

# Behaviors and Levels of Well-Being of End-Period Renal Failure Patients Coping with the Changes Experienced with Peritoneal Dialysis: Descriptive Study

## Son Dönem Böbrek Yetersizliği Hastalarının Periton Diyalizi ile Yaşadıkları Değişimlerle Başa Çıkma Davranışları ve İyi Oluşluk Düzeyleri: Tanımlayıcı Araştırma

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This study was presented as an oral presentation at Gevher Nesibe 9<sup>th</sup> International Health Sciences Congress, June 10-12, 2022, Kayseri, Türkiye.

**ABSTRACT Objective:** This research was carried out descriptively and correlational to determine the stress-coping behaviors and spiritual well-being levels of patients who received peritoneal dialysis as a result of end-stage renal failure. **Material and Methods:** The study was conducted with 92 peritoneal dialysis patients who were treated in the adult peritoneal dialysis unit of a university in Türkiye, met the inclusion criteria and agreed to participate in the study. The data of the study were collected using the Spiritual Well-Being Scale (SWBS), an information form created to determine some socio-demographic and disease-related characteristics of peritoneal dialysis patients. **Results:** In the study, the mean SWBS score of peritoneal dialysis patients was 99.95±16.16, and a statistically significant and positive correlation was found between age and SWBS total score, transcendence, harmony with nature sub-dimension mean scores. It was observed that individuals who said that they could not cope with stress had lower SWBS scores. It was determined that patients who showed positive coping behaviors with their current situations had higher total and sub-dimension mean scores of spiritual well-being than others. **Conclusion:** It was determined that the spiritual well-being levels of peritoneal dialysis patients within the scope of the study were high, and positive coping behaviors increase as spiritual well-being increases.

**Keywords:** Coping; renal failure; peritoneal dialysis; spiritual well-being

**ÖZET Amaç:** Bu araştırma, son dönem böbrek yetersizliği sonucu periton diyalizi alan hastaların yaşadıkları değişimlere karşı stresle başa çıkma davranışlarını ve spiritüel iyi oluşluk düzeylerini belirlemek amacıyla tanımlayıcı ve ilişkisel olarak yapılmıştır. **Gereç ve Yöntemler:** Çalışma bir üniversitenin erişkin periton diyalizi ünitesinde tedavi gören, araştırmaya dâhil edilme kriterlerine uyan ve çalışmaya katılmayı kabul eden 92 periton diyalizi hastası ile yürütülmüştür. Araştırmanın verileri; periton diyalizi hastalarının bazı sosyodemografik ve hastalıkla ilişkili özelliklerini belirlemeye yönelik oluşturulan bilgi formu, Spiritüel İyi Oluş Ölçeği (SİÖÖ) kullanılarak toplanmıştır. **Bulgular:** Çalışmada, periton diyalizi hastalarının SİÖÖ puan ortalaması 99,95±16,16 olup, yaş ile SİÖÖ toplam puan, aşkınlık, doğayla uyum alt boyut puan ortalaması arasında istatistiksel olarak anlamlı ve pozitif yönlü bir ilişki olduğu saptanmıştır. Stresle baş edemediğini söyleyen bireylerin SİÖÖ puanlarının daha düşük olduğu görülmüştür. Var olan durumları ile olumlu başa çıkma davranışları gösteren hastaların spiritüel iyi oluş toplam ve alt boyut puan ortalamalarının diğerlerinden yüksek olduğu belirlenmiştir. **Sonuç:** Çalışma kapsamındaki periton diyalizi hastalarının spiritüel iyi oluş düzeylerinin yüksek düzeyde olduğu, spiritüel iyi oluş arttıkça olumlu başa çıkma davranışlarının arttığı tespit edilmiştir.

**Anahtar Kelimeler:** Başa çıkma; böbrek yetersizliği; periton diyalizi; spiritüel iyi oluş

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One of the treatments for end-stage renal failure is peritoneal dialysis (PD).<sup>1</sup> PD is easier to administer, less costly, and has a better prognosis than hemodialysis (HD).<sup>2</sup> However, both HD and PD are treatment methods that make the patient dependent on the machine or treatment. Although PD allows patients to carry out and manage their own treatment and care at home, it makes them dependent on the hospital and the treatment team with monthly check-ups.<sup>3</sup>

PD patients are also faced with some limitations and lifestyle changes brought about by the chronic disease.<sup>4</sup> With the introduction of PD practice into life, the physical and psychosocial changes that it brings expose the individual to self-management difficulties.<sup>5</sup> At the beginning of the factors affecting the management of the disease, stressors and the determinants arising from their characteristics come. Stressors are agents that force the adaptive capacity of the individual and can be caused by many different situations (biological, chemical, psychosocial factors).<sup>6</sup> The methods of coping with stress differ from person to person, and positive coping mechanisms can also develop into ineffective or negative coping mechanisms. In descriptive studies on coping with stress in dialysis patients, it has been reported that the coping method that patients frequently resort to is “turning towards religion”.<sup>7</sup>

Spirituality is an important coping method for those living with chronic illness.<sup>8</sup> Spirituality, an experience lived in traditional religious systems, gives meaning to death and illness. Spirituality, overcoming difficulties that may occur in life.<sup>9</sup> Spiritual well-being supports individuals biopsychosocial and improves their quality of life.<sup>10</sup> In the literature, the effect of mental well-being on chronic diseases is important.<sup>11</sup> As spiritual well-being increases, individuals become happier and more satisfied with their lives.<sup>12</sup>

When studies examining spirituality are examined, the importance of meeting spiritual needs for the implementation of holistic care in patients with end-stage renal failure is emphasized.<sup>13</sup> While there are studies dealing with spirituality in HD patients, deficiencies in this regard have been identified in PD patients.<sup>14,15</sup>

In a study conducted on Taiwanese PD patients, it was determined that those who did less religious activities had a decrease in their quality of life and an increase in depression levels.<sup>16</sup> In HD treatment patients, high spirituality has been associated with a decrease in depression, stress and anxiety.<sup>17</sup>

It has been reported that spirituality is effective on the lives of people who have HD, but the effect of spirituality on coping has not been studied in PD patients.<sup>18,19</sup>

In PD patients, it is necessary to plan care by determining the problems and coping methods that individuals experience in physical, mental, and social areas within holistic care. However, although physical problems and care of individuals are prioritized, other dimensions may be ignored. In particular, spiritual well-being, which is an important parameter in improving mental health and has been found in studies in this direction, is less addressed in care. This study was conducted to determine the relationship between spiritual well-being and coping behaviors used in PD patients. It is thought that the findings obtained as a result of the study will contribute to the strengthening of the spiritual dimension, which is lacking in holistic nursing care.

## MATERIAL AND METHODS

### STUDY DESIGN

This study was carried out descriptively and correlational to detect the coping status/behaviors and spiritual well-being levels of patients who received PD as a result of end-stage renal failure.

### SETTING AND SAMPLE

In the study carried out in the PD unit of a university hospital, there were a total of 101 patients registered in the unit. While deciding on the sample size, the sample calculation formula was used in cases where the number of individuals in the universe was known. At the end of the study, 92 students participated in this study with 3.07% acceptable error and 95% confidence level.

### PARTICIPANT

Individuals who were literate, volunteered to participate in the study, were at least 18 years old, had been

practicing PD for at least 6 months, had no problems preventing communication, were taken to the research. The data of the research were obtained face to face between 1 June and 1 December 2019. The entire universe was invited to the study and 94 patients agreed to participate in the study. However, 2 patients were excluded from the study because the questionnaire questions were missing.

## MEASURES

### Personal Information Form

The questions in the personal information form were formed as a result of the literature review.<sup>7</sup> It consists of 20 questions in total to detect some socio-demographic variables of PD patients such as gender, income status, age, working status, educational status, occupation, characteristics for determining coping behaviors, and the changes they experience with PD practice.

### Spiritual Well-Being Scale

It was developed by Ekşi and Kardeş to understanding people's and their lives.<sup>20</sup> Developed with 29 items and a 5-point Likert scale, the scale consists of three sub-dimensions (transcendence, harmony with nature and anomie). A score between 29 and 145 can be obtained from the scale. The higher the scores, the higher the level of spiritual well-being. The developers of the scale Cronbach's alpha coefficient was determined as 0.88, and in this study it was determined as 0.90.

### Procedure

The patients were informed about study in a room on the days they came for control in the PD unit and an informed-voluntary consent form was signed by those meeting the inclusion criteria. The questionnaires were completed in 20-30 minutes.

## DATA ANALYSIS

Evaluation of data were into the using SPSS 25.0 (IBM Corp., Armonk, New York, USA) statistical program. Summary statistics such as income status, educational status, working status, people living with are given as a number of units (n), percentage (%). Patients ages and scale scores are shown using mean

and standard deviation. Kolmogorov-Smirnov test was used for the data conformity with normal distribution.<sup>21</sup> Since the data were normally distributed, independent samples t-test and analysis of variance were applied to compare 2 groups and >2 groups, respectively. Pearson rank correlation coefficient was used for the relationship between age, disease duration and the scale. The significance level was taken as 0.05.

## ETHICS APPROVAL

An ethic report exists of numbered (date: April 17, 2019 no: 288) Clinical Research Ethics Committee of Erciyes University and institutional permission was obtained from the dialysis hospital. The patients were not included in the study without consent. The study was conducted according to the ethical principles stated in the Declaration of Helsinki.

## RESULTS

The comparison of the Spiritual Well-Being Scale (SWBS) and sub-dimension mean scores of PD Patients according to their socio-demographic variables is given in [Table 1](#). 54.3% of the patients were male, 55.4% were primary school levels, 81.5% were married, 87% were not working, and 55.4%'s income was equal to their expenses. Moreover, 70.7% of the patients lived with their nuclear family, 91.3% stated that they had a chronic disease, 41.3% could not cope with stress, and 41.3% stated that they could not control their anger. There were significant differences in SWBS total score and transcendence sub-dimension score averages among married people, primary school graduates and high school graduates, between those whose income was equal to their expenses, those whose income was less than their expenses, and those who had an additional chronic disease ( $p < 0.05$ ). Furthermore, when the SWBS scores were examined according to the situation of coping with stress, it was seen that there was a significant difference between the groups and this difference was caused by those who could not cope with stress ( $p < 0.05$ ). Moreover, the SWBS total score means of the working patients were higher and a statistically significant difference was obtained ( $p < 0.05$ ). When we look at the mean scores of the harmony with nature sub-dimensions, statistically significant differences were found be-

**TABLE 1:** Comparison of peritoneal dialysis patients' SWBS total and sub-dimensional scores according to descriptive characteristics (n=92).

	n	(%)	SWBS	Transcendence	Harmony with nature	Anomie
<b>Gender</b>						
Female	42	45.7	97.98±15.16	56.14±10.10	24.81±3.43	15.62±3.95
Male	50	54.3	101.6±16.94	57.04±10.89	24.96±3.50	18.24±4.69
p value			0.287	0.685	0.836	<b>0.005</b>
<b>Marital status</b>						
Single	17	18.5	92.82±16.11	51.94±10.8	23.29±3.6	16.59±4.87
Married	75	81.5	101.56±15.84	57.69±10.19	25.25±3.33	17.15±4.49
p value			<b>0.044</b>	<b>0.041</b>	<b>0.034</b>	0.649
<b>Educational status</b>						
Literate	15	16.3	103.73±15.07 <sup>ab</sup>	60.27±9.76 <sup>ab</sup>	26.47±3.02 <sup>a</sup>	15.47±4.79
Primary school graduate	51	55.4	95.75±15.93 <sup>a</sup>	53.29±9.89 <sup>a</sup>	23.86±3.38 <sup>b</sup>	17.33±4.44
High school graduate	14	15.2	102.93±13.32 <sup>b</sup>	58.21±8.42 <sup>b</sup>	25.5±2.59 <sup>ab</sup>	18.14±5.25
Higher education graduate	12	13.0	109.58±17.16 <sup>ab</sup>	64.42±11.00 <sup>ab</sup>	26.58±3.90 <sup>ab</sup>	16.5±3.66
p value			<b>0.026</b>	<b>0.002</b>	<b>0.010</b>	0.395
<b>Working status</b>						
Yes	12	13.0	108.58±17.72	62.08±11.01	26.5±3.73	18.33±5.18
No	80	87.0	98.65±15.63	55.81±10.23	24.65±3.36	16.85±4.44
p value			<b>0.047</b>	0.053	0.083	0.294
<b>Income status</b>						
Income more than expense	3	3.3	94.00±13.53 <sup>ab</sup>	54.67±5.69 <sup>ab</sup>	23.67±3.51	14.33±5.69 <sup>ab</sup>
Income equals expense	51	55.4	104.14±17.41 <sup>a</sup>	59.18±11.27 <sup>a</sup>	25.45±3.84	18.16±4.27 <sup>a</sup>
Income less than expense	38	41.3	94.79±13.00 <sup>b</sup>	53.37±8.77 <sup>b</sup>	24.24±2.76	15.76±4.50 <sup>b</sup>
p value			<b>0.020</b>	<b>0.032</b>	0.215	<b>0.026</b>
<b>People living with</b>						
Nuclear family	65	70.7	101.58±15.28	57.78±9.73	25.14±3.26	17.26±4.42 <sup>ab</sup>
Extended family	24	26.1	94.79±18.44	53.42±12.43	24.21±3.92	15.75±4.46 <sup>a</sup>
Alone	3	3.3	105.67±7.37	57.33±5.51	25±4	22.67±3.79 <sup>b</sup>
p value			0.176	0.219	0.533	<b>0.033</b>
<b>Chronic disease status</b>						
Yes	84	91.3	101.25±15.52	57.52±9.94	25.1±3.31	17.2±4.67
No	8	8.7	86.25±17.46	47.25±12.23	22.75±4.33	15.38±2.26
p value			<b>0.011</b>	<b>0.007</b>	0.066	0.075
<b>Coping with stress</b>						
Able to cope	24	26.1	110.71±11.93 <sup>a</sup>	62.54±8.39 <sup>a</sup>	26.58±3.09 <sup>a</sup>	20.46±4.18 <sup>a</sup>
Unable to cope	38	41.3	88.74±14.18 <sup>b</sup>	49.97±9.47 <sup>b</sup>	22.79±3.21 <sup>b</sup>	14.47±4.00 <sup>b</sup>
Sometimes able to cope	30	32.6	105.53±12.55 <sup>a</sup>	60.33±8.59 <sup>a</sup>	26.2±2.58 <sup>a</sup>	17.57±3.43 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>Anger control status</b>						
Able to control	22	23.9	103.59±13.45	58.86±9.06	25.41±3.19	17.95±5.39
Unable to control	38	41.3	98.58±16.65	55.74±11.24	24.68±3.61	16.84±3.76
Sometimes able to control	32	34.8	99.06±17.35	56.16±10.57	24.78±3.5	16.66±4.8
p value			0.481	0.517	0.721	0.555

a-c: No difference between groups with the same letter for each measurement, independent samples t-test, one-way analysis of variance,  $\bar{X}$ ±SD; SWBS: Spiritual Well-Being Scale; SD: Standard deviation.

tween those who were married, between primary school graduates and high school graduates, and between those who could not cope with stress and those

who could and sometimes could. In the average scores of anomie sub-dimensions, statistically significant differences were found between men, those

whose income was equal to their expenditure, those who lived alone, those who could not cope with stress and those who could cope and sometimes could cope ( $p<0.05$ ).

The changes experienced by PD patients in physical, psychological and social fields are given in Table 2. In the physical field, it was found that 89.1% of the patients experienced fatigue, 67.4% had skin problems/itching, 57.6% had sleep problems, 51.1% had anorexia/nausea and sexual problems. In the psychological field, it was found that 90.2% of the patients experienced the feeling of dependency and stress, 76.1% experienced a change in the meaning of life, 73.9% experienced future anxiety, and 67.4% experienced anger. In the social field, it was found that 96.7% of the patients experienced a change in lifestyle, 71.4% experienced a change in social interaction, 41.8% experienced a change in fulfilling roles, 38% experienced economic problems, and 23.1% experienced breakdown in family relations.

The comparison of the Spiritual Well-Being Scale and sub-dimension mean scores of PD patients according to their coping behaviors is given in Table 3. Patients who show positive coping behaviors such as sharing their feelings, receiving emotional support from friends and relatives, trying different ways to solve the problem, looking at events from a different perspective and finding other things they care about have higher spiritual well-being total and sub-dimension mean scores and this difference was significant ( $p<0.05$ ). On the other hand, patients who show negative coping behaviors such as blaming themselves or others, seeing themselves as the source of the problem and obsessing over the problem have

lower spiritual well-being total and sub-dimension mean scores, and this difference was significant ( $p<0.05$ ).

The mean, standard deviation and correlation values of the SWBS, sub-dimensions patients are given in Table 4. It was found that there was a weak correlation between age and SWBS mean score ( $r=0.209$ ;  $p<0.05$ ), a weak correlation between age and transcendence sub-dimension mean score ( $r=0.238$ ;  $p<0.05$ ), a weak correlation between age and harmony with nature sub-dimension mean score ( $r=0.207$ ;  $p<0.05$ ), and a high level of statistically significant and positive correlation between duration of illness and duration of PD ( $r=0.663$ ;  $p<0.05$ ). It was determined that there was a statistically significant and positive correlation between the SWBS total mean score and the sub-dimensions of transcendence, harmony with nature and anomie ( $p<0.05$ ).

## DISCUSSION

A number of restrictions brought by end-stage renal disease (ESRD) and PD practice, changes in lifestyle, continuity, and exhaustion of dialysis affect the spiritual health of patients.<sup>7,22</sup> Considering that spiritual well-being, which is one of the components of holistic patient care, is a unique power and is an important indicator of perceived quality of life, determining the well-being levels of patients determines the goal of care.<sup>10</sup> In this study, the results of coping behaviors and spiritual well-being levels of patients with PD due to ESRD were discussed. Since existing studies in the literature mostly focus on spiritual well-being in patients undergoing HD, they have been compared with similar research results.

**TABLE 2:** Changes in the physical, psychological and social fields of peritoneal dialysis patients (n=92).

Physical change*	%	Psychological change*	%	Change in social life*	%
Fatigue	89.1	Sense of dependency	90.2	Change in lifestyle	96.7
Skin problems/Itching	67.4	Stress	90.2	Decreased social interaction	71.4
Sleep problems	57.6	Change in the meaning of life	76.1	Change in fulfilling roles	41.8
Anorexia/Nausea	51.1	Worry about the future	73.9	Economic problems	38.0
Sexual problems	51.1	Anger	67.4	Breakdown in family relationships	23.1

\*Multiple responses.

**TABLE 3:** Comparison of the SWBS and sub-dimension mean scores of peritoneal dialysis patients according to their coping behaviors (n=92).

Characteristic	n	%	SWBS	Transcendence	Harmony with nature	Anomie
<b>Positive coping behaviors</b>						
I share my feelings.						
No	22	23.9	87.50±12.21 <sup>a</sup>	49.55±8.84 <sup>a</sup>	22.73±2.90 <sup>a</sup>	13.45±3.08 <sup>a</sup>
Sometimes	36	39.1	96.42±13.51 <sup>b</sup>	54.89±9.40 <sup>a</sup>	24.42±3.17 <sup>a</sup>	15.78±3.41 <sup>b</sup>
Yes	34	37.0	111.74±13.12 <sup>c</sup>	63.06±8.97 <sup>b</sup>	26.79±3.11 <sup>b</sup>	20.71±3.78 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
I try to get emotional support from friends or relatives.						
No	20	21.8	88.30±12.52 <sup>a</sup>	50.50±8.84 <sup>a</sup>	22.80±3.12 <sup>a</sup>	13.30±3.13 <sup>a</sup>
Sometimes	36	39.1	95.03±14.47 <sup>a</sup>	53.86±10.12 <sup>a</sup>	24.19±3.22 <sup>a</sup>	15.61±3.55 <sup>b</sup>
Yes	36	39.1	111.33±12.21 <sup>b</sup>	62.81±8.52 <sup>b</sup>	26.75±2.95 <sup>b</sup>	20.56±3.58 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
I try different ways by taking action to solve the problem.						
No	18	19.6	87.81±10.65 <sup>a</sup>	49.86±7.84 <sup>a</sup>	22.81±2.79 <sup>a</sup>	13.52±3.31 <sup>a</sup>
Sometimes	37	40.2	95.79±15.01 <sup>a</sup>	54.42±10.26 <sup>a</sup>	24.32±3.44 <sup>a</sup>	15.61±3.27 <sup>a</sup>
Yes	37	40.2	112.45±11.54 <sup>b</sup>	63.48±8.27 <sup>b</sup>	26.88±2.83 <sup>b</sup>	20.94±3.62 <sup>b</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
I try to see something from another angle to make it look more positive.						
No	21	22.8	82.24±9.98 <sup>a</sup>	46.14±7.79 <sup>a</sup>	21.48±2.58 <sup>a</sup>	12.95±3.11 <sup>a</sup>
Sometimes	45	48.9	100.18±11.81 <sup>b</sup>	57.13±8.16 <sup>b</sup>	25.16±2.70 <sup>b</sup>	16.47±3.40 <sup>b</sup>
Yes	26	28.3	113.85±12.7 <sup>c</sup>	64.23±9.04 <sup>c</sup>	27.19±3.11 <sup>c</sup>	21.35±3.61 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
I try to find something else I care about.						
No	19	20.7	83.79±9.41 <sup>a</sup>	46.58±6.44 <sup>a</sup>	22.11±2.21 <sup>a</sup>	13.47±3.29 <sup>a</sup>
Sometimes	37	40.2	97.43±13.54 <sup>b</sup>	56.03±9.63 <sup>b</sup>	24.62±3.37 <sup>b</sup>	15.35±3.19 <sup>a</sup>
Yes	36	39.1	111.06±13.03 <sup>c</sup>	62.56±8.83 <sup>c</sup>	26.64±3.05 <sup>c</sup>	20.67±3.75 <sup>b</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
<b>Negative coping behaviors</b>						
I blame others or something else for an issue that happened to me.						
No	31	33.7	106.65±15.53 <sup>a</sup>	59.94±10.37 <sup>a</sup>	26.10±3.14 <sup>a</sup>	19.55±5.34 <sup>a</sup>
Sometimes	32	34.8	101.97±12.99 <sup>a</sup>	58.47±8.71 <sup>a</sup>	25.34±2.97 <sup>a</sup>	16.75±3.07 <sup>b</sup>
Yes	29	31.5	90.55±16.06 <sup>b</sup>	51.07±10.50 <sup>b</sup>	23.10±3.63 <sup>b</sup>	14.69±3.63 <sup>b</sup>
p value			<b>&lt;0.001</b>	<b>0.002</b>	<b>0.002</b>	<b>0.001</b>
I see/blame myself as the source of the problem.						
No	22	23.9	109.95±16.03 <sup>a</sup>	61.41±10.57 <sup>a</sup>	26.32±3.27 <sup>a</sup>	21.27±4.69 <sup>a</sup>
Sometimes	37	40.2	100.92±14.83 <sup>a</sup>	57.59±9.67 <sup>b</sup>	25.16±3.26 <sup>b</sup>	16.76±3.35 <sup>b</sup>
Yes	33	35.9	92.18±13.95 <sup>b</sup>	52.36±9.94 <sup>ab</sup>	23.64±3.43 <sup>ab</sup>	14.55±3.55 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>0.005</b>	<b>0.014</b>	<b>&lt;0.001</b>
I become obsessed with a problem and live it over and over again.						
No	14	15.2	114.5±14.89 <sup>a</sup>	64.14±10.11 <sup>a</sup>	27.00±3.37 <sup>a</sup>	22.50±4.16 <sup>a</sup>
Sometimes	36	39.1	104.33±12.4 <sup>a</sup>	59.19±8.24 <sup>a</sup>	25.69±2.89 <sup>a</sup>	18.22±3.15 <sup>b</sup>
Yes	42	45.7	91.33±14.6 <sup>b</sup>	51.93±10.31 <sup>b</sup>	23.5±3.41 <sup>b</sup>	14.21±3.48 <sup>c</sup>
p value			<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>0.001</b>	<b>&lt;0.001</b>

a-c: No difference between groups with the same letter for each measurement, one-way analysis of variance,  $\bar{X} \pm SD$ . SWBS: Spiritual Well-Being Scale; SD: Standard deviation.

PD patients may experience physical and psychosocial changes that greatly affect their lives, along with the disease and treatment process.<sup>23</sup> It was found

that PD patients frequently experienced physical symptoms such as fatigue, skin problems/itching, sleep problems, loss of appetite/nausea, and sexual problems.



**TABLE 4:** The mean, standard deviation and correlation values of the SWBS, its sub-dimensions and other variables.

Variables	$\bar{X}\pm SD$	1	2	3	4	5	6	7
1. Age	53.67±14.08	-						
2. Disease duration	105.16±79.73	-0.162	-					
3. Peritoneal dialysis treatment time	60.66±46.24	-0.136	0.663**	-				
4. SWBS	99.95±16.16	0.209*	0.167	0.123	-			
5. Transcendence	56.63±10.49	0.238*	0.142	0.099	0.970**	-		
6. Harmony with nature	24.89±3.45	0.207*	0.150	0.077	0.925**	0.914**	-	
7. Anomie	17.04±4.54	-0.031	0.160	0.162	0.589**	0.398**	0.379**	-

Pearson correlation coefficient was used,  $\bar{X}\pm SD$ ; \* $p<0.05$ ; \*\* $p<0.01$ ; SWBS: Spiritual Well-Being Scale; SD: Standard deviation.

In many studies in the literature, it is seen that patients have physical symptoms similar to this study.<sup>24,25</sup>

When the psychological symptoms experienced by PD patients after dialysis treatment were examined, it was determined that PD patients experienced a sense of dependency and stress, change in the meaning of life, future anxiety, and anger. Studies in the literature are reported to be similar to the results of this research.<sup>26,27</sup> It can be thought that these patients are highly affected psychologically due to the burdens and complications of PD treatment and ESRD disease leading to vital consequences.

In addition to the physical and psychological lives of PD patients, their social lives are also significantly affected. In our study, it was determined that individuals experience changes in lifestyle, social interaction and in fulfilling roles, economic problems, and breakdown in family relations. The results of PD patients in the literature reviews support our study.<sup>28</sup> Although PD is performed by the patients at home, it can be thought that it affects the social and family relationships due to the physical and psychological symptoms that develop due to the disease.

In this study, it was detected that the mean SWBS total score in PD patients was 99.95±16.16. According to this mean score, it can be said that the SWBS scores of PD patients were increase. Since spiritual well-being in PD patients has not been studied in the literature, this result is similar to spiritual well-being scores in HD patients.<sup>14,29</sup> In this study, spiritual well-being in PD patients may be thought to

be high due to the fact that the entire sample had a religious belief and believed in a divine power.<sup>30</sup>

According to the marital status of the patients, the SWBS total score, transcendence, and harmony with nature sub-dimension mean scores were higher in married people, and this difference was statistically significant. While it was reported in the literature that marital status did not have a significant effect on spiritual well-being in studies conducted with HD patients, a significant difference was found in our study, contrary to the conducted studies.<sup>30,31</sup> With the support of spouses, looking at life more positively and feeling psychologically better can affect spiritual well-being positively.

Educational status can positively affect patients' harmony with nature, their participation in different physical and mental activities, occupations, and therapies, adding meaning to their lives and spiritual well-being.

In our research, a statistically significant difference was found between the SWBS total score, transcendence, and anomie sub-dimension mean scores according to the income status of the patients. In our study group, the income of the majority (55.4%) was equal to the expenditure. It can be said that the commitment to a higher asset or power was high, together with the high transcendence and total score. However, the high anomie score indicates a feeling of emptiness. It can be said that the loss of value judgments, a sense of uselessness, purposelessness, emotional emptiness, and hopelessness accompany the disease in PD patients.

In the present study, it is seen that patients with an additional chronic disease had higher SWBS total and transcendence subscale mean scores than patients without chronic disease. This may be due to the fact that PD patients with other chronic diseases have previous experiences and high readiness.

Kamya stated that spiritual well-being is a strong predictor of self-esteem and one's ability to effectively cope with difficulties and problems.<sup>32</sup> In our study, it was detected that the patients who could not cope with stress had lower SWBS total and mean scores of all sub-dimensions. It can be said that patients who can cope with stress have higher spiritual well-being, a sense of meaning and aim in life, and cope with difficulties more easily.

In this study, the mean SWBS total score of the patients who continued their working life was found to be higher than the patients who did not work. With this result, it can be said that the patients maintain their productivity and feel better spiritually with the support and strength they receive from their friends in their business life.

It is important for dialysis patients to receive the support of the people they live with in terms of adaptation to the disease and treatment process. In the study, it was found that individuals living alone had high anomie sub-dimension mean scores. Accordingly, it is thought that PD patients living alone do not feel like they belong to a social environment, they do not include new values and meanings in their lives, and the feeling of emotional emptiness is dominant. In our research, it is found that the anomie sub-dimension mean scores of men were high. It can be said that male patients have more feelings such as not enjoying life and feeling dissatisfied.

People with ESRD may turn to spirituality to cope with their illness. Satisfaction with health is related to spiritual well-being. Therefore, spirituality or religiosity is an important coping method for those living with chronic illness.<sup>8</sup> In the present study, it was determined that individuals with high spiritual well-being showed positive coping behaviors. In the literature, it has been stated that spiritual well-being has beneficial effects on illness, functions as a coping and adaptation strategy, and increases physical and

mental well-being.<sup>17</sup> Duran and Güngör found in their study that HD patients were more prone to spirituality in the face of difficulties and in coping with the disease.<sup>7</sup> In the qualitative study conducted by Pham et al., they stated that belief in the creator and social support help in coping with the problems in patients with kidney failure.<sup>33</sup> These results show parallelism with our study. The person, who believes in the existence of transcendent power and has a secure relationship with the creator, experiences greater comfort in times of stress and greater strength in daily life.<sup>34</sup> These findings, which also demonstrate the purpose of the study, show the importance of spirituality in nursing care and that it should be used in the care of patients. Hence, current health promotion diagnoses such as strengthening spiritual well-being in nursing care also support the importance of these findings.<sup>35</sup>

In this study, it was determined that there was a statistically significant and positive relationship between age and the SWBS total score, the mean score of the transcendence and harmony with nature sub-dimension. As PD patients get older, their willingness to seek meaning and purpose in their existence, their belief in the existence of divine power, and their search for harmony between internal and external forces increase their spiritual well-being.

## STRENGTHS AND LIMITATIONS

This study constitutes a new data on spiritual well-being, which is less discussed in PD patients in the literature. Moreover, while the physical dimension of care is mostly addressed in chronic diseases, this study draws attention to the spiritual dimension. The positive effect of the well-being of the spiritual dimension on the physical dimension is known. In addition to these strengths, the fact that the sample of the study covers a certain region and that the individuals in this region show common cultural characteristics and does not show differences constitutes a limitation.

## CONCLUSION

It was determined that the SWBS levels of the PD patients within the scope of the study were high, and the coping behaviors increase as the spiritual well-being increases. The results of the research are important in terms of raising awareness of the



importance of spiritual care for the healthcare personnel of PD patients. It can be recommended to evaluate all PD patients as regards and detect their spiritual needs, and spiritual care can be used as a complementary method in order to increase the effectiveness of PD practice. Longitudinal prospective studies with larger samples can be conducted to generalize the results to the population.

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### Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Nurcan Uzdil, Nuray Şimşek, Özlem Ceyhan, Büilent Tokgöz; **Design:** Nurcan Uzdil, Özlem Ceyhan, Nuray Şimşek, Büilent Tokgöz; **Control/Supervision:** Nurcan Uzdil, Özlem Ceyhan, Büilent Tokgöz; **Data Collection and/or Processing:** Nurcan Uzdil, Büilent Tokgöz; **Analysis and/or Interpretation:** Nurcan Uzdil, Özlem Ceyhan, Nuray Şimşek; **Literature Review:** Nurcan Uzdil, Büilent Tokgöz, Nuray Şimşek; **Writing the Article:** Nurcan Uzdil, Nuray Şimşek; **Critical Review:** Büilent Tokgöz, Nurcan Uzdil, Nuray Şimşek, Özlem Ceyhan; **References and Findings:** Nurcan Uzdil, Özlem Ceyhan, Büilent Tokgöz.

## REFERENCES

- Güngör Ö, Gök Oğuz E, Dericü Ü. Renal Replasman Tedavileri Derlemeler. 1. Baskı. Ankara: Akademisyen Yayınevi; 2020.
- T.C Sağlık Bakanlığı. Türk Halk Sağlığı Kurumu. Türkiye Böbrek Hastalıkları Önleme ve Kontrol Programı. Eylem Planı (2014-2017). Ankara: T.C. Sağlık Bakanlığı; 2014. [Link]
- Oren B, Enç N. Quality of life in chronic haemodialysis and peritoneal dialysis patients in Turkey and related factors. *Int J Nurs Pract.* 2013;19(6):547-56. [Crossref] [PubMed]
- Tannor EK, Archer E, Kapembwa K, van Schalkwyk SC, Davids MR. Quality of life in patients on chronic dialysis in South Africa: a comparative mixed methods study. *BMC Nephrol.* 2017;18(1):4. [Crossref] [PubMed] [PMC]
- Tong A, Lesmana B, Johnson DW, Wong G, Campbell D, Craig JC. The perspectives of adults living with peritoneal dialysis: thematic synthesis of qualitative studies. *Am J Kidney Dis.* 2013;61(6):873-88. [Crossref] [PubMed]
- Eriksson M, Lindström B. Antonovsky's sense of coherence scale and the relation with health: a systematic review. *J Epidemiol Community Health.* 2006;60(5):376-81. [Crossref] [PubMed] [PMC]
- Duran S, Güngör E. Diyaliz hastalarının duygusal ve sosyal sorunlarının belirlenmesi [Determination of the emotional and social problems in dialysis patients]. *Uludağ Üniversitesi Tıp Fakültesi Dergisi.* 2015;41(2):59-63. [Link]
- Krupski TL, Kwan L, Fink A, Sonn GA, Maliski S, Litwin MS. Spirituality influences health related quality of life in men with prostate cancer. *Psychooncology.* 2006;15(2):121-31. [Crossref] [PubMed]
- Chatrunc C, Sorajakool S, Amnatsatsue K. Wellness and religious coping among that individuals living with chronic kidney disease in southern California. *J Relig Health.* 2015;54(6):2198-211. [Crossref] [PubMed]
- Solaimanzadeh F, Mohammadinia N, Solaimanzadeh L. The relationship between spiritual health and religious coping with death anxiety in the elderly. *J Relig Health.* 2020;59(4):1925-32. [Crossref] [PubMed]
- Bravin AM, Trettene ADS, Andrade LGM, Popim RC. Benefits of spirituality and/or religiosity in patients with Chronic Kidney Disease: an integrative review. *Rev Bras Enferm.* 2019;72(2):541-51. English, Portuguese. [Crossref] [PubMed]
- Mahdian Z, Ghafari M. The mediating role of psychological resilience, and social support on the relationship between spiritual well-being and hope in cancer patients. *Journal of Fundamentals of Mental Health.* 2016;18(3):130-8. [Link]
- Okhli A, Hojjati H, Sadeghloo A, Molaei A, Shahrabady S. The relationship between observing religious beliefs and suffering in hemodialysis patients. *J Relig Health.* 2022;61(3):2018-28. [Crossref] [PubMed]
- Alradaydeh MF, Khalil AA. The association of spiritual well-being and depression among patients receiving hemodialysis. *Perspect Psychiatr Care.* 2018;54(3):341-7. [Crossref] [PubMed]
- Musa AS, Pevalin DJ, Al Khalaiieh MAA. Spiritual well-being, depression, and stress among hemodialysis patients in Jordan. *J Holist Nurs.* 2018;36(4):354-65. [Crossref] [PubMed]
- Kao TW, Tsai DM, Wu KD, Shiah CJ, Hsieh BS, Chen WY. Impact of religious activity on depression and quality of life of chronic peritoneal dialysis patients in Taiwan. *J Formos Med Assoc.* 2003;102(2):127-30. [PubMed]
- Martínez BB, Custódio RP. Relationship between mental health and spiritual wellbeing among hemodialysis patients: a correlation study. *Sao Paulo Med J.* 2014;132(1):23-7. [Crossref] [PubMed] [PMC]
- Tanyi RA, Werner JS. Women's experience of spirituality within end-stage renal disease and hemodialysis. *Clin Nurs Res.* 2008;17(1):32-49. [Crossref] [PubMed]
- Patel SS, Shah VS, Peterson RA, Kimmel PL. Psychosocial variables, quality of life, and religious beliefs in ESRD patients treated with hemodialysis. *Am J Kidney Dis.* 2002;40(5):1013-22. [Crossref] [PubMed]
- Ekşi H, Kardaş S. Spiritual well-being: Scale development and validation. *Spiritual Psychology and Counseling.* 2017;2(1):73-88. [Crossref]
- Mayers A. Introduction to Statistics and SPSS in Psychology. 1st ed. Upper Saddle River, NJ: Pearson; 2013.

22. Jesus NM, Souza GF, Mendes-Rodrigues C, Almeida Neto OP, Rodrigues DDM, Cunha CM. Quality of life of individuals with chronic kidney disease on dialysis. *J Bras Nefrol.* 2019;41(3):364-74. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
23. Wang R, Tang C, Chen X, Zhu C, Feng W, Li P, Lu C. Poor sleep and reduced quality of life were associated with symptom distress in patients receiving maintenance hemodialysis. *Health Qual Life Outcomes.* 2016;14(1):125. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
24. Li JY, Cai JH, Lin JX, Yi CY, Tao LY, Cheng SZ, et al. A symptom assessment instrument for peritoneal dialysis patients: Dialysis Symptom Index (DSI). *Chin J Blood Purificat.* 2015;14(5):277-80. [[Crossref](#)]
25. Eren G. Hemodiyaliz tedavisi alan hastalarda semptomların ve yaşam kalitelerinin değerlendirilmesi [Yüksek lisans tezi]. Manisa: Manisa Celal Bayar Üniversitesi; 2019. [Erişim tarihi: 24.04.2021] [[Link](#)]
26. Baykan H, Yargic I. Depression, anxiety disorders, quality of life and stress coping strategies in hemodialysis and continuous ambulatory peritoneal dialysis patients. *Klinik Psikiyatri Bülteni.* 2012;22(2):167-76. [[Crossref](#)]
27. Stasiak CE, Bazan KS, Kuss RS, Schuinski AF, Baroni G. Prevalence of anxiety and depression and its comorbidities in patients with chronic kidney disease on hemodialysis and peritoneal dialysis. *J Bras Nefrol.* 2014;36(3):325-31. English, Portuguese. [[Crossref](#)] [[PubMed](#)]
28. Karaca S, Çınar S, Bahçebaşı ZB. Hastaların perspektifinden: periton diyalizinin yaşama ve ruhsal belirtilere etkisi [The perspective from the patients: the effects of peritoneal dialysis on life and mental symptoms]. *Clinical and Experimental Health Sciences.* 2012;2(4):169-74. [[Crossref](#)]
29. Duran S, Avci D, Esim F. Association between spiritual well-being and resilience among turkish hemodialysis patients. *J Relig Health.* 2020;59(6):3097-109. [[Crossref](#)] [[PubMed](#)]
30. Worthington EL Jr, Hook JN, Davis DE, McDaniel MA. Religion and spirituality. *J Clin Psychol.* 2011;67(2):204-14. [[Crossref](#)] [[PubMed](#)]
31. Fradelos EC, Tsaras K, Tzavella F, Koukia E, Papathanasiou IV, Alikari V, et al. Clinical, social and demographics factors associated with spiritual wellbeing in end stage renal disease. *Adv Exp Med Biol.* 2017;987:77-88. [[Crossref](#)] [[PubMed](#)]
32. Kamy HA. Hardiness and spiritual well-being among social work students: implications for social work education. *Journal of Social Work Education.* 2000;36(2):231-40. [[Crossref](#)]
33. Pham TV, Beasley CM, Gagliardi JP, Koenig HG, Stanifer JW. Spirituality, coping, and resilience among rural residents living with chronic kidney disease. *J Relig Health.* 2020;59(6):2951-68. [[Crossref](#)] [[PubMed](#)]
34. Hill PC, Pargament KI. Advances in the conceptualization and measurement of religion and spirituality. Implications for physical and mental health research. *Am Psychol.* 2003;58(1):64-74. [[Crossref](#)] [[PubMed](#)]
35. Wilkinson JM, Barcus L, eds. Kapucu S, Akyar I, Korkmaz F, çeviri editörleri. Pearson Hemşirelik Tanıları El Kitabı: NANDA-I Tanılar, NIC Girişimleri, NOC Çıktıları. 11. Baskı. Ankara: Pelikan Yayınevi; 2018.