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The Relationship Between Chronic Disease Self-Management and Well-Being in Hemodialysis Patients

Hemodiyaliz Hastalarında Kronik Hastalık Öz Yönetimi ve İyilik Hali Arasındaki İlişki

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Özet

Amaç Hemodiyaliz tedavisi gören hastalarda öz yönetim ile iyilik hali arasındaki ilişkiyi ve ilişkili sosyodemografik ve klinik özellikleri değerlendirmek amacıyla yapıldı.

Yöntem: Araştırma, Eylül-Aralık 2022 tarihleri arasında İzmir ilinde üç hemodiyaliz merkezinde tedavi gören, araştırmaya dahil edilme kriterlerine uyan 261 hasta ile tanımlayıcı olarak yapıldı. Araştırmanın verileri; "Sosyodemografik Veri Formu", "PERMA Ölçeği" ve "Kronik Hastalık Öz Yönetim Ölçeği" ile yüz yüze görüşme yolu ile toplandı. Araştırmanın yürütülmesi için etik kurul izni alındı. Verilerin istatistiksel analizinde sayı, yüzde, ortalama, standart sapma, Mann Whitney U/Kruskal Wallis H testleri ve Spearman korelasyon analizi kullanıldı.

Bulgular: PERMA Ölçeği ortalama puanı 7.21±1.31 ve öz yönetim ölçeği ortalama puanı 3.31±0.35 idi. Psikolojik iyi oluş algısı yüksek, beslenme sorunu olmayan ve fiziksel sorunlarla tamamen baş edebilen hastaların hem kendini yönetme hem de iyilik hali daha yüksektir ($p<0.05$). Öz yönetim ve iyilik hali arasında pozitif bir ilişki vardı (r: 0.385, $p<0.01$).

Sonuç: Çalışmanın sonuçları, hemodiyaliz hastalarının orta düzeyde hastalık özyönetimi ve yüksek iyilik haline sahip olduklarını desteklemektedir. Bunun yanı sıra, hastalık öz yönetimi arttıkça hastaların iyilik halinin arttığı belirlenmiştir.

Anahtar Kelimeler: Hemodiyaliz; Öz yönetim; İyilik hali; Hemşirelik.

Abstract

Aims: To appraise the relation between self-management and well-being and related sociodemographic and clinical features in patients receiving hemodialysis treatment.

Methods: The study was carried out with 261 patients who were treated at three hemodialysis centers in Izmir between September and December 2022 and who met the criteria for inclusion. The data of the research; "Sociodemographic Data Form", "PERMA Scale" and "Chronic Illness Self-Management Scale" were collected through face-to-face interviews. Ethics committee approval was obtained to conduct the study. Number, percent, mean, standard deviation, Mann Whitney U/Kruskal Wallis H tests and Spearman correlation analysis were used in the statistical analysis of the data.

Results: The PERMA Scale mean score was 7.21±1.31 and the self management scale mean score was 3.31±0.35. Patients who have a high perception of psychological well-being, who have no problems with diet and who can cope with physical problems completely have higher levels of both self-management and well-being ($p<0.05$).There is a positive relationship between self-management and well-being (r: 0.385, $p<0.01$).

Conclusion: Results supported that hemodialysis patients were found to have moderate disease self-management and high well-being. In addition, it was determined that as the disease self-management increased, the well-being of the patients increased.

Keywords: Hemodialysis; Self-management; Well-being; Nursing.

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INTRODUCTION

End-stage renal disease (ESRD) is a chronic disease in which the kidneys completely lose their function and patients require alternative treatment (1,2). In ESRD, renal replacement therapy such as peritoneal dialysis, hemodialysis, and kidney transplantation are used (3,4). The most commonly used treatment method in the treatment of ESRD is hemodialysis (5,6). Although hemodialysis treatment is accepted as a common treatment for this patient group, patients; dependence on the dialysis center causes limitations such as diet and drug use, and many problems such as restrictions in social life, role changes, sadness, hopelessness, depression, anxiety and uncertainty about the future (7-10). In addition, patients have various problems related to quality of life such as decreased physical functions, muscle weakness, fatigue, sleep disorders, sexual dysfunction, anemia, nutritional disorders, infection, decreased social interactions, and depression (11-14). Therefore, patients can have negative effects on general health and well-being (15).

The concept of well-being is also expressed as a way of life in which the individual is a whole physically, spiritually and socially and takes responsibility for maintaining and improving the continuity of this integrity. Well-being according to one of the best-known definitions in the literature; it is to lead a functional life in all areas, socially and individually, oriented to be healthy at the most appropriate level, with the mind, body and spirit together, with the goal of having individual goals and living a more meaningful life (16). In the field of health, quality of life refers to a two-parameter state of well-being. The first of these is physical, psychological and social well-being, which represents the ability of individuals to perform their daily activities, and the second; It is patient satisfaction that occurs with effectiveness in disease control (17). The treatment of ESRD and hemodialysis is a health issue that requires long-term treatment, which can advance to acute and chronic complications, and is the basis for the development of secondary chronic diseases. From this point of view, it can be said that it is a negative situation that affects the well-being of the individual in all dimensions. Self-management behaviors have a very important place in coping with this situation effectively and increasing well-being.

Self-management is the process of actively managing chronic illness as part of everyday life (18). The term self-management refers to the day-to-day activities that individuals undertake to minimize the negative outcomes and to prevent further complications of their chronic condition over the course of their illness (19). According to another definition, self-management behaviors in chronic diseases are defined as the proactive participation of the patient in health care activities in order to learn to solve problems, control their diseases and adjust their lifestyles to coexist with their chronic diseases in daily life (20, 21). Self-management that contains a positive result on the health of individuals with chronic illness, together with improved health-related quality of life (22), is accepted as a protecting issue that will increase well-being (21, 23).

However, there are no studies examining the effect of chronic disease self-management on well-being. It has been suggested that with an effective disease self-management, the level of well-being of the patient can increase. In this study, the relationship between chronic disease self-management and well-being in dialysis patients with renal failure and the factors affecting this relationship were investigated.

Research Questions

1. What are the well-being levels of hemodialysis patients?
2. What are the chronic disease self-management levels of hemodialysis patients?
3. What are the sociodemographic and clinical characteristics that affect the chronic disease self-management and well-being of hemodialysis patients?

4. Is there a relationship between chronic disease self-management and well-being levels of hemodialysis patients?

MATERIALS AND METHODS

Type of Research

It is a descriptive and relational study.

Population and Sample of the Research

The population of the study consisted of 347 patients treated in three hemodialysis centers in Izmir between September and December 2022. Patients who had no cognitive problems, were open to communication, were over the age of 18 and volunteered for the study were included in the study. The study was completed with 261 patients. Afterwards, post hoc power analysis was made with the GPower program and the power ratio was determined as 0.94.

Data Collection Tools

The data of the research Sociodemographic Data Form, PERMA Scale, and Chronic Illness Self-Management (CISM) Scale were collected.

The Sociodemographic Data Form: This instrument, based on related literature, consisted of questions aboutage, gender, marital status, income status, educational status, employment status, years of kidney failure, years of HD treatment, how many times a week HD is taken, perception of physical and psychological well-being, and levels of coping with physical problems (9, 30).

The PERMA Scale: The scale developed by Butler and Kern (24) to measure the well-being of the participants consists of 23 items. Positive Emotions, Engagement, Positive Relationships, Meaning and Accomplishment consists of 15 items, three for each subscale, and 8 fillers items and a total of 23 items. It was adapted into Turkish by Demirci et al. (25). Each item was rated by a 11-point Likert scale scoring from 0 representing 'never, never, very bad' and 10 - 'completely, always, excellent'. The total score obtained from the scale was obtained by adding the 15 items with sub-dimensions and a filler item measuring general well-being and taking the arithmetic mean. Increases in subdimensions and overall scale scores indicate increases in an individual's well-being compared to subdimensions and overall well-being. The Cronbach value on the adapted scale was 0.91. In our study, the Cronbach value was found to be 0.86.

The Chronic Illness Self-Management (CISM) Scale: The CISM Scale developed by Ngai et al. (26) was adapted into Turkish by Öztürk et al. (27). The CISM Scale consists of 21 items and 4 sub-dimensions. These are Self Stigma (7 items), Coping with Stigma (5 items), Health Care Efficiency (4 items), Treatment Implementation (5 items). Scale items were prepared in 5-point Likert type and participants 1 = Never 2 = Rarely; 3 = Average; 4 = Quite often; 5 = Marks the most appropriate option in each Time range. The scale is calculated using the arithmetic mean method. As the scores obtained from the scale approach 5, it shows that self-management increases, and as it decreases towards 1, it shows that self-management decreases. The Cronbach α coefficients of the sub-dimensions of the scale in the Turkish version of the CISM Scale were found to be between 0.78 and 0.87 (27). In this study, Cronbach's alpha value for the subscales was found to be between 0.81 and 0.89, while the Cronbach's alpha value for the total scale was found to be 0.89.

Data Analysis

This study used the SPSS 25 program package to analyze data gathered. The data contained percentages, numbers, mean and standard deviation for most variables. Scores from the scales were reported as standard deviation, mean, minimum and maximum values. Kolmogorov-Smirnov testing was performed to find out whether data conformity with a normal distribution. After that, Mann Whitney U tests and Kruskal Wallis H tests were used to evaluate the results. A forward Bonferroni analysis was then used to determine which group had significant differences in the Kruskal Wallis H test results. Correlation results were assessed using Spearman's coefficient of relatedness. While evaluating the research and correlation levels, 95% confidence interval and 5% significance level were used.

Ethical Considerations

Approval was obtained from the Ege University Medical Research Ethics Committee in İzmir, Türkiye (99169796-050.06.04-824063) to conduct the study. Permission to use the scale was obtained from the researcher who developed the scale via e-mail. Written permission was also obtained from the institution where the research would be conducted. All participants were informed about the study and their verbal and written consents were obtained.

RESULTS

The mean age of the patients was 53.83±13.07 years and the patients had a diagnosis of renal failure for 110.20±83.38 months. The mean duration of hemodialysis treatment was 71.93±67.04 months, and 57.5% were women, 70.5% were married, and 50.3% were high school graduates. While 65.1% of the patients defined their income as moderate, 80.8% of them stated that they received dialysis three times a week. More than half of the patients (57.5%) stated the perception of physical health as moderate, and 46.7% of them stated the perception of psychological well-being as moderate. While 87.7% of the patients had clear information about their disease, more than half of the patients (59%) found that the treatment was sufficient, 70.9% used their medications regularly, 57.1% had no problems with diet, and the majority of the patients (59.4%) could sometimes cope with physical problems. (Table 1).

Table 1. Sociodemographic distribution of hemodialysis patients (n: 261)

Age (years):53.83±13.07 **Kidney Failure Duration (months):** 110.20±83.38 **Hemodialysis Duration (months):** 71.93±67.04					
	n	**%**		**n**	**%**
Gender			**Having Information About the Disease**		
Female	150	57.5	Yes	229	87.7
Male	111	42.5	No	32	12.3
Educational Status			**Adequacy of the Treatment Received**		
Illiterate	32	12.3	Yes	154	59
Primary School	98	37.5	Partially	103	39.5
Middle School	55	21.1	No	4	1.5
High School	53	50.3	**Regular Medication Use**		
University and higher	23	8.8	Yes	185	70.9
Marital Status			Partially	61	23.4
Married	184	70.5	No	15	5.7
Single/Divorced/Widowed	77	29.5	**Having Problems With Diet**		
Income Status			Yes	112	42.9
Good	50	19.2	No	149	57.1
Middle	170	65.1	**Coping with Physical Problems**		
Bad	41	15.7	I can't cope	13	5.0
Number of Weekly Hemodialysis Sessions			Sometimes I can cope	155	59.4
			I can totally cope	93	35.6
2 times	20	7.7			
3 times	211	80.8			
4 times	30	11.5			
Perception of Physical Well-being					
Good					
Middle	86	33.0			
Bad	150	57.5			
Perception of Psychological Well-being	25	9.5			
Good					
Middle	115	44.1			
Bad	122	46.7			
	24	9.2			

When Table 2 is examined, the mean of the PERMA scale of the patients was found to be 7.21±1.31. We examined the subdimension of the scale and found that the highest score was 7.39 ± 1.72, and this sub-dimension was Positive Relationships. The lowest score among the sub-dimensions is 6.99±1.93 and this sub-dimension is Engagement. The mean score they got from the CISM scale, another scale used in the study, was found to be 3.31±0.35. We examined the subdimension of the scale and found that the highest score was 4.33±0.58 and this sub-dimension was Health Care Efficiency. The lowest score among the sub-dimensions is 2.61±0.55, and this sub-dimension is Self-Stigma.

When the sociodemographic characteristics of the patients and the total scores of the PERMA Scale sub-dimensions were compared; It was determined that there were significant differences in the variables of erception of physical Well-being, perception of psychological well-being, having knowledge about the disease, no having problems in diets, coping with physical problems ($p<0.05$). It has been observed that the well-being of patients who have a good perception of physical and psychological well-being, who have sufficient information about their disease, who have no problems with diet and who can effectively cope with physical problems, are higher than other patients. (Table 3).

When the sociodemographic characteristics of the patients and the total scores of the CISM Scale sub-dimensions were compared; A significant difference was found in the variables of duration of kidney failure, education level, perception of psychological well-being, compliance with the recommended treatment, having nutritional problems, and coping with physical problems ($p<0.05$). A positive and significant relationship was found between the duration of renal failure and self-management. In addition, it was observed that the self-management levels of the patients who had a university or higher education level, had a good perception of psychological well-being, fully complying with the recommended treatment, had no diet-related problems, and effectively coped with physical problems were higher than the other patients (Table 4).

When Table 5 is examined, different correlations were found between the scales used in the study and their sub-dimensions. A positive, statistically highly significant correlation was found between the PERMA Scale and CISM Scale total scores (r: 0.385, $p<0.01$). A negative, statistically highly significant correlation was found between the Perma Scale Accomplishment sub-dimension and the CISM Scale Self-Stigma sub-dimension (r: -0.187, $p<0.01$). A negative statistically highly significant correlation was found between the CISM Scale Self Stigma sub-dimension and the CISM Scale Health Care Efficiency (r:-0.211, $p<0.01$).

Table 2. The range of the scale and subscale point averages of the patients

Scales and subscales	**Min-Max**	**Mean(SD)**
PERMA Scale Total	4.25-9.88	7.21(1.31)
Positive Emotions	3-10	7.09(1.75)
Engagement	2.67-10	6.99(1.93)
Positive Relationships	2.33-10	7.39(1.72)
Meaning	3.33-10	7.16(1.75)
Accomplishment	3.12-9.46	7.00(1.46)
CISM Scale Total	2.34-4.14	3.31(0.35)
Self Stigma	1.57-4.14	2.61(0.55)
Coping with Stigma	2-5	3.62(0.78)
Health Care Efficiency	3-5	4.33(0.58)
Treatment Implementation	2-5	3.17(0.62)
Min: Minimum, Max: Maximum, SD: Standard Deviation		

Table 3. According to some sociodemographic characteristics of the patients PERMA scores

Sociodemographic characteristics		PERMA Scale Sub-Dimensions				
		Positive Emotions	**Engagement**	**Positive Relationships**	**Meaning**	**Accomplishment**
Perception of Physical Well-being	Good (1)	129.95	131.28	142.74	130.93	136.88
	Middle (2)	135.68	133.91	129.68	132.07	132.66
	Bad (3)	106.54	112.56	98.54	124.84	100.84
	X^2/p	X^2: 3.23/p: 0.19	X^2: 1.72/p: 0.42	X^2: 6.79/**p: 0.03 (1>3)**	X^2: 0.19/p: 0.82	X^2: 4.58/**p: 0.04 (1>3)**
Perception of Psychological Well-being	Good (1)	139.82	143.76	144.64	135.10	145.02
	Middle (2)	123.96	125.89	122.80	129.99	124.05
	Bad (3)	124.50	95.85	107.31	116.50	99.15
	X^2/p	X^2: 2.82/p: 0.24	X^2: 9.09/**p: 0.01 (1>3)**	X^2: 7.60/**p: 0.02 (1>3)**	X^2: 1.25/p: 0.53	X^2: 9.27/**p: 0.01 (1>3)**
Having Information About the Disease	Yes	133.51(30574.50)	131.68(30155.00)	131.84(30190.50)	135.71(31077.00)	133.03(30463.00)
	No	113.02(3616.50)	126.13(4036.00)	125.02(4000.50)	97.31(3114.00)	116.50(3728.00)
	U/p	U:3088.50/p: 0.14	U:3508.00/p: 0.69	U:8122.00/p: 0.73	U:8332.00/**p: 0.01**	U:7942.00/p: 0.50
Having Problems With Diet	Yes	119.90(13429.00)	122.95(13770.50)	122.39(13707.50)	121.08(13561.00)	118.32(13252.00)
	No	139.34(20762.00)	137.05(20420.50)	137.47(20483.50)	138.46(20630.00)	140.53(20939.00)
	U/p	U:7101.00/**p: 0.03**	U:7442.50/p: 0.13	U:7379.50/p: 0.10	U:7233.00/p: 0.06	U:6924.00/**p: 0.01**
Coping with Physical Problems	I can't cope (1)	112.31	114.00	107.65	126.73	107.46
	Sometimes I can cope (2)	124.67	124.63	122.75	123.02	124.64
	I can totally cope (3)	144.16	143.99	148.01	144.90	144.89
	X^2/p	X^2: 4.73/p: 0.09	X^2: 4.53/p: 0.10	X^2:7.86/ **p: 0.02 (3>2)**	X^2: 4.94/p: 0.08	X^2: 5.51/p: 0.06

U = Mann-Whitney U Test , X^2 = Kruskal Wallis H Test, $p<0.05$.

Table 4. According to some sociodemographic characteristics of the patients CISM Scale scores

Sociodemographic characteristics		CISM Scale Sub-Dimensions			
		Self Stigma	**Coping with Stigma**	**Health Care Efficiency**	**Treatment Implementation**
Kidney Failure Duration (months)		r: -0.07 p: 0.25	r: 0.08 p: 0.16	r: 0.13 **p: 0.03**	r: 0.06 p: 0.29
Educational Status	Illiterate (1)	128.14	131.92	140.69	128.16
	Primary School (2)	131.05	136.66	135.31	115.47
	Middle School (3)	142.15	130.81	120.90	131.49
	High School (4)	122.92	127.17	125.19	149.98
	University and higher (5)	126.72	114.89	136.70	156.22
	X^2/p	X^2: 1.94/p: 0.74	X^2: 1.75/p: 0.78	X^2:2.36/p: 0.69	X^2:10.36/**p: 0.03(5>4)**
Perception of Psychological Well-being	Good (1)	129.41	150.91	150.55	125.82
	Middle (2)	127.23	117.18	117.50	134.70
	Bad (3)	157.77	105.85	105.94	137.00
	X^2/p	X^2: 3.39/p: 0.18	X^2:14.94/**p:0.01 (1>2)**	X^2:14.81/**p:0.01 (1>2)**	X^2: 1.01/p: 0.60
Adequacy of the Treatment Received	Yes (1)	126.90	145.64	141.26	133.32
	Partially (3)	152.13	100.25	93.13	130.00
	No (2)	136.31	110.31	117.13	127.56
	X^2/p	X^2:1.28/p: 0.22	X^2: 14.28/**p:0.01(1>3)**	X^2:7.61/**p:0.02(1>3)**	X^2:0.36/p: 0.83
Having Problems With Diet	Yes	141.22(15817.00)	123.62(13845.00)	118.72(13296.50)	136.00(15232.00)
	No	123.32(18374.00)	136.55(20346.00)	140.23(20894.50)	127.24(18959.00)
	U/p	U:7199.00/p: 0.057	U:7517.00/p: 0.16	U:6968.50/**p: 0.02**	U:7784.00/p: 0.34
Coping with Physical Problems	I can't cope (1)	129.42	95.69	95.69	149.08
	Sometimes I can cope (2)	138.44	119.83	119.83	129.36
	I can totally cope (3)	118.83	154.55	154.55	131.20
	X^2/p	X^2:3.95/p: 0.13	X^2:15.38/**p:0.01(3>2,1)**	X^2:15.38/p:0.35	X^2:0.83/p:0.65

r = Spearman's Correlation Test, U = Mann-Whitney U Test, X^2 = Kruskal Wallis H Test, p<0.05.

Table 5. Score correlations measured with Spearman's correlation coefficient

	1	2	3	4	5	6	7	8	9	10	11
PERMA Scale	1										
Positive Emotions	0.834**	1									
Engagement	0.797**	0.591**	1								
Positive Relationships	0.771**	0.573**	0.562**	1							
Meaning	0.741**	0.578**	0.425**	0.412**	1						
Accomplishment	0.837**	0.647**	0.609**	0.574**	0.574**	1					
CISM Scale	0.385**	0.234**	0.283**	0.367**	0.356**	0.295**	1				
Self Stigma	-0.112	-0.047	-0.078	-0.098	-0.117	-0.187**	0.427**	1			
Coping with Stigma	0.451**	0.303**	0.300**	0.393**	0.426**	0.405**	0.752**	0.005	1		
Health Care Efficiency	0.349**	0.186**	0.256**	0.341**	0.370**	0.345**	0.537**	-0.211**	0.534**	1	
Treatment Implementation	0.176**	0.069	0.136**	0.190**	0.170**	0.116	0.372	0.103	-0.019	-0.019	1
**p<0.01.											

DISCUSSION

The problems caused by hemodialysis treatment, which is an indispensable part of the treatment in end-stage renal disease, cause serious changes in the lives of patients. Disease self-management, defined as the active process of coping with chronic diseases in everyday life (18), is an important component in effective coping and improving the overall quality of life for patients (28). Patients who can provide self management their disease, cope with current or potential problems, thereby improving their health. This study aimed to examine the relationship between self-management and well-being in hemodialysis patients and the sociodemographic characteristics believed to be effective in this relationship. The results of this study are interpreted in the context of the literature.

When assessing the well-being status of the hemodialysis patients, were it evaluated, was found that the mean score obtained from the PERMA scale was found to be 7.21±1.31, and it was determined that the patients had a good level of well-being. It was turns seen out that studies were conducted with different samples in the literature and there different results were different results obtained. In a study in adjusting which the PERMA scale was adapted for the a German population, the total overall mean score of obtained from the scale was found to be 6.98±1.96 (29) In a study conducted examining to examine the sociodemographic characteristics and well-being levels of individuals diagnosed with type 2 diabetes, the average mean total score obtained on from the PERMA scale was found to be 7.56±1.10 (30). In our study, it was determined that the highest score among the sub-dimensions of the PERMA scale was in the Positive Relationships (7.39±1.72) sub-dimension, and the lowest score was in the Engagement (6.99±1.93) sub-dimension. In the study conducted by Camitan and Bajin (31) during the Covid-19 quarantine period, it was stated that the highest average score was in the Attachment (7.36±1.85) sub-dimension, and the lowest average score was in the Accomplishment (7.04±1.86) sub-dimension. It is believed that individual geography, experience and perceptions may contribute to these differences.

When assessing the level of self-management in hemodialysis patients, since a mean CISM scale score close to 5 indicates a high level of disease self-management, the mean CISM score for in the patients of this study it was 3.31±0.35, and it was determined that the patients had moderate disease self-management. In our study, it was determined that the highest score among the sub-dimensions of the CISM scale was in the Health Care Efficiency (4.33±0.58) sub-dimension, and the lowest score was in the Self-Stigma (2.61±0.55) sub-dimension. In the literature, no samples and studies using the CISM scale were found. For this reason, our study is considered the first in this field.

Patient sociodemographic characteristics and differences in scores achieved in the subdimensions of the PERMA scale were examined. Patients without did not have problems with diet reported better well-being in the subdimension Positive Emotions (Table 3). A study by Kabadaş (30) in patients with type 2 diabetes showed that patients who consistently adapted to the recommended diet in the subdimension of positive emotions reported higher levels of well-being. Healthy eating behaviors are inextricably linked to well-being, physical and mental health, happiness. (28, 32). PERMA focuses on emotions such as happiness, pleasure, pleasure, and comfort from a positive affect perspective (24). On this basis, it is significant that patients who were able to accommodate the recommended diet had a higher mean in this subdimension.

In the subdimensions of Engagement and Positive Relationships, patients with good perceptions of mental and physical health were also observed to have higher levels of well-being (Table 3). Ryff, (33) found that mental health significantly affects overall well-being and is associated with better health. In addition, patients who were able to fully cope with physical problems in the Positive Relationships subdimension had higher levels of well-being (Table 3). There is substantial evidence that positive relationships have many important effects in many different domains, from well-being in human life to reduced susceptibility to disease (24; 35). A positive relationship means being loved, supported, and valued by others (24). For this reason, the social support that patients can feel around them has an important place when dealing with the physical pain caused by the disease as well as the stressful situations to which they may be exposed (34-37).

In the Meaning sub-dimension, patients who had information about their disease were found to have higher well-being levels (Table 3). Meaning makes people feel that life is valuable and worth living (24). For this reason, it is deduced that the lives of patients who know what their disease is, have information about the symptoms of the disease and the treatment process, are more valuable. In the Accomplishment sub-dimension, it was observed that the well-being levels of the patients with a good perception of psychological and physical well-being were also higher, and the well-being levels of the patients who did not have any problems with diet were higher (Table 3). Success requires setting goals and working toward them, and can lead to feelings of self-efficacy (34). From this perspective, the existence of a difference in this sub-dimension is an expected situation to manage the treatment processes of the patients and thus to achieve well being.

In the Coping with Stigma sub-dimension, it was observed that the patients with a good perception of psychological well-being also had a high level of self-management (Table 4). When we look at the literature, it is seen that hemodialysis patients are faced with stigma in many studies (38,39). Therefore, it can be deduced that the psychological well-being levels of patients who can effectively cope with stigmatization, and therefore their disease self-management levels, will also increase. In addition, patients who think that the treatment they receive during the disease process is sufficient in this sub-dimension and those who can fully cope with the physical problems brought about by this process have higher self-management levels (Table 4). From this perspective, the management of physical and psychological problems is effective in terms of general well-being (40), and a high level of self-management of the disease can be expected.

It was observed that there was a positive correlation between the mean score of the patients in the Health Care Efficiency sub-dimension and the duration of kidney failure disease (Table 4). It is deduced that the longer the life expectancy with the disease, the higher the level of self-management of the disease. Again, patients with a good perception of psychological well-being in this sub-dimension also have higher self-management levels (Table 4). It is significant that hemodialysis patients, who feel psychologically well, have high disease self-management levels as a result of their active participation in care throughout their treatment. Self-management was found to be higher in the Health Care Efficiency sub-dimension of patients who did not have problems with diet (Table 4). As a result of our study, it was seen that the self-management levels of the patients who were able to adapt to the salt restriction brought about by chronic renal failure (41) and to the fluid restriction brought by the hemodialysis treatment (42).

In the Treatment Implementation sub-dimension, it was observed that the patients with a university or higher education level had higher self-management levels (Table 4). With the increase in the education level of the patients, they have a wider awareness, allowing the development of self-management behaviors.

The correlations between the mean scores of the patients' PERMA scale and CISM scale and its sub-dimensions were examined, and a statistically highly significant and positive correlation was found between the mean total score of well-being and the total score of self-management ($p<0.05$). Accordingly, an increase in patients' self-management behaviors also positively affects their level of well-being. In addition, a statistically highly significant and negative correlation was found between the Accomplishment sub-dimension and the Self-Stigma sub-dimensions, and it was concluded that the perception of success of the patients who self stigmatized would decrease (Table 5). Finally, a statistically highly significant and negative relationship was found between Self Stigma and Health Care Effectiveness sub-dimensions, and it was determined that patients who self-stigmatized would have a decrease in their health care effectiveness. Our study is a first in this field, making it impossible to compare the results with other studies.

CONCLUSION AND SUGGESTIONS

In this study, hemodialysis patients were found to have moderate disease self-management and high well-being. In addition, the results determined that there is a linear relationship between self-management and well-being in hemodialysis patients. This study clarified the conditions that affect the well-being of patients for healthcare professionals who will work with hemodialysis patients. These are: It is seen that patients who feel well physically are able to establish positive interpersonal Relationships, and patients who are physically unwell feel unsuccessful. Patients who feel good psychologically have higher participation in treatment, positive interpersonal relationships and sense of achievement. Patients who have knowledge about their disease are better able to find meaning in life. Patients who do not have diet-related problems have higher positive emotions and feelings of accomplishment and higher healthcare efficiency. Patients who can fully cope with physical problems have high positive relationships. Health care efficacy evolves over time in patients. If the education level of the patient is high, treatment practices are better. Patients with high psychological well-being are more likely to cope with stigma and health care efficiency. Patients who find the treatment adequate are feel less stigmatized and health care efficiency is higher. As a result, self-management and well-being are directly related. At this point, based on the research findings, it is thought that interventions based on the development of self-management may be functional in studies to support the well-being of hemodialysis patients.

Ethics Committee Approval

Ethics committee approval: Ege University Medical Research Ethics Committee in İzmir, Türkiye. (99169796-050.06.04-824063)

Informed Content

From the study participants informed consent was obtained.

Conflict of Interest

Any financial or other interest in the study there is no conflict.

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Author Contributions

Idea, design: SD, ÖU
Plan: ÖU
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