Araştırma makalesi
Research article

The Relationship between Fatalism and Hope Level in Surgical Cancer Patients: A Cross-Sectional Study

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ABSTRACT

Aim: This study was conducted to determine the relationship between fatalism and level of hope in surgical cancer patients.

Material and Methods: This descriptive study was conducted with the participation of 314 patients from the surgical clinics and oncology department of the Ondokuz Mayıs University Health Practice and Research Hospital between October 2021 and March 2023 in Turkey. All patients aged 18 and over who did not have communication problems, had cancer surgery, spread or radiation therapy, and did not agree to participate in the study were included in the study. Personal Information Form, Fatalism Tendency Scale, and Dispositional Hope Scale were used to collect data.

Results: The mean age of participants was 59.45±10.16 (min-max:27-80). The mean Fatalism Tendency total score of patients was 82.8 ± 12.2, and the mean Dispositional Hope total score was 52.3 ± 7.2. It was determined that there was a significant difference between the Fatalism Tendency total score average, and the marital status, education level, place of residence, person living with, and seeing spirituality as important ($p<0.05$). It was determined that there was a statistically significant positive correlation between fatalism tendency and continuous hope levels in oncology patients (r: 0.124, $p<0.05$).

Conclusion: Understanding the significance of surgical cancer patients' hope levels and fatalistic tendencies during surgical treatment and care can provide support to patients for treatment decisions, psychosocial assistance, experienced quality of life, and care planning.

Keywords: Cancer patients, fatalism, hope, nurse, surgery

ÖZ

Cerrahi Kanser Hastalarında Kadercilik ile Umut Düzeyi Arasındaki İlişki: Kesitsel Bir Çalışma

Amaç: Bu çalışma cerrahi kanser hastalarında kadercilik ile umut düzeyi arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

Gereç ve Yöntem: Bu tanımlayıcı çalışma, Ekim 2021 ile Mart 2023 tarihleri arasında Onddokuz Mayıs Üniversitesi Sağlık Uygulama ve Araştırma Hastanesi'nin cerrahi klinikleri ve onkoloji bölümündeki 314 hastanın katılımıyla Türkiye'de gerçekleştirildi. Araştırmaya, iletişim sorunu olmayan, kanser ameliyatı geçirmiş, yayılan veya radyasyon tedavisi gören ve çalışmaya katılmayı kabul etmeyen 18 yaş ve üzeri tüm hastalar dahil edilmiştir. Verilerin toplanmasında Kişisel Bilgi Formu, Kadercilik Eğilim Ölçeği ve Sürekli Umut Ölçeği kullanılmıştır.

Bulgular: Katılımcıların yaş ortalaması 59.45±10.16 (min-maks:27-80) olarak belirlendi. Hastaların Kadercilik Eğilimi toplam puanı ortalaması 82.8 ± 12.2 ve Sürekli Umut toplam puanı ortalaması ise 52.3 ± 7.2 bulundu. Kadercilik Eğilimi toplam puan ortalamaları ile medeni durum, eğitim düzeyi, yaşadığı yer, kiminle yaşadığı ve maneviyata önem vermesi arasında istatistiksel olarak anlamlı farklılık olduğu bulundu ($p<0.05$). Onkoloji hastalarında kadercilik eğilimi ile sürekli umut düzeyleri arasında istatistiksel olarak anlamlı ve pozitif yönlü bir ilişki olduğu belirlendi (r: 0.124, $p<0.05$).

Sonuç: Cerrahi kanser hastalarının cerrahi tedavi ve bakım sırasındaki umut düzeylerinin ve kaderci eğilimlerinin öneminin anlaşılması, hastalara tedavi kararları, psikososyal yardım, deneyimlenen yaşam kalitesi ve bakım planlaması konularında destek sağlayabilir.

Anahtar kelimeler: Cerrahi, hemşire, kadercilik, kanser hastaları, umut

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INTRODUCTION

Cancer is one of the most important health problems increasing worldwide and is reported as one of the diseases that cause death according to the World Health Organization (WHO)[1]. The most diagnosed cancer types in the world are lung, breast, and colon cancer, respectively; It is stated that the cancer types that cause the most deaths are lung, liver, and stomach cancers, respectively[1,2]. Surgery, is one of the most effective treatment methods for cancer. Due to the development and changing technology in the field of medicine, surgical treatments are widely used in cancer as a result of the developments in pre-and post-operative patient care and anesthesia[3].

Beyond being a serious disease, cancer involves fear, uncertainty, guilt, hopelessness, helplessness, unbearable pain, feelings of abandonment, and death. According to the literature, it has been determined that the role of hope is vital in cancer patients adaptation to their disease and treatment, and it has been determined that cancer patients with high levels of hope tend to live longer and have a longer disease-free period[4,5]. Personality traits such as hope and fatalism are internal coping resources. Levels of hope and fatalism can positively affect the quality of life and coping strategies of patients facing cancer treatment and surgery[4,6,7].

Fatalism in life that everything will be determined by a supernatural power (like God) and the belief that one cannot control one's life is defined8. The concept of fatalism is frequently discussed in the theology field. In particular, it is seen that the distinction between belief in fate and fatalism is emphasized. The belief in fate in religions is generally defined as "God's foreknowledge of what we will do and what events will happen to us". It is stated that God knows everything in advance and orders people to do good and forbid what is bad[8,9]. Debates on fatalism and belief in destiny appear in many religions. The tendency towards fatalism is high in Turkish society, whose religion is Muslim[10,11]. The understanding of fatalism is defined as the individual's destiny being determined externally and he has influence on the development and course of health problems[12,13]. Additionally, the tendency of fatalism in Turkish society is considered an effective factor in individual decisions and actions and in regulating social life[14]. Fatalism also affects health. Particularly many studies consider fatalism as a serious obstacle to the implementation of health screening behaviors[15,16]. These studies show that fatalism prevents adopting of self-protection behavior against diseases and their negative effects on maintaining a healthy lifestyle, early diagnosis, and protection from various diseases[15-18]. Although there is abundant literature on cancer fatalism, most of the research findings on its links are contradictory and the concept of cancer fatalism is not fully understood. There are existing studies in the literature regarding cancer fatalism[7,16,18,19].

Jerome Frank (1968), who conducted many studies on hope, defined hope as a feature that gives a feeling of well-being and motivates the person to take action[20]. Hope is an essential resource for increasing resilience and psychological support for patients coping with illness. Especially, hope can help patients live with cancer or cope with a difficult prognosis. Although hope differs for each patient, it is shaped according to the patient's lifestyle, wishes and psychology[21,22]. In cases of illness, hope prevents the individual from falling into hopelessness and pessimism and prevents feelings of helplessness. Especially for cancer patients, hope is the psychological source of survival[15]. Individuals diagnosed with cancer may experience hopelessness due to changes in their physiological status and body image, lack of social support, failure to meet their needs on time during treatment, and negative experiences in the past[16,17]. Knowing the importance of hope and the factors affecting hope in individuals diagnosed with cancer, applying the nursing care process will provide better quality care to patients[23]. There is no study has been found in the literature showing the relationship between the level of hope and fatalism tendency in surgical cancer patients.

Aim

The aim of the study is to investigate the relationship between fatalism tendency and hope level in surgical cancer patients and to contribute to the literature.

Study Questions

• How is the level of surgical cancer patients fatalism tendencies and hope?

• Is there a relationship between fatalism tendency and hope levels of surgical cancer patients?

MATERIAL and METHODS

Study Design

The design of the research was descriptive and cross-sectional.

Study Sample

The study sample consisted of 314 patients who attended the surgical clinics and oncology department of the University Health Practice and Research Hospital between October 2021 and March 2023. The number of samples was calculated using power analysis at 95% power and a 0.05 significance level.

All patients aged 18 years and older who had no communication problems, had undergone oncological surgery, were undergoing chemo or radio cancer treatments, and agreed to participate in the study were included. Terminal-stage cancer patients, those with neurological and cognitive problems, and those using psychiatric medications were excluded from the study.

Data Collection Tools

Personal Information Form, which includes demographic data and clinical features, "Fatalism Tendency Scale" and “Dispositional Hope Scale" were used to collect data.

Personal Information Form

The form, created by the researchers in accordance with the literature, consists of a total of 15 questions aiming to determine the socio-demographic characteristics of the participants (age, gender, marital status, education level, etc.) and the factors affecting their levels of spirituality, destiny, and hope[18,24,25.]

Fatalism Tendency Scale

The scale was developed by Kaya and Bozkur (2015)[25]. The scale consists of 24 items and four subscales, Predetermination, Self-Control, Superstition, and Chance. It is a 5-point Likert-type scale. A maximum of 120 and a minimum of 24 points can be obtained on the scale. The total fatalistic tendency score is formed by the sum of the scores obtained from all subscales. As the score increases, the fatalistic tendency also increases[25]. The Cronbach Alpha coefficient of the Fatalism Tendency scale was 0.86 for the whole scale26. In our study, the Cronbach's Alpha reliability coefficient of the scale was 0.71.

Dispositional Hope Scale

The 12-item scale was developed by Snyder et al. (1991) to determine the dispositional hope levels of individuals aged fifteen and over[27]. Individuals are asked to mark the degree to which the expressions in the items reflect their situation on a Likert-type eight-point rating scale. While scoring the scale, no points are given to the fillers (3rd, 5th, 7th, and 11th items), and the scores given to the other items are summed to obtain the Dispositional Hope Scale total score. The lowest score that can be obtained from the scale is 8, and the highest score is 64. A high score on the scale indicates a high level of hope. The Turkish adaptation of the scale was carried out by Tarhan and Bacanlı (2015)[28]. The Cronbach Alpha the scale was 0.8328. In this study, the Cronbach Alpha of the scale was 0.73.

Data Collection

Before the study, patients were informed about the research and its purpose by the researcher, and their verbal and written consents were obtained. The data were collected face-to-face by filling out a questionnaire form that lasted approximately 10-15 minutes.

Data Analysis

The data were analyzed in the SPSS 21.0 package program. The normality of the data was evaluated using the Shapiro-Wilk test. The data were not normally distributed. Number, percentage, mean score, standard deviations, Mann–Whitney U, Kruskal–Wallis tests, and Spearman correlation were used to analyze the data. $p < 0.05$ was considered statistically significant.

Ethical Considerations

The research data were collected after obtaining the approval of the Scientific Research Ethics Committee (Date: 28.05.2021, Number: 2021/462) and legal permissions from the institution where the research will be conducted. In addition, permission to use the scale was obtained from the authors, and written and verbal consent from the patients for participation in the study was obtained.

Limitations

The limitation of the study is that it was based on the statements of patients who were hospitalized in surgical clinics in only one center and who came to the oncology unit for treatment. Therefore, the results can only be generalized to the research group. Due to the collection of data during the Covid-19 pandemic, cancer patients postponed their arrival at the hospital. For this reason, the data collection period was extended.

RESULTS

The mean age of participants was 59.45±10.16 (min-max:27-80). It was determined that 54.8% of the patients were women, 86.6% were married and 77.4% has nuclear families. In addition, the majority of patients thought that fate affected their lives and they saw spirituality as a personal power (Table 1).

Table 1. Characteristics of Patients (n=314)

Age (years) X±SD: 59.45±10.16 **min-max:** 27–80		
Variables	**n**	**%**
Gender		
Female	172	54.8
Male	142	45.2
Marital status		
Married	272	86.6
Single	42	13.4
Educational status		
Illiterate	15	4.8
Literate	35	11.1
Primary education	166	52.9
High school	72	22.9
University	26	8.3
Place of residence		
Province	174	55.4
District	83	26.4
Village	57	18.2
Who lives with		
Alone	10	3.2
Nuclear family	243	77.4
Extended family	61	19.4
Do you think that fate affects your life?		
Yes	288	91.7
No	26	8.3
Is spirituality important to you?		
Yes	298	94.9
No	16	5.1
Individual methods to increase hope level*		
Dreaming	53	16.9
Doing sports	49	15.6
Positive thinking	102	32.5
Reading	27	8.6
Listening to music	87	27.7
Worship and prayer	263	83.8
Crafting, knitting and wood painting, etc.	47	15.0
Gardening	99	31.5
Shopping	97	30.9
Cooking	100	31.8
Family or friend gatherings	209	66.6

*More than one option is marked.

When the total mean scores of the patients from the Fatalism Tendency and Dispositional Hope Scales were evaluated, the mean Fatalism Tendency total score was found to be 82.8 ± 12.2 and the mean Dispositional Hope total score was 52.3 ± 7.2 (Table 2).

Table 2. Total Scores of the Fatalism Tendency and Dispositional Hope Scales

Scales	**X±SD**	**Min**	**Max**	**Alfa**
Fatalism Tendency	82.8 ± 12.2	24	120	0.71
Dispositional Hope	52.3 ± 7.2	8	64	0.73

When the distribution of the total score averages of the Fatalism Tendency and Dispositional Hope Scales according

to their socio-demographic characteristics was examined, it was determined that there was a significant difference between the Fatalism Tendency total score average, and the marital status, education level, place of residence, person living with, and seeing spirituality as important (p<0.01, p<0.05) (Table 3). In addition, it was determined that there was a significant difference between the total mean score of the Dispositional Hope scale and marital status, educational status, place of residence, and person living with (p<0.01, p<0.05 Table 3).

Table 3. Distribution of Total Score Averages of Fatalism Tendency and Dispositional Hope Scales According to Socio-demographic Characteristics

Variables	Fatalism Tendency		Dispositional Hope	
	X±SD	T est and p value	X±SD	Test and p value
Gender				
Female	82.31±14.42	U=12192.5 p> 0.05	53.24±6.21	U=10896.5 p> 0.05
Male	83.24±10.06		51.65±7.99	
Marital status				
Married	82.05±12.41	KW=9.07 **p< 0.05****	52.27±7.35	KW=10.9 **p< 0.05****
Single	89.00±7.37		54.50±0.52	
Widow	88.81±10.66		54.07±7.49	
Educational status				
Illiterate	80.67±3.41	KW=51.06 **p< 0.01***	46.00±4.47	KW=49.4 **p< 0.01***
Literate	89.29±8.63		55.71±3.86	
Primary education	84.70±11.65		51.89±7.26	
High school	81.83±11.38		50.88±8.04	
University	66.12±10.91		58.73±3.08	
Place of residence				
Province	81.11±12.94	KW=8.95 **p< 0.05****	52.27±7.67	KW=13.85 **p< 0.01***
District	86.20±10.30		54.71±4.34	
Village	83.12±11.66		49.25±8.28	
Who lives with				
Alone	90.50±14.23	KW=7.77 **p< 0.05****	58.50±0.52	KW=13.66 **p< 0.01***
Nuclear family	83.68±10.83		52.62±7.31	
Extended family	78.15±15.50		50.36±7.07	
Thinking that fate affects your life				
Yes	83.39±11.72	U=12192.5 p> 0.05	51.91±7.23	U=10896.5 p> 0.05
No	76.50±15.73		57.38±5.88	
Considering spirituality important				
Yes	82.23±12.16	U=1035 **p< 0.01***	52.24±7.38	U=1940.5 p> 0.05
No	93.75±7.41		54.69±4.42	

*p<0.01, **p<0.05, U: Mann–Whitney U, KW: Kruskal–Wallis tests

A statistically significant positive correlation was found between the total mean scores of the Fatalism Tendency and Dispositional Hope Scales (p < 0.05)(Table 4).

Table 4. The Relationship between the Total Scores of the Fatalism Tendency and the Dispositional Hope Scales

		Fatalism Tendency	Dispositional Hope
Fatalism Tendency	r	1	.124
	p		.028[a]
Predetermination	r	.559	.143
	p	.000[b]	.011[a]
Self-Control	r	.423	.398
	p	.000[b]	.000[b]
Superstition	r	.578	-.164
	p	.000[b]	.004[b]
Chance	r	.735	.089
	p	.000[b]	.116
Dispositional Hope	r	.124	1
	p	.028[a]	

[a]p<0.05, [b]p<0.01, Spearman correlation test

Results of the linear regression, it was determined to what extent the independent variables of thinking that fate affects your life and that spirituality is important predicted the Fatalism Tendency Scale score. As a result of this process, it was found that thinking that fate affects your life negatively affected it 6 six times, and thinking that spirituality is important affected it 11 times. Thinking that fate affects your life and spirituality is important were found to be significant predictors of the Fatalism Tendency Scale score (p = 0.000) (Table 5).

By applying linear regression, it is seen that the constantly hopeful score is explained by the independent variable "thinking that fate affects your life" and explains 51% of the total variance. It was determined that “thinking that fate affects your life” is a significant predictor of the Dispositional Hope Scale score (p = 0.000) (Table 5).

DISCUSSION

Fatalistic tendencies seem to be the result of the interaction of religious, cultural, and historical factors. Although there are opinions that religion as a cultural factor is the most important cause of fatalism and that certain religions contain more fatalistic beliefs than others, research shows that religion is not the only factor that determines fatalism, and there is no significant difference between religions in terms of increasing the tendency towards fatalism[29]. In other words, regardless of religion, being religious brings with it a more fatalistic view of life, but religion is not the only factor affecting fatalism; income, perceived social status, and education are also strongly associated with fatalistic tendencies[9,12,30]. In parallel with the literature, this study determined a significant difference between Fatalism Tendency and marital status, educational status, place of residence, person living with, and seeing spirituality as important. In the study of Keller et al. (2021)[15], possible relationships between race and variables such as age and education and fatalism in cancer were analyzed, and as a result, no relationship could be found between race and age and fatalism; only a strong relationship was found between the education variable and fatalism. The study showed that, people with lower levels of education were associated with higher perceptions of fatalism. According to this, those with a low level of education have higher scores on the fatalism scale than those with a high level of education[15]. In this study, it was determined that those with higher education levels had lower fatalism tendency scores. It is thought that this result has emerged due to the increase in the level of precaution, awareness, and foresight of people with the increase in the level of education.

There are many studies on the effects of fatalism belief on health behavior both in taking protective measures and in post-diagnosis treatment[8,16,17,19]. In research on cancer, diabetes, infertility, depression, heart diseases, and HIV, fatalism can be a factor that facilitates coping in the post-diagnosis treatment process; It is mainly considered as a factor that may cause the emergence or progression of the disease about behaviors such as taking precautions, applying preventive health behaviors, regular check-ups and following the doctor's advice[16,31-33]. In this study, it was

determined that the majority of surgical oncology patients stated that fate affects their lives (%91.7). All patients participating in the study were Muslims. It is thought that this result occurred because the majority of the patients were Muslims and they adopted the belief in fate according to the Islamic religion.

Hope plays a vital role in the experiences of patients with advanced cancer and their family members. In addition, hope acts as a buffer against stress and is an essential factor for physical and mental health. In this context, hope can assist patients throughout their disease course, which includes diagnosis, treatment, and follow-up[5,34,35]. Studies in the literature show that hope-increasing programs in surgical oncology patients increase hope and benefit the patient[5,36,37]. The findings of many studies show that living with hope is an important factor in individuals' adaptation to cancer, reducing their psychological distress, and increasing their psychosocial well-being and quality of life[4,35,38]. In this study, it was determined that the hope levels of the patients were middle and they used various individual methods to increase their hope levels. In this context, hope is a meaningful force in the struggle of patients to live. It is thought that the moderate level of hopelessness of the participants may have arisen due to social support, economic situation, and the feeling of uncertainty caused by cancer. In addition, we found a significant difference between the level of hope and marital status, educational status, place of residence, and person living with. In this study, it was determined that the hope levels of patients who were single, university graduates, and living alone were higher. In another study, it was stated that variables such as living alone or with family, socio-economic status, education, and profession did not affect hope, but age, gender, place of residence, and marital status had a significant effect on increasing hope[39].

No study was found in the literature that investigated the relationship between the level of hope and fatalistic tendencies in patients undergoing oncological surgery. In this study, we found a significant relationship between patients' level of hope and fatalistic tendencies. This result should be taken into consideration by nurses during patient care. In this context, nurses providing patient care will assess patients' fatalism and hope levels, which will improve individual care.

CONCLUSION

Finally, we found a positive and significant relationship between fatalism and hope in oncology surgery patients. It is observed that fatalism levels increase in cancer patients whose hope level increases. In this context, it is believed that nursing interventions and training programs designed to increase patients' hope levels may benefit from determining the relationship between fatalistic tendencies and hope in patients who have undergone cancer surgery. Additionally, using hope therapy and connecting with peers who have shared similar experiences can improve the psychological well-being and quality of life of cancer patients.

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Veri Toplama: ŞKA, Öİ, BŞA
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