

## Hemodiyaliz Hastalarında Manevi İyi Oluş ile Anksiyete ve Depresyon Arasındaki İlişki

### *The Relationship Between Spiritual Well-being and Anxiety and Depression in Hemodialysis Patients*

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**Özet:** Bu araştırmanın amacı, hemodiyaliz tedavisi alan hastaların manevi iyi oluş, anksiyete ve depresyon düzeyleri arasındaki ilişkiyi belirlemektir. Araştırma tanımlayıcı ve ilişkili arayıcı türde yapıldı. Araştırma Gaziantep Ün-iversitesi Şahinbey Araştırma ve Uygulama Hastanesi Hemodiyaliz Ünitesinde 26 Eylül- 16 Aralık 2020 tarihleri arasında yürütüldü. Araştırmanın örneklemini belirtilen tarihler arasında araştırmaya alınma ölçütlerine uyan ve çalışmaya katılmayı kabul eden hemodiyaliz tedavisi alan 83 hasta oluşturdu. Veriler, bilgi formu, Manevi İyi Oluş Ölçeği (FACIT-SP), Beck Anksiyete ve Beck Depresyon Ölçeği kullanılarak toplandı. Verilerin değerlendirilmesi ve kodlanması bilgisayar ortamında SPSS 24 paket programı aracılığıyla gerçekleştirilmiştir. Verilerin değerlendirilmesinde; sayı, yüzdelik dağılımlar, ortalama, bağımsız gruplarda t testi, Pearson Korelasyon ve One Way Anova Varyans analizleri kullanılmıştır. Katılımcıların manevi iyi oluş ölçeği alt boyutlarından anlamda  $7.73 \pm 2.38$ , barışta  $7.42 \pm 2.74$ , inançta  $8.86 \pm 3.84$  ve toplam puan ortalamasının  $24.02 \pm 8.22$  olduğu belirlenmiştir. Hemodiyaliz tedavisi gören hastaların anksiyetede  $17.12 \pm 11.96$ , depresyonda  $15.60 \pm 11.44$  toplam puan ortalamasının olduğu saptanmıştır. Bireylerin anlam, barış, inanç, manevi iyi oluş ve anksiyete düzeylerinin orta düzeyde, depresyon seviyelerinin ise hafif düzeyde olduğu belirlendi. Hemodiyaliz tedavisi gören hastaların maneviyat boyutlarında bulunan anlam, barış, inanç ve manevi iyi oluş düzeyleri ile anksiyete ve depresyon arasında negatif yönde anlamlı bir ilişki bulunmuştur. Bireylerin maneviyatları arttıkça anksiyete ve depresyon düzeylerinin azaldığı saptanmıştır.

**Anahtar Kelimeler:** Anksiyete, Depresyon, Hemodiyaliz, Maneviyat.

**Abstract:** The aim of this study is to determine the relationship between spiritual well-being, anxiety and depression levels of patients receiving hemodialysis treatment. The type of this research is descriptive and correlational. The re-search was carried out at Gaziantep University Şahinbey Research and Training Hospital's Hemodialysis Unit between September 26 and December 16, 2020. The sample of the study consisted of 83 patients receiving hemodialysis treatment, who met the inclusion criteria and agreed to participate in the study between the specified dates. The data were collected by using an information form, the Spiritual Well-Being Scale (FACIT-SP), Beck Anxiety and Beck Depression Inventory. The coding and evaluation of the data were carried out with SPSS 24 statistical analysis software. Number, percentile distributions, mean, independent groups t-test, Pearson Correlation and One Way Anova Variance analyses were used to evaluate the data. The mean scores of the participants were determined to be  $7.73 \pm 2.38$  in sense,  $7.42 \pm 2.74$  in peace,  $8.86 \pm 3.84$  in belief, and  $24.02 \pm 8.22$  in total. Patients receiving hemodialysis treatment exhibited a mean total score of  $17.12 \pm 11.96$  in anxiety and  $15.60 \pm 11.44$  in depression. It was determined that the spiritual well-being levels of the participants and the sub-scales of the spiritual well-being scale, meaning, peace and belief levels were moderate. It was determined that the anxiety levels of the patients receiving hemodialysis treatment were moderate, and the depression levels were mild. A significant negative relationship was found between the levels of meaning, peace, faith, and spir-itual well-being of the patients receiving hemodialysis treatment and anxiety and depression. It was determined that as the spirituality of the individuals increased, their anxiety and depression levels decreased.

**Keywords:** Anxiety, Depression, Hemodialysis, Spirituality.

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## INTRODUCTION

Chronic Kidney Disease (CKD) is a disease that affects varieties of systems and characterized by the inability to adjust the fluid-electrolyte balance of the kidney because of decreased glomerular filtration and deterioration in metabolic-endocrine functions. The disease affects 10-15% of the adult population worldwide (Coresh et al., 2007; Özcan et al., 1999). The rate of CKD in Turkey in adult population is 15.7%. This rate shows that one out of every six adults in Turkey has CKD (Süleymanlar et al., 2010). The treatment of CKD is kidney transplantation or dialysis (Levey et al., 2002). According to the data of the Turkish Society of Nephrology, renal replacement therapy (RRT) is applied to patients in Turkey as of the end of 2023. The most frequently applied type of RRT is hemodialysis (HD) treatment with 71% (Turkish Society of Nephrology, 2024).

Hemodialysis, which is one of the most frequently used treatment methods in patients with chronic renal failure, prevents the death of patients who must continue their life on dialysis and allows them to hold on to life, on the other hand, it is a new and different experience that changes and disrupts the lifestyle and order of the patients it saves, and creates a significant amount of stress. (Erdem et al., 2004; Pehlivan et al., 2008; Çınar, 2009; Kılıç & Alpar, 2016). HD physically, psychologically, socially, and economically affects both the patient and his/her family intensely in many ways, and deteriorates the quality of life (Erdem et al., 2004; Pehlivan et al., 2008; Parvan et al., 2013; Sohrabi et al., 2015; Kılıç & Alpar, 2016; Zazzaroni et al., 2017). Conditions such as loss of many aspects, activity restriction and machine dependency in hemodialysis patients create stress in them (Şentürk et al., 2005).

In addition, because the life span of patients is prolonged, patients and their families are exposed to stress for a longer period and have to adapt to the disease (Aydemir et al., 2002). HD patients may experience mental and emotional problems such as

anxiety, depression, sadness, hopelessness, constant fear of death, denial of the disease, anxiety and fear caused by side effects, irritability and sometimes accompanying disorientation, delirium, and convulsions (Kara, 2007; Erdem et al., 2004; Küçük, 2005). Hemodialysis patients are constantly faced with many physical and psychosocial stressors. Hemodialysis is a permanent procedure that commonly causes adverse effects on patients' mental health. It is stated that psychiatric disorders, especially depression and anxiety, are common and their rates increase in patients receiving HD treatment (Bahar et al., 2007; Sağduyu et al., 2006; Haghighat et al., 2021).

Various studies indicate that symptoms of depression and anxiety are common in HD patients and that these symptoms are closely associated with poor health outcomes in patients (Alshogran et al., 2018; King-Wing Ma & Kam-Tao Li, 2016). Although the World Health Organization (WHO) states that spiritual well-being is included in health services in addition to the physical, mental, and social areas of health services, it is thought that spiritual well-being is neglected while providing holistic nursing care to chronic patients (Alradaydeh & Khalil, 2018). It is stated that the level of spiritual health in hemodialysis patients is low, and without spiritual health, the biological and psychosocial aspects of health will be disrupted, and patients cannot achieve a high level of quality of life because they cannot reach their maximum capacity (Omidvari, 2009).

Although the spiritual dimension of a patient's life is an important factor that can mediate harmful effects on mental health, spirituality is considered an important resource in coping with chronic diseases and is effective in improving physical, mental, and social health in the case of chronic diseases. While spirituality and religiousness help patients overcome the realities of their illness and suffering and find meaning, purpose, and direction in their lives in the context of their illness, they can also be used by individuals specifically as a source of strength and support to help them cope with the

stressful effects of psychosocial problems (Pevalin & Al Khalaileh, 2018; Taheri-Kharamneh, 2016; Rambod et al., 2020). In many cases, HD patients and their families turn to spirituality or religion as their primary source to maintain an optimistic outlook (Reig-Ferrer et al., 2012). It is stated that spirituality is a basic need in HD patients, that spiritual well-being and religiousness potentially affect the general health of the person, including the connection and compliance of HD patients with dialysis treatment, and is important on mental health (Cruz et al., 2017; Musa et al., 2018; Reig-Ferrer et al., 2012).

It has been reported that spirituality and religiousness play an important role in the lives of hemodialysis patients in terms of coping with the disease and adapting to it, improving, or maintaining mental health, improving quality of life, mental relaxation, and reducing stress (Darvishi et al., 2020; Musa et al., 2018). Moreover, spiritual well-being in hemodialysis patients play an important role in adapting to illness, increasing coping skills, protecting physical and mental health, reducing the rate of substance use and suicide (Martinez & Custodio, 2014).

It is thought that spiritual well-being, which has an important place in the treatment of mental disorders seen in chronic diseases, can reduce anxiety and depression levels in hemodialysis patients. Studies examining the relationship between spiritual well-being and anxiety and depression are limited. It is important to understand spiritual well-being as a factor that can positively affect the physical and mental health of hemodialysis patients. This study was conducted to examine the relationship between spiritual well-being and anxiety and depression.

## **MATERIAL AND METHOD**

### **Methodology**

This study used a cross-sectional and descriptive research design. The research was conducted in the province of Gaziantep between September 26 and

December 16, 2020. The population of the study consisted of 88 individuals who met the inclusion criteria and received hemodialysis treatment three days a week during the specified dates. The study was completed with 83 individuals who agreed to participate in the study by not choosing a sample from the universe. Five patients refused to participate in the study.

The inclusion criteria for the present study are as follows: being 18 years old and over, the absence of physical (speech, hearing impairment, etc.) and neurological disorders that prevent filling the research forms, not having a psychiatric diagnosis (substance addiction, depression, personality disorder, etc.) and having no communication problem and being open to cooperation.

### **Data Collection Tools**

The research was conducted in the province of Gaziantep between September 26 and December 16, 2020. The data were collected with the Patient Descriptive Characteristics Form, Spiritual Well-Being Scale, Beck Depression Inventory, and Beck Anxiety Inventory. The characteristics of the patients such as age, gender, family structure, education level, occupation, income and presence of chronic disease were assessed. The research was launched on September 26 and data were collected until December 16, 2020.

**Beck Depression Inventory (BDI):** BDI was developed by Beck in 1961. BDI is used to determine the risk of depression and to measure the level and severity of depressive symptoms. The validity and reliability of the scale in Turkey was carried out by Hisli in 1989, and the Cronbach's alpha value was found to be 0.80. Each item of the BDI identifies a behavioral pattern specific to depression that takes place in the last one week, and the scale has 21 self-evaluation sentences with four options, ranging from less to most (0-3). The total score that can be obtained from the scale varies between 0-63. A score of 17 and above was taken as the cut-off point of the scale. In this study, Cronbach's alpha value was calculated as 0.93. The

degree of depression is 0-9 points for minimal depression, 10-16 points for mild depression, 17-29 points for moderate depression, and 30-63 points for severe depression (Hisli, 1989).

**Beck Anxiety Inventory (BAI):** The scale was developed by Beck et al. (1988) and adapted to Turkish by M. Ulusoy et al. (1998). It was determined that the scale had sufficient reliability and validity. BAI assesses the frequency of anxiety symptoms experienced by an individual. It is a self-assessment scale consisting of 21 items and scored between 0-3. With the questions directed at an individual, it is questioned to what extent the feeling of distress has disturbed him/her in the last week. While Beck et al. (1988) calculated the Cronbach's alpha value of the scale as ( $\alpha=.92$ ), M. Ulusoy et al. (1998) calculated it as ( $\alpha=.93$ ). It was calculated as ( $\alpha=.93$ ) in this study as well. Just like in the BDI, the total score that can be obtained from the scale varies between 0-63. The high score obtained from the scale indicates the severity of the anxiety experienced by an individual. The ratings of the scores obtained from the scale are as follows: mild anxiety is 8-15 points, moderate anxiety is 16-25 points, and severe anxiety is 26-63 points (Beck et al., 1988).

**Spiritual Well-Being Scale:** The original version of the scale was developed by Functional Assessment of Chronic Illness Therapy (FACIT-SP). Aktürk et al. adapted the scale into Turkish to determine the spiritual well-being of cancer patients or individuals with other chronic diseases. The scale has three subscales (peace, meaning, and faith), and it helps to delve deeper into all components of spiritual well-being. The scale consists of 12 Likert-type items. The items on the scale are scored between 0 (not at all) and 4 (very much). Meaning subscale (items 2,3,5,8) is in the range of 0-16 points, peace subscale (items 1,4,6,7) is in the range of 0-16 points, faith subscale (items 9,10,11,12) is in the range of 0-16 points, and the total score of the scale is between 0-48 points. A higher score on the scale indicates better spiritual well-being. The Cronbach's alpha value of the scale

was found to be 0.87 (Aktürk et al., 2017). In this study, Cronbach's alpha value was calculated as 0.85.

### Data Collection

The data were collected by the researcher by face-to-face interviews between September 26 and October 28, 2020. The forms were applied in the hemodialysis unit after the patients were informed about the research and their verbal consents were obtained at the appropriate time, so as not to disrupt their treatment. The application of the forms took approximately 15 minutes.

### Ethical Approval

Approval was obtained from X University Scientific Research and Publication Ethics Committee for the research (number: 10879717-050.01.04). Verbal consent to participate in the research was obtained from the individuals by giving information about the purpose of the research, the method, the time they would spare for the research, and by declaring that participating in the research would not do any harm and that the participation was completely voluntary. The database management is in accordance with privacy legislation, and the presented study is in accordance with the ethical principle of the Declaration of Helsinki.

### Data Analysis

The data were analyzed using SPSS (Statistical Package for the Social Sciences) 25.0 package program. All decisions on the statistical significance of the findings were made using a criterion alpha of 0.05. While calculating the correlation strength in this study, the following ranges were taken as a reference: very weak correlation ( $r = 0-0.25$ ), weak correlation ( $r = 0.26-0.49$ ), moderate correlation ( $r = 0.50-0.69$ ), strong correlation ( $r = 0.70-0.89$ ), and very strong correlation ( $r = 0.90-1.0$ ) (Gürbüz & Şahin, 2014). Kurtosis and Skewness normality tests were used to understand whether the data for numerical variables

fit the normal distribution. According to Kurtosis and Skewness test, BAI, BDI, and FACIT-SP Scale scores were found to be normally distributed. Data analyses were reported as number, percentage, mean, and standard deviation. Statistical analyses were evaluated at the 95% confidence interval ( $p < 0.05$ ) and significance level. Statistical analyses used in the evaluation of the data are shown below.

## RESULTS

Socio-demographic characteristics of the participating patients are as follows: average age

was  $48.16 \pm 14.91$  years, the average duration of hemodialysis treatment was  $6.34 \pm 1.6$  years, 66.3% were male, 30.1% were between the ages of 18-33, 77.1% were married, 73.5% of them had children, 39.8% were primary school graduates, 61.5% were not employed, 67.5% had a medium level of income, 73.5% lived with their spouses and children, 33.7% have been receiving hemodialysis treatment for 3-5 years, and 59% of them had chronic diseases other than chronic kidney failure. (Table 1).

**Table 1:** Participant Demographic Characteristics

Socio-Demographical Characteristics	Number (S)	Percentage (%)
<b>Gender</b>		
Female	28	33.7
Male	55	66.3
<b>Age</b>		
18-33	25	30.1
34-46	15	18.1
47-59	21	25.3
60 and above	22	26.5
<b>Marital Status</b>		
Married	64	77.1
Single	19	22.9
<b>Having a child</b>		
Yes	61	73.5
No	22	26.5
<b>Educational Status</b>		
Literate	18	21.7
Primary School Graduate	33	39.8
Middle School Graduate	13	15.7
High School Graduate	8	9.6
Higher Education	11	13.3
<b>Occupational Status</b>		
Unemployed	51	61.5
Retired	22	26.5
Worker	7	8.4
Public Worker	3	3.6

The patients received the following total score averages in the subscales of the FACIT-SP: 7.73±2.38 from meaning subscale (moderate), 7.42±2.74 from peace subscale (moderate), 8.86±3.84 from faith subscale (moderate), and

24.02±8.22 total average (moderate). It was determined that the patients receiving hemodialysis treatment had a mean score of 17.12±11.96 (moderate) in anxiety and 15.60±11.44 (mild) in depression (Table 2).

**Table 2.** Comparison of BAI, BDI and FACIT-SP Total Scores and Subscales Scores According to Descriptive Characteristics of the Patients

Descriptive Features	Meaning	Peace	Faith	FACIT-SP Total	BAI Total	BDI Total
	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$	$\bar{X} \pm SS$
<b>Gender</b>						
Female	8.28±2.07	8.35±2.31	10.67±3.22	27.25±6.71	15.32±12.64	13.00±9.05
Male	7.45±2.50	6.94±2.83	7.98±5.47	22.38±8.47	18.03± 11.60	16.92±12.35
<b>t value</b>	-1.510	-2.274	-3.092	-2.642	0.977	1.489
<b>p value</b>	0.135	<b>0.026</b>	<b>0.003</b>	<b>0.006</b>	0.331	0.104
<b>Age</b>						
18-33	8.12±2.12	7.92±2.11	8.96±4.36	25.00±7.78	20.60±13.01	16.92±11.14
34-46	6.53±2.89	6.66±3.49	7.66±4.12	20.86±9.96	15.93±9.85	18.13±12.94
47-59	8.28±2.10	8.00±2.38	9.76±3.30	26.04±6.98	15.76±11.67	13.00±11.15
60 and above	7.59±2.40	6.81±3.03	8.72±3.46	23.13±8.31	15.27±12.24	14.86±11.17
<b>F value</b>	1.944	1.338	0.878	1.384	-1.832	-1.556
<b>p value</b>	0.748	0.926	0.155	0.408	0.071	0.135
<b>Marital Status</b>						
Married	7.78±2.54	7.40±2.83	9.25±3.55	24.43±8.23	15.82±12.01	14.54± 11.28
Single	7.57±1.83	7.47±2.48	7.57±4.57	22.63±8.24	21.47±10.98	19.15±11.55
<b>t value</b>	0.322	0.094	1.682	0.839	0.152	0.941
<b>p value</b>	0.622	0.652	0.963	0.798	0.859	0.391
<b>Educational Status</b>						
Literate	8.38±2.14	8.00±2.91	9.61±3.79	26.00±7.77	18.22±12.71	14.88±9.44
Elementary School	7.60±2.17	7.72±2.64	9.30±3.74	24.63±7.96	14.93±10.83	14.15±11.76
Middle School	7.53±3.35	6.76±2.48	8.07±4.11	22.38±9.28	22.30±13.35	19.69±13.70
High School	7.12±1.35	7.00±1.60	6.62±3.77	20.75±6.31	23.87±10.53	21.00±9.21
University	7.72±2.79	6.63±3.64	8.90±3.88	23.27±9.79	10.81±9.89	12.36±11.37
<b>F value</b>	0.501	0.751	1.098	0.766	2.494	1.245
<b>p value</b>	0.735	0.561	0.364	0.550	0.050	0.299
<b>Occupational Status</b>						
Unemployed	7.50±2.50	7.47±2.75	8.82±4.06	23.80±8.62	17.94±11.78	16.56±11.49
Worker	7.71±1.88	7.42±1.81	7.85±3.02	23.00±5.38	20.28±14.16	17.14±12.90
Public Worker	9.33±0.57	7.66±2.51	8.33±5.50	25.33±8.50	25.00±17.08	23.66±12.89
Retired	8.04±2.39	7.27±3.11	9.36±3.48	24.68±8.39	13.13±10.43	11.77±10.26
<b>F value</b>	0.715	0.034	0.297	0.117	1.519	1.509
<b>p value</b>	0.546	0.992	0.827	0.950	0.216	0.219

Perception of Economic Status						
Good	9.00±1.41	8.33±1.86	11.00±4.04	28.33±6.50	9.83±10.75	8.83±8.70
Bad	7.91±2.33	7.48±2.84	9.14±3.75	24.53±8.09	17.85±12.42	15.28±11.69
Middle	6.90±2.55	7.00±2.67	7.52±3.77	21.42±8.53	17.23±10.74	18.38±10.92
<b>F value</b>	2.333	0.588	2.432	2.029	1.227	1.720
<b>p value</b>	0.104	0.558	0.094	0.138	0.299	0.186
With whom she/he lives						
Parents	8.00±1.88	7.63±2.40	8.26±4.66	23.89±8.19	22.63±12.53	18.63±11.30
Spouse or children	7.73±2.51	7.44±2.83	9.18±3.46	24.36±8.12	15.09±11.22	14.26±11.19
Alone	6.00±2.64	5.66±3.05	6.33±5.85	18.00±11.26	23.33±14.18	23.66±14.74
<b>F value</b>	0.906	0.667	1.091	0.856	3.493	1.868
<b>p value</b>	0.408	0.516	0.341	0.429	<b>0.035</b>	0.161
Duration of Hemodialysis Treatment						
0-2 years	7.45±2.88	7.25±2.59	8.16±3.63	22.87±8.58	15.75±11.77	15.41±11.51
3-5 years	7.28±2.15	6.82±2.93	8.03±4.21	22.14±8.45	20.96±11.66	19.53±11.95
6-8 years	8.76±2.45	8.46±2.14	11.07±3.54	28.30±7.66	15.38±13.46	10.46±10.74
9 years and above	8.05±1.79	7.83±2.93	9.50±3.22	25.38±6.90	14.22±10.97	13.44±9.64
<b>F value</b>	1.376	1.249	2.416	2.064	1.542	2.297
<b>p value</b>	0.256	0.298	0.073	0.112	0.210	0.084
Existence of other chronic disease						
Yes	7.34±2.68	7.10±3.12	8.36±4.01	22.81±9.18	19.79±11.35	17.55±11.27
No	8.29±1.76	7.88±2.02	9.58±3.51	25.76±6.31	13.26±11.91	12.79±11.25
<b>t value</b>	-1.800	-1.280	-1.432	-1.623	-1.733	2.525
<b>p value</b>	0.056	0.204	0.156	0.109	<b>0.014</b>	0.063

When the relationship between Anxiety, Depression, and Spiritual Well-Being Scale scores of the patients receiving hemodialysis treatment was examined (Table 3), a moderately significant negative correlation was found between anxiety and the sub-dimensions of meaning, peace, faith, and the total mean scores of spiritual well-being. A moderate negative correlation was investigated

between depression and the subscale of meaning. Moreover, a highly significant negative correlation was found between the subscales of peace and faith and FACIT-SP total score averages. A highly positive and significant correlation was found between anxiety and depression total score averages.

**Table 3.** Relationship Between Spiritual Well-being, Anxiety and Depression average scores of Hemodialysis Patients

	1	2	3	4	5	6
<b>1. Meaning</b>	1					
<b>2. Peace</b>	.755**	1				
<b>3. Faith</b>	.736**	.768**	1			
<b>4. FACIT-SP Total</b>	.886**	.912**	.938**	1		
<b>5. Anxiety</b>	-.398**	-.561**	-.580**	-.574**	1	
<b>6. Depression</b>	-.642**	-.750**	-.765**	-.794**	.866**	1

\*\*p<0.01

## DISCUSSION

Hemodialysis significantly affects patients' lives both physically and psychosocially (Chen et al., 2010). It is reported that psychiatric disorders, especially depression and anxiety, are common and their rates increase in patients receiving HD treatment (Bahar et al., 2007; Sağduyu et al., 2006; Haghighat et al., 2021). It is emphasized that religious beliefs and spirituality are generally important for patients receiving HD treatment (Patel, Shah, Peterson, & Kimmel, 2002). Hemodialysis affects patients physically and psychologically for life. For example, anxiety and depression are common psychological problems in HD patients. Spirituality is seen as an important coping mechanism in chronic diseases. The findings of this study, which investigated the relationship between spiritual well-being and anxiety and depression in hemodialysis patients, were discussed in the light of the literature.

The findings of the present study revealed that the total score of spiritual well-being of hemo-dialysis patients were at a moderate level. Some studies in the literature reported that spiritual well-being levels of patients who received HD treatment were moderate (Alradaydeh & Khalil, 2018; Alshraifeen et al., 2020). These findings show similarity to the ones of the present study. There are also studies in the literature in which the spiritual

well-being of HD patients is high (Pilger et al., 2017; Duran et al., 2020) or low (Reig-Ferrer et al., 2012; Musa et al., 2018). It is thought that the reason for the difference in spiritual well-being levels of patients receiving hemodialysis treatment may be variables such as the religious and spiritual belief sources of the patients, the way they interpret the disease, the culture, and the characteristics of the region they live in. It is also thought that the region where the research is conducted also affects the results of a study. If the participants come from religious areas, this would change the results.

The depression score of the patients who received hemodialysis treatment was determined to be mild in this study. In some studies, the depression levels of patients receiving HD treatment were found to be mild, which supports the findings of the present study (Turgay et al., 2017; Özgür et al., 2003). In various studies, the depression levels of patients receiving HD treatment were found to be moderate (Pehlivan et al., 2008; Alradaydeh and Khalil, 2018) and high (Yıldırım et al., 2013), and severe (Yıldırım et al., 2013; R. Yavuz et al., 2015).

When the studies are examined, it is thought that the increase in the duration of HD treatment, the fact that individuals live alone, and insufficient social support may increase the severity of depression, and the difference may be caused by this situation. It is stated that long-term HD



treatment will increase the depressive mood in individuals (Alradaydeh & Khalil, 2018; Sarı, 2015; Akça & Doğan, 2011; Özdemir & Taşcı, 2013). The anxiety scores of the patients receiving hemodialysis treatment were found to be at a moderate level in this study. In various studies, patients who received HD treatment had moderate levels of anxiety (Çelik & Acar, 2007; Bossola et al., 2010), while in some studies, high levels of anxiety were found (Bossola et al., 2012; Yıldırım et al., 2013). This difference is thought to be caused by the average HD treatment time is less compared to other studies and because of different cultures. It is stated that staying connected to the dialysis machine in treatment programs three days a week for an average of four hours a day may cause an increase in helplessness, sadness, pessimism, and anxiety in the individual (Sarı, 2015; Akça & Doğan, 2011; Özdemir & Taşcı, 2013).

A highly positive and significant correlation was found between anxiety and depression score averages in this study. Findings in the literature also reported a positive relationship between anxiety and depression, which is consistent with the present study (Alshraifeen et al., 2020; Marthoenis et al., 2021). Some studies that were conducted in Turkey reported that there was a positive relationship between anxiety and depression in hemodialysis patients. (Çelik & Acar, 2007; Çetinkaya et al., 2008; Baktıroğlu, 2010). Thus, it seems that there is a positive relationship between anxiety and depression.

A moderately significant negative correlation was found between anxiety, depression and spiritual well-being in this study. Many studies in literature are like the results of this study (Loureiro et al., 2018; Alradaydeh & Khalil, 2018; Musa et al., 2018, Şanlı et al., 2023; Bahar, 2023; Rayani et al., 2025). Along with these findings, it was found that there is a negative relationship between spiritual well-being and anxiety & depression. It can be conferred from the data that as individuals' spiritual well-being levels increase, their anxiety and depression levels will decrease. It is stated that high

spiritual well-being and religiousness are associated with a decrease in depression, anxiety, and stress levels in hemodialysis patients (Martinez & Custodio, 2014). Similarly, Luchetti et al. emphasized that high spirituality and religiousness reduce the depression and anxiety levels of individuals (Luchetti et al., 2010). Saffari et al. (2013) conducted a study with HD patients and found that spirituality positively affects anxiety, depression, and the health status of the patients. Durmuş and Ekinçi (2021) conducted a study in Turkey and observed that the anxiety and depression levels of patients who received spiritual care decreased.

It is stated that religious and spiritual practices applied to patients within the scope of spiritual interventions are effective in reducing the level of anxiety and depression in individuals (Bolhari et al., 2012; Rahnama et al., 2015). Puchalski stated that nurses can provide spiritual care including listening to the fears, hopes, pains and dreams of patients, as well as physical, emotional and spiritual support with compassion, and emphasized that nurses should pay attention to all aspects of the physical, mental and spiritual dimensions of patients and their families (Puchalski, 2001). There is increasing evidence that distinct spiritual/religious practices and convictions/attitudes may have a beneficial impact on health outcomes. Although spiritual/religious practices are generally not considered as a task of conventional health care, there is a consensus that holistic health care must address the physical, psychosocial, social and spiritual aspects of the patient. This bio-psychosocial-spiritual model of care provides a conceptual framework for supporting patients' overall health (Büssing and Koenig, 2010).

### **Limitations**

This study is a cross-sectional one and it was conducted only in one hospital, and these can be considered as the limitations of the study. FACIT-Sp was applied to assess the spiritual well-being of

hemodialysis patients participating in this study. FACIT-Sp is intertwined with concepts such as the purpose of life, meaning and feeling at peace. Significant differences can be seen among hemodialysis patients in their perception of the purpose and meaning of life. Therefore, it may not be possible to generalize the results of the study to all hemodialysis patients. This is one of the limitations of the study that may affect the research findings.

## **CONCLUSION**

It was found in this study that hemodialysis patients had moderate levels of spiritual well-being, moderate level of anxiety, and mild level of depression. A significant negative correlation was

found between the patients' spiritual well-being and anxiety scores, and a high level of negative correlation was found between spiritual well-being and depression scores. Because of the degree of spiritual well-being on the level of anxiety and depression in patients receiving hemodialysis treatment, it is recommended to apply a spiritual care program, which is a psychosocial treatment method, in addition to pharmacological treatment. It is suggested that the psychosocial approach and spirituality, which have an important place in reducing both the physical complaints of hemodialysis patients and the symptoms of psychological problems such as anxiety and depression, should be offered more in a holistic way.

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