



## Death Anxiety and Its Relationship to Demographic Data for Cancer Patients at Tishreen University Hospital in Latakia: A Correlational Study

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### ABSTRACT

**Background:** Diagnosing cancer and undergoing therapeutic measures are accompanied by an intense state of death anxiety. **Purpose:** This study aimed to investigate death anxiety and its relationship to demographic data for cancer patients at Tishreen University Hospital in Latakia. **Methods:** The quantitative approach was used in the current study. A descriptive, correlational design was utilized in the current study. The study used a convenience sampling method. The total number of the participants was 100 cancer patients. The patients were selected from Tishreen University Hospital in Lattakia/Syria. Death-anxiety scale was used as a tool for data collection. **Results:** The results showed a moderate level of death anxiety among participants, and there was a statistically significant relationship between death anxiety and gender. **Conclusion:** Having cancer affects the level of death anxiety among patients, which appears to be higher among females than among males. **Implications for Nursing:** Studying the relationships between sociodemographic characteristics and the level of death anxiety in cancer patients will help individualize education about psychological problems associated with cancer. Healthcare professionals must evaluate patients' needs and personal characteristics before starting to perform psychological interventions.

**Keywords:** Death anxiety, Cancer patients, Demographic data, Cancer.

### What does this paper add?

1. The research addresses an important psychological problem among cancer patients.
2. Socio-demographic variables could predict death-anxiety level among patients with cancer.
3. Appropriate psychological intervention to reduce cancer patients' death anxiety should be derived according to their socio-demographic characteristics.

### Introduction

Cancer is the fourth highest leading cause of death in the Eastern Mediterranean region, after cardiovascular diseases, infectious diseases and injuries (WHO,2022). The incidence is expected to double in the next two decades, from an estimated five-hundred thousand new

cases in 2012 to approximately nine-hundred thousand in 2030, the highest increase among all WHO regions. It is expected that deaths from cancer will reach 652,097 by 2030, and currently in the Eastern Mediterranean region alone, where most Arab countries are located, cancer causes the death of about 459,000 people annually (WHO, 2022).

The incidence of cancer in Syria was between 93 and 128 new cases per 100,000 inhabitants, most of which were concentrated in Tartous-Damascus-Suwayda-Latakia (93-104-107-128), respectively. The incidence rate in both sexes was similar. Breast cancer was the most common cancer type in females (35.6%), while lung cancer (18.3%) and prostate cancer (9%) were the most common cancer types in males. There has been a

significant increase in gastrointestinal cancers in both sexes. The predictive rate of cancer incidence in Syria is 145-160 new cases per 100,000 inhabitants for the coming years (Al-Saleh, 2016).

Cancer causes many complications and negative physical and psychological effects. The most important psychological effects resulting from cancer are fear, anxiety, social isolation, depression, and death anxiety. These psychological symptoms affect the lifestyle of cancer patients and the way how they manage the disease (Seol et al., 2021). Death anxiety among cancer patients has been a topic of interest among psychologists because of its effective impact on the person's psychological and physical functions. Death anxiety can be defined as a feeling that makes the individual always think about death, and that death approaches him/her more than others, which makes the idea of death control him/her, and prevent him/her from fitting in with society due to his depressive expectations. Death anxiety is a common fear that anyone can experience. These concerns might relate to one's own death, the death of a family member, the process of dying, or what may happen after death. Among patients with cancer, death anxiety is a distressing emotional response, and feelings of doubt, helplessness, and fear about the patient's own death regarding the unresolved psychological problems, and physical distress (Gonen et al., 2012; Hong et al., 2022). These fears of death among cancer patients were linked to concerns about their health.

## **Background**

In the Syrian context, death anxiety intersects with religious beliefs, as religious beliefs play an important role in alleviating the feeling of death anxiety among people, as death is considered the natural end of every human being's life, and God's decree and destiny are accepted. Faith and beliefs about what comes after death affect the level of anxiety about death. According to Ellis and Wahab (2013), individuals who were more religious, showed less fear of death. The researcher proved that religious attitudes and beliefs make individuals overcome their fear; feel more comfortable in their life and more adaptive with the fact of fear of death.

Diagnosing cancer and patients adhering to therapeutic measures, such as chemotherapy doses and radiation sessions, are accompanied by an intense emotional state of death anxiety, tension, and fear of the

unknown and the expectation of death or continuation of the disease. Despite the psychological reassurance of taking the chemotherapy doses and the doctors' confirmation, the patient's condition after taking the regular doses can lead to a complete recovery. Cancer patients are considered the most worried about the idea of death, because they believe that death follows them every moment and every day, and they have negative thoughts about what may happen after death (Abdel Majeed & Ali, 2018).

The idea of anxiety about death may cause many psychological problems and crises that make patients with cancer sad and anxious, and they have wrong, irrational, negative, and dark thoughts about life, as well as an avoidant behavior from others that may often reach the point of tension, aggression, frustration, and despair about life and from social interaction. According to Gonen et al. (2012), death anxiety was associated with general anxiety, depressive symptoms, and beliefs on what happens after death, such as unresolved psychological and physical distress.

The level of death anxiety among cancer patients differs from that among healthy people. Some studies conducted in this field confirmed the presence of an increase in the level of death anxiety in patients compared to healthy people, such as the study conducted by Maamriya (2009) in Egypt, which showed a significant increase in the level of death anxiety among patients with cancer. In addition, a study conducted by Shazly (2001) in Cairo showed that there were statistically significant differences between the average scores of children with cancer and the average scores of healthy children on a scale of death anxiety and depression, as it is higher among children with cancer. Likewise, a study conducted by Abdel Majeed & Ali in Iraq (2018) showed a statistically significant indication that cancer patients have anxiety about death.

Death anxiety has been linked to several factors and variables, including demographic variables related to age, gender, place of residence, and marital status. Accordingly, Boufara and Nour El-Din (2017) identified differences in the level of feeling death anxiety according to demographic variables. The results showed a high level of death anxiety among participants, with statistically significant differences in the degree of death anxiety depending on the gender variable, and no significant differences were found in the degree of death anxiety depending on the variables of marital status,

educational level, and age. According to Dadfar et al. (2016), females and old-aged participants had a significantly higher death-anxiety score than males and younger participants.

Statistics have shown a rapid increase in the rate of people with cancer, and an increase in their death rate as well (WHO, 2022; Al-Saleh, 2016). This disease now threatens the lives of millions of patients at all ages, who represent important human potentials. Based on previous research, it is clear that there is a noticeable increase in the level of anxiety among patients with cancer (Abdel Majeed & Ali, 2018), and there is a neglected psychological pain associated with the disease, such as death anxiety. On the other side, literature has shown a limited access to mental healthcare among Syrian distressed individuals due to lack of mental healthcare services provided by psychologists (Mohsen et al., 2021). These findings highlight the need for proactive efforts for psychiatrists to support the mental health and well-being of Syrian cancer patients. Syrian society has been exposed to many conditions causing psychological stress, such as war, Covid-19, and the earthquake. There is a gap in information related to death-anxiety among Syrians in general and cancer patients in particular. Therefore, the current study came to evaluate death-anxiety level among patients with cancer and revealing its relationship to demographic characteristics.

## **Methods**

### **Design and Sample**

This study used a descriptive, correlational design.

### **Research Setting**

This study was conducted at the Oncology Center at Tishreen University Hospital in Lattakia. The hospital consists of two buildings: the oncology building, has 68 beds, and the main building has 784 beds. It includes 150 specialist doctors and 1,000 staff nurses who provide medical (diagnostic and treatment), educational and training services for various medical cases in the following departments: neurology, radiotherapy, obstetrics and gynecology, intensive care, pathological anatomy, outpatient clinics, central laboratory, emergency department, internal diseases, neurological surgery, ophthalmology, and children.

The study sample included 100 oncology patients (50 males and 50 females,  $\leq 18$  years old, able to

communicate) attending the oncology department. They were selected using the available non-probability sample method. Data for this study was collected from 17/4/2023 until 17/7/2023.

### **Measures and Data Collection**

Data was collected using one instrument.

Death-anxiety Scale developed by Bashir Maamria (2007) in Arabic language was used. It consists of:

- Demographic data: age, gender, place of residence, marital status, and occupation.
- Death-anxiety questionnaire items: The questionnaire consists of 34 statements about people's feelings about death, formulated in a self-report style: Example: I worry about death. I fear that I will die from a serious disease like cancer. A four-point Likert scale was used (no, rarely, sometimes, and often). The total score of the death-anxiety scale ranged from (0-102). It is divided into three levels of death anxiety: low (total score 0-33), moderate (total score 34-67), and high (total score 68-102).

### **Validity and Reliability**

The researcher verified the validity and reliability of the scale. It was tested for its content validity by a jury composed of five experts in the psychiatric field, where the value of the overall reliability coefficient (Cronbach's alpha) with internal consistency using the Cronbach's alpha equation was 93%, which is a good indicator of the reliability of the questionnaire.

### **Ethical Approval**

Ethical approval was obtained from the administration of Tishreen University Hospital to collect the study data. Informed consent was obtained from the participants through the agreement of participation introduced in the introduction of the questionnaire.

### **Statistical Analysis**

Data was analyzed using the Statistical Package for Social Sciences (SPSS), version 25. In relation to descriptive statistics, count and percentage were used for describing socio-demographic characteristics and measuring the level of death anxiety. F-test and t-test were used to test the death-anxiety level in relation to the patients' socio-demographic characteristics.

**Results**

**Socio-demographic Characteristics of Patients**

The results show that the highest percentage of the participants was aged between 31 and 45 years (36%). As for place of residence, the highest percentage of patients was living in rural areas (54.5%). Regarding marital status, the highest percentage of patients (58%)

was married, followed by (36%) who were single and only (2%) who were widows, which reflects the high number of patients that have family support. As for work, (56%) of the patients participating in the study were working, while (44%) were not working, which reflects the high number of patients that have social support (Table 1).

**Table 1. The socio-demographic characteristics of cancer patients**

Characteristic		Number (N)	Percentage (%)
Age	18-30 years	30	30
	31-45 years	36	36
	46-60 years	24	24
	61-75 years	10	10
Place of residence	Rural	54	54
	City	46	46
Marital status	Married	58	58
	Single	36	36
	Divorced	4	4
	Widowed	2	2
Occupation	Working	56	56
	Not working	44	44

**Death-anxiety Level among Cancer Patients**

Table 2 shows the distribution of patients participating in the study according to their levels of death anxiety, where the highest percentage of the study participants (56%) had a moderate level of death anxiety, and (38%) had a low level of death anxiety. Only (6%) had a high level of death anxiety (Table 2).

**Table 2. Death-anxiety level among cancer patients**

Death-anxiety level	Number (N)	Percentage (%)
Low	38	38
Moderate	56	56
High	6	6

**The Relationship between Death Anxiety and Demographic Data among Cancer Patients**

Table 3 shows the relationship between the demographic data of cancer patients and their level of death anxiety. The results show that there was a statistically significant difference in the levels of death anxiety due to the gender of patient (P-value = 0.031), as the level of death anxiety among females was higher than among males. The results showed that there was no statistical significance for the differences in the levels of death anxiety according to age, place of residence, marital status, and work (P-value > 0.05).

**Table 3. The relationship between demographic data level of death anxiety among cancer patients**

Death-anxiety level		low		moderate		high		F-value	P-value
Characteristics		N	%	N	%	N	%	t-value	
Age	18-30 years	6	6	20	20	4	4	F = 1.492	0.155
	31-45 years	20	20	16	16	0	0		
	46-60 years	8	8	16	16	0	0		
	61-75 years	4	4	4	4	2	2		
Sex	Male	28	28	22	22	0	0	t =3.628	*0.031
	Female	16	16	34	34	6	6		
Place of residence	City	16	16	28	28	2	2	t =0.031	0.574
	Rural	20	20	30	30	4	4		

Marital status	Married	24	24	34	34	0	0	F =0.263	0.085
	Single	12	12	20	20	4	4		
	Divorced	0	0	2	2	2	2		
	Widowed	2	2	0	0	0	0		
Occupation	Working	24	24	28	28	4	4	t = 0.795	0.0916
	Not working	14	14	24	24	2	2		

F: F-test f (ANOVA).

t: Student t-test.

\* Statistically significant at P-value  $\leq 0.05$ .

## Discussion

The current study aimed to evaluate death anxiety and investigate its relationship to demographic data among patients with cancer at Tishreen University Hospital. The most disturbing fears are related to the impact of a person's death on others and that the living will grieve for those who die, fear of leaving family and loved ones, fear of life ending, fear of body destiny after death.

The results of the current study showed that the level of death anxiety was moderate among more than a half of the cancer patients (Table 2). This result is consistent with the findings of Soleimani et al. (2020). It is also consistent with the results of Bahrami et al. (2013), Bahrami et al. (2013), Vehling et al. (2017), and Nazari et al. (2021), which showed the presence of moderate levels of death anxiety among cancer patients.

On the other hand, the results of the current study contradict with the results of the study conducted by Hong et al. (2022), which showed high levels of death anxiety among cancer patients. This study also contradicts with the results of Neel et al. (2015), where only 32% of cancer patients have a moderate severity level of death anxiety. It also contradicts with the results of the study conducted by Abdel Majeed et al. (2018), which showed a high level of death anxiety among the study participants with statistical significance.

The results of the current study can be attributed to the previously mentioned successive stressful circumstances that Syrians have gone through, including twelve years of war in which hundreds of thousands of people were killed, and most recently the February 2023 earthquake. In addition, cancer patients fear about the end of life, fear for children, fear of separation from loved ones, fear of suffering, and fear of beliefs on what happens after death. This was confirmed by the results of Gonen et al. (2012), as well as the results of Vehling et al. (2017), where death anxiety was associated with more practical concerns related to the death process and psychological, social, or pantheistic concerns, including

doubts about the future and missed chances, as well as fear of suffering for a long time, and fear of burdening others.

The results of the current study showed that there is no relationship between death anxiety and the age of patients with cancer (Table 3). This contradicts with the results of Bahrami et al. (2013), Soleimani et al. (2020), Hong et al. (2022), and Li et al. (2024), where these studies have shown a statistically significant relationship between death anxiety and age, while the current result can be attributed to the availability of social support for the participating patients in the study, as the highest percentage of patients was for married and working participants (Table 1). The participants are in a supportive environment from spouses and co-workers, so that the patients' interaction with society and family may allow for an opportunity to confront death anxiety and give meaning to life, and this is confirmed by Ingram et al. (2009) and Sayed et al. (2022).

The results of the current study showed that there is a statistically significant relationship between the level of death anxiety and gender, where the level of death anxiety in females was higher than in males (Table 3). This is consistent with Soleimani et al. (2020) and Li et al. (2024).

This result can be explained according to the differences between males and females in personal characteristics, as the emotional side of females is susceptible to arousal and they feel less safe. In addition, the idea of fear of death may dominate their emotions, resulting from exposure to life pressures and frustrations from illness and treatment associated with pain and long-suffering. In their study, Dadfar et al. (2016) justified the fact that females obtained higher scores on the level of death-anxiety scale by their greater predisposition to depression and the accompanying predisposition to sadness and pessimism (Dadfar et al., 2016).

Through the current study, we identified some of the difficulties experienced by cancer patients and the

psychological suffering resulting from this disease, which in turn leads to the emergence of serious psychological disorders, such as death anxiety, which affects the patient's life and hinders his/her management of the disease. It is possible to develop a comprehensive psychological care plan for cancer patients linked to their demographic data. It is possible to improve the mental and psychological state of cancer patients and reduce their death anxiety by taking into account their personal differences.

### Implications for Nursing

Studying the relationships between socio-demographic characteristics and the level of death anxiety among cancer patients will contribute to the development of individualized effective interventions that enhance cancer patients' mental health. Psychologists in particular and members of the health team in general must evaluate patients' needs and personal characteristics before starting to perform psychological interventions. The assessment must take into account the patient's socio-demographic characteristics, such as age, gender, economic status, place of residence, and occupation, among others.

### Conclusions and Recommendations

This study aimed to investigate the relationship between death anxiety and demographic data among cancer patients. The death-anxiety scale indicated a moderate level of death anxiety among the study participants. There is a statistically significant relationship between death anxiety and gender among participants, where the level of death anxiety was higher

among females compared to males. The study recommends directing health institutions to pay attention to the psychological aspects of patients with cancer, by holding training courses about psychological concepts' management for health staff. Also, it is recommended to establish psychological-counseling units in oncology treatment centers and hospitals. In addition, implementing training programs for families and friends is recommended for caring for the psychological problems of patients.

### Future Research

This study recommends the investigation of death anxiety among patients with cancer in different regions of Syria, as well as the investigation of the effects of demographic and clinical variables on death-anxiety level.

### Study Limitations

The study faced difficulty in data collection, as most of the patients attending the oncology department came to receive chemotherapy or radiation treatment that caused physical symptoms, such as fatigue and exhaustion, which may limit their ability to participate effectively in this research.

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### Conflict of Interests

The author declare no conflict of interests.

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