- [6] Fairman N, Irwin SA. Palliative care psychiatry: Update on an emerging dimension of psychiatric practice. Curr Psychiatry Rep. 2013; 15(7):374. [DOI:10.1007/s11920-013-0374-3] [PMID]
- [7] Hughes C, Fasaye GA, LaSalle VH, Finch C. Sociocultural influences on participation in genetic risk assessment and testing among African American women. Patient Educ Couns. 2003; 51(2):107-14. [DOI:10.1016/S0738-3991(02)00179-9] [PMID]
- [8] Kreuter MW, Haughton LT. Integrating culture into health information for African American women. Am Behav Sci. 2006; 49(6):794-811. [DOI:10.1177/0002764205283801]
- [9] Bahrami M, Mosavizadeh SR, Ahmade Faraz MM, Shirvani A. [Concerns of Iranian Muslim patients suffered from cancer in the last stages of life: A qualitative studystudy (Persian)]. J Multidiscip Care. 2018; 6(4):32-41. [Link]
- [10] Bakhshalizadeh Irani F, Shahidi S, Hazini A. [Psychological experiences of Terminal Cancer patients with an emphasis on their concerns and needs: A phenomenological study (Persian)]. J Res Psychol Health. 2020; 14(2):20-33. [Link]
- [11] Estebsari F, Taghdisi MH, Mostafaei D, Latifi M, Estebsari K. [A qualitative study on affecting factors on quality of life in end-stage patents (Persian)]. Iran J Health Educ Health Promot. 2015; 2(4):290-302. [Link]
- [12] Imanzadeh A, Sharifi Golzardi F. [Lived experiences of cancer patients from death anxiety based on jaspers borderline situations (Persian)]. Iran J Psychiatr Nurs. 2019; 6(6):35-47. [DOI:10.21859/ijpn-06065]
- [13] Dehghan M, Hasani J, Moradi A, Mohammadkhan S. [Cancer-based contextual experiences: A phenomenological study of cancer patients (Persian)]. Health Psychol. 2021; 10(39):51-66. [DOI:10.30473/hpj.2021.56971.5072]
- [14] Pinto N, Bhola P, Chandra PS "End-of-Life Care is more than Wound Care: Health-Care Providers' perceptions of psychological and interpersonal needs of patients with terminal cancer. Indian J Palliat Care. 2019; 25(3):428-35.[DOI:10.4103/ IJPC.IJPC_26_19] [PMID]
- [15] Honey A, Boydell KM, Coniglio F, Do TT, Dunn L, Gill K, et al. Lived experience research as a resource for recovery: A mixed methods study. BMC Psychiatry. 2020; 20(1):456. [DOI:10.1186/s12888-020-02861-0] [PMID]
- [16] Kim JG, Hong HC, Lee H, Ferrans CE, Kim EM. Cultural beliefs about breast cancer in Vietnamese women. BMC Womens Health. 2019; 19(1):74. [DOI:10.1186/s12905-019-0777-3] [PMID]
- [17] Keusch GT, Wilentz J, Kleinman A. Stigma and global health: Developing a research agenda. Lancet. 2006; 367(9509):525-7. [DOI:10.1016/S0140-6736(06)68183-X] [PMID]
- [18] Daher M. Cultural beliefs and values in cancer patients. Ann Oncol. 2012; 23(Suppl 3):66-9. [DOI:10.1093/annonc/mds091] [PMID]
- [19] Johnson CA, James D, Marzan A, Armaos M. Cervical cancer: An overview of pathophysiology and management. Semin Oncol Nurs. 2019; 35(2):166-74. [DOI:10.1016/j.soncn.2019.02.003] [PMID]

- [20] van Hof KS, Hoesseini A, Verdonck-de Leeuw IM, Jansen F, Leemans CR, Takes RP, et al. Self-efficacy and coping style in relation to psychological distress and quality of life in informal caregivers of patients with head and neck cancer: A longitudinal study. Support Care Cancer. 2023; 31(2):104. [DOI:10.1007/s00520-022-07553-x] [PMID]
- [21] Kendal WS, Kendal WM. Comparative risk factors for accidental and suicidal death in cancer patients. Crisis. 2012; 33(6):325-34. [DOI:10.1027/0227-5910/a000149] [PMID]
- [22] Dürr P, Schlichtig K, Kelz C, Deutsch B, Maas R, Eckart MJ, et al. The randomized AMBORA trial: Impact of pharmacological/pharmaceutical care on medication safety and patient-reported outcomes during treatment with new oral anticancer agents. J Clin Oncol. 2021; 39(18):1983-94. [DOI:10.1200/JCO.20.03088] [PMID]