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The Effect of the Spiritual States of Hemodıalysıs Patients on Their Levels of Hopelessness

Hemodiyaliz Hastalarının Manevi Durumlarının Umutsuzluk Düzeylerine Etkisi

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THE EFFECT OF THE SPIRITUAL STATES OF HEMODIALYSIS PATIENTS ON THEIR LEVELS OF HOPELESSNESS

ABSTRACT:

Aim: This study was conducted descriptively to determine the effects of the spiritual orientation of hemodialysis patients on their levels of hopelessness.

Method: The study sample consisted of 100 hemodialysis patients treated at Ondokuz Mayıs University Health Application and Research Center (OMUHARC) hemodialysis unit, nephrology service and City Health Center affiliated to OMUHARC between July 2017 and May 2018. The data were collected using patient introductory information forms, Spiritual Orientation Scale (SOS) and Beck Hopelessness Scale (BHS). The compliance of the data to normal distribution was examined using the Shapiro Wilk test. Kruskal Wallis and Mann Whitney U tests were used to compare data that did not conform to normal distribution. Spearman correlation analysis was used to examine the relationship between the sub-dimensions of the scales.

Result: The patients' average age was 56.7±14.4, 59% were male, 80% were married, 53% were diagnosed with chronic renal failure 1-5 years ago, 75% had been receiving hemodialysis treatment for 1-5 years and 63% had another chronic disease. The mean total score of SOS was 99.57±15.51. The mean BHS total score was 5.68 ± 4.43; while the emotions and expectations about the future sub-dimension mean total score was 1.2 ± 1.29, that of the motivation loss sub-dimension was 2.56±1.89, whereas that of the hope sub-dimension was 1.91±1.82. A moderately negative significant correlation was found between SOS and BHS (r: -0.385, $p<0.001$).

Conclusion and Suggestions: We found a moderate relationship between spiritual orientation and hopelessness and that as spiritual orientation increased, hopelessness decreased. To strengthen the patient against hopelessness, we recommend establishing spiritual practices for Hemodialysis (HD) patients and a spiritual support team.

Keywords: *Hemodialysis; Hopelessness; Nursing; Spiritual Orientation.*

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HEMODİYALİZ HASTALARININ MANEVİ DURUMLARININ UMUTSUZLUK DÜZEYLERİNE ETKİSİ

ÖZ:

Amaç: Bu araştırma hemodiyaliz hastalarının manevi yönelimlerinin umutsuzluk düzeylerine etkisini belirlemek amacıyla tanımlayıcı olarak yürütülmüştür.

Materyal ve Metot: Araştırmanın örneklemini Temmuz-2017 ve Mayıs 2018 tarihleri arasında Ondokuz Mayıs Üniversitesi Sağlık Uygulama ve Araştırma Merkezi (OMÜ SUVAM) hemodiyaliz ünitesi, nefroloji servisi ve OMÜ SUVAM'a bağlı Şehir Sağlık Merkezi'nde tedavi gören 100 hemodiyaliz hastası oluşturmuştur. Veriler hasta tanıtıcı bilgi formu, Manevi Yönelim Ölçeği (MYÖ) ve Beck Umutsuzluk Ölçeği (BUÖ) kullanılarak toplanmıştır. Verilerin normal dağılıma uygunluğu Shapiro Wilk testi ile incelenmiştir. Normal dağılıma uymayan verilerin karşılaştırılmasında Kruskal Wallis ve Mann Whitney U testi kullanılmıştır. Ölçeklerin alt boyutları arasındaki ilişkinin incelenmesinde ise Spearman korelasyon analizinden yararlanılmıştır.

Bulgular: Hastaların yaş ortalamasının 56.7±14.4 olduğu, %59'unun erkek, % 80'inin evli, % 53'ünün 1-5 yıl önce kronik böbrek yetmezliği tanısı aldığı, % 75'inin 1-5 yıldır hemodiyaliz tedavisi aldığı, % 63'ünün başka bir kronik hastalığı olduğu tespit edilmiştir. Bu araştırmada MYÖ toplam puan ortalaması 99.57±15.51 olarak saptanmıştır. BUÖ toplam puan ortalaması ise 5.68±4.43; gelecek ile ilgili duygular ve beklentiler alt boyutu toplam puan ortalaması 1.2±1.29 iken motivasyon kaybı alt boyutu toplam puan ortalaması 2.56±1.89 ve umut alt boyutu toplam puan ortalaması 1.91±1.82 olarak belirlenmiştir. MYÖ ve BUÖ arasında orta düzeyde negatif yönde anlamlı korelasyon belirlenmiştir (r: -0.385, p<0.001).

Sonuç ve Önerler: Manevi yönelim ve umutsuzluk arasında orta düzeyde ilişki olduğu ve manevi yönelim arttıkça umutsuzluğun azaldığı belirlenmiştir. Hastanın umutsuzluğa karşı güçlendirilmesi için Hemodiyaliz (HD) hastalarına yönelik manevi uygulamalarının oluşturulması ve manevi destek ekibinin kurulması önerilmektedir.

***Anahtar Kelimeler**: Hemodiyaliz; Manevi Yönelim; Umutsuzluk; Hemşirelik.*

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INTRODUCTION

When the individual is confronted with any chronic disease, the meaning and purpose of their life change, the need to find hope increases, and they experience limitations in their daily activities and social life (Al-Ghabeesh et al., 2018). Hopelessness is expressed as an emotional state in which the individual does not have any personal option to solve their problems or do what they want, or they cannot unleash their own energy to achieve their goals (Mc Sherry, 2000). Anxiety related to illness and fear of death can increase the feeling of hopelessness (Mukhtar, 2020). Spirituality during the illness has the potential to be a source of strength and hope for the patient. Furthermore, the concept of spirituality should be emphasized in chronic disease processes to be effective in the interventions to be applied to the patient and prevent the patient from entering the internal process that may disrupt his treatment (McSherry & Ross, 2010). Spirituality is a power beyond the individual's own existence (Peters, 2008) and plays an active role in coping with illnesses, maintaining well-being and during Hemodialysis (HD) is applied at an average rate of 90% among dialysis methods worldwide (Turkey Republic Ministry of Health, 2021). Hemodialysis (73.2%) was the most common type of treatment modality, followed by transplantation (22.9%) and peritoneal dialysis (3.9%) (Seyahi et al. 2021). Hemodialysis treatment constitutes a tiring and challenging process for the patient. During this period, patients seek ways to be better both physically and psychologically. A physically occurring problem can also affect the social and psychological field, and the effects in the emotional and spiritual sphere may cause some physically pathological changes (Boztilki & Ardıç, 2017). Therefore, the view that the individual should be handled with a holistic approach in terms of physical, social, emotional, economic, cultural and spiritual aspects is gaining importance (Daştan & Buzlu, 2010). the treatment and healing of chronic diseases (Pilger et al., 2017; Srivastava et al., 2016). It was reported that HD patients with high spiritual and existential well-being experienced less depression, anxiety and stress. It was also emphasized that spirituality should not be ignored in health promotion programs planned for hemodialysis patients (Musa et al., 2018).

The nursing profession has been expressed as a privileged profession to listen to patients talk about their hopelessness and fears (Atan et al., 2020). Therefore, nurses have to research concepts such as spirituality that affect hope and hopelessness in the care of patients and include them in holistic care. Although these two concepts are discussed in many diseases, it is thought that they are not adequately addressed for hemodialysis patients. Accordingly, this study was carried out to determine the effect of the spiritual state of hemodialysis patients on their levels of hopelessness.

METHOD

The study population consisted of patients receiving treatment in Ondokuz Mayıs University Health Application and Research Center (OMUHARC) Hemodialysis Unit, Nephrology Service and City Center Hemodialysis Unit. The study sample consisted of 100 hemodialysis patients who met the inclusion criteria between July 2017 and May 2018. The inclusion criteria were the following: being aged 18 or above, literate in Turkish language, having no communication barriers, being treated for hemodialysis for at least 1 year, having no psychiatric diagnosis and accepting voluntarily to participate in the study. Sampling calculation was determined in G. Power Version 3.1 statistical analysis program with 95% confidence interval and 0.90 power ratio (minimum 70 persons).

Data Collection: The data were collected through patient introductory information forms prepared by the researcher, Spiritual Orientation Scale (SOS) and Beck Hopelessness Scale (BHS). The form consisted of ten questions about sociodemographic and disease-related information of the patients.

Spiritual Orientation Scale (SOS): Kasapoğlu developed SOS in 2015 to evaluate the spiritual orientation of individuals (Kasapoğlu, 2015). As a result of the validity and reliability studies, a scale consisting of 16 items and one dimension was created. It is a 7-point Likert type where the lowest score is 16 and the highest 112. The total score indicates the level of spiritual orientation. The Cronbach Alpha reliability coefficient of the Spiritual Orientation Scale was found as 0.95 in this study,. In the validity and reliability study, the Cronbach's alpha value was determined as 0.87.

Beck Hopelessness Scale (BHS): BHS, originally named Hopelessness Scale, was developed by Beck et al. in 1974 to measure individuals' negative expectations for the future. Seber conducted its Turkish validity and reliability study in 1991. The scale consists of three sub-dimensions: Emotions and expectations about the future (1, 3, 7, 11, 18), loss of motivation (2, 4, 9, 12, 14, 16, 17, 20) and hope (5, 6, 8, 10, 13, It 15, 19). The scale includes a total of 20 items expressed as "Yes" and "No". In 11 of these items (2, 4, 7, 9, 11, 12, 14, 16, 17, 18 and 2), the "Yes" option gets 1 point while in 9 (3, 5, 6, 8, 10, 13, 15 and 19) the "No" option gets 1 point. The answers given otherwise are 0 points. The scale is evaluated over 20 points, and the higher the individuals' scores, the higher the level of hopelessness. In this study, the Cronbach Alpha reliability coefficient of the Beck Hopelessness Scale, the emotions and expectations about the future sub-dimension, the loss of motivation sub-dimension and hope sub-dimension were found as 0.86, 0.64, 0.68 and 0.71, respectively. In the validity and reliability study, the Cronbach's alpha value was determined as 0.86.

Data Evaluation: The data were analyzed using the Statistical Package for the Social Sciences (IBM SPSS) V23 package program in a computer environment. The compliance of the data to normal distribution was examined using the Shapiro Wilk test. Kruskal Wallis and Mann Whitney U tests were used to compare data that did not conform to normal distribution. Spearman correlation analysis was used to examine the relationship between the sub-dimensions of the scales. Reliability analysis studies were done with Cronbach Alpha. While quantitative data were presented as median (minimum-maximum)/rank average, qualitative data were presented as frequency (percentage). The level of significance was taken as $p<0.05$.

Ethical Aspect: The study was initiated after the approval of the Ondokuz Mayıs University Clinical Research Ethics Committee (14.07.2017/Ref: B.30. ODM.0.20.08./1059). In order to collect the data, written informed consent was obtained from OMUHARC (07.08.2017/Ref: 15374210-757.01-E.19029) and verbal informed consent from the patients included in the study.

Limitations: The research is limited to the relevant sample and cannot be generalized.

RESULTS

The distribution of the sociodemographic characteristics of the hemodialysis patients was given in Table 1. The average age of the patients was 56.7±14.4, 59% were male, 80% were married, 22% were literate, 66% were retired, 53% were diagnosed with chronic renal failure 1-5 years ago, 75% of had been receiving hemodialysis treatment for 1-5 years, 63% had comorbid diseases. The average illness duration was 6.63±14.4, the average hemodialysis start time was 4.17±4.01, 51% reported their spiritual status and 70% their hope as moderate (Table 1).

Table 1. Distribution of sociodemographic characteristics of hemodialysis patients (n=100).

Characteristics		**N**	**%**
Age Groups	34 and Below	7	7
(56,7 ± 14,4)	35-44	12	12
	45-54	22	22
	55-64	26	26
	65-74	24	24
	75 and Above	9	9
Gender	Female	41	41
	Male	59	59

Marital Status	Single	20	20
	Married	80	80
Educational Status	Illiterate	17	17
	Literate	22	22
	Primary School	20	20
	Elementary School	15	15
	High School	16	16
	University	10	10
Profession	Worker	1	1
	Housewife	33	33
	Retired	66	66
	Income More Than Expenses	5	5
Illness Duration (years)	1-5	53	53
(6,63 ± 5,16)	6-10	28	28
	11-15	11	11
	16 and Above	8	8
Hemodialysis Start Time (years)	1-5	75	75
(4,17 ± 4,01)	6-10	18	18
	11-15	3	3
	16 and Above	4	4
Comorbid Disease	Yes	63	63
	No	37	37
Spiritual State Level	Strong	43	43
	Moderate	51	51
	Weak	6	6
Hope State Level	Strong	26	26
	Moderate	70	70
	Weak	4	4

Table 2 shows the total score of SOS and BHS and the total score averages of the sub-dimensions. The mean total score of SOS was found as 99.57±15.51. The total score means of the BHS emotions and expectations about the future, the loss of motivation and hope sub-dimensions were 1.2±1.29, 2.56±1.89 and 1.91±1.82, respectively. The mean BHS total score was 5.68±4.43 (Table 2).

Table 2. Total score of SOS and BHS and sub-dimensions

Scale and Sub-dimensions	Minimum-Maximum Scores	Mean ± S.D.
SOS Total Score	16-112	99.57 ± 15.51
Emotions and Expectations for the Future	0-5	1.21 ± 1.29
Motivation Loss	0-8	2.56 ± 1.89

Hope	0-7	1.91 ± 1.82
BHS Total Score	0-20	5.68 ± 4.43

Table 3 shows the distribution of SOS and BHS points according to some variables. According to this, the total scores of SOS and BHS were affected only by the gender variable, and the spiritual orientation scores of women were higher than men, while their hopelessness scores were lower (p>0.05) (Table 3).

Table 3. Distribution of SOS and BHS total scores according to some variables

Characteristics		**SOS Total**	**BHS Total**
Age	34 and below	96 (63 – 110)	5 (2 –19)
	35-44	103 (76 – 112)	4,5 (0 –18)
	45-54	103,5 (87 – 112)	3 (0 – 14)
	55-64	107,5 (55 – 112)	5,5 (0 –16)
	65-74	102,5 (34– 112)	5 (1–18)
	75 and above	106 (81– 110)	6 (3 –11)
		x^2=7.4 p=0.188	x^2=5.5 p =0.352
Gender	Female	107 (55-112)	3 (0 –1 4)
	Male	102 (34-112)	6 (0 – 19)
		U=905.5 **p=0.003**	U=824 **p =0.007**
Marital Status	Single	104.5 (63-112)	5 (0 – 19)
	Married	104.5 (34-112)	5 (0 – 18)
		U=765.5 p=0.766	U=739 p =0.598
Educational Status	Illiterate	106 (94-112)	5 (1 – 13)
	Literate	103 (24-112)	6 (1 – 18)
	Primary School	104,5 (87-112)	6 (1 – 14)
	Elementary School	105 (37-112)	4 (0 – 18)
	High School	104 (63-112)	4,5 (1 – 19)
	University	103 (70-112)	4 (0 – 12)
		x^2=0.6 p=0.988	x^2=2.4-p=0.792
Comorbid Disease	Yes	103(50-112)	4 (0 – 18)
	No	105(34-112)	5 (0 – 19)
		U=1151 p=0.920	U=1043 p=0.382

χ^2 *: Kruskal Wallis test statistics, U:Mann Whitney U test statistics*

The analysis of the correlation between the total BHS and SOS values and the illness duration and hemodialysis start time evinced a weak positive correlation between the illness duration and the BHS total score, hope and loss of motivation sub-dimensions (r:0.257, p=0.010) (r:0.298, p=0.003). There was a weak positive correlation between the hemodialysis start time and the loss of motivation sub-dimension (r:0.241, p=0.016). On the other hand, the analysis of the correlation

between BHS and its sub-dimensions and SOS evinced a weak negative correlation between SOS and the hope sub-dimension (r:-0.262, p= 0.008) and a moderately significant negative correlation between other sub-dimensions and the BHS total score (r:-0.358, p<0.001), (r:-0.429, p<0.001), (r:-0.385, p<0.001) (Table 4).

Table 4. Correlation analysis between illness duration, hemodialysis start time and SOS and BHS

Scale and Sub-dimensions		Illness Duration	Hemodialysis Start Time	SOS Total Score
Emotions and Expectations for the Future	**r**	0.150	0.074	-0.358
	p	0.137	0.464	**<0.001**
Motivation Loss	**r**	0.298	0.241	-0.429
	p	**0.003**	**0.016**	**<0.001**
Hope	**r**	0.257	0.147	-0.262
	p	**0.010**	0.143	**0.008**
BHS Total Score	**r**	0.252	0.164	-0.385
	p	**0.011**	0.104	**<0.001**
SOS Total Score	**r**	0.018	-0.101	-
	p	0.856	0.320	-

** r: Sperman Correlation Coefficient*

DISCUSSION

The mean SOS total score of hemodialysis patients was found as 99.57±15.51. Considering that the total score patients can get from SOS is between 16 and 112, it can be said that the spiritual orientation of the patients included in the study is high (Table 2). Ayık and Karabulutlu (2020) reported that hemodialysis patients mostly used positive religious coping styles. Studies on the level of spirituality of hemodialysis patients reported that patients turned to spiritual beliefs as a method to cope with difficult times and diseases (Duran et al., 2020; Ottaviani et al., 2014). The result of the study is in line with the literature.

The mean BHS total score was found as 5.68±4.43. Therefore, it can be said that the hopelessness level of the patients included in the study was low (Table 3). Tavassoli et al. (2019) and Yılmaz et al. (2020) reported that hemodialysis patients had a high level of hope. A study conducted in Brazil revealed that 89% of hemodialysis patients experienced minimal hopelessness while only 1% showed severe hopelessness (Andrade et al., 2015). However, there are also studies in the literature reporting a high level of hopelessness (Cengiz & Çıtlık Sarıtaş, 2019; Mollaoglu et al., 2016).

We consider that the differences in the literature are related to the demographic data of the patients and individual differences. In this study, the highest mean score in BHS belonged to the loss of motivation sub-dimension (Table 2). Similar to the results of this study, Çıtlık Cengiz and Sarıtaş (2019) found high loss of motivation mean scores. Atan et al. (2020) reported in their study with cancer patients that patients mostly experienced hopelessness regarding loss of motivation.

Considering the total scores of SOS and BHS according to the sociodemographic characteristics of the patients; we found that the spiritual orientation and hopelessness level was affected only by the gender variable ($p<0.05$) and women had higher spiritual orientation than men (Table 3). Cheawchanwattana et al. (2015) examined the spiritual state of patients before and after hemodialysis and reported that female patients had higher spirituality.

Reig-Ferrer et al. (2012) reported that female hemodialysis patients tended to be more spiritual and religious. This result is similar to the literature. Furthermore, we found that the hopelessness level of women was less than men ($p<0.05$). Başaran et al. (2016) found a significant difference between gender and hopelessness and a high level of hopelessness in female patients. Andrade et al. (2015) reported that hopelessness scores were not affected by the gender variable. Different results were shown in the literature (Andrea et al., 2015; Başaran et al., 2016). %59 of the sample in this study consisted of male patients. High hopelessness scores of men have been associated with loss of role performance due to their illness. On the other hand, it is considered that result was affected in this way as the concept of hopelessness was affected by many factors.

While no significant relationship was found between the illness duration and the SOS, a significant positive relationship was found between it and the total BHS score (Table 4) ($p<0.05$). As the illness duration increased, hopelessness increased as well. Duran et al. (2020) reported that as the illness duration increased, psychological resilience decreased and this was statistically significant. Similarly, Arslantaş et al. (2010) showed that the length of the illness also caused a higher level of hopelessness. The longer the illness, the more one can be exposed to the complications of the illness. It is deemed possible that as the distress experienced regarding the disease increased, hopelessness might increase.

There was no significant relationship between the hemodialysis start time and SOS and BHS. The hemodialysis start time did not affect the state of spiritual orientation and hopelessness. Fradelos et al. (2021) reported that hemodialysis duration did not affect the level of belief. Moreover, Ok & Kutlu (2019) reported that there was no significant relationship between the duration of hemodialysis and hopelessness. It has been reported in the literature that hemodialysis duration did not affect hope and participation in spiritual practices (Cruz et al., 2017; Gao et al. 2016).

This study found a significant negative relationship between SOS and BHS ($p<0.05$). It is possible to claim that as the spiritual orientation increases, hopelessness decreases. Ottaviani et al. (2014) reported a positive relationship between hope and spirituality in their research on hemodialysis patients. In a randomized controlled study by Oshvandi et al. (2020), they reported that spiritual care given to patients significantly increased the level of hope. There are studies in the literature reporting that it was effective on welfare and hope (Al-Ghabeesh et al., 2018; Rambod et al., 2020). The result of this study was in parallel to the literature.

CONCLUSIONS AND SUGGESTIONS

The results of this study revealed that HD patients experienced high levels of spiritual orientation and low levels of hopelessness. It is possible to state that female patients had high spiritual orientation and experienced less hopelessness than men. We found a moderate relationship between spiritual orientation and hopelessness, and that as spiritual orientation increased, hopelessness decreased.

According to these results, taking into account the duration of their illness, we recommend; periodically evaluating the hopelessness levels of patients; and establishing spiritual practices for HD patients and a spiritual support team to strengthen the patient against hopelessness.

We also recommend conducting further studies on the spiritual application methods and their effect on hopelessness.

Author Contributions:

Design of Study: AÖ (%60), SG (%40)

Data Acquisition: SG (%100)

Data analysis: SG (%60), AÖ (%40)

Writing Up: AÖ (%50), SG (%50)

Submission and Revision: AÖ (%100)

Conflict Interest

None

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