

## Perceived Social Support and Health-Related Quality of Life in Coronary Artery Patients: The Role of Death Anxiety

### Koroner Arter Hastalarında Algılanan Sosyal Destek ve Sağlıkla İlgili Yaşam Kalitesi: Ölüm Anksiyetesinin Rolü

#### ABSTRACT

**Aim:** This study examined the effects of death anxiety on social support and quality of life in patients with coronary artery disease.

**Method:** The study was conducted with 217 in-patients who were hospitalized in cardiology clinics between March 13 and June 30, 2023, in a training and research hospital in Istanbul. The data were collected with "Patient Information Form, Arabic Scale of Death Anxiety (ASDA), Multidimensional Scale of Perceived Social Support (MSPSS) and MacNew Heart Disease Health-related Quality of Life Questionnaire (MacNewHRQL)".

**Results:** Total mean ASDA score of the patients was  $45.87 \pm 11.13$ , mean MSPSS score of the patients was  $64.9 \pm 11.68$ , and mean MacNewHRQL score of the patients was  $4.62 \pm 0.75$ . Total mean scores of sub-dimensions were found as  $4.49 \pm 0.67$  for emotional score,  $4.72 \pm 0.97$  for physical score and  $4.9 \pm 0.98$  for social score. Significant negative correlation was found between Fear Related to Physical and Mental Pain Associated with Death, Fear Related to the Dying Process Itself and ASDA and MacNewHRQL and sub-dimensions. Significant negative correlation was also found between Fear Related to Other Situations Reminding Death and support from family, support from significant others, MSPSS, MacNewHRQL and sub-dimensions.

**Conclusion:** Death anxiety and quality of life levels of the patients were found to be moderate, and their perception of social support was found to be high. Increasing death anxiety levels of the patients affect the quality of life negatively.

**Keywords:** Coronary Artery Disease, Social Support, Self-care Agency, Death Anxiety, Nursing

#### Öz

**Amaç:** Bu çalışma, koroner arter hastalarında sosyal destek ve yaşam kalitesi üzerinde ölüm anksiyetesinin etkisi incelendi.

**Yöntem:** Çalışma, İstanbul'da bulunan bir eğitim ve araştırma hastanesinde 13 Mart- 30 Haziran 2023 tarihleri arasında kardioloji kliniklerinde yatarak tedavi gören 217 hasta ile yürütüldü. Veriler, "Hasta Bilgi Formu, Abdel Kholek Ölüm Anksiyetesi Ölçeği (AKÖAÖ), Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ) ve MacNew Kalp Hastalığına Özgü Sağlıkla İlişkili Yaşam Kalitesi Anketi (MacNewHRQL)" ile toplandı.

**Bulgular:** Hastaların AKÖAÖ puanı  $45,87 \pm 11,13$ , ÇBASDÖ puanı  $64,9 \pm 11,68$ , MacNewHRQL puanı  $4,62 \pm 0,75$  bulunmuştur. Ölümle Beraber Gelen Fiziksel ve Ruhsal Acıya Yönelik Korku, Ölme İşinin Kendisine Yönelik Korku ve ASDA ile MacNewHRQL ve alt boyutları arasında negatif; Ölümü Hatırlatan Başka Durumlara Yönelik Korku ile Aile Desteği, Özel Kişi Desteği, ÇBASDÖ, MacNewHRQL ve alt boyutları arasında negatif anlamlı bir ilişki bulunmaktadır.

**Sonuç:** Hastaların ölüm anksiyetesi ve yaşam kaliteleri orta düzeyde, sosyal destek algıları da yüksek bulunmuştur. Hastaların yaşının ve ölüm anksiyete düzeylerinin artması yaşam kalitesini olumsuz etkilemektedir.

**Anahtar kelimeler:** Koroner Arter Hastalığı, Sosyal Destek, Öz-bakım Gücü, Ölüm Anksiyetesi, Hemşirelik

#### Introduction

A large number of negative emotions such as having a chronic disease, coping with the symptoms of the disease, the distress or limitations of the treatment, and worries

#### ORIGINAL ARTICLE

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about the future affect the physical, cognitive and social lives of individuals. Today, the gradual increase in chronic diseases and the prolongation of life expectancy bring the concept of quality of life to the forefront.<sup>1,2</sup> Quality of life encompasses various components, including physical health, physical function, social function, mental health, work, social support, and overall satisfaction with life.<sup>3</sup> One aspect of quality of life is health-related quality of life (HRQL), which specifically focuses on how health conditions and symptoms affect an individual's overall well-being. HRQL serves as a useful measure to assess the impact of different experiences and treatments for the same condition or different treatments for different conditions. HRQL tools are designed to evaluate the impact of disease, treatment, and other health-related factors on individuals' lives.<sup>4</sup> They provide a patient-centered assessment of health status, offering insights into patients' experiences and helping to predict cardiac events, rehospitalization rates, and mortality.<sup>4,5</sup> One of the important diseases that affect HRQL is "coronary artery disease" (CAD). The clinical presentation of CAD is usually in the form of silent ischemia, stable angina pectoris, unstable angina, myocardial infarction (MI), heart failure and sudden death. Patients diagnosed with CAD may experience symptoms such as chest pain, sweating, shortness of breath, fatigue, dizziness, palpitations, acute confusion, indigestion, anxiety and fear of death.<sup>6</sup> CAD limits the physical, emotional and social functions of individuals and affects the quality of life negatively.<sup>7</sup> Patients need social support due to pain, death anxiety, functional and social limitations and they experience impairment in HRQL.<sup>8</sup> There is a clear and direct correlation between the quality of life and the decline in physical health.<sup>9</sup> Patients' quality of life is recognized as an important health measure to determine the impact on heart disease and its treatment. Patient-reported quality of life has been identified as an independent mortality risk factor in CAD.<sup>10</sup> This is reported to be even more important than existing biomedical risk factors. The most accurate way for the assessment of patients' quality of life by clinicians and for reflecting patients' HRQoL is the use of standardized questionnaires.<sup>10,11</sup> Due to the strong association of quality of life with the prognosis of cardiovascular disease and the effectiveness of treatment, the assessment of the patient's quality of life should be complementary to all other usual assessment methods.<sup>12</sup> Quality of life not only influences health outcomes but also has a direct impact on healthcare expenditure. Patients with low HRQoL consume three times the annual healthcare budget compared to patients with higher HRQoL. Therefore, measuring and assessing quality of life will help us to improve and maintain quality of life in patients with CAD.<sup>10,12</sup> HRQL should be measured to support screening for underlying problems, identifying and prioritizing problems, patient-centered care and communication.<sup>4</sup> In order to improve the quality of life of individuals with CAD, first of all, they should be considered as a whole in biological, physical, social, spiritual and psychological terms.<sup>6</sup> "Cardiovascular diseases" (CVD) are the leading cause of death regardless of gender and race.<sup>13</sup> The diagnosis of a chronic disease such as CVD can trigger a deep existential crisis in daily life. Death anxiety as an existential problem arises from the conscious awareness of our own mortality and can be defined as "negative emotional reactions triggered by

the expectation of a state in which the self does not exist".<sup>14,15</sup> As individuals near the end of life, they often experience an increase in physical concerns such as pain and symptoms, as well as psychological distress like depression and existential anxiety. These factors significantly impact their overall quality of life. As people get closer to death, social support gains importance and interpersonal interactions reduce death anxiety. Excessive anxiety developed in the face of death may make it difficult to achieve balance and harmony. In order to maintain mental and physical balance, it is important to establish boundaries for death anxiety.<sup>16</sup> Social support plays a crucial role in helping individuals adapt to life-threatening diseases.<sup>14</sup> Defining social support systems, especially the support of the family and people in the immediate environment and their cooperation for the treatment of the patient, will contribute to the patient's not feeling alone and adapting to the disease more easily.<sup>17,18</sup> Existing literature suggests that death anxiety, social support and HRQL are significantly associated in patients with CAD.<sup>14,19,20</sup> The American Heart Association emphasizes the importance of HRQL in patients with CAD and recommends investigating the factors affecting HRQL in this population. Early diagnosis and interventions in psychosocial problems can improve HRQL in patients.<sup>10</sup> Nurses, who are active members of the healthcare team in patient care, have great responsibilities in the management of basic hospitalization processes such as diagnosis, treatment, interventional practices, care and discharge of cardiovascular diseases. The nursing approach in a patient presenting with CAD starts with assessing the needs of the patient and determining the priority of these needs. Nurses' knowledge of the nursing process and maintaining their practices related to care in line with the process will provide better care and better quality of life.<sup>21</sup> However, no studies were found evaluating the effects of the three variables together on patients with CAD. It is thought that addressing these variables will help healthcare professionals to develop targeted interventions to improve HRQL in patients with CAD and provide better quality healthcare services to patients. In light of this information, this study examined the effects of death anxiety in the effect of social support on HRQL in patients with CAD.

## Material and Method

### Type of research

This study has a descriptive, cross-sectional, and correlational research design.

### Research Questions

1. How are death anxiety, social support and HRQL levels of patients with coronary artery disease?
2. Does social support level affect HRQL?
3. Does death anxiety level affect HRQL?
4. Does death anxiety level affect social support?

### Population and Sample of Research

The study was conducted with inpatients in cardiology clinics between March 13 and June 30, 2023, in a training and research hospital in Istanbul. Simple random sampling method was used within the scope of the study. Data collection was carried out with 217 individuals who met the inclusion criteria between the specified dates.

Inclusion criteria:

- Being  $\geq 18$  years of age,
- Having the cognitive competence to respond to the data collection tools,
- Offering to volunteer for the study,
- Not having any communication issues such as hearing impairment, language barriers, or difficulties with understanding,
- Not having any mental problems.

#### Data Collection Method

Data were collected through face-to-face interviews in a manner that ensured there was no disruption to the patients' treatment and care.

#### Data Collection Tools

Research data were collected with "*Patient Information Form, Arabic Scale of Death Anxiety, Multidimensional Scale of Perceived Social Support and MacNew Heart Disease Health-related Quality of Life Questionnaire*".

#### Patient Information Form

The researchers prepared this form to gather information about the socio-demographic and disease-related characteristics of the study participants. The form consists of 18 questions that cover age, gender, marital status, educational status, employment status, living arrangements, and presence of various chronic diseases.

#### Arabic Scale of Death Anxiety (ASDA)

"*The Arabic Scale of Death Anxiety (ASDA)*", developed by Abdel-Khalek in 2004, considers the cultural variations found in Muslim societies. The scale was adapted into Turkish by Aydođan et al<sup>22</sup> in 2015. It is a twenty-item, five-point Likert scale (1=no and 5=very much) with five dimensions. These five dimensions are "*Fear Aroused by Visual Stimuli Related to Death, Fear Related to Physical and Mental Pain Associated with Death, Fear Related to Other Situations Reminding Death, Fear Related to the Aftermath of Death, and Fear Related to the Dying Process Itself*". It is possible to obtain scores ranging between 20 and 100 on the ASDA. Higher scores indicate a greater degree of death anxiety. Cronbach's alpha value for the Turkish form of ASDA was calculated as 0.86.<sup>22</sup> In this study, the Cronbach's alpha value of the scale was measured to be 0.84.

#### Multidimensional Scale of Perceived Social Support

"*The Multidimensional Scale of Perceived Social Support (MSPSS)*" is a user-friendly and concise scale that evaluates the subjective perception of social support from three distinct sources. Eker et al<sup>23</sup> (2001) conducted a study to determine the validity and reliability of the Turkish scale. The obtained Cronbach's alpha values for the scale ranged from 0.80 to 0.95. MSPSS is a 7-point Likert scale with 12 items (absolutely no=1, absolutely yes=7). It includes 3 sub-dimensions related to the source of support, each consisting of 4 items. These are family, friends and a significant other. To calculate the subscale score, the scores of four items within each subscale are added. To obtain the total score of the scale, all of the subscale scores are added up. Scores ranging between 12 and 84 are obtained from the CPSS. A high score indicates a high level of perceived

social support.<sup>23</sup> The Cronbach's alpha value of the scale in this study was 0.88.

#### MacNew Heart Disease Health-related Quality of Life Questionnaire

"*MacNew Heart Disease Health-related Quality of Life Questionnaire (MacNewHRQL)*" is used in patient groups with coronary artery disease and heart failure. It is a disease-specific international questionnaire used to measure the health-related quality of life of these patient groups in the last two weeks. Turkish validity and reliability of MacNewHRQL was conducted by Dařkapan et al<sup>24</sup> (2008) and Cronbach alpha value was calculated as 0.80. MacNewHRQL includes three sub-dimensions as physical, emotional and social. The questions are scored between 1 and 7. Sub-dimension scores are calculated by taking the averages of the answers given to the questions in each sub-dimension, and scores ranging between 1 and 7 are obtained. A low score in the questionnaire indicates a low health-related quality of life.<sup>24</sup> The Cronbach's alpha value of the scale in this study was 0.87.

#### Data Analysis

The data collected from the patients were analyzed using the statistical package program SPSS 25.0. Descriptive statistics related to variables were given as percentage, number, arithmetic standard deviation and mean. Skewness and Kurtosis coefficients were used to examine normality distribution and Cronbach's alpha values were used to determine internal consistency. Spearman's correlation analysis was utilized to establish the relationship between quantitative data, while multiple linear regression analysis was employed to identify the factors influencing MacNewHRQL. The findings were evaluated at 95% confidence interval and 5% significance level.

#### Ethical Considerations

Institutional permission was obtained from the Ethics Committee of Istanbul Sabahattin Zaim University (Approval Number: E-20292139-050.01.04-39567, Date: 30.11.2022) and from the Provincial Directorate of Health (03.03.2023 dated and 15689 numbered) to conduct the study in the relevant hospital. Each patient included in the sample was explained the purpose of the study and written permission was obtained with informed consent before the study. This study was conducted following the ethical standards outlined in the Declaration of Helsinki. Participants willingly took part in the study and their personal information was kept confidential. In the production of submitted work, we did not utilize any artificial intelligence (AI) - assisted technologies such as Large Language Models (LLMs), chatbots, or image creators.

#### Results

Mean age of the patients was  $61.14 \pm 13.08$  years, 50.2% were male, 83.4% were married, 96.3% had children, 56.5% had 3 or more children, 59.9% were primary school graduates, 80.2% were not employed, 47.9% had income equivalent to expenses, 46.1% lived with their spouses and children, 71.9% did not smoke and 90.3% did not use alcohol (Table 1).

It was found that 49.8% of the patients used dentures, 66.8% had experienced loss before, 94% received support from the

**Table 1. Findings Related to Sociodemographic Characteristics of Patients (n= 217)**

		Mean ± Sd	Min-Max (Median)
Age,years		61,14 ± 13,08	19-90 (63)
		n	%
Gender	Female	108	49.8
	Male	109	50.2
Marital Status	Married	181	83.4
	Single	36	16.6
The state of having children	Yes	209	96.3
	No	8	3.7
Number of children	<3	91	43.5
	≥3	118	56.5
Educational Status	Illiterate	15	6.9
	Literate	32	14.7
	Elementary education	130	59.9
	High school	22	10.1
	University and Higher	18	8.3
Employment status	Employed	43	19.8
	Not employed	174	80.2
Income status	Income<expense	98	45.2
	Income = expense	104	47.9
	Income>expense	15	6.9
Individuals patients lived with	Spouse	67	30.9
	Spouse and children	100	46.1
	Alone	25	11.5
	Other*	25	11.5
Smoking status	Yes	61	28.1
	No	156	71.9
Status of using alcohol	Yes	21	9.7
	No	196	90.3

\*Relatives/Friends

people they lived with during the disease process, 76.5% had a comorbid chronic disease and 76.4% had hypertension as a comorbid disease (Table 2).

While total mean ASDA score of the patients was 45.87 ± 11.13, total mean scores of sub-dimensions were 8.75 ± 3.79 for Fear Aroused by Visual Stimuli Related to Death, 17.54 ± 3.9 for Fear Related to Physical and Mental Pain Associated with Death, 5.43 ± 2.14 for Fear Related to Other Situations Reminding Death, 8.32 ± 2.79 for Fear Related to the Aftermath of Death, and 5.83 ± 2.85 for Fear Related to the Dying Process Itself. While total mean MSPSS score of the patients was 64.9 ± 11.68, total mean scores of sub-dimensions were 20.31 ± 5.27 for support from family, 20.85 ± 4.52 for support from friends

**Table 2. Findings Related to Disease-Related Characteristics of Patients (n= 217)**

		n	%
Prostheses Used	Dentures	108	49.8
	Eyeglass Lens	28	12.9
	Hearing aid	5	2.3
	Extremity Prosthesis	5	2.3
	None	71	32.7
Presence of comorbid chronic disease	Yes	166	76.5
	No	51	23.5
Number of comorbid chronic disease	<2	131	78.9
	≥2	35	21.1
Comorbid chronic disease*	Renal failure	14	9.5
	Diabetes	63	42.6
	Hypertension	113	76.4
	Heart failure	21	14.2
	Cholesterol	16	10.8
	Other**	48	32.4
The state of receiving support from individuals patients lived with	Yes	204	94.0
	No	13	6.0
The state of experiencing loss previously	Yes	145	66.8
	No	72	33.2
The degree of relation of the loss*	Mother	47	32.4
	Father	48	33.1
	Child	15	10.3
	Spouse	23	15.9
	Elder sister	20	13.8
	Elder brother	5	3.4
	Siling	3	2.1
	2nd degree relative	11	7.6
	Friend	4	2.8

\* More than one option was chosen. \*\* Neurological and gastrointestinal system diseases

and 23.75 ± 3.79 for support from significant others. While total mean MacNewHRQL score of the patients was 4.62 ± 0.75, total mean scores of sub-dimensions were 4.49 ± 0.67 for emotional score, 4.72 ± 0.97 for physical score and 4.9 ± 0.98 for social score (Table 3).

Significant negative correlation was found between Fear Related to Physical and Mental Pain Associated with Death and MacNewHRQL and sub-dimensions; significant negative correlation was found between Fear Related to Other Situations Reminding Death and support from family, support from significant others, MSPSS, MacNewHRQL and sub-dimensions; significant negative correlation was found between Fear Related to the Dying Process Itself and MacNewHRQL and

**Table 3. Mean Arabic Scale of Death Anxiety, Multidimensional Scale of Perceived Social Support and MacNew Heart Disease Health-related Quality of Life Questionnaire Scores of the Patients**

		Mean ± SD	Min-Max (Median)
Arabic Scale of Death Anxiety Sub-dimensions	Fear Aroused by Visual Stimuli Related to Death	8.75 ± 3.79	5-21 (8)
	Fear Related to Physical and Mental Pain Associated with Death	17.54 ± 3.9	5-25 (18)
	Fear Related to Other Situations Reminding Death	5.43 ± 2.14	4-16 (4)
	Fear Related to the Aftermath of Death	8.32 ± 2.79	3-15 (9)
	Fear Related to the Dying Process Itself	5.83 ± 2.85	3-15 (5)
Arabic Scale of Death Anxiety		45.87 ± 11.13	22-82 (45)
Multidimensional Scale of Perceived Social Support Sub-dimensions	Support from family	20.31 ± 5.27	4-28 (21)
	Support from friends	20.85 ± 4.52	6-28 (21)
	Support from significant others	23.75 ± 3.79	5-28 (24)
Multidimensional Scale of Perceived Social Support		64.9 ± 11.68	26-84 (67)
MacNew Heart Disease Health-related Quality of Life Questionnaire Sub-dimensions	Emotional Score	4.49 ± 0.67	2,43-5,93 (4,5)
	Physical Score	4.72 ± 0.97	2,46-6,77 (4,62)
	Social Score	4.9 ± 0.98	2,23-7 (4,93)
MacNew Heart Disease Health-related Quality of Life Questionnaire		4.62 ± 0.75	2.77-6.19 (4.63)

sub-dimensions and significant negative correlation was found between ASDA and MacNewHRQL and sub-dimensions ( $p < 0.05$ ). No statistically significant correlation was found between MSPSS and sub-dimensions and MacNewHRQL and sub-dimensions ( $p > 0.05$ ) (Table 4).

## Discussion

In this study conducted to determine the effect of death anxiety on social support and quality of life in coronary artery disease patients, the patients were found to have moderate levels of death anxiety and quality of life and high levels of social support perception (Table 3). The increase in patients' death anxiety levels affects quality of life negatively (Table 4;  $p < 0.005$ ). Humans have a conscious awareness of their mortality. They are forced to face their mortality when they are confronted with frightening illnesses or stressors that may cause them to perceive that death is impending.<sup>14,15</sup> Death anxiety is considered important because it affects individuals negatively psychosocially and causes difficulties in adapting to the environment.<sup>25</sup> However, it has also been reported that anxiety may have an effect on the recurrence of cardiac events and increase the risk of premature death.<sup>26</sup> In the study of Şahan<sup>27</sup> et al. (2018), it was found that death anxiety levels of patients with MI were higher than patients with cancer and healthy individuals, and it was stated that this was due to sudden and unexpected confrontation with death.<sup>27</sup> Yıldırım and Kocatepe<sup>28</sup> (2021) found that death anxiety levels of patients were high in their study with patients diagnosed with MI.<sup>28</sup> Kavradim et al<sup>29</sup> (2022) conducted a study on patients with MI and found that patients had moderate and severe levels of death anxiety. In a different study, high levels of death anxiety were reported in patients with CAD compared to other patients with CVD.<sup>19</sup>

In this study, patients were found to have a high perception of social support. High perception of support from family, significant other and general social support decreases the fear related to

other situations reminding of death (such as fear of visiting the cemetery, fear of falling asleep and not waking up afterward, talking about death and walking in the cemetery). Anxiety about death may also negatively affect patients' relationships with others. Often life-threatening conditions encountered by some CAD patients significantly increase fear and anxiety about death.<sup>15</sup> Death is a universal anxiety of humans and it is a feeling that starts from birth and develops after the realization that the person will no longer exist. Many individuals have developed techniques to cope with death anxiety by using social support systems.<sup>30</sup> When patients receive more social support, they tend to perceive the event as less threatening and social support facilitates coping with the crisis.<sup>31</sup> In a study conducted by Han and Won (2022), it was found that patients had a high perception of social support.<sup>32</sup> In another study, a high level of social support perception was reported in patients with CAD.<sup>33,34</sup>

In this study, life quality level of the patients was found to be moderate. Conradie et al<sup>12</sup> (2022) reported that quality of life was at a moderate level in their study with patients with CAD. In different studies, it has been reported that quality of life was at a moderate level in patients with CAD.<sup>15</sup> In another study, a low level of life quality was reported in patients with CAD.<sup>35</sup> This 5-year prospective follow-up study among patients with CAD reported that low HRQL scores predicted 5-year all-cause mortality and rehospitalizations independent of age, sex, cohabitation status, cardiac history, disease severity and comorbidity.<sup>11</sup> Also, increasing death anxiety levels of the patients affect the quality of life negatively. Thus, we found the answer to the third research question. Death is a situation that everyone, regardless of age, fears and worries because of the end of life and the uncertainty of what will happen next. Individuals are more afraid of death and this affects their quality of life.<sup>36</sup> Research on the subject shows that life quality of older individuals is significantly affected by the fear of death they feel.<sup>25</sup> In their study, Tel, Koç, and Aydın (2020)

**Table 4. Correlation Analysis of Arabic Scale of Death Anxiety, Multidimensional Scale of Perceived Social Support and MacNew Heart Disease Health-related Quality of Life Questionnaire**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1. Fear Aroused by Visual Stimuli Related to Death	r	1													
	p	.													
2. Fear Related to Physical and Mental Pain Associated with Death	r	.480*	1												
	p	.000	.												
3. Fear Related to Other Situations Reminding Death	r	.411*	.294*	1											
	p	.000	.000	.											
4. Fear Related to the Aftermath of Death	r	.329*	.377*	.180*	1										
	p	.000	.000	.009	.										
5. Fear Related to the Dying Process Itself	r	.459*	.553*	.431*	.196*	1									
	p	.000	.000	.000	.005	.									
6. ASDA	r	.769*	.809*	.549*	.577*	.718*	1								
	p	.000	.000	.000	.000	.000	.								
7. Support from family	r	0	0.099	-.215*	0.004	-0.107	-.030	1							
	p	0.381	.157	.002	.958	.128	.673	.							
8. Support from friends	r	0.025	0	-0.133	0.049	-0.091	0.025	.716*	1						
	p	.720	0.067	.057	.485	.194	.719	.000	.						
9. Support from significant other	r	-0.089	-0.004	-.149*	0.01	-0.114	-0.053	.466*	.586*	1					
	p	.205	.949	0.034	.883	.105	.452	.000	.000	.					
10. Multidimensional Scale of Perceived Social Support	r	-0.034	0.1	-.188*	0	-0.119	-0.01	.885*	.906*	.733*	1				
	p	.626	.156	.007	0.696	.090	.882	.000	.000	.000	.				
11. Emotional Score	r	-0.128	-.166*	-.153*	-0.088	-.147*	-.197*	.133	0	0.081	0.08	1			
	p	.068	.018	.030	.210	0.036	.005	.053	.998	.241	.246	.			
12. Physical Score	r	-.126	-.163*	-.143*	-0.049	-.153*	-.187*	.124	0.02	-0.036	0.059	.752*	1		
	p	.073	.020	.042	.488	.030	0.008	.071	.770	.601	.397	.000	.		
13. Social Score	r	-0.103	-0.128	-.154*	-0.018	-.139*	-.148*	0	0.011	-0.046	0.046	.792*	.933*	1	
	p	.143	.069	.028	.800	.048	0.035	0.093	.870	.509	.509	.000	.000	.	
14. MacNewHRQL	r	-0.124	-.166*	-.163*	-0.071	-.146*	-.197*	0.108	0	-0.021	0.039	.900**	.948**	.945*	1
	p	.079	.018	.020	.317	.038	.005	.117	0.84	.759	.569	.000	.000	.000	.

Spearman's, p < 0,05 ASDA: Arabic Scale of Death Anxiety, MSPSS: Multidimensional Scale of Perceived Social Support, MacNewHRQL: MacNew Heart Disease Health-related Quality of Life Questionnaire

reported that the participants had a moderate level of fear of death and the level of quality of life decreased as the level of fear of death increased.<sup>37</sup> It has been reported that high death anxiety decreases quality of life in cardiac patients.<sup>14</sup> Sherman et al<sup>36</sup> (2010) found that death anxiety may negatively affect the life quality of patients with life-threatening diseases. Here, nurses who have received training to provide professional care to individuals, who approach individuals from a holistic perspective and who can provide holistic care come into play.<sup>38</sup> Since death anxiety is a condition that can seriously jeopardize the lives of patients, it should be considered as a nursing diagnosis. In order to help patients to cope with the fear of death, professional nurses need to develop their knowledge and skills in this regard.<sup>39</sup> Nurses should prevent the fear of death from negatively affecting the quality of life of the individual and relieve the individual mentally.<sup>38</sup> More importantly, alleviating existential anxieties may alleviate some of the mental health problems resulting from confronting CAD and its demanding treatments.<sup>36</sup>

### Limitations

The fact that the study was conducted in a single center and only with inpatients is considered a limitation of this study. Since this study is a cross-sectional study, we cannot determine the causality and directionality of the relationship between the variables of the study. Therefore, causal-comparative studies can be conducted.

### Conclusion

Death anxiety and quality of life of the patients were found to be moderate, and their perception of social support was found to be high. Increased death anxiety levels of the patients negatively affect the quality of life. Nurses should understand the nature of death anxiety and strategies to cope with this anxiety. They can give informative training to patients about death anxiety and explain that this anxiety is a normal feeling. Nurses can help patients identify their social support networks and use these networks effectively. Providing support from family members and friends can alleviate death anxiety. Each patient's death anxiety and social support needs are different. Nurses should create personalized care plans by assessing the individual needs of patients. These plans should address the physical, emotional and social needs of patients with a holistic approach.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the ethics committee of Istanbul Sabahattin Zaim University University (Approval Number: E-20292139-050.01.04-39567, Date: 30.11.2022).

**Informed Consent:** Written informed consent was obtained from XXXXXXXX who participated in this study.

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