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Kanser Hastalarında COVID-19 Korkusu ile Ölüm Kaygısı Arasındaki İlişki

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Öz Bu araştırma, kanser hastalarında COVID-19 korkusu ile ölüm kaygısı arasındaki ilişkiyi belirlemek amacıyla yürütülmüştür. Çalışma tanımlayıcı bir tasarımda yürütülmüştür. Veri toplamak için kişisel bilgi formu, "Ölüm Kaygısı Ölçeği", "COVID-19 Korkusu Ölçeği" ve "Koronavirüs Kaygısı Ölçeği" kullanılmıştır. Katılımcıların Koronavirüs Kaygısı Ölçeği (KKA) ortalama puanı 3,06±3,32, COVID-19 Korkusu Ölçeği ortalama puanı 21,60±7,65 ve Ölüm Kaygısı Ölçeği ortalama puanı 44,85±22,38 olarak hesaplanmıştır. Kanser hastalarının koronavirüs kaygı düzeyleri, COVID-19 korkusu ve ölüm kaygısı toplam puanı ile alt boyutları arasında anlamlı ve pozitif bir korelasyon bulunmuştur ($p<0,001$). Kanser hastalarının ölüm kaygısı düzeyleri ve COVID-19 korkusu düzeylerinin orta, koronavirüs kaygı düzeyinin ise düşük olduğu belirlendi.

Anahtar Kelimeler: Kanser, COVID-19, Ölüm Kaygısı, Korku, İmmünoloji

The Relationship Between the Fear of COVID-19 and the Death Anxiety of Cancer Patients

Abstract

This research was carried out to determine the relationship between COVID-19 fear and death anxiety in cancer patients. The study was carried out in a descriptive design. The personal information survey, "the Death Anxiety Scale", "the Fear of COVID-19 Scale" and "the Coronavirus Anxiety Scale" were used to collect data. The participants' Coronavirus Anxiety Scale (CAS) mean score was calculated as 3.06±3.32 the Fear of COVID-19 Scale mean score was found as 21.60±7.65, and the Death Anxiety Scale mean score was calculated as 44.85±22.38. A significant and positive correlation was found between the total score and sub-dimensions of cancer patients' coronavirus anxiety levels, fear of COVID-19, and death anxiety ($p<0.001$). It was determined that cancer patients' death anxiety levels and fear of COVID-19 levels were moderate, and the coronavirus anxiety level was low.

Keywords: Cancer, COVID-19, Death Anxiety, Fear, Immunology

Introductıon

COVID-19, which emerged in the city of Wuhan, China, became a pandemic in a short time and brought new living conditions with it. The fact that there is a virus that causes illness and death has caused fear and panic in individuals (Güloğlu et al., 2020, Yeoh et al., 2020). In people infected with this virus, the symptoms of the disease can be mild or asymptomatic, ranging from pneumonia to acute respiratory failure and death (Wu & McGoogan, 2020). One of the patient groups adversely affected by the pandemic, which has affected the whole world, is cancer patients, who are more vulnerable to complications and death when infected (Şimşek, Çelik & Gülhan, 2020; Fernandes et al., 2021).

Cancer is one of the most important health problems that require long-term treatment and care, threatens human health all over the world, and its incidence is increasing rapidly (Lee et al., 2020a, Lee et al., 2020b). Besides, cancer is beyond being a serious and chronic disease; it is perceived as a disease that evokes thoughts of fear, hopelessness, guilt, helplessness, and death (Ülger et al., 2014). Cancer patients are generally more susceptible to infections due to the malignancy itself, immunosuppressive agents, and chemotherapy (Musche et al., 2020). For this reason, infections are common in patients and if not treated quickly, they can lead to permanent damage (morbidity) and death (mortality) (Kebudi, 2020).

Adverse effects and rapid spread of COVID-19 infection on human health, the fear of being infected with COVID-19 in most cancer patients, delayed cancer treatment and increheir life-threatening problems such as depression and anxiety (Sütçüoğlu et al., 2020). The coronavirus pandemic, which has caused the death of thousands of people, can increase or re the death anxiety in individuals (Turhan, 2021).

Death anxiety is a reaction people experience when faced with death or a life-threatening illness. In addition, death anxiety has been shown as a life-threatening understanding in daily interactions (Damirchi et al., 2020). This deep fear and anxiety can lead to a worsen in the lives of patients who are likely to be diagnosed with cancer or who have been diagnosed with cancer (Yilmaz & Yazgı, 2019). In addition, the effect of the pandemic and the fact that very little is known about the mental health and health-related safety behaviors of vulnerable people such as cancer patients causes intense fear and anxiety in patients (Musche et al., 2020). The risk of COVID-19 has been reported to have higher effects and worse outcomes in cancer patients than in non-cancers (Yeoh et al., 2020; Kuderer et al., 2020).

This research was planned to evaluate the fear of COVID-19, the Coronavirus anxiety levels, and the death concerns of cancer patients during the COVID-19 pandemic process.

Methods

Descriptively, the study was carried out with patients who were admitted to the hospital. in the hematology and oncology clinic of a hospital in the city of Elazig between June and August 2021.

The research sample

The patients hospitalized in the hematology and oncology clinic of the hospital where the research was conducted constituted the population of the study. The sample was calculated using the G Power program by reviewing previous studies (Lee et al., 2020a; Evren et al., 2020; Lee et al., 2020b) and the "Coronavirus Anxiety Scale" expected confidence intervals were determined, and it was calculated as 51 patients when the power of the test was 0.95, the confidence interval was α=0.05, and the effect size was d= 0.5153846. A sample of 60 (25 female, 35 male) cancer patients who satisfied the study's inclusion criteria was established.

Inclusion Criteria of the Study**:** Being 18 years or older, being able to read and write, having the ability to understand the statements on the scales, not having a barrier to communication, and volunteering to participate in the study.

Data Acquisition

Data collection was conducted in a single session following face-to-face interviews with patients. During these interviews, participants were informed about the study's objectives, and their consent was obtained. The following instruments were used:

The Personal Information Survey to capture demographic and descriptive details of the participants.

The Death Anxiety Scale to measure death-related anxiety levels.

The Fear of COVID-19 Scale and **The Coronavirus Anxiety Scale (CAS)** to assess COVID-19-related fear and anxiety levels.

The process of collecting data took approximately 15 to 25 minutes for each participant.

Data Collection Instruments

The Personal Information Survey: The form consists of questions that include determining the age, marital status, gender, education level, and income status of the volunteers who meet the inclusion criteria. In the continuation of the form, there are questions that include pandemic features such as the presence of people with Covid-19 in the family, do you pay attention to social distance, do you wear a mask, do you use disinfectants.

The Death Anxiety Scale (DAS): DAS, developed by Sarıkaya and Baloğlu, consists of 20 items and evaluates three sub-dimensions: ambiguity about death, thoughts and experiences related to death, and the fear of pain. Responses to each item were calculated by giving a score of zero for "never", one for "rarely", two for "sometimes", three for "often" and four for "always". The lowest 0 and the highest 80 points are obtained from the scale, and it is stated that as the score increases, death anxiety increases. Scores ranging from 0 to 29 represent low levels of death anxiety, scores from 30 to 59 reflect moderate levels, and scores between 60 and 80 indicate high levels of death anxiety (Desai et al., 2020; Sarıkaya & Baloğlu, 2016). In this study, Cronbach's alpha coefficient of the scale was found to be 0.988.

The Coronavirus Anxiety Scale (CAS): The scale was created by Lee (2020a). The Turkish reliability and validity study of the scale was carried out by Biçer et al. (2020). The scale, which has a five-point Likert type rating, consists of five questions and one dimension. The Cronbach-Alpha value of the original scale was found to be 0.93. The Cronbach-Alpha value of this study was determined as 0.954.

The Fear of COVID-19 Scale: The scale created by Ahorsu et al. (2020) assesses the degree of fear individuals experience as a result of Covid-19. The Turkish validity and reliability study of the scale was carried out by Ladikli et al. (2020). The scale follows a single-factor structure and includes seven items formatted on a 5-point Likert scale. It does not contain any reverse-scored items. The scale's internal consistency was reported as 0.82. Higher scores on the scale indicate greater fear of Covid-19 (Yilmaz & Yazgı, 2019). The Cronbach's Alpha coefficient for this study was calculated to be 0.969.

Evaluation of the data

Data analysis was conducted using SPSS (Statistical Package for Social Sciences) version 24.0. The analysis included the calculation of percentages (%), arithmetic mean, standard deviation, Pearson correlation, as well as regression and recession analysis. Statistical significance was determined at $p<0.05$.

Ethical principles of the research

The study was approved by the Ethics Committee of a university (17.13.2021/07-06). After informing the participants about the purpose of the study and the content of the questionnaire, their consent was obtained. It was stated that they could leave the research whenever they wanted. During the current research, The Directive on Scientific Research and Publication Ethics in Higher Education Institutions was adhered to.

Result

Table 1. Sociodemographic Characteristics of Participants

Characteristic Features	n	%
Gender	25	41.7
Woman	35	58.3
Male		
Age	12	20.0
21-36	8	13.3
37-52	23	38.3
53-68	17	28.3
69-89		
Marital Status	39	65.0
Married	21	35.0
Single		
Education Status	10	16.7
Illiterate	31	51.7
Primary School	14	23.3
High School	5	8.3
University and above		
Occupation	8	13.3
Worker	6	10.0
Officer	3	5.0
Freelance	15	25.0
Retired	20	33.3
Housewife	8	13.3
Unemployed-not working		
Economic Situation	11	18.3
Bad	43	71.7
Income equals expenditure	6	10.0
Good		
Smoking status	15.0	15.0
I'm drinking	85.0	85.0
I don't drink		
Exercise status	26	43.3
Yes	34	56.7
No		
Treatment modality	36	60.0
Chemotherapy	3	5.0
Chemotherapy And Radiotherapy	13	21.7
Chemotherapy And Bone Marrow	8	13.3
Other		

In the study, it was found that 58.3% of the patients were male, 53.68% of them were between the ages of 53-68, 65% of them were married, 36.7% of them were literate, 71.7% of them had a medium income, 85% of them were non-smokers, 56.7% of them did not exercise, 60% of them received chemotherapy, and 65% of them did not have a family history of cancer (Table 1).

Table 2. The mean scores of the patients on the Coronavirus Anxiety Scale. the Fear of COVID-19 Scale, the Death Anxiety Scale and its sub-dimensions

Scale	Minimum and Maximum Values That Can Be Obtained from the Scale	Minimum and Maximum Values Taken from the Scale	X ± SD
The Coronavirus Anxiety Scale (CAS)	0-20	0-10	3.06±3.32
The Fear of Covid-19 Scale	7-35	7-35	21.60±7.65
The Death Anxiety Scale	0-80	0-80	44.85±22.38
Ambiguity of Death	0-40	0-40	22.46±11.31
Thinking and Witnessing Death	0-28	0-28	14.95±8.02
Pain	0-12	0-12	7.43±3.57

When the scale mean scores of the participants were examined, it was determined that the Coronavirus anxiety levels were low, and the fear of COVID-19 and death anxiety levels were moderate (Table 2).

Table 3. The Relationship between the Average Scores of the Patients from the Total and Sub-Dimensions of the Coronavirus Anxiety Scale. the Fear of COVID-19 Scale, the Death Anxiety Scale (DAS) and its Sub-Dimensions

Scales and Sub-dimensions	1	2	3	4	5	6
1. The Coronavirus Anxiety Scale (CAS)	1					
2. The Fear of Covid-19 Scale	.730*	1				
3.Ambiguity of Death	.482*	.632*	1			
4.Thinking and Witnessing Death	.585 *	.714*	.925*	1		
5. Pain	.462*	.632*	.919*	.928*	1	
6. The DAS Total Score	.527*	.676*	.984*	.975*	.957*	1

*p<0.001

A positive and significant correlation was found between the total score of Coronavirus anxiety levels, the fear of COVID-19, and the death anxiety of cancer patients and their sub-dimensions (Table 3).

Table 4. Determining the predictive power of patients' fear of COVID-19 levels and death anxiety

Scales	B	Standardized error	Beta	t	P
Invariant	2.134	6.476	6.76	.329	.743
The Fear of Covid-19	1.978	0.283		6.99	.000
R: 0.676	**R^2: .457**	**F: 48.874 (p<0.001)**			

The regression analysis revealed a statistically significant correlation, showing how the patients' fear of COVID-19 levels predicted their death anxiety in the model ($F = 48.874$, $p<0.001$). According to the model, it was determined that the fear of COVID-19 levels of the participants explained 45% of their death anxiety ($R =.676$, $R^2 =.457$) (Table 4).

DISCUSSION

The COVID-19 pandemic has had a profound impact on cancer care globally, causing disruptions in all aspects of treatment (Edge et al., 2021). Furthermore, the quarantine measures triggered by COVID-19 have increased the psychological distress experienced by cancer patients (Yélamos Agua et al., 2021). The findings of this study, which examined factors such as fear of death, anxiety levels, and fear of COVID-19 in cancer patients, contribute to the existing literature.

Upon examining the mean scores of the participants on the scale, it was found that the patients experienced moderate levels of death anxiety. This could be attributed to the heightened feelings and concerns regarding death anxiety during a life-threatening situation like a pandemic. When individuals perceive their lives to be at risk, they may experience intensified death anxiety (Ceylan, 2018). Hazal Turhan (2021) also noted that the COVID-19 pandemic, since its onset in December 2019, has been a trigger for death anxiety (Turhan, 2021). Additionally, in the elderly, death anxiety is often linked to physical health issues, such as chronic diseases (Birgit et al., 2018; Ring et al., 2020; Menzies & Menzies, 2020). Given that the majority of the participants in this study were between the ages of 53-68, it is well-documented that individuals in this age range are more susceptible to anxiety due to reduced activity, mobility, and the presence of chronic conditions (Mohammadpour et al., 2018; Mokhtari et al., 2020). This is particularly relevant for cancer patients, who are generally over 55 years old and may experience compromised immunity when undergoing systemic therapy (Petrova et al., 2020). A diagnosis or suspicion of COVID-19 infection is likely to exacerbate anxiety and stress, particularly among older patients (Li et al., 2020; Meng et al., 2020). In research exploring age-related COVID-19 mortality rates, individuals aged 65 and older were found to have a significantly higher risk of death from COVID-19 compared to younger individuals (Yanez et al., 2020). Consequently, it can be concluded that death anxiety levels are elevated in both cancer patients and the elderly, as the death rate from COVID-19 is higher in these groups.

The mortality rate from COVID-19 among cancer patients is approximately ten times higher than that of the general population (Zhang et al., 2020). In this study, it was determined that the patients' fear of COVID-19 was moderate. Research investigating the mental distress faced by cancer patients during the pandemic revealed that fear of COVID-19 was one of the most prevalent psychological

stresses, influencing patients' treatment decisions (Momenimovahed et al., 2021). According to the literature, the fear of COVID-19 was notably high among young women undergoing breast cancer treatment in the study by Dawid Sigorski et al. (2020) (Sigorski et al., 2020). Furthermore, in a study comparing individuals with chronic diseases and healthy individuals, it was found that the fear of COVID-19 was significantly higher among those with chronic conditions (Alacahan et al., 2021). Cancer, being a life-threatening illness with a high mortality risk, likely contributes to patients' heightened fear of contracting SARS-CoV-2 (Sigorski et al., 2020).

In this study, the Coronavirus anxiety levels of cancer patients were found to be low. This could be explained by the pandemic's gradual control, patients' adaptation to the ongoing situation, and the continuation of vaccination efforts. Additionally, a study with 221 cancer patients found that only 21 (9.5%) had a CAS score of ≥5 (Ahn et al., 2020).

A significant positive correlation was identified between the total Coronavirus anxiety score, fear of COVID-19, and death anxiety, as well as its sub-dimensions. As patients' fear of COVID-19 increased, their fear of death and death anxiety levels also escalated.

Limitations

A significant limitation of the study was the reduction in hospital admissions of cancer patients due to the pandemic, resulting in a relatively small sample size. This limits the ability to generalize the findings to the broader population. Another limitation is the reliance on self-report questionnaires as the primary data collection method.

Conclusion

The results of the study conducted to evaluate the fear of COVID-19, coronavirus anxiety levels and death concerns of cancer patients during the COVID-19 pandemic process are as follows: As a result, the pandemic negatively affected the death anxiety levels, the fear of COVID-19, and the Coronavirus anxiety levels of cancer patients. It is seen that studies in this field are insufficient in literature. For this reason, it is recommended to plan studies in which patients are evaluated holistically in order not to adversely affect the treatment of cancer patients during the pandemic process. It is recommended that psychosocial interventions to prevent cancer patients from being adversely affected by the distress caused by the pandemic should be a part of the treatment process. It is recommended that health professionals who care for cancer patients be given counseling training, including the patients and their families.

The pandemic has negatively affected cancer patients in our country as well as all over the world. In order not to adversely affect the treatment of cancer patients who need holistic care due

to the pandemic process, patients should be evaluated psychosocially. For this reason, it is important to give psychosocial interventions to health professionals who care for cancer patients to prevent the negatives experienced by cancer patients in life with the pandemic. In addition, telehealth services should be expanded for cancer patients who postpone their routine controls and treatment protocols in order not to be infected with Covid-19.

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