ORIGINAL ARTICLE / ORİJİNAL MAKALE

The Correlation Between The Hopelessness Level and Self-Care Agency in Patients Receiving Hemodialysis Treatment

Hemodiyaliz Tedavisi Alan Hastalarda Umutsuzluk Düzeyi ile Özbakım Gücü Arasındaki İlişki

Cihat Demirel[1]   Nermin Kılıç Barmanpek[2]   Serap Parlar Kılıç[3]   Mehmet Emin Yıldırım[4]

[1] RN, PhD, Assistant Professor, Muş Alparslan University, Varto Vocational School, Department of Medical Services and Techniques, Muş, Turkey.
[2] Assistant Professor, PhD, Bingöl University, Faculty of Health Sciences, Nursing Department, Bingöl, Turkey.
[3] RN, PhD, Professor, İnönü University, Faculty of Nursing, Department of Internal Medicine Nursing, Malatya, Turkey.
[4] RN, Nurse, Fırat University Hospital, Pediatric Intensive Care Unit, Elazığ, Turkey.

Abstract

Background: Conditions of hemodialysis patients such as experiencing treatment-related nausea-vomiting and fatigue symptoms, being dependent on a machine to survive, and impaired body image due to dialysis catheter increase their hopelessness level. If the level of hopelessness increases in hemodialysis patients, self-care power may be adversely affected.

Objective: The purpose of this study is to investigate the relationship between hopelessness level and self-care agency in patient receiving hemodialysis treatment.

Methods: This cross-sectional and descriptive study was carried out with 69 hemodialysis patients receiving treatment in the hemodialysis unit of a university hospital between February – October 2020. The data of the study were collected with Patient Information Form, Beck Hopelessness Scale, and The Self-Care Agency Scale (SCAS). In the statistical evaluation of the data, Mann Whitney-U Test, Kruskal Wallis Test, and Spearman Correlation analysis were used.

Results: It was determined that the mean age of the patients included in the study was 57.60 ± 11.60 and the average duration of hemodialysis treatment was 4.07 ± 2.83 years. The patients were undergoing hemodialysis 2.90 ± 0.40 days a week and 7.04 ± 3.80 hours a week. The hopelessness mean scores of patients undergoing hemodialysis was 9.91 ± 5.26 and self-care agency mean scores were 28.84 ± 5.60. There was a negative and significant correlation between the patients' hopelessness level and their self-care agency ($r = -,353, p < 0.01$).

Conclusion: It was found that there was a negative correlation between hopelessness levels and self-care agency of patients participating in the study and the self-care agency of the patients decreased as their hopelessness levels increased. Based on these findings, integrating nursing interventions aimed at reducing hopelessness into care plans may contribute to improving self-care agency in patients undergoing hemodialysis.

Keywords: Hemodialysis, Hopelessness, Self-Care , Nurse

Sorumlu Yazar: Cihat DEMİREL, RN. Assistant Professor, Muş Alparslan University, Varto Vocational School, Department of Medical Services and Techniques, Muş, Türkiye.   **Email:** cihatdemirel34@gmail.com , **Tel:** +90 (553) 618 64 77

Öz

Giriş: Hemodiyaliz hastalarının tedaviye bağlı bulantı-kusma ve yorgunluk belirtileri yaşaması, hayatta kalabilmek için makineye bağımlı olması, diyaliz kateteri nedeniyle beden imajının bozulması gibi durumlar umutsuzluk düzeyini artırmaktadır. Hemodiyaliz hastalarında umutsuzluk düzeyi artarsa öz bakım gücü olumsuz etkilenebilir.

Amaç: Bu çalışmanın amacı hemodiyaliz tedavisi alan hastadaki umutsuzluk seviyesi ve öz bakım gücü arasındaki ilişkiyi araştırmaktır.

Yöntem: Kesitsel ve tanımlayıcı tipte olan bu çalışma Şubat-Ekim 2020 tarihleri arasında bir üniversite hastanesinin hemodiyaliz ünitesinde tedavi gören 69 hemodiyaliz hastası ile yürütüldü. Çalışmanın verileri; Hasta Bilgi Formu, Beck Umutsuzluk Ölçeği ve Öz Bakım Gücü Ölçeği ile toplandı. Verilerin istatistiksel değerlendirilmesinde Mann Whitney-U Testi, Kruskal Wallis Testi ve Spearman Korelasyon analizi kullanıldı.

Bulgular: Araştırma kapsamına alınan hastaların yaş ortalamasının 57.60±11.60, hemodiyaliz tedavisi alma süresi ortalamasının 4.07±2.83 yıl olduğu saptandı. Hastaların haftada 2.90±0.40 gün ve haftada 7.04±3.80 saat hemodiyaliz tedavisi aldıkları görüldü. Hemodiyaliz hastalarının umutsuzluk düzeyi puan ortalamalarının 9.91±5.26 ve öz bakım gücü puan ortalamalarının 28.84±5.60 olduğu saptandı. Hastaların umutsuzluk düzeyi ile öz bakım gücü arasında negatif yönde anlamlı bir ilişki olduğu görüldü (r = -, 353, p <0.01).

Sonuç: Çalışmaya katılan hastaların umutsuzluk düzeyi ile öz bakım gücü arasında negatif yönde bir ilişki olduğu ve hastaların umutsuzluk düzeyleri arttıkça öz bakım güçlerinin azaldığı bulundu. Bu bulgular doğrultusunda, hemodiyaliz tedavisi alan hastalarda umutsuzluğu azaltmaya yönelik hemşirelik girişimlerinin bakım planlarına entegre edilmesi, öz bakım gücünün artırılmasına katkı sağlayabilir.

Anahtar Kelimeler: Hemodiyaliz, Umutsuzluk, Öz-bakım, Hemşirelik

INTRODUCTION

Chronic Kidney Disease (CKD) constitutes a clinical syndrome characterized by the irreversible deterioration of kidney functions (Ammirati, 2020). This condition has emerged as a significant global and national public health concern in Turkey. Despite its potential for prevention or delayed progression with early detection, the prevailing low awareness and delayed diagnosis hinder these efforts in numerous instances. Research conducted across various global regions has consistently indicated that the awareness level of CKD is below 10 percent (Kumela Goro et al., 2019).

CKD population affects 8% to 16% of the world population (Chen et al., 2019). Instead, the phrase 'CKD affects 8% to 16% of the global population' is grammatically more appropriate.

CKD prevalence in Turkey is found as 15.7%. This shows that there are 7.5 million CKD patients in Turkey, namely one in every 6-7 adult individuals suffers from chronic kidney disease(Parlar Kılıç, 2019). Chronic kidney patients need to receive kidney transplantation or dialysis treatment to survive (Ayık & Yılmaz Karabulutlu, 2020). According to the data of "Joint Report of T.R. Ministry of Health and Turkish Nephrology Association" in 2019, the most commonly used renal replacement therapy method among chronic kidney diseases is hemodialysis treatment with a rate of 73.21%. the number of patients receiving hemodialysis treatment in Turkey was 61,341 by the end of 2019 (Turkish Nephrology Association, 2019).

While hemodialysis treatment effectively manages symptoms and signs arising from renal failure, various factors, including the inherent

nature of the disease, symptoms associated with the condition, the duration of treatment, and the patients' dependence on the hemodialysis machine, contribute to a myriad of physical and psychological challenges experienced by individuals undergoing this therapeutic intervention (Tuna et al., 2018; Turgay et al., 2020). Patients undergoing hemodialysis face physical problems such as becoming dependent, impairment of the socio-economic status, inability to fulfill their role in the society, and changes in work life (Başaran et al., 2016; Nikkhah et al., 2020) and various psychological problems such as anxiety, depression, isolation, rejection of the disease, delusions, and hallucinations (Poorgholami et al., 2016).

T The concept of hopelessness, acknowledged as a nursing diagnosis by NANDA International (NANDA-I), is defined as "the feeling that one will not experience positive emotions, or an improvement in one's condition." (Kamitsuru et al., 2021). Conditions of hemodialysis patients such as experiencing treatment-related nausea-vomiting and fatigue symptoms, being dependent on a machine to survive, and impaired body image due to dialysis catheter increase their level of hopelessness(Akpınar et al., 2019). Having hope is a sign of mental health and increasing hope enables the patients to accept the treatment, care about the training given to them, and increase the self-care agency (SCAS) (Musavi Ghahfarokhi et al., 2020). Research findings consistently indicate a negative correlation between levels of hopelessness and self-care agency, illustrating the adverse impact of hopelessness on individuals' ability to engage in effective self-care practices.

The definition of self-care was published by Orem in 1959 under the name of "Self-care Theory" (Dennis, 1997). Self-care is defined as the activity necessary for individuals to perform and continue their activities of daily living. Although normal adult individuals meet their own care independently, disabled or sick individuals may need self-care in a semi-dependent or fully-dependent way (Akpınar et al., 2019). Therefore, nurses can play an important role in increasing self-care agency and hope level of patients by providing professional health services and by meeting their care needs and providing the necessary training (Sis Çelik & Aksoy Derya, 2019). For this reason, nursing care and process has a great importance for both the patient and their relatives. In this context, it is believed that being hopeful, which is an important part of general health, contributes to increase self-care agency of a person. In the literature, studies conducted in Turkey reported that hopelessness in patients undergoing hemodialysis affected daily life activities , affected the symptoms-related distress levels and their treatment adherence (Yılmaz et al., 2020), and reduced the quality of life (Ercan & Demir, 2018).

Nevertheless, there is a noticeable absence of studies examining the correlation between hopelessness levels and self-care agency specifically among hemodialysis patients. Understanding this relationship is crucial for identifying psychological factors that may influence patients' engagement in self-care. Therefore, this study aims to explore the association between hopelessness and self-care agency in individuals undergoing hemodialysis, with the goal of informing more holistic nursing interventions.

Research questions

What levels of hopelessness and self-care agency are observed in individuals undergoing hemodialysis?

What socio-demographic and disease related characteristics influence the levels of hopelessness

and self-care agency in hemodialysis patients?

Is there a discernible correlation between the levels of hopelessness and the scores of self-care agency in individuals undergoing hemodialysis within the context of their health condition?

METHODS

Study Design and Setting

This cross-sectional study was conducted within the hemodialysis unit of a university hospital from February to October 2020. The research adhered to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for study conduct and reporting. The study population consisted of 75 patients registered in the hospital's hemodialysis unit. The sample size was calculated using Cochran's formula for known population size. According to this formula, a minimum sample size of 63 participants was required at a 95% confidence level with a ±5% margin of error. The study was completed with 69 patients. Inclusion criteria were established as follows: (1) Age 18 or older, (2) Receiving hemodialysis treatment for at least three months, (3) No psychiatric diagnosis recorded in medical records, (4) No hearing, visual (excluding those using glasses), or speech impairments, and (5) Voluntarily agreeing to participate in the study. Exclusion criteria included: (1) Age under 18, (2) Incomplete questionnaire responses, (3) Refusal to participate in the study, and (4) Voluntary withdrawal from the study.

Data Collection Instrument-Validity and reliability information

Patient Information Form, Beck Hopelessness Scale (BHS), and Self-Care Agency Scale (SCAS) were used to collect the study data. The researchers gave detailed information to the patients about the methods and purpose of the study and obtained informed concent from each participant The data collection forms were administered through face-to-face interviews, with each participant requiring approximately 25-30 minutes to complete the forms

Patient Information Form

The Patient Information Form, developed based on a comprehensive literature review (Başaran et al., 2016; Bektaş Akpinar et al., 2019; Biçer & Yılmaz Karabulutlu, 2020; Ercan & Demir, 2018; Gülay et al., 2020; Yılmaz et al., 2020), consisted of 14 items addressing , both socio-demographic and disease-related aspects of the participantsSocio-demographic characteristics included age, gender, marital status, educational level, employment status, occupation, income level, and family structure. Disease-related characteristics comprised information about the duration of hemodialysis treatment, the presence of other chronic diseases, the existence of another family member with kidney disease, and the weekly duration of hemodialysis (in terms of both days and hours).

Beck Hopelessness Scale (BHS)

The Beck Hopelessness Scale (BHS), devised by Beck et al. in 1974, serves the purpose of assessing an individual's level of pessimism regarding the future (Beck et al., 1974). Its Turkish adaptation was carried out by Seber et al. (1993) and Durak and Palabıyıkoğlu (1994) (Durak & Palabıyıkoğlu, 1994; Seber et al., 1993). The scale consists of a total of 20 questions. The scale comprises three subscales: "Feelings and Expectations about the Future", "Loss of Motivation", and "Hope". The BHS consists of a total of 20 binary items, with each item scored between 0-1 points, resulting in a maximum score of 20. A higher score on the scale is indicative of elevated hopelessness

(Seber et al., 1993). The scale's Cronbach's alpha coefficient was determined to be 0.86. (Durak & Palabıyıkoğlu, 1994) In this study, the Cronbach's alpha coefficient was 0.87.

The Self-Care Agency Scale (SCAS)

This scale, developed by Oren and Enç, is a Likert-type scale comprising 22 questions and 5 sub-dimensions. Each question on the scale ranges from 0 to 2 points, and the total score is between 0 and 44. Higher scores indicate increased self-care power, while lower scores indicate decreased self-care power. The scale's Cronbach's alpha coefficient was found to be 0.75 (Oren & Enç, 2013). In this study, the Cronbach's alpha coefficient was 0.76.

Evaluation of the Data

The data were subjected to analysis and evaluation in a computational environment using the SPSS 22 program. Descriptive statistics for variables were presented in terms of numbers, percentages, arithmetic means, and standard deviations. The normal distribution of the data was assessed through the Shapiro-Wilk test. The comparison between two groups employed the Mann-Whitney U Test, while the comparison of more than two groups utilized the Kruskal-Wallis Test. Spearman's Correlation analysis was employed to assess the correlation between study variables. The statistical significance level was set at $p < 0.05$.

Ethical Aspect of the Research

In this study, research and publication ethics were complied with. Before the initiation of the study, ethical approval was obtained from the relevant institutional ethics committee (Approval No: 31.01.2020/E.1337). Written permission was also obtained from the institution where the study was conducted. Participation in the study was entirely voluntary, and prospective participants were informed about the study's purpose before providing their informed consent. The study protocol was registered with clinicaltrial.gov (NCT05274399).

RESULTS

Socio-demographic and disease characteristics of the patients

Table 1 shows patients' socio-demographic and disease characteristics. It was determined that the mean age of the participants was 57.60 ± 11.60 and their average duration of hemodialysis treatment was 4.07 ± 2.83 years. The patients received dialysis treatment 2.90 ± 0.40 days a week and 7.04 ± 3.80 hours a week. 56.5% of the patients were male, 65.2% were married, 40.6% were primary school graduates, 87% were unemployed, 44.9% were farmers, 76.8% had a nuclear family, 72.5% had moderate income level, 87% had another chronic disease, and 79.7% had no another family member with

Table 1. Socio-demographic and Disease Characteristics of the Patients (n=69)		
Characteristics	**Mean ± SD.**	**Min. - Max.**
Age	57.60±11.60	33-82
Duration of Hemodialysis Treatment (Year)	4.07±2.83	0.5-11
Number of days in Dialysis per Week	2.90±0.40	1-4
Weekly Dialysis Hours	7.04±3.80	2-12
	n	**%**
Gender		
Male	39	56.5
Female	30	43.5
Marital Status		
Married	45	65.2
Single	24	34.8
Education Status		
Illiterate	12	17.4
Primary School	28	40.6
High School	24	34.8
University	5	7.2
Working Status		
Employed	9	13.0
Unemployed	60	87.0

Occupation		
Officer	6	8.7
Worker	3	4.3
Retired	19	27.5
Self-employed	10	14.5
Farmer	31	44.9
Family Type		
Nuclear family	53	76.8
Extended family	16	23.2
Income Level		
High	4	5.8
Moderate	50	72.5
Low	15	21.7
Presence of Other Chronic Disease		
Yes	60	87.0
No	9	13.0
Existing Other Chronic Disease		
Hypertension	40	58.0
Diabetes Mellitus	15	21.7
Heart failure	5	7.2
Salt Use in Meals		
Yes	18	26.1
No	51	73.9
Presence of Kidney Disease in Other Family Members		
Yes	14	20.3
No	55	79.7

kidney disease.

Distribution of the Beck Hopelessness Scale (BHS) and The Self-Care Agency Scale (SCAS) Mean scores of the Hemodialysis Patients

Table 2 shows the distribution of the patients' mean scores from the BHS, SCAS, and their subscales. It was determined that the patients' BHS total mean score was 9.91±5.26 (min:1-max:18), "Feelings and Expectations about the Future" subscale mean score was 2.20±1.82 (min:0- max:5), "Loss of Motivation" subscale mean score was 4.27±2.46 (min:0- max:8), and "Hope" subscale mean score was 3.43±2.15 (min:0-max:7).

Moreover, the patients' SCAS total mean score was 28.84±5.60 (min:16-max:41), "Use of Medicines" subscale mean score was 8.00±2.31 (min:3-max:12), "Diet" subscale mean score was 7.80±1.57 (min:5-max:12), "Self-Monitoring" subscale mean score was 6.14±1.86 (min:1-max:8), "Hygienic Care" subscale mean score was 5.55±1.62 (min:2-max:8), and "Mental Status" subscale mean score was 2.85±1.51 (min:0-max:6).

Table 2. Distribution of the Hemodialysis Patients' Mean Scores of Beck Hopelessness Scale (BHS) and The Self-Care Agency Scale (SCAS)

Scales	Number of items	Mean ± SD.	Min-Max Score of the Scale	Received Min-Max Score
Feelings and Expectations about the Future	5	2.20±1.82	0-5	0-5
Loss of Motivation	8	4.27±2.46	0-8	0-8
Hope	5	3.43±2.15	0-7	0-7
BHS Total	20	9.91±5.26	0-20	1-18
Use of Medicines	6	8.00±2.31	0-12	3-12
Diet	5	7.80±1.57	0-10	5-12
Self-Monitoring	4	6.14±1.86	0-8	1-8
Hygienic Care	4	5.55±1.62	0-8	2-8
Mental Status	3	2.85±1.51	0-6	0-6
SCAS Total	22	28.84±5.60	0-44	16-41

SCAS: Self-Care Agency, BHS: Beck Hopelessness scale

Comparison of Beck Hopelessness Scale (BHS) Mean Scores of the Hemodialysis Patients According to their Socio-Demographic and Disease Characteristics

Table 3 presents a comparison of BHS total and subscale mean scores of the hemodialysis patients according to their socio-demographic characteristics. It was determined that the female patients participating in the study obtained a higher score from "Hope" subscale compared to male patients (*p<0.05*), married patients obtained a higher score from "Loss of Motivation" subscale and a lower score from "Feelings and Expectations about the Future" subscale compared to single patients and their total hopelessness score was higher (*p<0.05*). Illiterate patients had a higher score from "Hope" subscale, a lower score from "Feelings and Expectations about the Future" subscale and a lower total hopelessness score than patients with primary school, high school, and university degree (*p<0.05*), and worker patients had a lower score in the "Feelings and Expectations about the Future" subscale compared to those in the other professions (*p<0.05*). No difference was determined between the patients' other socio-demographic characteristics (age, working status, income level and family type) and disease characteristics and BHS total and subscale mean scores.

Table 3. Comparison of the Hemodialysis Patients' Beck Hopelessness Scale (BHS) Mean Scores According to their Socio-Demographic Characteristics

Characteristics	n	Hope	Loss of Motivation	Expectations about the Future	BHS Total
		Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.
Gender					
Male	39	3.00±2.11	4.30±2.26	1.97±1.88	9.28±5.37
Female	30	4.00±2.11	4.23±2.73	2.50±1.73	10.73±5.10
Test (Z)		-1.997	-0.085	-1.265	-1.026
p		.046*	.932	.206	.305
Marital Status					
Married	45	3.66±2.11	4.86±2.30	2.57±1.71	11.11±5.16
Single	24	3.00±2.22	3.46±2.40	1.50±1.86	7.66±4.78
Test (Z)		-1.218	-2.685	-2.498	-2.584
p		.223	.007**	.013*	.009**
Education Status					
Illiterate	12	4.41±1.92	4.00±2.13	2.83±1.70	11.25±4.07
Primary School	28	3.57±2.11	4.46±2.83	2.14±1.95	10.17±5.82
High School	24	3.50±1.91	4.62±2.22	2.41±1.63	10.54±4.43
University	5	0.00±0.00	2.20±1.09	0.00±0.00	2.20±1.09
Test (H)		13.716	4.709	10.593	9.990
p		.003**	.194	.014*	.019*
Occupation					
Officer	6	2.00±1.54	4.66±2.25	2.00±2.09	8.66±5.53
Worker	3	4.66±2.51	4.33±1.52	3.33±2.88	12.33±6.65
Retired	19	3.78±2.07	4.94±1.92	2.89±1.60	11.63±4.82
Self-employed	10	2.20±2.44	3.00±2.66	0.70±1.56	5.90±5.23
Farmer	31	3.77±2.02	4.19±2.73	2.19±1.68	10.16±4.94
Test (H)		7.943	3.972	10.722	8.564
p		.094	.410	.030*	.073

Z: Mann Whitney-U Test, H: Kruskal Wallis Test, *p<0.05, **p<0.01, BHS: Beck Hopelessness scale

Comparison of Hemodialysis Patients' The Self-care Agency Scale Mean (SCAS) Scores According to their Socio-Demographic and Disease Characteristics

Table 4 shows comparison of SCAS mean scores of the hemodialysis patients in terms of their socio-demographic characteristics. It was found that female patients had higher "Self-monitoring" scores than male patients (p<0.05), Single patients had higher "Hygienic Care" and total SCAS scores than married patients (p<0.05),

the patients with high income level had higher "Use of Medicines", "Self-Monitoring" and total SCAS scores than patients with moderate and low income level (p<0.05) and the patients who did not use salt in their meals had higher "Diet" scores compared to the patients who used salt (p<0.05). No difference was determined between the patients' other socio-demographic characteristics (age, education status, working status, profession and family type) and disease characteristics and their SCAS total and subscale mean scores.

Table 4. Comparison of Hemodialysis Patients' The Self-care Agency Scale Mean (SCAS) Scores According to their Socio-Demographic and Disease Characteristics

Variables	n	Use of Medicine Mean ± SD.	Diet Mean ± SD.	Self-Monitoring Mean ± SD.	Hygienic Care Mean ± SD.	Mental State Mean ± SD.	SCAS Total Mean ± SD.
Gender							
Male	39	8.12±2.24	7.55±1.44	5.64±1.66	5.41±1.61	3.07±1.40	28.33±5.33
Female	30	8.00±2.43	8.13±1.69	6.80±1.93	5.73±1.63	2.55±1.63	29.50±5.94
Test (Z)		-0.344	-1.177	-3.363	-0.840	-1.323	-0.873
p		.731	.239	.001**	.401	.186	.382
Marital Status							
Married	45	7.75±2.39	7.52±1.50	5.93±1.82	5.04±1.50	2.75±1.61	27.46±5.60
Single	24	8.66±2.08	8.33±1.60	6.54±1.91	6.50±1.44	3.04±1.33	31.41±4.71
Test (Z)		-1.462	-1.893	-1.718	-3.528	-0.518	-2.986
p		.144	.058	.086	.000**	.605	.003**
High	4	10.75±0.50	8.50±1.00	7.25±0.50	6.50±1.00	3.25±1.50	34.25±1.50
Moderate	50	7.69±2.30	7.56±1.56	5.80±1.82	5.38±1.55	2.98±1.53	27.96±5.34
Low	15	8.60±2.16	8.50±1.55	7.00±1.88	5.86±1.92	2.28±1.43	30.33±6.18
Test (H)		8.270	5.044	8.186	2.848	4.264	7.920
p		.016*	.080	.017*	.241	.119	.019*
Use of Salt in Meals							
Yes	18	7.83±2.57	6.94±1.34	5.55±1.91	5.38±1.28	3.33±1.32	27.61±6.16
No	51	8.16±2.23	8.12±1.54	6.35±1.82	5.60±1.73	2.68±1.55	29.27±5.38
Test (Z)		-0.407	-2.727	-1.611	-0.586	-1.455	-1.054
p		.684	.006**	.107	.558	.146	.292

SCAS: Self-Care Agency, Z: Mann Whitney-U Test, H: Kruskal Wallis Test, *p<0.05, **p<0.01

The Correlation between Beck Hopelessness Scale (BHS) and The Self-care Agency Scale (SCAS) Mean scores of the Hemodialysis Patients

Table 5 shows the correlation between Beck Hopelessness Scale (BHS) and The Self-care agency scale (SCAS) mean scores of the hemodialysis patients. It was determined that there

was a negative, significant, and low correlation between "Use of Medicines" and "Feelings and Expectations about the Future" (r:-0.24, p:0.047) and there was a negative, significant, and low correlation between "Self-Monitoring" and "Loss of Motivation" (r:-0.24, p:0.043). There was a negative, significant, and moderate correlation between "Hygienic Care", "Feelings

and Expectations about the Future" (r:-0.38, p:0.001) and total hopelessness (r:-0.36, p:0.002) and there was a negative, significant, and low correlation between "Hygienic Care" and "Loss of Motivation" (r:-0.27, p:0.023) and "Hope" (r:-0.25, p:0.039).

There was a negative, significant, and low correlation between "Mental Status" and "Feelings and Expectations about the Future" (r:-0.24, p:0.046) and "Loss of Motivation" (r:-0.28,

p:0.019) and there was a negative, significant, and moderate correlation between "Hope" (r:-0.31, p:0.009) and total BHS (r:-0.32, p:0.007). There was a negative, significant, and moderate correlation between total SCAS and "Feelings and Expectations about the Future" (r:-0.34, p:0.004), "Loss of Motivation" (r:-0.32, p:0.006) and total BHS (r:-0.35, p:0.003) and a negative, significant, and low correlation was determined between the total Self-care agency and "Hope" (r:0.24, p:0.045).

Table 5. The Correlation between the Hemodialysis Patients' Mean Scores of Beck Hopelessness Scale (BHS), Self-Care Agency Scale and Their Subscales

Scales		Feelings and Expectations about the Future	Loss of Motivation	Hope	BHS Total
Use of Medicine	r	-.24*	-.08	-.11	-.15
	p	.047	.500	.362	.208
Diet	r	-.06	-.13	-.14	-.12
	p	.632	.291	.254	.334
Self- Monitoring	r	.00	-.24*	.05	-.08
	p	.990	.043	.675	.488
Hygienic Care	r	-.38**	-.27*	-.25*	-.36**
	p	.001	.023	.039	.002
Mental Status	r	-.24*	-.28*	-.31**	-.32**
	p	.046	.019	.009	.007
SCAS Total	r	-.34**	-.32**	-.24*	-.35**
	p	.004	.006	.045	.003

SCAS: Self-Care Agency, BHS: Beck Hopelessness scale

DISCUSSION

As hemodialysis patients undergo dialysis, they encounter challenges in fulfilling their societal and familial responsibilities. Consequently, these individuals often exhibit elevated levels of hopelessness. The self-care agency, particularly in hemodialysis patients with heightened levels of hopelessness, is adversely impacted. Notably, a positive correlation exists between elevated hope levels and the enhancement of self-care agency, contributing to both physiological and psychological well-being (Yılmaz et al., 2020). The findings of this study highlight a significant association between increased hope levels and improved self-care agency among hemodialysis

patients.

According to the joint report of T.R. Ministry of Health and the Turkish Nephrology Association in 2019, it was reported that 48.80% of prevalent hemodialysis patients were receiving hemodialysis treatment for 1-5 years (Turkish Nephrology Association, 2019). It was found that the patients participating in this study received hemodialysis treatment for 4.07±2.83 years on average. Also, more than half of the patients (58.0%) were also diagnosed with hypertension. Similar studies reported that hemodialysis patients mostly had the diagnosis of hypertension other than kidney disease (Bossola et al., 2018).

Dialysis patients see themselves as dependent and hopeless since their disease is progressive and treatment methods are difficult and restrictive(Duran & Güngör, 2015). Although hemodialysis treatment is life-saving, it can negatively affect the hope levels of patients because of physical, psychological, social and economic problems (Yılmaz et al., 2020). Hopelessness scale mean score of the patients in this study was found to be 9.91±5.26 and their hopelessness levels were moderate. In studies conducted with hemodialysis patients, Tavassoli et al., (2019) found the hopelessness levels of patients as 36.36±9.10 (low level) (Tavassoli et al., 2019), Alshraifeen et al., (2020) found the hope levels of patients as 32.3±4.1 (moderate level) (Alshraifeen et al., 2020), and Başaran et al., (2016) found the hopelessness levels of patients as 12.76±3.04 (above average) (Başaran et al., 2016).

In this study, it was found that gender was an effective factor in hopelessness level of patients and female patients had higher mean score in hope subscale than male patients. Similar studies reported that total hopelessness levels and hope subscale mean score was higher in women than men (Başaran et al., 2016). Hemodialysis treatment requires being dependent on devices and treatment programs that last for 4-6 hours in average on certain days of the week and can lead patients to experience loss of time and workforce, loss of role and function, deterioration of family order, and limitation in social life, thus resulting in anxiety and concern (Başaran et al., 2016; Yılmaz et al., 2020). Women worry that they will not be able to fulfill their duties and responsibilities in the family and their child care role and the family order may be disrupted due to these effects of hemodialysis treatment. This may indicate that female patients have higher hopelessness levels than male patients. Married

patients participating in the study had higher loss of motivation mean scores, lower mean scores of expectations about the future, and higher total hopelessness mean scores compared to single patients. This may be associated with the fact that married individuals have more responsibilities in the family environment and they experience concerns for their children and about leaving a better future for them. However, some studies revealed that married patients had lower loss of motivation, higher expectations about the future, and lower hopelessness compared to single and divorced patients (Şahin & Özçetin, 2020).

Education level is an effective factor on hope level. It was found that illiterate patients participating in the study had higher hope mean scores, lower expectations about the future mean scores, and higher hopelessness levels compared to the patients with primary school, high school and university degree. It is expressed in a study that as the education level of individual increased, they kept their hopes alive by exhibiting investigative and questioning behaviors about treatment methods (Başaran et al., 2016).

It was found that the patients in the worker occupational group in this study had lower expectations about the future compared to the individuals from other occupational groups. This is thought to be associated with the fact that individuals in worker occupational group work under difficult conditions and these conditions do not meet their financial satisfaction, their occupational job losses are higher than other occupational groups and thus they have concerns about future. In a recent study conducted with hemodialysis patients, hopelessness scores were found to differ significantly by employment status, with higher hopelessness levels reported among unemployed patients (Töyer Şahin & Çıtlık Sarıtaş, 2023). In this study, total self-

care agency mean score of the patients was determined to be 28.84±5.60 and at moderate level. There are studies in the literature indicating that hemodialysis patients have low (Bektaş Akpinar et al., 2019), moderate (Biçer & Yılmaz Karabulutlu, 2020; Kurbun & Metin Akten, 2018) and above average (Bettoni et al., 2017) self-care agency mean scores. It can be asserted that this is associated with factors like lifestyle, educational status, and gender. Self-monitoring levels of female patients participating in the present study were found to be higher than those of male patients. In similar studies, self-care agency of female patients was determined to be higher than the agency of male patients (Iqbal et al., 2018). This is because women take responsibilities for care and self-care issues because they undertake care efforts in the society (home care, child care, care of family members, etc.) which causes them to have high self-care agency. However, it was determined in some studies that men had higher self-care agency than women (Akpınar et al., 2019; Erci et al., 2017).

It was observed in the present study that single patients had higher hygienic care and total self-care agency than married patients. This is because married individuals take more responsibilities than single individuals (child care, responsibility in the family). Correspondingly, it can be thought that married individuals are more prone to neglect their self-care. Kurbun and Akten (2018) found in their study conducted with hemodialysis patients that married patients had higher self-care agency than single patients (Kurbun & Metin Akten, 2018).

It was found that the participants with high income level had higher use of medicines, self-monitoring level and total self-care agency than those with moderate and poor income level. Same results were obtained in similar studies (Kırık & Tanrıverdi, 2017; Kurbun & Metin Akten, 2018). The reason for this situation suggests that self-care agency of patients with poor income level can be negatively affected due to financial problems.

Having hope for the future can positively affect self-care, ability to meet needs and enjoying life (Erci et al., 2017). It was stated that hopelessness in patients caused a decrease in the compliance of positive behaviors such as loss of appetite, weight loss, rejection of diet and medication, decrease in learning, anxiety and insufficiency. Therefore, the important factors affecting the self-care results in chronic diseases are expressed to be hope and self-care (Poorgholami et al., 2016). In this study, a statistically significant and negative correlation was determined between hopelessness and self-care agency. It was concluded that individuals with increasing hopelessness had decreasing self-care agency or individuals with decreasing hopelessness had an increasing self-care agency. In the study conducted by Erci et al., (2017) with elderly individuals, they found that people with high self-care agency also had high hope levels (Erci et al., 2017). Recent evidence in patients undergoing hemodialysis indicates that hope is positively associated with self-management behaviors and may function as a key psychological resource that facilitates patients' engagement in self-management (Parviniannasab et al., 2024).

Limitations

The study population is confined to the hemodialysis unit within a hospital in a specific province in Turkey, thus constraining the external validity of the findings to broader populations.

IMPLICATIONS FOR PRACTICE

This study found a positive correlation between decreasing levels of hopelessness and

increasing self-care agency in patients undergoing hemodialysis. Additionally, noteworthy findings included higher mean scores in the hope subscale for female patients and elevated levels of hopelessness among married and illiterate patients. Single patients and those with a favorable income status demonstrated a heightened level of self-care agency.

To reduce feelings of hopelessness and improve the ability of hemodialysis patients to take care of themselves, it is essential to address any sense of dependence. This can be achieved through training and motivation programs led by healthcare professionals from multiple disciplines, including patients and their families. Based on the study results, it is recommended to evaluate hopelessness levels and self-care agency among hemodialysis patients using established valid and reliable scales. Collaborative planning and implementation of interventions to improve coping mechanisms in patients with high levels of hopelessness can be carried out within the nursing care framework, incorporating other healthcare professionals when necessary. Furthermore, it is imperative to consider implementing strategic planning, periodic repetition of training programs, and their implementation to enhance patient self-care agency, inclusive of their family members. Besides, adopting a holistic perspective in evaluating patients is critical to developing comprehensive care strategies.

Disclosure

Author Contributions

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