

An Analysis of the Relationship between Dietary Compliance and Self-Care Behaviors and Life Satisfaction in Patients with Chronic Heart Failure: A Case of Southeastern Anatolia Region of Türkiye

Kronik Kalp Yetmezliği Olan Hastalarda Diyetle Uyum ve Öz Bakım Davranışları ile Yaşam Doymu Arasındaki İlişkinin İncelenmesi: Türkiye'nin Güneydoğu Anadolu Bölgesi Örneği

ABSTRACT

Objective: This study aimed to analyze the relationship between dietary compliance, self-care behaviors, and life satisfaction in patients with chronic heart failure.

Method: This descriptive, relational, and cross-sectional study was conducted between December 2022 and May 2023 in Siirt Training and Research Hospital, located in southeastern Türkiye, with the participation of 178 patients diagnosed with heart failure. The study data were collected through the Beliefs About Dietary Compliance Scale, the European Heart Failure Self-care Behavior Scale, the Life Satisfaction Scale, and a Patient Information Form.

Results: The benefit and barrier perception subscale scores of the patients regarding dietary compliance were 23.51 ± 4.80 and 15.48 ± 4.12 , respectively. The patients' self-care behavior mean score was 37.76 ± 7.32 , while their life satisfaction mean score was 16.46 ± 6.52 . A negative and significant relationship was determined between the patients' dietary compliance barrier perception subscale and their self-care behavior and life satisfaction mean scores ($P < 0.05$). Additionally, a positive and significant correlation was found between the patients' self-care behavior and life satisfaction mean scores ($P < 0.05$).

Conclusion: It was determined that the patients adopted dietary compliance benefit behaviors more and barrier behaviors less, indicating compliance with dietary treatment. It was observed that their self-care behaviors were inadequate, while their life satisfaction was at a moderate level. Furthermore, it was determined that as self-care behaviors and dietary compliance increased in patients, their life satisfaction also increased.

Keywords: Dietary compliance, heart failure, life satisfaction, patient, self-care behavior

Öz

Amaç: Çalışmanın amacı, kronik kalp yetmezliği olan hastalarda diyetle uyum ile öz bakım davranışları ve yaşam doymu arasındaki ilişkinin incelenmesidir.


Yöntem: Tanımlayıcı, ilişkisel ve kesitsel tipte olan bu çalışma, Aralık 2022-Mayıs 2023 tarihleri arasında Türkiye'nin güneydoğusunda yer alan Siirt Eğitim ve Araştırma Hastanesi'nde kalp yetmezliği tanısı almış 178 hastanın katılımıyla gerçekleştirilmiştir. Diyet Uyum Ölçeği, Avrupa Kalp Yetmezliği Kendine Bakım Davranışı Ölçeği, Yaşam Doymu Ölçeği ve Hasta Bilgi Formu aracılığıyla toplanmıştır.


Bulgular: Araştırmada hastaların diyetle uyum açısından yarar ve engel algısı alt ölçek puanları sırasıyla 23.51 ± 4.80 ve 15.48 ± 4.12 olarak belirlendi. Hastaların öz bakım davranışı puan ortalamaları 37.76 ± 7.32 , yaşam doymu puan ortalamaları 16.46 ± 6.52 olarak belirlenmiştir. Araştırmada hastaların diyetle uyum engel algısı alt ölçeği ile öz bakım davranışı ve yaşam doymu arasında negatif yönde anlamlı bir ilişki bulunmuştur ($P < 0.05$). Son olarak hastaların öz bakım davranışı ile yaşam doymu puanları arasında pozitif yönde anlamlı ilişki belirlenmiştir ($P < 0.05$).

Sonuç: Hastaların diyetle uyum fayda davranışlarını daha fazla, engelleyici davranışları ise daha az benimsedikleri ve diyet tedavisine uyum sağladıkları belirlenmiştir. Öz bakım davranışlarının yetersiz olduğu, yaşam doymularının orta düzeyde olduğu görülmüştür. Hastalarda öz bakım davranışları ve diyetle uyum arttıkça yaşam doymularının da arttığı belirlenmiştir.

Anahtar Kelimeler: Diyetle uyum, kalp yetmezliği, yaşam doymu, hasta, öz bakım davranışı

ORIGINAL ARTICLE

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Received: July 18, 2023

Accepted: June 4, 2024

Cite this article as: Genç ZB, Aksoy M. An analysis of the relationship between dietary compliance and self-care behaviors and life satisfaction in patients with chronic heart failure: A case of southeastern anatolia region of Türkiye. *Turk J Cardiovasc Nurs* 2024;15(38):144-151.

DOI: 10.5543/khd.2024.22448



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Introduction

Heart failure (HF) is the inability of the heart to pump enough blood to meet the body's metabolic needs.¹ HF is a significant health problem, with increasing incidence worldwide, including in Türkiye, and is associated with high mortality rates.² The disease affects more than 64 million individuals globally, and its incidence is projected to increase by 46% by 2030.³ An epidemiological study conducted in Türkiye (Heart Failure Prevalence and Predictors in Türkiye, HAPPY) reported an adult HF prevalence of 2.9%.⁴ Beyond physiological issues, HF causes a decrease in reproductive health, changes in daily living activities, and psychosocial and economic problems. These challenges impact self-care behaviors, functional capacity, dietary habits, and life satisfaction of patients with heart failure.⁵⁻⁸

Dietary compliance is crucial for the treatment of HF patients. Sodium restriction in their diet is one of the most important steps in treatment. If patients do not adhere to their dietary guidelines, it can lead to exacerbation of the disease and insufficient self-care behaviors.⁹ It has been reported that patients with poor dietary compliance also have poor adherence to self-care recommendations.¹⁰ Furthermore, lack of dietary compliance negatively impacts the lives of patients.⁹ Conversely, it has been determined that quality of life improves in patients who adhere to dietary treatment.⁹

Self-care is a primary component of treatment for heart failure patients. It includes strategies such as following a low-sodium diet, tracking weight, exercising, and assessing the effectiveness of treatment based on symptoms.^{1,8} Successful self-care in HF patients requires proper management of medication and adherence to a low-sodium diet. If HF patients do not adhere to their medical treatment, their condition can become life-threatening, necessitating emergency care and hospitalization.^{7,8} Therefore, it is crucial to inform HF patients about their disease, encourage appropriate lifestyle changes, actively involve them in their care plans, and cooperate with them.^{1,6} Evaluating and following up on self-care practices are effective in enhancing patients' life satisfaction, preventing hospitalizations, and reducing mortality and morbidity.⁶

Physical and mental limitations caused by chronic disease restrict an individual's freedom and negatively impact their perception of health and social activities. Prolonging the period of illness reduces life satisfaction. This context alters the physical, emotional, and economic balance of patients,

preventing them from experiencing life satisfaction and, consequently, decreasing their quality of life.¹¹ In the study by Erol et al¹¹ it was found that patients with chronic diseases had lower life satisfaction compared to those without chronic diseases. When individuals' health deteriorates, life satisfaction may decrease. In such cases, the primary goal and responsibility of the nurse should be to ensure that the individual takes care of themselves, gains independence, meets their needs as soon as possible, and maximizes life satisfaction throughout these processes.^{6,11,12}

Considering all this information, nurses, who are especially responsible for the care of patients, should take initiatives to increase patients' adherence to diet and self-care behaviors.^{7,8} Additionally, the dietary compliance and self-care behaviors of HF patients should be assessed, and their life satisfaction should be evaluated. Accordingly, the present study was designed to examine the relationship between dietary compliance, self-care behaviors, and life satisfaction in HF patients.

Materials and Methods

Research Type

The study was conducted with a descriptive and relational screening design.

Location and Time of the Study

The study was conducted in the cardiology clinic and outpatient clinic of Siirt Training and Research Hospital between December 2022 and May 2023. This hospital, the only one in the province, has a capacity of 450 beds and is equipped with a cardiology clinic, outpatient clinic, laboratories, and various facilities, including echocardiogram, electrocardiogram, stress test, and coronary angiography.

Study Population and Sample

The research population comprised patients who visited the Siirt Training and Research Hospital Cardiology clinic and outpatient clinic and were diagnosed with heart failure. Patients who met the inclusion criteria were included in the study. The sample size was determined using G*Power 3.1.9.7 software. The power analysis indicated a sample size of 160 patients with a 0.253 effect size, 95% power, and a 0.05 margin of error.¹³ To account for a potential 10% loss of the sample, 178 patients were included in the study. These values confirm that the sample size is at the desired level. Patients who agreed to participate in the study, had been diagnosed with heart failure for at least six months (using ICD-10 codes), were 18 years or older, and had no communication problems were included. Those who did not give consent or had issues such as communication, vision, or hearing impairments were excluded from the study.

Data Collection Tools

Data was collected between December 2022 and May 2023 from patients diagnosed with heart failure who visited the cardiology outpatient clinic and clinic of the hospital where the research was conducted. The face-to-face interview method was used for data collection, with each interview lasting approximately 10-15 minutes. The study data were gathered using the Beliefs About Dietary Compliance Scale,

MAIN POINTS

- It was determined that the patients were compliant with dietary treatment.
- It was seen that the patients were self-care behaviors were inadequate.
- The patients were life satisfaction was at a moderate level.
- It was determined that the patients were as self-care behaviors and dietary compliance increased in patients, their life satisfaction also increased.

the European Heart Failure Self-care Behavior Scale, the Life Satisfaction Scale, and a Personal Information Form.

Patient Information Form

The Patient Information Form, prepared by reviewing the literature,^{9,14} consisted of eight questions. These questions inquired about the patients' age, gender, marital status, education level, employment status, presence of comorbid chronic diseases, status of having received training on their disease, and duration of the disease.

The Beliefs About Dietary Compliance Scale

The Beliefs About Dietary Compliance Scale (BADCS) was developed by Bennet et al. in 2003.¹⁵ The Turkish validity and reliability study was conducted by Oğuz et al.¹⁶ This 5-point Likert-type scale consists of 12 items and includes two subscales: the Benefit Perception Subscale (items 1, 2, 3, 4, 5, 11, 12) and the Barrier Perception Subscale (items 6, 7, 8, 9, 10). Scores on the Benefit Perception Subscale range from 7 to 35, while scores on the Barrier Perception Subscale range from 5 to 25. A high score on the Benefit Perception Subscale indicates a greater perceived benefit from the behavior exhibited. Conversely, a high score on the Barrier Perception Subscale suggests that the individual perceives more barriers when engaging in the behavior. The scale does not have a total score. The Cronbach's alpha coefficients for the subscales were calculated as 0.72 for the Benefit Perception Subscale and 0.58 for the Barrier Perception Subscale.¹⁶ In this study, the coefficients were found to be 0.72 for the Benefit Perception Subscale and 0.70 for the Barrier Perception Subscale.

The European Heart Failure Self-care Behavior Scale

The European Heart Failure Self-care Behavior Scale (EHFSBS) was developed by Jaarsma et al. in 2003.¹⁷ The Turkish validity and reliability study was conducted by Baydemir et al.¹⁸ This 5-point Likert-type scale consists of 12 items, with total scores ranging from 12 to 60. Scores between 12 and 36 indicate that the individual has adequate self-care behaviors, while scores between 37 and 60 indicate insufficient self-care behaviors. The Cronbach's alpha coefficient of the scale was determined to be 0.69.¹⁸ In the present study, this value was found to be 0.74.

Life Satisfaction Scale

The Life Satisfaction Scale (LSS) was developed by Diener et al.¹⁹ The Turkish validity and reliability study was conducted by Dağlı and Baysal.²⁰ This 5-point Likert-type scale consists of 5 items, with total scores ranging from 5 to 25. A high score on the scale indicates a high level of life satisfaction. The Cronbach's alpha coefficient of the scale was determined to be 0.88.²⁰ In this study, it was found to be 0.85.

Data Analysis

For data analysis, IBM's Statistical Package for the Social Sciences (SPSS) version 25 (IBM Corp., Armonk, New York, USA) was used. Data distribution was assessed using the Shapiro-Wilk normality test and Q-Q graphs. Descriptive statistics, including number, percentage, mean, and standard deviation, were calculated. Additionally, Oneway ANOVA, independent groups t-test, and Pearson correlation analysis were employed. The statistical significance value was set at $P < 0.05$.

Ethical Aspect of the Study

This study was conducted in accordance with the principles of the Helsinki Declaration. Before commencing the study, written permission was obtained from the hospital where the study was conducted, and ethical approval was secured from the Siirt University Clinical Research Ethics Committee (Approval Number: 58300, Date: 29.11.2022). Additionally, patients were informed about the purpose of the study, and written consent was obtained from all participants. The personal information of the volunteer participants is kept confidential.

Results

The mean age of the patients was 62.29 ± 11.95 years. Among the patients, 57.3% were male, 82.6% were married, 30.9% were literate, 65.7% were unemployed, and 68.5% had a comorbid chronic disease. Additionally, 60.1% did not receive any training on the disease, and 55.1% had been living with the disease for 0-5 years (Table 1).

Table 1. Distribution of the Patients by Socio-demographic and Disease Characteristics (n:178)

Characteristics of the Patients	Number (n)	%
Gender		
Female	76	42.7
Male	102	57.3
Marital Status		
Single	147	82.6
Married	31	17.4
Education		
Illiterate	48	27.0
Literate	55	30.9
Primary education	32	18.0
High school and above	43	24.2
Working status		
Yes	61	34.3
No	117	65.7
Other chronic Disease status		
Yes	122	68.5
No	56	31.5
Education about the disease		
Yes	71	39.9
No	107	60.1
Disease duration		
0-5 years	98	55.1
6-10 years	47	26.4
11 years and above	33	18.5
Mean Age	$\bar{X} \pm SD 62.29 \pm 11.95$	

SD: Standard deviation; \bar{X} = Mean

Table 2. The Patients' Mean Scores Obtained from Dietary Compliance Scale, Self-care Behaviors Scale and Life Satisfaction Scale

The scale and subscales	Number of Items	Min-Max Score	$\bar{X} \pm SD$
BADCS benefit perception subscale	7	11.00-31.00	23.51 \pm 4.80
BADCS barrier perception subscale	5	5.00-25.00	15.48 \pm 4.12
Total EHFSBS	12	12.00-60.00	37.76 \pm 7.32
Total LSS	5	5.00-25.00	16.46 \pm 6.52

SD: Standard deviation; \bar{X} =Mean; Min: Minimum; Max: Maximum; BADCS: The Beliefs About Dietary Compliance Scale; EHFSBS: The European Heart Failure Self-care Behavior Scale; LSS: Life Satisfaction Scale

The mean scores of the patients on the BADCS subscales for benefit perception and barrier perception were 23.51 \pm 4.80 and 15.48 \pm 4.12, respectively. The patients' mean EHFSBS score was 37.76 \pm 7.32, while their mean LSS score was 16.46 \pm 6.52 (Table 2).

A significant difference was found between the mean scores of the BADCS barrier perception subscale based on the marital status of the patients ($P < 0.05$). Additionally, a statistically significant difference was determined between the EHFSBS total scale mean scores based on employment status, presence of a comorbid chronic disease, and whether the patients had received training on the disease ($P < 0.05$). Furthermore, there was a significant difference between the patients' LSS scale mean scores based on their gender and education level ($P < 0.05$) (Table 3).

A positive and significant relationship was found between the patients' mean score on the BADCS benefit perception subscale and their mean score on the EHFSBS ($P < 0.05$). Additionally, a negative and significant correlation was determined between the patients' BADCS barrier perception subscale mean score and their mean scores on both the EHFSBS total scale and the LSS total scale ($P < 0.05$). Finally, a positive and significant relationship was found between the patients' EHFSBS total scale mean score and their LSS total scale mean score ($P < 0.05$) (Table 4).

Discussion

For heart failure patients to sustain their lives in a healthy way, it is crucial that they comply with self-care and dietary programs.⁹ When there is a lack of dietary compliance and self-care, the life satisfaction levels of patients decrease.⁸ Therefore, it is important to determine the relationship between dietary compliance, self-care behaviors, and life satisfaction levels.

In the present study, the patients' mean score on the dietary compliance benefit perception subscale was 23.51 \pm 4.80, and their mean score on the barrier perception subscale was 15.48 \pm 4.12. High scores on the benefit perception subscale and low scores on the barrier perception subscale indicate high dietary compliance.¹⁶ A study by Sönmez et al²¹ found similar but lower scores, with a benefit perception subscale score of

21.41 \pm 5.08 and a barrier perception subscale score of 13.49 \pm 3.74, indicating high dietary compliance. In another study by Demirci et al²² the benefit perception subscale score was 25.94 \pm 4.85, and the barrier perception subscale score was 12.18 \pm 3.17. These findings align with other studies showing that patients perceive more benefits from dietary compliance behaviors.^{1,9,23} In a study by Korkmaz et al²⁴ 45.7% of the patients reported that they could follow a low-salt diet most of the time. Accordingly, the findings of the present study are consistent with the literature, indicating that patients tend to perceive more benefits from dietary compliance behaviors. Since a salt-restricted diet in HF patients reduces their complaints, it can be inferred that patients are more likely to adopt beneficial behaviors in diet compliance.

Married patients demonstrated a higher perception of barriers to dietary compliance. Although Turkish families are evolving towards a more modern structure, married individuals still carry significant responsibilities due to the family structure, values, beliefs, and cultural characteristics of Turkish society.^{25,26} This situation may lead patients to have less time for themselves, thus perceiving more barriers to dietary compliance.

The patients' self-care behavior mean score was found to be 37.76 \pm 7.32 in the present study. A score range between 37 and 60 on the scale indicates insufficient and deficient self-care behaviors.¹⁸ The results obtained in the present study showed that the patients' self-care behaviors were at an inadequate level. In a similar study conducted by Pour et al²⁷ the self-care behaviors of HF patients were found to be low, with a mean score of 43.00 \pm 5.7. In a systematic review conducted by Sedlar et al²⁸ which examined 30 studies, self-care behaviors of HF patients were determined to be low. Looking at the literature, there are studies indicating that the total scale score is at an inadequate level,^{5,6,29-32} as well as studies suggesting it is at a sufficient level.^{7,8,14,18,33} The different results obtained in various studies may be due to the social, cultural, and sociodemographic differences of the study samples.

It was found that self-care behaviors of unemployed patients were inadequate. In a similar study, the self-care behaviors of patients who worked regular hours, such as public officials and workers, were found to be higher.³⁴ In contrast to the present study, another study determined that employed patients displayed better self-care behaviors, suggesting that individuals who have lost their ability to work might pay more attention to self-care to return to working life as soon as possible.⁵ Bagheri et al³⁵ found that professional groups had no relationship with self-care behaviors. In the present study, the high number of unemployed patients and their higher mean age may have negatively affected dietary compliance.

Self-care behaviors of patients with comorbid chronic diseases were found to be insufficient. Seid et al. reported that patients with more than one chronic disease complied less with self-care recommendations.¹⁰ Similar studies have shown that the presence of another comorbid disease leads to insufficient self-care behaviors in patients.^{7,36-38} Conversely, one study reported that patients who claimed not to have another comorbid disease displayed poorer self-care behaviors. It was explained in the same study that patients without a comorbid

Table 3. Comparison of Dietary Compliance, Self-care Behaviors and Life Satisfaction Mean Scores According to Characteristics of the Patients (n:178)

Characteristics of the patients	BADCS and Subscales (\bar{X} +SD)		Total EHFSBS	Total LSS
	Benefit Perception Subscale	Barrier Perception Subscale		
Gender				
Female	24.27 ± 4.87	15.50 ± 3.73	38.75 ± 6.31	15.27 ± 6.98
Male	22.95 ± 4.69	15.48 ± 4.40	34.03 ± 7.94	17.35 ± 6.04
Test and significance	t: 1.82 P=0.70	t:0.31 P=0.97	t:1.54 P=0.12	t:-2.12 P=0.03
Marital Status				
Single	23.36 ± 4.86	15.77 ± 4.13	37.78 ± 7.60	16.62 ± 6.73
Married	24.22 ± 4.46	14.12 ± 3.85	37.70 ± 5.94	15.70 ± 5.41
Test and significance	t:-0.90 P=.36	t:2.03 P=.03	t:0.05 P=0.96	t:0.71 P=0.47
Education				
Illiterate	23.60 ± 4.85	15.91 ± 3.38	37.93 ± 5.24	14.39 ± 6.74
Literate	23.23 ± 4.92	15.47 ± 4.47	38.61 ± 8.30	16.45 ± 5.31
Primary education	23.96 ± 5.05	14.78 ± 4.83	38.09 ± 9.04	19.31 ± 7.22
High school and above	23.44 ± 4.51	15.55 ± 3.89	36.25 ± 6.54	16.67 ± 6.52
Test and significance	F=0.16 P=0.92	F=0.48 P=0.69	F=0.88 P=0.45	F=3.83 P=0.01
Working status				
Yes	22.59 ± 4.46	15.90 ± 4.17	36.13 ± 8.22	16.83 ± 6.76
No	24.00 ± 4.91	15.27 ± 4.09	38.62 ± 6.68	16.27 ± 6.41
Test and significance	t:-1.87 P=0.06	t:0.96 P=0.33	t:-2.17 P=0.03	t:0.54 P=0.58
Other chronic Disease status				
Yes	23.81 ± 5.11	15.10 ± 3.97	38.81 ± 6.64	16.64 ± 6.68
No	22.87 ± 4.00	16.32 ± 4.35	35.50 ± 8.23	16.07 ± 6.19
Test and significance	t:1.21 P=0.22	t:-1.83 P=0.06	t:2.85 P=0.00	t:0.54 P=0.58
Education about the disease				
Yes	23.94 ± 4.55	14.76 ± 4.55	39.47 ± 6.59	16.87 ± 4.96
No	23.23 ± 4.95	15.97 ± 3.75	36.63 ± 7.59	16.19 ± 7.38
Test and significance	t:0.96 P=0.33	t:-1.93 P=0.06	t:2.57 P=0.00	t:0.67 P=0.49
Disease duration				
0-5 years	23.12 ± 4.71	15.58 ± 3.63	37.29 ± 7.02	16.24 ± 6.47
6-10 years	23.57 ± 5.04	15.91 ± 4.21	38.10 ± 8.13	17.31 ± 6.75
11 years and above	24.60 ± 4.68	14.60 ± 5.23	38.69 ± 7.10	15.90 ± 6.40
Test and significance	F=1.18 P=0.30	F=1.03 P=0.35	F=0.51 P=0.59	F=0.57 P=0.56

SD: Standard deviation; (\bar{X})= Means; t: Independent Samples t-test; F:ANOVA test; Statistical significance was identified if the P-value was lower than 0.05 (P<0.05).

Table 4. Examination of the Relationship Between Dietary Compliance, Self-care Behaviors and Life Satisfaction Mean Scores

	BADCS Benefit Perception Subscale	BADCS Barrier Perception Subscale	Total EHFSBS
BADCS benefit perception subscale		r=-0.397 P=0.00	r=0.567 P=0.00
BADCS barrier perception subscale	r=-0.397 P=0.00		r=-0.461 P=0.00
Total EHFSBS	r=0.567 P=0.00	r=-0.461 P=0.00	
Total LSS	r=0.117 P=0.11	r=-0.290 P=0.00	r=0.247 P=0.00

r: Pearson Correlation

chronic disease might have difficulty accepting their condition, resulting in poor self-care behaviors.¹⁴ It is expected that the presence of multiple chronic diseases leads to frequent recurrence of many symptoms, contributing to inadequacy in self-care behaviors.

It was determined that the patients who received training on their disease still had inadequate self-care behaviors. In a study with conflicting results, it was reported that those who received health training had better self-care skills.²⁹ The differing result in the present study could be attributed to the inefficiency of the training provided to the patients.

The patients' mean score on the Life Satisfaction Scale (LSS) was found to be 16.46 ± 6.52 . The scale scores range between 5 and 25, with higher scores indicating higher levels of life satisfaction.²⁰ According to the results of the present study, the patients' life satisfaction levels were moderate. In the literature review, no studies specifically examining life satisfaction levels in HF patients were found. However, Ayyıldız et al³⁹ reported that hypertension patients had a mean LSS score of 21.81 ± 6.33 , indicating a high level of life satisfaction. Similarly, Erol et al¹¹ found that elderly individuals with chronic diseases had a mean life satisfaction score of 21.03 ± 5.95 . In other studies on life satisfaction levels, patients were found to have low life satisfaction.^{40,41} The differing results can be attributed to the different characteristics of the samples. In addition, in our study, the patients' life satisfaction may have been negatively affected by their inadequate self-care behaviors and their inability to meet their own needs.

It was found that male patients had higher levels of life satisfaction. Similarly, in the study conducted by Elkin,⁴² life satisfaction levels of males were found to be higher compared to females. Issues such as the predominantly domestic roles of women in Turkish society, their inability to participate in leisure activities due to familial responsibilities, and the gender roles attributed to women by society^{25,26} may have contributed to lower life satisfaction levels in females compared to males.

It was determined that patients with a primary school education level had higher levels of life satisfaction. In studies

conducted on elderly individuals, those with higher levels of education were found to have better life satisfaction.⁴¹⁻⁴³ Individuals with moderate to high education levels may have better life satisfaction because they possess more effective methods of coping with problems.

A positive and significant relationship was found between dietary compliance benefit perception and self-care behavior mean scores. Seid et al¹⁰ reported that patients had poor dietary compliance and found a significant relationship between dietary compliance and self-care behaviors, emphasizing that improving dietary compliance could enhance self-care behaviors. Another study found a moderate relationship between self-care behaviors and dietary compliance benefits.⁴⁴ Akbiyik et al⁵ determined that patients with chronic heart failure were insufficient in displaying self-care behaviors related to medication use, weight-fluid tracking, diet, and activity-rest. Another study highlighted that self-care is a significant factor in the successful treatment of HF patients and that self-care compliance is essential for maintaining a healthy life.⁸ In our study, it can be inferred that the patients' high perceived benefit of dietary compliance likely contributed to a reduction in their complaints, positively affecting their self-care behaviors.

A positive and significant relationship was determined between self-care behaviors and life satisfaction scale mean scores of the patients. In their study, Buck et al³⁸ found a positive correlation between patients' life satisfaction and self-care behaviors. Another study found that elderly individuals with high self-care capabilities also had high levels of life satisfaction.⁴³ Patients need self-care skills to manage their own treatment, care, and symptoms. An increase in self-care indicates a decrease in dependence and an increase in quality of life.⁸ In our study, it can be concluded that the inadequate self-care behaviors of patients highlight the need to identify the factors affecting these behaviors. It is essential to increase patients' awareness and organize training to improve their self-care behaviors. By enhancing self-care behaviors, patients' life satisfaction can be significantly improved.

A negative and significant relationship was found between the dietary compliance barrier perception subscale mean score and the life satisfaction scale mean score. Conversely, a positive and statistically significant correlation was determined between the dietary compliance benefit perception subscale mean score and the life satisfaction scale mean score of the patients. In one study, no relationship was found between life satisfaction and dietary compliance in HF patients.⁹ However, another study demonstrated that compliance with a restricted sodium diet increased quality of life.⁴⁵ It was reported that a lack of dietary compliance increased symptoms in patients, negatively affecting their quality of life.⁹ Therefore, it can be claimed that adherence to the recommended dietary program is crucial for achieving a high level of life satisfaction.

Limitations of the Study

The results obtained from this study are specific to chronic heart failure patients at the hospital where the study was conducted. Therefore, the findings cannot be generalized to

all chronic heart failure patients. Another limitation is that the study included only those chronic heart failure patients who could be accessed during the study period and who agreed to participate. Additionally, the focus on a single hospital limits the generalizability of the findings, suggesting the need for replication with a broader and more diverse sample.

Conclusion and Recommendations

It was determined that the patients adopted dietary compliance benefit behaviors more and barrier behaviors less, and that they were compliant with dietary treatment. It was also found that the patients' self-care behaviors were inadequate, and that their life satisfaction was at a moderate level. It was determined that as the patients' dietary compliance benefit perceptions increased, their self-care behaviors also increased. Similarly, as the patients' self-care behaviors increased, their life satisfaction levels increased as well. Finally, it was determined that as the patients' dietary compliance barrier perceptions increased, their self-care behaviors and life satisfaction levels decreased.

In conclusion, considering the insufficient self-care behaviors in HF patients, it is important that nurses train patients in terms of self-care behaviors. In addition, to ensure continuous dietary compliance, the targets to be applied to the patients should be determined, and emphasis should be given to developing the patients' beliefs in positive behaviors. Finally, it is recommended to evaluate the life satisfaction levels of the patients through a holistic perspective by considering the problems that the patients experience.

Ethics Committee Approval: Ethical approval was secured from the Siirt University Clinical Research Ethics Committee (Approval Number: 58300, Date: 29.11.2022).

Informed Consent: Written consent was obtained from all participants.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – Z.B.G., M.A.; Design – Z.B.G., M.A.; Supervision – Z.B.G., M.A.; Resource – Z.B.G., M.A.; Materials – Z.B.G., M.A.; Data Collection and/or Processing – Z.B.G., M.A.; Analysis and/or Interpretation – Z.B.G., M.A.; Literature Review – Z.B.G., M.A.; Writing – Z.B.G., M.A.; Critical Review – Z.B.G., M.A.

Use of AI for Writing Assistance: Artificial intelligence assisted technologies were not used in the writing of this article.

Declaration of Interests: The authors report no potential conflicts of interest.

Funding: No financial support was received by any of the authors for the research of this article.

Etik Komite Onayı: Siirt Üniversitesi Klinik Araştırmalar Etik Kurulu'ndan etik onay alınmıştır (Onay Numarası: 58300, Tarih: 29.11.2022).

Bilgilendirilmiş Onam: Tüm katılımcılardan yazılı onam alındı.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir – Z.B.G., M.A.; Tasarım – Z.B.G., M.A.; Denetim – Z.B.G., M.A.; Kaynaklar – Z.B.G., M.A.; Malzemeler – Z.B.G., M.A.; Veri Toplanması ve/veya İşlenmesi – Z.B.G., M.A.; Analiz ve/veya Yorum

– Z.B.G., M.A.; Literatür Taraması – Z.B.G., M.A.; Yazan – Z.B.G., M.A.; Eleştirel İnceleme – Z.B.G., M.A.

Yazma Yardımı için Yapay Zeka Kullanımı: Bu makalenin yazılmasında yapay zeka destekli teknolojiler kullanılmamıştır.

Çıkar Çatışması: Yazarlar herhangi potansiyel bir çıkar çatışması bildirmemektedir.

Finansal Destek: Bu makalenin araştırması için hiçbir yazardan herhangi bir finansal destek alınmamıştır.

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