

Evaluation of Comfort Levels and Nursing Care Satisfaction of Patients Receiving Hemodialysis

Hemodiyaliz Hastalarının Konfor Düzeyleri ve Hemşirelik Bakımından Memnuniyetlerinin Değerlendirilmesi

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Abstract

Aim: To evaluate the comfort levels and satisfaction with nursing care of patients receiving hemodialysis treatment.

Materials and Methods: A descriptive and cross-sectional study was conducted with 109 patients receiving hemodialysis in units of a university and a state hospital. Patients who had been receiving hemodialysis treatment for at least six months, had no communication difficulties, and voluntarily agreed to participate were included in the study. Data were collected using the “Hemodialysis Comfort Scale” and the “Newcastle Satisfaction with Nursing Care Scale”.

Results: The mean age of the patients was 61.54±12.67 years. Among the participants, 62.4% were male, 72.5% were married, 85.3% had children, and 89.9% lived in nuclear families. Half of the participants (50.5%) were primary school graduates, 56.9% were retired, and 66.1% had a moderate income level. Participants’ disease duration was 6.80±7.54 years. The mean total score of the Hemodialysis Comfort Scale was 3.30±0.86, and the mean total score of the Newcastle Satisfaction with Nursing Care Scale was 82.40±16.37.

Öz

Amaç: Hemodiyaliz tedavisi alan hastaların konfor düzeylerini ve hemşirelik bakımından memnuniyetlerinin değerlendirmektir.

Gereç ve Yöntem: Tanımlayıcı ve kesitsel olarak yürütülen çalışma, bir üniversite ve devlet hastanesinin hemodiyaliz biriminde tedavi gören 109 hemodiyaliz hastası ile gerçekleştirilmiştir. En az altı aydır hemodiyaliz tedavisi gören, iletişim güçlüğü olmayan ve çalışmaya katılmaya gönüllü olan hastalar dahil edilmiştir. Veriler “Hemodiyaliz Konfor Ölçeği” ve “Newcastle Hemşirelik Bakımından Memnuniyet Ölçeği” kullanılarak toplanmıştır.

Bulgular: Hastaların yaş ortalaması 61,54±12,67 yıldır. Araştırmaya katılan hemodiyaliz hastalarının %62,4’ü erkek, %72,5’i evli, %85,3’ü çocuk sahibi ve %89,9’u çekirdek aile yapısına sahiptir. Bireylerin yarısı (%50,5) ilkökul mezunu, %56,9’u emekli, %66,1’i orta gelir düzeyine sahiptir. Katılımcıların hastalık süresi 6,80±7,54 yıldır. Hemodiyaliz Konfor Ölçeği toplam puan ortalaması 3,30±0,86 ve Newcastle Hemşirelik Bakımı Memnuniyet Ölçeği toplam puanı 82,40±16,37 olarak bulunmuştur.

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Abstract

Conclusion: This study found that the comfort levels of hemodialysis patients were moderate, while their satisfaction with nursing care was at high level. Nurses should periodically evaluate patients' comfort and care satisfaction during hemodialysis.

Keywords: Comfort; Hemodialysis; Nursing Care; Patient; Satisfaction

INTRODUCTION

Chronic kidney disease (CKD) is a vital public health issue that is increasingly prevalent worldwide and in our country, negatively affecting individuals' quality of life (1). When looking at prevalence studies conducted in different countries, the Beijing (2008) study found a CKD prevalence of 13%, while the NHANES III (1988-1994) study conducted in the United States found a prevalence of 11% (2). According to the Chronic Renal Disease In Turkey-CREDIT (2012) study conducted by the Turkish Society of Nephrology (TSN), the prevalence of CKD in our country was found to be 15.7% (3). As in other countries, an increase in renal replacement therapies has been observed in our country as well (1). According to the joint report by Republic of Türkiye Ministry of Health and TSN, by the end of 2022, it was observed that 60,466 patients (69.7%) receiving renal replacement therapies were undergoing center-based hemodialysis treatment (4).

While hemodialysis treatment extends the life expectancy of patients, it also leads to the manifestation of many symptoms (1). Patients experience a range of symptoms such as dependency on the dialysis machine, changes in dietary habits, fluid restrictions, anxiety, insomnia, and fatigue (5). Individuals struggle to perform daily living activities due to these symptoms, face difficulties in managing social activities, and are at risk of losing their autonomy (6). Therefore, hemodialysis units play a crucial role in ensuring patients' comfort and increasing their satisfaction. This is because the majority of hemodialysis patients undergo dialysis three times a week and spend approximately four hours each day in the hemodialysis unit (5). In a study conducted with patients receiving hemodialysis treatment, it was found that the patients' life satisfaction was at a moderate level (7).

According to the Türk Dil Kurumu (Turkish Language Association), comfort is defined as material ease that facilitates daily life (8). In nursing, comfort is used as a term of historical

Öz

Sonuç: Bu araştırmada, hemodiyaliz hastalarının konfor düzeylerinin orta seviyede ve hemşirelik bakımından memnuniyetlerinin yüksek olduğu saptanmıştır. Hemşireler hemodiyaliz sırasında hastaların konforunu ve bakımdan memnuniyetlerini periyodik olarak değerlendirmelidir.

Anahtar Kelimeler: Konfor; Hemodiyaliz; Hemşirelik Bakımı; Hasta; Memnuniyet

and contemporary significance. Since the time of Florence Nightingale, comfort has emerged as a goal or a desired outcome of nursing care (9). In nursing, ensuring the comfort of individuals and their families while meeting their health needs holds a very important place. The goal is for patients to achieve relief and comfort after nursing interventions (10). For this reason, the term comfort is directly associated with nursing, as it is considered an outcome of nursing care (10, 11). Because factors such as loss of autonomy, extended hemodialysis sessions, insufficient support from family members, and the inability to perform daily living activities can significantly impair patients' comfort (12). Nurses contribute to the empowerment of individuals and the reconstruction of their well-being by identifying the factors that compromise patients' comfort (13). The satisfaction of hemodialysis patients with nursing care is considered to have a significant influence on their overall comfort.

Nurses have a significant impact on maintaining patients' health, providing effective care, aiding in their recovery, and supporting their rehabilitation. Therefore, nursing forms the foundation of the concept of patient satisfaction (14). Additionally, patient satisfaction is considered one of the most important indicators of the quality of care provided by nurses. When nurses provide effective care to patients and their families, organize patient education, offer support, answer questions, and approach them with respect and a smile, it significantly increases patient satisfaction (15).

Nurses with specialized competence in hemodialysis play a key role in establishing therapeutic and interpersonal relationships with patients, managing symptoms, maintaining mental health, and providing the necessary education to patients. Patient care is delivered by these nurses (16). For this reason, nursing care and comfort are crucial for patients receiving hemodialysis treatment. CKD is increasingly prevalent and negatively impacts the quality of life of patients receiving hemodialysis treatment. Long treatment sessions and limitations in daily

living activities affect patients' autonomy and psychological well-being. In this context, comfort and patient satisfaction achieved through nursing care are crucial for both clinical outcomes and patient quality of life. This study aims to contribute to clinical practice and care processes by assessing hemodialysis patients' comfort levels and satisfaction with nursing care.

MATERIAL AND METHOD

Location and Date of the Study

The study was conducted between June 2019 and April 2021 in the hemodialysis units of a university medical faculty hospital and a state hospital.

Study Design and Sample

The sample size of the present study was determined based on the study by Büyükyörük et al. (17), titled "Determination of the Satisfaction Levels of Inpatients at Burdur State Hospital with Intern Nurses" (17). Büyükyörük et al. (17) reported the mean satisfaction score of patients regarding nursing care as 67.96 ± 12.57 . According to this data, the sample size was calculated as at least 108 patients, with an effect size of 1.05, confidence interval of 95% and the power of 80%. A minimum of 108 patients were planned to be included in the study. The study was conducted in a university and a state hospital with high patient capacity in their hemodialysis units. These hospitals were chosen for the sample group because they provide easy access to the selected sample. The inclusion criteria were as follows: (i) aged over 18 years, (ii) for at least six months treated hemodialysis unit, (iii) willing to participate in this study, (iv) not having any communication problems. Patients who have been receiving hemodialysis treatment for less than six months were excluded from the study, as their treatment experience was considered insufficient to adequately assess the nursing care provided. Although the sample size calculation indicated that including 108 participants was sufficient, it is acknowledged that in descriptive studies, data obtained from larger samples may enhance the generalizability of the results. This limitation is addressed in the discussion section."

Data Collection Tools

The data collection tools used in the study were the "Patient Information Form," the "Hemodialysis Comfort Scale (HCS)," and the "Newcastle Satisfaction with Nursing Care Scale (NSNS)."

Patient Information Form

The Patient Information Form consists of questions related to the patient's sociodemographic characteristics (age, gender, Body Mass Index (BMI), etc.) and disease-related characteristics (duration of disease, presence of secondary diseases, etc.).

Hemodialysis Comfort Scale

The General Comfort Scale, developed by Kolcaba, and other comfort scales tailored to specific conditions were utilized to create the scale developed by Orak et al. (18) in 2017. The scale is structured on a 5-point likert format and consists of 9 items. It has two subdimensions: "relief" and "overcoming." The scale is evaluated by calculating the average score, with the minimum score being 1 and the maximum score being 5. As the score approaches 5, the comfort level increases. The Cronbach alpha reliability coefficient value of the scale is 0.87. In the present study, the Cronbach alpha value of the scale was found to be 0.776.

Newcastle Satisfaction with Nursing Care Scale (NSNS)

It was developed by Thomas et al. (19) in 1996. Its Turkish validity and reliability study was conducted by Akın and Erdoğan (20) in 2007. The NSNS is a satisfaction measurement scale consisting of 19 questions, each with five response options: "not satisfied at all" (1 point), "rarely satisfied" (2 points), "satisfied" (3 points), "very satisfied" (4 points), and "completely satisfied" (5 points). The scale is evaluated by adding up the scores of all items and converting the total score into a score out of 100. Accordingly, the scale's score ranges from 0 to 100. A score above 50 indicates satisfaction with nursing care. The Cronbach alpha reliability coefficient value of the scale is 0.96. In the present study, the Cronbach alpha value of the scale was found to be 0.997.

Data Analysis

Data were analyzed using SPSS (Statistical Package for Social Sciences) for Windows for Windows 20.0. Descriptive statistical methods such as frequency, percentage, mean, and standard deviation were used. The distribution of the data was assessed using the Kolmogorov-Smirnov test. The Mann-Whitney U test and Spearman correlation analysis were used to evaluate non-parametric data. $p < 0.05$ value was accepted as statistically significant.

Ethical Considerations

Faculty of Medicine Scientific Research Ethics Committee of a Trakya University (TÜTF-BAEK 2019/212) to conduct the research. The permissions from hospitals was taken to conduct

the study. The study participants verbally consented to their involvement. Permissions were obtained from the authors of the scales used in the study. All procedures performed in the research were conducted in accordance with the principles of the Declaration of Helsinki.

RESULTS

The mean age of the individuals in the study was 61.54 ± 12.67 years. Among the participants, 62.4% are male, 72.5% are

married, 85.3% have children, and 89.9% live in a nuclear family structure. Half of the individuals (50.5%) are primary school graduates, 56.9% are retired, and 66.1% have a moderate income level. The mean BMI of the patients was 25.10 ± 5.55 kg/m². The average duration of disease among the participants was 6.80 ± 7.54 years, and 72.5% of the patients have a secondary disease (Table 1).

Table 1. Sociodemographic Characteristics of Patients (n=109)

Characteristics	Mean $\pm$ SD	
Age (years)	61.54 ± 12.67	
BMI* (kg/m ²)	25.10 ± 5.55	
	n	%
Gender		
Female	41	37.6
Male	68	62.4
Marital Status		
Single	30	27.5
Married	79	72.5
Family Type		
Nuclear family	98	89.9
Extended family	11	10.1
Presence of Children		
Yes	93	85.3
No	16	14.7
Education Status		
Primary School	55	50.5
Middle School	15	10.1
High School	20	18.3
University	10	9.2
Illiterate	13	11.9
Occupation		
Housewife	31	28.4
Retired	62	56.9
Self-employed	4	3.7
Salaried worker	3	2.8
Unemployed	9	8.3
Income status		
Income lower than expenses	32	29.4
Income equal to expenses	72	66.0
Income higher than expenses	5	4.6
Presence of Secondary Disease		
Yes	79	72.5
No	30	27.5
BMI: Body Mass Index, SD: Standard deviation		

The mean scores for the subdimensions and the total scores of the Hemodialysis Comfort Scale and the total scores of the

Newcastle Satisfaction with Nursing Care Scale are presented in Table 2.

Table 2. Distribution of Hemodialysis Comfort Scale Subdimension Mean Scores and Newcastle Satisfaction with Nursing Care Scale Total Score (n=109)

	Mean $\pm$ SD
HCS*	
Relief	3.76 $\pm$ 1.31
Overcoming	3.07 $\pm$ 0.89
HCS total	3.30 $\pm$ 0.86
NSNS**	82.40 $\pm$ 16.37
*: Hemodialysis Comfort Scale, **: Newcastle Satisfaction with Nursing Care Scale	

No statistically significant relationship was found between the patients' gender, marital status, family type, presence of children, occupation, income level, presence of a secondary disease, and the subdimension and total mean scores of the HCS, and the total score of the NSNS ($p>0,05$) (Table 3). A statistically significant difference was found between educational status and the relief subdimension ($p=0.030$), (Table 3).

It was determined that as the patients' age increased, their BMI also increased ($r_s=0.250$, $p=0.009$). It was found that as the duration of diagnosis increased in hemodialysis patients, the number of weekly sessions and the overcoming subdimension also increased ($r_s=0.299$, $p=0.002$; $r_s=0.227$, $p=0.017$). A positive relationship was identified between the relief subdimension and the overcoming subdimension in patients ($r_s=0.409$, $p<0.001$), (Table 4).

DISCUSSION

Comfort is described as a form of healthcare that seeks to meet the physical, psychosocial, and environmental needs of patients when their health is compromised. Comfort is also a crucial concept for patients attending hemodialysis units, as they spend a significant part of their lives in these units, experiencing physical and mental challenges (21). In this study, it was found that patients' comfort levels were moderate, while their satisfaction levels with nurses were high. Studies have also found that patients' comfort levels are moderate (22, 23). In the study by Dikmen and Aslan (24), patients' comfort levels were found to be below moderate. In the randomized controlled study conducted by Turgay et al. (25), it was determined that the comfort levels of patients in the intervention and experimental groups were below moderate in the pre-test results.

Nurses implement interventions to reduce symptoms associated with hemodialysis in patients, minimize potential complications, and ensure the effective application of hemodialysis treatment, aiming to maintain patients' quality of life at the highest possible level (26). With these characteristics, nurses play an active role in ensuring patients' comfort by providing the care they need, aiming to enhance patient satisfaction and improve the quality of care (14). This study found that patients receiving hemodialysis treatment had high levels of satisfaction with nurses. Patients visit the hemodialysis unit at least twice a week and spend 4 hours in these units on those days. During this time, patients' basic needs and medical care are met by nurses, and patients express satisfaction with the care provided by the nurses.

According to the CREDIT study, the prevalence of CKD in Turkey was found to be higher in women than in men (3). According to the NEOERICA project conducted in Britain, the prevalence of stage 3-5 CKD among women in the community was found to be almost twice that of men (27). In this study, no significant difference was found between gender and comfort level. Studies investigating the comfort levels of hemodialysis patients have also determined that gender has no impact on comfort (23,28,29). In the meta-analysis conducted by Hill et al. (30) of 51 studies and found that the prevalence of CKD was higher in women compared to men. A study found that men's comfort levels were higher compared to women's (31). In the study by Hintistan and Deniz (32), it was also determined that symptoms associated with hemodialysis were higher in women compared to men. This situation is thought to be related to women's greater societal roles, lack of adequate education, and difficulties in accessing healthcare services.

Table 3. Distribution of Patients' Individual Characteristics with Hemodialysis Comfort Scale Subdimension and Newcastle Satisfaction with Nursing Care Scale Scores (n=109)

		HCS*						
Individual Characteristics		Relief	Overcoming		Total		NSNS**	
		Mean ± SD	Statistics	Mean ± SD	Statistics	Mean ± SD	Statistics	Statistics
Gender								
Female		3.85±1.47	Z:-1.039	2.88±1.02	Z:-1.561	3.20±1.04	Z:-0.582	Z:-1.008
Male		3.71±1.21	p=0.299	3.18±0.80	p=0.119	3.35±0.74	p=0.560	p=0.313
Marital Status								
Single		3.86±1.38	Z:-0.662	2.96±0.86	Z:-0.602	3.26±0.81	Z:-0.211	Z:-1.181
Married		3.72±1.28	p=0.508	3.10±0.91	p=0.547	3.31±0.89	p=0.833	p=0.238
Family Type								
Nuclear family		3.76±1.32	Z:-0.301	3.04±0.91	Z:-1.023	3.28±0.87	Z:-0.609	Z:-0.977
Extended family		3.72±1.28	p=0.763	3.28±0.73	p=0.306	3.43±0.83	p=0.542	p=0.329
Presence of Children								
Yes		3.68±1.34	Z:-1.334	3.03±0.93	Z:-1.188	3.24±0.89	Z:-1.581	Z:-0.902
No		4.22±1.03	p=0.182	3.29±0.66	p=0.235	3.60±0.67	p=0.114	p=0.367
Education Status***								
Primary school		3.38±1.34 ¹	X _{kw} :10.701	2.96±0.90	XKW:5.639	3.10±0.94	X _{kw} :8.831	XKW:3.539
Middle school		3.93±1.24 ²	p=0.030	2.93±0.73	p=0.228	3.27±0.48	p=0.065	p=0.472
High school		4.25±1.01 ³	¹⁻² p=0.249	3.43±0.69		3.70±0.68		
University		4.36±0.80 ⁴	¹⁻³ p=0.009	3.20±0.71		3.58±0.58		
Illiterate		4.02±1.54 ⁵	¹⁻⁴ p=0.031	2.96±1.29		3.31±1.01		
			¹⁻⁵ p=0.093					
			²⁻³ p=0.477					
			²⁻⁴ p=0.363					
			²⁻⁵ p=0.359					
			³⁻⁴ p=0.850					
			³⁻⁵ p=0.808					
			⁴⁻⁵ p=1.00					
Occupation								
Housewife		3.69±1.52	X _{kw} :0.817	2.70±1.02	X _{kw} :7.431	3.03±1.05	X _{kw} :3.132	XKW:6.352
Retired		3.75±1.26	p=0.936	3.19±0.81	p=0.115	3.37±0.77	p=0.372	p=0.174
Self-employed		4.25±0.50		3.20±0.64		3.55±0.50		
Salaried Worker		4.22±1.34		3.05±0.58		3.44±0.80		
Unemployed		3.66±1.23		3.44±0.94		3.51±0.81		

Table 3. Continued

Income status									
Income lower than expenses	4.05±1.20	X _{KW} :2.262 p=0.323	3.19±0.97	X _{KW} :3.114 p=0.211	3.48±0.87	X _{KW} :1.863 p=0.394	85.13±17.66 81.34±15.72 80.21±18.73	XKW:1.130 p=0.568	
Income equal to expenses	3.62±1.35		2.97±0.85		3.19±0.85				
Income higher than expenses	3.93±1.21		3.63±0.90		3.73±0.82				
Presence of Secondary Disease									
Yes	3.86±1.26	Z:-1.134 p=0.252	3.04±0.86	Z:-0.316 p=0.752	3.31±0.84	Z:-0.261 p=0.794	83.38±16.41 79.82±16.26	Z:-1.142 p=0.253	
No	3.51±1.42		3.13±1.00		3.26±0.94				

*: Hemodialysis Comfort Scale, **: Newcastle Satisfaction with Nursing Care Scale, ***: Pairwise comparisons were conducted using the Mann-Whitney U test (1=Primary School, 2=Middle School, 3=High School, 4=University, 5=Illiterate)
Z: Mann-Whitney U, XKW: Kruskal Wallis Test

Table 4. Analysis of Correlations Between Some Variables Related to Patients (n=109)

Some Variables	HDC*						NSNS**			BMI***			Weekly Dialysis Sessions		
	Relief			Overcoming			p	rs	p	rs	p	rs	p	rs	p
Age (years)	rs		p	rs		p									
BMI (kg/m ²)***	-0.088		0.702	0.250		0.009	0.702	0.250	0.009	0.250	0.009	-0.145		0.134	0.134
Number of Children	-0.107		0.131	-		0.096	0.131	-	-	-	-	0.096		0.319	0.319
Duration of Disease (year)	-0.028		0.920	0.142		0.154	0.920	0.142	0.154	0.142	0.154	-0.097		0.334	0.334
Weekly Dialysis Sessions	0.041		0.308	-0.650		0.499	0.308	-0.650	0.499	-0.650	0.499	0.299		0.002	0.002
Relief	-0.041		0.392	0.096		0.319	0.392	0.096	0.319	0.096	0.319	-		-	-
Overcoming	-			0.055		-0.107	0.055	-0.107	0.270	0.055	0.270	-0.041		0.674	0.674
NSNS**	0.409		0.067			0.001	0.993	0.067	0.993	0.001	0.993	0.178		0.064	0.064
	0.176		-	0.156		0.131	-	-	0.131	0.156	0.131	0.083		0.392	0.392

*: Hemodialysis Comfort Scale, **: Newcastle Satisfaction with Nursing Care Scale, ***: Body Mass Index

rs: Spearman correlation analysis

In this study, no statistically significant difference was found between marital status, family type, occupation, income level, and the mean comfort score. Similarly, in the study conducted by Güner et al. (23) with hemodialysis patients, no statistically significant difference was found. A study found that married patients had lower comfort levels (28). This situation is thought to be related to married patients having household responsibilities and sacrificing their comfort to fulfill these obligations. In the study by Gülay et al. (22), no significant difference was found in the relief subdimension; however, it was determined that individuals with higher income levels had a higher overcoming subdimension compared to others. A study determined that patients whose income was equal to or greater than their expenses had higher comfort levels compared to those whose income was less than their expenses (29). The inability of the patient to change or eliminate their chronic disease prevents them from experiencing relaxation. However, it is thought that having a higher income level increases the opportunities for support, enabling the patient to cope more easily. According to the Takahata study, which investigated the prevalence of microalbuminuria and its risk factors in the Japanese population, it was found that more than half of the participants had a diagnosis of hypertension, and 31,1% were identified as obese (33). In the study by Chiang et al. (34), it was observed that more than half of the individuals had a chronic disease. In this study, no statistically significant difference was found between the presence of secondary disease and the mean scores of the relief and overcoming subdimensions. In the study by Gülay et al. (22), a significant difference was found between the presence of secondary disease and the overcoming subdimension. A study found that hemodialysis patients without secondary diseases had higher comfort levels compared to those with secondary diseases (31). Individuals with CKD often also experience secondary chronic diseases. As patients have been living with these illnesses for many years, they have developed an adaptation to the conditions, and this situation does not cause problems for them.

In this study, it was determined that the mean relief subdimension scores of patients who graduated from high school and university were higher compared to those who graduated from primary school. A study found that patients who graduated from high school had higher comfort levels compared to individuals with primary education or lower levels of education (29). As patients' education levels increase, their coping strategies improve. When they perceive problems arising, they establish support mechanisms and seek help from specialists when necessary.

It was found that as the duration of diagnosis increased in patients receiving hemodialysis, the number of weekly sessions and the overcoming subdimension also increased. A positive relationship was found between the relief subdimension and the overcoming subdimension in patients. In a study conducted with hemodialysis patients, it was found that those who had been receiving hemodialysis treatment for 6-10 years had significantly higher comfort levels (23). In the study by Kısaarslan and Vicdan (29), it was found that patients who started hemodialysis treatment six years or more after diagnosis had higher comfort levels compared to those who started treatment between two-five years after diagnosis. Since patients have lived with CKD for a long time, they come to accept this condition, and their adaptation to the disease occurs. This situation can be explained by patients learning to live by overcoming the disease.

Study Limitations

The study has several limitations. Firstly, the sample size was limited, the study was conducted in a university hospital and a state hospital. During data collection, COVID-19 pandemic occurred, data collection time took longer than expected. As the study conducted in a single province, the results cannot be generalized.

CONCLUSION

In this study, it was found that the comfort levels of patients receiving treatment in the hemodialysis units were moderate, and their satisfaction with nursing care was at high level. As the duration of the patients' diagnosis increased, it was observed that the patients experienced more comfort. A positive relationship was observed between the patients' relief and overcoming. To enhance the comfort of hemodialysis patients and sustain their care satisfaction, it is recommended that nursing care practices be continuously improved and adapted to the individual needs of patients. As patients' comfort levels tend to increase with longer duration since diagnosis, it is recommended that patient education programs be initiated early in the treatment process and structured to include essential components such as diet, fluid management, and coping strategies. Future research conducted across multiple centers with broader samples may provide a more detailed examination of patients' comfort and satisfaction levels. The effectiveness of psychosocial support interventions can be evaluated through controlled experimental designs.

* This study was presented as a poster at the 21st National Internal Medicine Congress held in Antalya on October 9-13, 2019)

ETHICS COMMITTEE APPROVAL

Faculty of Medicine Scientific Research Ethics Committee of a Trakya University (TÜTF-BAEK 2019/212) to conduct the research.

INFORMED CONSENT

Verbal consent was obtained from hemodialysis patients who participated in the study.

CONFLICT OF INTEREST STATEMENT

There are no financial or conflicts of interest related to this study.

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AUTHOR CONTRIBUTIONS

Study conception and design: LY, OE

Data collection: LY, OE, SU

Data analysis and interpretation: LY, OE, SU

Manuscript preparation: LY, OE

Critical review: OE, SU

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