JOURNAL OF
CONTEMPORARY MEDICINE

DOI:10.16899/jcm.1269092
J Contemp Med 2023;13(4):593-598

Original Article / Orijinal Araştırma

Depression And Spiritual Well-Being of Hemodialysis Patients: A Sectional Study

Hemodiyaliz Hastalarında Depresyon ve Manevi İyi Oluş: Kesitsel Bir Çalışma

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Abstract

Aim: This study was designed to determine the relationship between depression and spirituality in hemodialysis patients in a dialysis center.

Material and Method: The research is in the type of descriptive research. The current study was conducted with 74 patients hemodialysis. The data of the study was collected by applying "Personal Information Form", "Beck Depression Inventory" and "Spiritual Well-Being Scale". The data were collected face to face using the questionnaire method. In the analysis of the data, descriptive statistics, t-test, Anova test and correlation analysis were used.

Results: More than half of the patients were 51 years and over (54.1%) and 60.8% were male. When the Beck Depression Inventory's scores were analyzed according to the cut-off point, it was found that 58.1% of the patients showed depressive symptoms. In the study, BDI mean score was 19.27±7.31, SWBS mean score was 18.74±10.8 (Subscales: Peace 5.70±3.52, Meaning 6.27±3.67, Faith 6.75±3.97). The results of this study revealed that there is a negative significant relationship between mental well-being and depression ($p<0.05$).

Conclusion: As the moral well-being level of patients receiving hemodialysis treatment increases, their depressive symptoms decrease. Therefore, assessing spiritual health and integrating spiritual care into daily practice can help improve the quality of care and achieve better health outcomes.

Keywords: Hemodialysis, depression, spiritual well-being

Öz

Amaç: Bu çalışma, bir diyaliz merkezindeki hemodiyaliz hastalarında depresyon ve manevi iyilik hali arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

Gereç ve Yöntem: Araştırma betimsel araştırma türündedir. Mevcut çalışma 74 hemodiyaliz hastası ile gerçekleştirilmiştir. Araştırmanın verileri "Kişisel Bilgi Formu", "Beck Depresyon Envanteri" ve "Manevi İyi Oluş Ölçeği" kullanılarak yüz yüze toplanmıştır. Verilerin analizinde betimsel istatistikler, t-testi, Anova testi ve korelasyon analizi kullanılmıştır.

Bulgular: Hastaların yarısından fazlası 51 yaş ve üzerindeydi (%54,1) ve %60,8'i erkekti. Beck Depresyon Envanteri puanları kesme noktasına göre incelendiğinde hastaların %58,1'inin depresif belirtiler gösterdiği saptanmıştır. Çalışmada depresyon puan ortalaması 19,27±7,31, manevi iyi oluş puan ortalaması 18,74±10,8'dir (Alt ölçekler: Huzur 5,70±3,52, Anlam 6,27±3,67, İnanç 6,75±3,97). Bu çalışmanın sonuçları manevi iyilik hali ile depresyon arasında negatif yönde anlamlı bir ilişki olduğunu ortaya koymuştur ($p<0.05$).

Sonuç: Hemodiyaliz tedavisi alan hastaların moral iyilik düzeyi arttıkça depresif belirtileri azalmaktadır. Bu nedenle, ruhi sağlığı değerlendirmek ve manevi bakımı günlük uygulamaya entegre etmek, bakım kalitesini artırmaya ve daha iyi sağlık sonuçları elde etmeye yardımcı olabilir.

Anahtar Kelimeler: Hemodiyaliz, depresyon, manevi iyi oluş

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Received *(Geliş Tarihi)*: 22.03.2023 **Accepted *(Kabul Tarihi)*:** 30.04.2023

INTRODUCTION

Chronic Renal Failure (CRF) is an irreversible and life-threatening chronic disease that occurs when the kidney becomes unable to perform its functions.[1] CRF affects 10-15% of adults worldwide.[2] The rate of CRF in the general adult population is similar in Turkey.[3] In the report of the European Kidney Association, it was stated that 57% of CRF patients were treated with hemodialysis, which is the most commonly used treatment method.[4,5] The Turkish Society of Nephrology reported that the most common treatment method in our country is hemodialysis with a rate of 76.9%.[6]

Hemodialysis patients have to adapt to a restrictive lifestyle that is dependent on the dialysis machine and healthcare team. [7] Patients face many serious problems such as hospitalizations, sleep disorders, psychosocial and emotional problems due to diet, fluid restriction and metabolic reasons.[8] Physical disability affects the social life of the patient, and activity restrictions cause stress. The most common psychiatric disorder in dialysis patients is depression. In the literature, it is stated that the prevalence of depression is higher in hemodialysis patients compared to the general population.[9,10]

Spirituality includes individuals' search for meaning in life, in other words, the part of the human soul that struggles for metaphysical values, concepts, and experiences. Spirituality encompasses a kind of connection between man and a divine or higher inner power.[11] Spirituality serves as a potential resource in the process of maintaining mental health and deciding on treatment and is seen as a coping mechanism in patients' struggle with stressful life events.[12-14]

Faith and religious practices are frequently used by individuals with chronic diseases to cope with the disease and provide emotional comfort.[15] The spirituality of hemodialysis patients is an important factor in reducing the burden of disease, increasing quality of life, coping and compliance.[12,13,16]

In the international literature, studies on spirituality and spiritual care of patients receiving hemodialysis treatment are in the majority, but there are limited studies on spirituality of hemodialysis patients, which are among the chronic diseases in Turkey. There is a need for studies examining the relationship between spiritual well-being and depression, which is common in hemodialysis, and incorporating spiritual well-being and spiritual care in holistic nursing practices. This study is expected to raise awareness for nurses to understand the importance of spirituality and to plan spirituality-oriented approaches in care. This study was designed to determine the relationship between depression and spirituality in hemodialysis patients in a dialysis center.

MATERIAL AND METHOD

The research is in the type of descriptive research. This study was conducted with chronic renal failure patients receiving hemodialysis treatment in a private dialysis center between December 2021 and January 2022. As a result of the power analysis, the sample size confidence interval was α=0.05, a total of 45 patients were calculated. Patients aged 18 and over, literate and able to communicate were included in the study. The number of patients registered in this center is 200. All patients were reached, but volunteers who had no communication problems and agreed to participate in the study were included in the study. The study was completed with 74 patients. Before the data were collected, the participants were informed about the research and their written consents were obtained.

Ethics of The Research

Before starting the study, approval was obtained from the Clinical Research Ethics Committee of the relevant university (Decision date: 15.12.2021; Decision no: 2021/389). Permissions were obtained from the institution where the study would be conducted and for the use of measurement tools. The sample group was informed about the study and their permission was obtained. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Instruments

Data were collected using the "Personal Information Form", "Beck Depression Inventory" and "Spiritual Well-Being Scale".

Personal Information Form: This form consists of 11 questions that include sociodemographic (age, gender, educational status, marital status, income status, employment status, number of children) and disease-related information (hemodialysis duration, other chronic diseases, status of receiving social support, support area).

Beck Depression Inventory (BDI): The scale, developed by Beck in 1961, is used to determine the risk of depression and to measure the level and severity of depressive symptoms. It was adapted into Turkish by Hisli (1989) and its Cronbach's alpha value was found to be 0.80. The BDI contains 21 self-assessment statements with four choices from less to more (0-3). The total score that can be obtained from the scale is between 0-63. The cut-off point of the scale is 17 and above. The degree of depression is minimum for 0-9 points, mild for 10-16 points, moderate for 17-29 points, and severe for 30-63 points.[17]

Spiritual Well-Being Scale (SWBS): The original name of the scale is Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale (FACIT–Sp). The Turkish version of the scale SWBS was made by Aktürk et al.[18] The scale with 3 subscales (peace, meaning, and faith) helps to investigate all components of spiritual well-being. The 12-item scale is scored between 0-4 (0: Never, 4: Always). It has 3 sub-categories as meaning subscale (2, 3, 5 and 8th items), peace subscale (1, 4, 6 and 7th items) and belief subscale (9, 10, 11 and 12 items), each subscale has scores between 0-16 (Total scale score is 0-48). A high score indicates the high level of spiritual well-being. The Cronbach alpha value of the Turkish version is 0.87 [18]; this value was found to be 0.78 in our study.

Data Collection

The research was conducted with patients in a private dialysis center. The data were collected by the researchers face-to-face, using the survey method. The application of the questionnaires and scales took an average of 45 minutes. The data collection process, on the other hand, covers a period of approximately two months.

Data Analysis

IBM SPSS Statistics 22.0 (IBM Corp. Armong, New York, AB) program was used in the analysis of the data. In the analysis of the data, descriptive statistics (percentage, arithmetic mean, etc.), t-test, Anova test and correlation analysis were used. The statistical significance level was accepted as 0.05 in the interpretation of the analysis results.

RESULTS

More than half of the patients were 51 years and over (54.1%) and 60.8% were male. Majority of the patients (77%) were married, 39.2% were literate, 28.4% were primary and secondary school graduates. The income of the patients was moderate (income equals expenses -63.5%) and 55.4% of them were not working in any job. Nearly half of the patients had 4 or more children (48.6%). In addition, the majority of the patients had a chronic disease other than chronic renal failure (67.6%). Most of them reported that they had been receiving hemodialysis treatment for 3-4 years. Patients (43.2%) who reported that they had the support of family and friends stated that this support was mostly in the form of meeting their physical needs (**Table 1**).

When the Beck Depression Inventory's Scores were analyzed according to the cut-off point, it was seen that 58.1% of the patients scored 17 and above. When analyzed according to the degree of depression, it was determined that 47.3% of the patients were moderately depressed (**Table 2**). In the study, BDI mean score was 19.27±7.31, SWBS mean score was 18.74±10.8, the SWBS-Peace Subscale's mean score was 5.70±3.52, the SWBS-Meaning Subscale's mean score was 6.27±3.67, and the SWBS-Faith Subscale's mean score was determined as 6.75±3.97 (**Table 3**). The correlations between the scales were in the form of a negative and highly significant correlation (p=0.001) (**Table 4**).

Table 2. The Distribution of Beck Depression Inventory's Mean Scores

Points	n	%
BDI (based on cutting score)		
0-16 points	31	41.9
17 points and more	43	58.1
BDI (according to degree)		
Minimal (0-9 points)	3	4.1
Mild (10-16 points)	28	37.8
Moderate (17-29 points)	35	47.3
Severe (30-63 points)	8	10.8

BDI: Beck Depression Inventory

Table 1. The Distribution of Descriptive Characteristics of the Patients

	n	%
Age		
18-28 age range	5	6.8
29-39 age range	8	10.8
40-50 age range	21	28.4
51 years and over	40	54.1
Gender		
Female	29	39.2
Male	45	60.8
Marital Status		
Married	57	77.0
Single	17	23.0
Educational Level		
Literate	29	39.2
Primary – Middle School Graduate	21	28.4
High School Graduate	14	18.9
University Graduate	10	13.5
Employment Status		
Employed	33	44.6
Unemployed	41	55.4
Income Level		
Income is less than expenses	12	16.2
Income is equal to expenses	47	63.5
Income is more than expenses	15	20.3
Number of Children		
No child	13	17.6
1-3 child/children	25	33.8
4 and more children	36	48.6
Hemodialysis Duration		
1 month-2 years	22	29.7
3-4 years	28	37.8
5 years and more	24	32.4
Other Chronic Diseases		
Present	50	67.6
Absent	24	32.4
Social Support		
Present	32	43.2
Absent	42	56.8
Support Area (n=32)		
Physical	14	43.8
Spiritual	11	34.3
Economic	7	21.9
TOTAL	74	100.0

Table 3. Spiritual Well-Being Scale and Beck Depression Inventory Average Scores

SCALES	Min-Max	$\bar{x}$±SD
BDI	7-44	19.27±7.31
SWBS	1-44	18.74±10.8
SWBS-Peace Subscale	0-13	5.70±3.52
SWBS-Meaning Subscale	0-15	6.27±3.67
SWBS-Faith Subscale	0-16	6.75±3.97

SWBS: Spiritual Well-Being Scale; BDI: Beck Depression Inventory

Table 4. Correlation between Spiritual Well-Being Scale and Beck Depression Inventory

	SWBS	SWBS-Peace Subscale	SWBS-Meaning Subscale	SWBS-Faith Subscale
BDI	r= -.796* p=0.001	r= -.762* p=0.001	r= -.787* p=0.001	r= -.764* p=0.001

*Correlation Analysis, SWBS: Spiritual Well-Being Scale; BDI: Beck Depression Inventory

No significant difference was found in the comparisons between age, marital status, educational level, income level, number of children, other chronic diseases, status of receiving social support and support area and scales. For this reason, it is not shown in **Table 5** where the comparisons are made.

In this study, the difference between gender and mean scores of BDI and SWBS is significant. Both BDI and SWBS scores of women were found to be higher than men. BDI mean scores of those who work in a job are lower than those who do not work, and the difference between them is significant. The mean BDI score of patients who have been on hemodialysis treatment for 5 or more years is higher than the other groups, and there is statistical significance. There is no statistical significance between the other variables and the scales (**Table 5**).

Table 5. Comparison of Mean Spiritual Well-Being Scale and Beck Depression Inventory Scores According to Some Characteristics of Patients

		n	BDI	SWBS
Gender	Female	29	21.41±7.53	24.34±10.7
	Male	45	17.88±6.89	15.13±9.30
			t= -2.070*	t= -3.906
			p=0.042	p=0.000
Employment Status	Employed	33	17.39±7.47	18.57±11.1
	Unemployed	41	20.78±6.90	18.87±10.7
			t= -2.022*	t= -0.119
			p=0.047	p=0.906
Hemodialysis Duration	1 month-2 years	22	17.04±5.09	19.77±11.4
	3-4 years	28	16.92±4.37	18.78±10.9
	5 years and more	24	24.04±9.40	17.75±10.8
			F= 9.281**	F= 0.196
			p=0.000	p=0.822

*Independent Samples T Test; **One-Way ANOVA, SWBS: Spiritual Well-Being Scale; BDI: Beck Depression Inventory

DISCUSSION

Hemodialysis causes adverse effects on patients' overall health, including mental, social, physical, emotional and spiritual aspects.[19,20] One of these negative effects is depression. Depression is one of the psychological disorders that impairs the functionality of individuals.[21]

Most of the patients participating in our study do not have social support. It has been found that the social supports given are mostly in the form of meeting physical needs. Insufficient social support in chronic diseases causes depressive disorders to develop more easily.[7] In the literature, it is emphasized that the support of family and friends is very important in the psychosocial adjustment of patients.[22] Spiritual and religious practices are closely related to the increase in life satisfaction and social support levels of patients.[11] These results may explain the high depressive symptoms of the patients.

In this study, it was found that the majority of patients showed moderate depression symptoms. The thought of losing the health, working power and being dependent on others negatively affects the development of depression.[7] In the literature, the probability of depression in hemodialysis patients is stated as 25-60%.[23-30] The present study's finding is in parallel with other studies conducted with hemodialysis patients.

It has been reported in the literature that spirituality contributes to patients' coping with serious illnesses and prevents feelings of spiritual distress, hopelessness and depression.[11,31-34] This study revealed that there is a negative and significant relationship between mental well-being and depression levels. It was found that patients with high mental well-being showed lower depressive symptoms; our results are in agreement with the sources.[21,35] The psychiatric disorder that causes the most hopelessness is known as depression. Although hope has no healing power, it encourages the patient to continue the fight and seek clinical improvement.[11] Religious beliefs as a strategy and a way of life can contribute to the development of hope and thus to the prevention of depression.

Drawing attention to the importance of searching for meaning in human life, Frankl (2017) stated that the religion believed is important in adding meaning to one's life and discovering the purpose of life. He also refers to religion as 'super meaning' to find meaning.[36] In this study, a relationship was found between the "meaning", "peace" and "belief" sub-dimensions of spiritual well-being and depression. The mean scores of the subscales of spiritual well-being, peace, and meaning were low, and the mean score of the faith subscale was high in patients with depressive symptoms. In addition, the spiritual well-being scale's total score of the patients was determined at a low level. This result is in agreement with the study finding of Musa et al (2018).[37] This situation reveals its relationship with religious practices that can strengthen spirituality in combating depressive symptoms.[38]

The depressive symptom levels detected in this study were remarkable and required psychiatric treatment. When mental problems are not treated, they decrease the quality of life.[39] In many studies with hemodialysis patients, it has been stated that spirituality, religiosity and belief are effective in reducing the risk of mental illness.[37,40,41] Patients with depression in our study had higher scores on the belief subscale. This result is important considering the studies on the protective role of belief against suicide, which is one of the symptoms of depression.

Patients undergoing hemodialysis treatment may experience negativities in their personal lives due to dependency on the machine, increased need for healthcare team and family.[42,43] Many psychological problems such as fear, anxiety, fury and depression can be seen in these patients.[44] In the literature, it has been stated that there is a negative relationship between religiosity and spirituality and anxiety, depression and stress

levels in hemodialysis patients.[45] The feeling of comfort and power that religious beliefs create in individuals can have a positive effect on mental health. In the case of chronic diseases, patients may turn to faith in God and participate in religious practices (such as congregational praying, fasting) in partnership with others in order to grasp the meaning in life.[46]

In our study, the level of depression was higher in female patients than in male patients. There are many sources that support our finding.[20,21,37] Women may be more prone to depression due to factors such as lack of social support, emotional personality structure and dependent roles. The finding that religious or spiritual beliefs are more important for female participants has been demonstrated in previous studies, both in dialysis patients and in broader defined populations,[47,48] and our study is consistent with other study results.

Being working can enable patients to tolerate dialysis symptoms better. It has been reported in the literature that there is a relationship between working status and depression.[49] The fact that patients are active and in contact with other people in their daily lives can distract attention and reduce their depression levels. In addition, in our study, it was determined that patients with hemodialysis treatment for 5 years or more were more depressed. Renal failure, which is a chronic disease, and continuous hemodialysis treatments may have reduced the patients' ability to fight and cope.

Spiritual therapies, including practices to increase patients' mental well-being and self-efficacy, and practices to strengthen spirituality should be used to reduce depression in hemodialysis patients.[12,24,25,50-52] Spiritual care initiatives that focus on promoting positive and realistic beliefs and avoiding negative ones can help hemodialysis patients avoid inappropriate emotions that may arise.

Limitations

The fact that this study was conducted in a single center and with a small sample limits the generalization of the results to the whole population. Due to the cross-sectional nature of the study, a causal relationship between mental well-being and depression cannot be established.

CONCLUSION

In the current study, the rates of depressive symptom were found to be high in hemodialysis patients. For this reason, more importance should be placed on the evaluation and improvement of the mental health of patients during the admission and treatment processes of patients to hospitals and medical centers. Based on the results of the study, it can be said that spiritual well-being can be an effective solution to reduce depression in hemodialysis patients. After the completion of this study, patients with depressive symptoms were informed and directed to go to a psychiatric examination in order to protect their mental health and take precautions.

As a result, this study can raise awareness about spiritual care practices in nurses who take care of dialysis patients. In addition, by integrating spirituality, which is an indispensable element of both the holistic approach and patient care in nursing, into clinical practices, the quality of care can be improved and health outcomes can be improved.

It is seen as a necessity to identify the psychological needs of all hemodialysis patients and to evaluate them psychiatrically. It is considered important to plan trainings to strengthen spirituality and to create environments that can facilitate the spiritual practices of patients in hemodialysis units.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was carried out with the permission of Gaziantep Universty Ethic Committee. (Date: 15/12/2021 Decision No: 2021/389).

Informed Consent: All patients signed the free and informed consent form.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Author Contributions: All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

1. Rebollo Rubio A, Morales Asencio JM, Eugenia Pons Raventos M. Depression, anxiety and health-related quality of life amongst patients who are starting dialysis treatment. JORC. 2017;43(2):73-82.
2. Romagnani P, Remuzzi G, Glassock R, et al. Chronic kidney disease. Nat Rev Dis Primers. 2017;3(1):1-24.
3. Bayin Donar G, Top M. A conceptual framework of quality of life in chronic kidney disease in Turkey: A patient-focused approach. Int J Health Plann Mgmt. 2020;35(6):1335-50.
4. Kramer A, Boenink R, Noordzij M, et al. The ERA-EDTA Registry Annual Report 2017: A summary. CKJ. 2020;13(4):693-709.
5. Li T, Liu T, Han J, et al. The relationship among resilience, rumination and posttraumatic growth in hemodialysis patients in North China. Psychol Health Med. 2018;23(4): 442-53.
6. T.C. Ministry of Health and Turkish Nephrology Association Joint Report. Turkish Nephrology Society Registration System 2019 Summary Report. 2020. https://nefroloji.org.tr/uploads/folders/file/registry_2019.pdf.
7. Topbaş E, Bingöl G. Psikososyal boyutu ile diyaliz tedavisi ve uyum sürecine yönelik hemşirelik girişimleri. Nefroloji Hemşireliği Derg. 2017;1(12):36-42.
8. Tuna D, Ovayolu N, Kes D. Hemodiyaliz hastalarında sık karşılaşılan problemler ve çözüm önerileri. Nefroloji Hemşireliği Derg. 2018;13(1):17-25.
9. Palmer S, Vecchio M, Craig JC, et al. Prevalence of depression in chronic kidney disease: systematic review and meta-analysis of observational studies. KI. 2013;84(1):179-191.
10. Cukor D, Ver Halen N, Asher DR, et al. Psychosocial intervention improves depression, quality of life, and fluid adherence in hemodialysis. JASN. 2014;25(1):196-206.

11. Fradelos EC. Spiritual well-being and associated factors in end-stage renal disease. TSWJ. 2021;9.
12. Darvishi A, Otaghi M, Mami S. The effectiveness of spiritual therapy on spiritual well-being, self-esteem and self-efficacy in patients on hemodialysis. J Relig Health. 2020;59: 277-88.
13. Martinez BB, Custodio RP. Relationship between mental health and spiritual wellbeing among hemodialysis patients: A correlation study. Sao Paulo Med J. 2014; 132:23-27.
14. Phelps AC, Maciejewski PK, Nilsson M, et al. Religious coping and use of intensive life-prolonging care near death in patients with advanced cancer. JAMA. 2009;301(11):1140-7.
15. Duran S, Avci D, Esim F. Association between spiritual well-being and resilience among Turkish hemodialysis patients. J Relig Health. 2020;1-13. https://doi.org/10.1007/s10943-020-01000-z .
16. Cruz JP, Colet PC, Alquwez N, Inocian EP, Al-Otaibi RS, Islam SMS. Influence of Religiosity and Spiritual Coping on Health-related Quality of Life in Saudi Hemodialysis Patients. Hemodialysis International. 2017;21(1):125-32.
17. Güzel A, Ergün G. Üniversite öğrencilerinde depresyon sıklığı ve ilişkili faktörler. Ankara Sağlık Bilimleri Derg. 2020;9(2):279-289.
18. Aktürk Ü, Erci B, Araz M. Functional evaluation of treatment of chronic disease: validity and reliability of the Turkish version of the Spiritual Well-Being Scale. Palliative Supportive Care. 2017;15(6):684.
19. Sousa LMM, Antunes AV, Marques-Vieira CMA, Silva PCS, de Sousa Valentim OMM, José HMG. Subjective wellbeing, sense of humor and psychological health in hemodialysis patients. Enfermería Nefrológica. 2019;22(1):34-41.
20. Alshraifeen A, Alnuaimi K, Al-Rawashdeh S, Ashour A, Al-Ghabeesh S, Al-Smadi A. Spirituality, anxiety and depression among people receiving hemodialysis treatment in Jordan: A cross-sectional study. J Relig Health. 2020;59(5):2414-29.
21. Fanoodi A, Aramjoo H, Khorasani SHM, Saberi A, Ashrafipour M, Ramazani A. Relationship between spiritual health and stress, depression, and anxiety in hemodialysis patients. HTA. 2020;4(4).
22. Cınar S. Psychosocial adjustment and social support in hemodialysis patients. Turkiye Klinikleri J Nurs Sci. 2009;1(1):12-18.
23. Ravaghi H, Behzadifar M, Behzadifar M, et al. Prevalence of depression in hemodialysis patients in Iran a systematic review and meta-analysis. IJKD. 2017;11: 90-8.
24. Loureiro ACT, de Rezende Coelho MC, Coutinho FB, Borges LH, Lucchetti G. The influence of spirituality and religiousness on suicide risk and mental health of patients undergoing hemodialysis. Comprehensive Psychiatry. 2018;80: 39-45.
25. Babamohamadi H, Sotodehasl N, Koenig HG, Al Zaben F, Jahani C, Ghorbani R. The effect of Holy Qur'an recitation on depressive symptoms in hemodialysis patients: A randomized clinical trial. J Relig Health. 2017;56: 345-54.
26. Aghajani M, Afaze M, Morasai F. The effect of spirituality counseling on anxiety and depression in hemodialysis patients. EBCJ. 2014;(3):19-28.
27. Gerogianni G, Lianos E, Kouzoupis A, Polikandrioti M, Grapsa E. The role of socio-demographic factors in depression and anxiety of patients on hemodialysis: An observational cross-sectional study. Int Urol Nephrol. 2018;50:143-54.
28. Ganu VJ, Boima V, Adjei DN, et al. Depression and quality of life in patients on long term hemodialysis at a national hospital in Ghana: A cross-sectional study. Ghana Med J. 2018; 52(1): 22-8.
29. Khan A, Khan AH, Adnan AS, Sulaiman SAS, Mushtaq S. Prevalence and predictors of depression among hemodialysis patients: A prospective follow-up study. BMC Public Health. 2019;19(1):1-13.
30. Semaan V, Noureddine S, Farhood L. Prevalence of depression and anxiety in end-stage renal disease: A survey of patients undergoing hemodialysis. Applied Nursing Research. 2018;3: 80-85.
31. Burlacu A, Artene B, Nistor I, et al. Religiosity, spirituality and quality of life of dialysis patients: a systematic review. Int Urol Nephrol. 2019;51(5):839-50.
32. Velosa T, Caldeira S, Capelas ML. Depression and spiritual distress in adult palliative patients: a cross-sectional study. Religions. 2017;8(8):156.
33. Timmins F, Caldeira S. Understanding spirituality and spiritual care in nursing. Nursing Standard. 2017;31(22):50-7.
34. Siwi AS, Rizqillah AF, Lestari A. Spirituality in Renal Failure Patients With Hemodialysis. Advances in Health Sciences Research, In 1st International Conference on Community Health (ICCH 2019). (pp. 188-191). Atlantis Press; 2020. Access: file:///C:/Users/Hp/Downloads/Spirituality_in_Renal_Failure_Patients_with_Hemodi.pdf.
35. Senmar M, Razaghpoor A, Mousavi AS, Zarrinkolah F, Esmaeili F, Rafiei H. Psychological symptoms in patients on dialysis and their relationship with spiritual well-being. Florence Nightingale J Nurs. 2020;28(3):243-9.
36. Frankl VE. İnsanın Anlam Arayışı. 11. Basım, İstanbul: Okuyan Us; 2017. ISBN-13: 978-6054054206.
37. Musa AS, Pevalin DJ, Al Khalaileh MA. Spiritual well-being, depression and stress among hemodialysis patients in Jordan. JHN. 2018;36(4):354-65.
38. Santos PR, Júnior JR, Cavalcante Filho J, Ferreira TP, Dos Santos FJ, Da Silva OS. Religious coping methods predict depression and quality of life among end-stage renal disease patients undergoing hemodialysis: a cross-sectional study. BMC Nephrology. 2017;18:197.
39. El Filali A, Bentata Y, Ada N, Oneib B. Depression and anxiety disorders in chronic hemodialysis patients and their quality of life: A cross-sectional study about 106 cases in the northeast of Morocco. SJKDT. 2017;28(2): 341-8.
40. Taheri-Kharameh Z. The relationship between spiritual well-being and stress coping strategies in hemodialysis patients. HSME. 2016;3(4);24-8.
41. Fradelos EC, Alikari V, Tsaras K, et al. The effect of spirituality in quality of life of hemodialysis patients. J Relig Health. 2021. https://doi.org/10.1007/s10943-020-01153-x.
42. Niu HY, Liu JF. The psychological trajectory from diagnosis to approaching end of life in patients undergoing hemodialysis in China: A qualitative study. IJNSS. 2017;4(1):29-33.
43. Sarı Ö. Chronic renal failure with social dimensions. BEU SBE Derg. 2015;4:72-80.
44. Avdal EU, Ayvaz İ, Uran BNÖ, Yildirim JG, Sofulu F, Pamuk G. Opinions of hemodialysis and peritoneum patients regarding depression and psychological problems which they experience: A qualitative study. JIPH. 2020;13(12):1988-92.
45. Moodi V, Arian A, Moodi JR, Dastjerdi R. Effectiveness of spiritual therapy on depression, anxiety, and stress in hemodialysis patients. Mod Care J. 2020;17(4):e108879.
46. Tavassoli N, Darvishpour A, Mansour-Ghanaei R, Atrkarroushan Z. A correlational study of hope and its relationship with spiritual health on hemodialysis patients. JEHP. 2019;8:146.
47. Scherer JS, Milazzo KC, Hebert PL, et al. Association between self-reported importance of religious or spiritual beliefs and end-of-life care preferences among people receiving dialysis. JAMA Network Open. 2021;4(8):e2119355.
48. LoPresti MA, Dement F, Gold HT. End-of-life care for people with cancer from ethnic minority groups: a systematic review. AJHPM. 2016;33(3):291-305.
49. Mosleh H, Alenezi M, Al johani S, Alsani A, Fairaq G, Bedaiwi R. Prevalence and factors of anxiety and depression in chronic kidney disease patients undergoing hemodialysis: a cross-sectional single-center study in Saudi Arabia. Cureus. 2020;12(1):e6668.
50. Okhli A, Hojjati H, Sadeghloo A, Molaei A, Shahrabady S. The relationship between observing religious beliefs and suffering in hemodialysis patients. J Relig Health. 2019.
51. Pramesona BA, Taneepanichskul S. The effect of religious intervention on depressive symptoms and quality of life among Indonesian elderly in nursing homes: A quasi-experimental study. Clin Interv Aging. 2018;13:473.
52. Durmuş M, Ekinci M. The effect of spiritual care on anxiety and depression level in patients receiving hemodialysis treatment: A randomized controlled trial. J Relig Health. 2021. https://doi.org/10.1007/s10943-021-01386-4.