DETERMINATION OF THE RELATION BETWEEN DIALYSIS PATIENTS' QUALITY OF LIFE AND PERCEIVED SOCIAL SUPPORT

DİYALİZ HASTALARININ YAŞAM KALİTESİ İLE ALGILANAN SOSYAL DESTEK ARASINDAKİ İLİŞKİNİN DEĞERLENDİRİLMESİ

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ÖZET

Amaç: Kronik böbrek yetmezliği yaşamı tehlikeye sokan fiziksel, ruhsal ve psikososyal problemlere yol açan önemli bir hastalıktır. Bu araştırma diyaliz hastalarının yaşam kalitesi ile algılanan sosyal destek arasındaki ilişkinin belirlenmesi amacıyla yapılmıştır.

Gereç ve Yöntem: Araştırma ilişkisel tanımlayıcı olarak yapılmıştır. Araştırma Adıyaman Üniversitesi Eğitim ve Araştırma Hastanesi Hemodiyaliz ünitesinde diyaliz tedavisi alan 96 hasta ile yapılmıştır. Veri toplanmasında, hastayı tanıtıcı anket formu, SF-36 yaşam kalitesi ölçeği ve çok boyutlu algılanan sosyal destek ölçeği kullanılmıştır.

Bulgular: Hastaların %51'inin kadın, %72.9'unun evli, %44.8'inin okur-yazar olmadığı, %40.6'sının ev hanımı, %72.9'unun çalışmadığı, %55.2'sinin gelirin giderden az olduğu,%52.1'inin 1-5 yıl arası diyaliz hastası olduğu belirlenmiştir.

Sonuç: Araştırma kapsamına alınan diyaliz hastalarının çoğunluğu kadın ve evli, okur-yazar olmadığı, gelir düzeylerinin düşük olduğu, 1-5 yıl arası diyaliz hastası oldukları belirlenmiştir. Araştırmanın sonuçlarına göre diyaliz hastalarının yaşam kalitesinin düşük, sosyal destek düzeylerinin orta düzeyde olduğu bulundu. Hastaların problemlerle başedebilmeleri ve yaşam kalitelerinin yükseltilmesi için sosyal destek seviyelerinin arttırılmasını önerebiliriz.

Anahtar Kelimeler: Diyaliz, yaşam kalitesi, sosyal destek, hemşirelik

ABSTRACT

Aim: Chronic renal failure is an important life threatening disease that causes physical, mental, and psychosocial problems. This study was conducted for the purpose of the determination of the relation between dialysis patients' quality of life and perceived social support.

Material and Method: Research has been conducted as relational descriptive. This study was conducted on 96 patients receiving hemodialysis treatment at the Hemodialysis Unit associated with Adiyaman University Training and research Hospital. For data collection, patient introductory survey form, SF-36 quality of life scale, and multidimensional perceived social support scale were used.

Results: It has been determined that 51% of the patients were women, 72.9% were married, 44.8% were illiterate, 40.6% were housewives, 72.9% were unemployed, 55.2% had less income than expense, 52.1% were dialysis patients between 1-5 years. Between social support and quality of life have been found a positive significant relation.

Conclusion: It has been determined that most of the dialysis patients who were taken within the scope of research are female and married, illiterate, have a low level of income, and have been dialysis patients for 1-5 years. According to the results of research, quality of life of dialysis patients has been found to be low and social support has been found to be of medium level. In order for the patients to be able to cope with problems and for their quality of life to be increased, we can suggest increasing the level of social support.

Key Words: Dialysis, quality of life, social support, nursing

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INTRODUCTION

Chronic renal failure is an important life threatening disease that causes physical, mental, and psychosocial problems and the prevalence of which has been increasing across the world (1-4). The most commonly used method used in the treatment of chronic renal failure is hemodialysis (5). More than 2 million patients across the world and 52 thousand 529 patients in our country are receiving hemodialysis treatment (6,7). Important changes occur in patients' lives due to hemodialysis treatment and the patient becomes dependent on the machine, institution, and health personnel. This situation causes problems in the patient's professional, family, and social life (8). Patients also commonly face psychological stressors such as loss of self-respect, feeling of uncertainty regarding future, and feeling of guilt towards family members (9). These problems the patient faces affect their quality of life negatively (10,11). In the study conducted by Sagduyulu et. al., (12) the quality of life of dialysis patients has been determined to be low. In the assessment of patients' quality of life, social support is crucial. The level of the social support received by hemodialysis patients increase the patients' pleasure out of life, reduce the burden of the disease, and increase the quality of life by coping with stress (13,14). Patients receive their social support from family, friends, and the institution. In the study conducted by Tan et. al., (15) it has been found that dialysis patients receive the greatest social support from their families. There are numerous studies that analyze the life quality of hemodialysis patients (8,10,11,16-18) and social support (1,19-21) in our country. However, there are a limited number of studies that present the relation between quality of life and social support (22).

This study was conducted for the purpose of the determination of the relation between dialysis patients' quality of life and perceived social support.

MATERIAL AND METHODS

Study design and sample

This research has been conducted as relational descriptive. The research was conducted at Adiyaman University Training and Research Hospital Hemodialysis Unit between June 23- August 20/ 2014. The population of the research was composed of 150 patients receiving hemodialysis treatment at the Hemodialysis Unit associated with Adiyaman University Training and research Hospital. Since inclusion of the entire population was aimed at, no calculation of sampling size was made and no sampling methods were used. The research was completed with 96 patients. The patients who did not want to participate in the study (34 patient) and who does not speak Turkish (20 patient) were left out of the study.

Criteria for inclusion in the study;

- Being at the age of 18 of above,
- Receiving hemodialysis treatment regularly for at least 6 months,
- Speaking Turkish

Data collection

For data collection, patient introductory survey form, SF-36 quality of life scale, and multidimensional perceived social support scale were used by the researchers. Prior to the commencement of the research, each patient was informed of the purpose of the study and their verbal consent was taken. Data was collected bythe researcher on weekdays, when the patients are at the dialysis unit. Each survey form took about 20-25 minutes. Surveys were filled out by the researcher by marking the form in line with the answers given by the patients.

Instruments

SF-36 quality of life scale: SF-36 Quality of Life Scale was developed by Ware in 1987 in order to be used in the analysis of the health status and quality of life of individuals. The scale that contains thirty six expressions is in the form of a scale assessing two main topics (physical and mental dimension) and eight concepts (physical function, role limitation-physical pain, vitality/fatigue, social function, role limitation-emotional, mental health, general perception of health). The score of each sub-dimension and the two main dimensions in the scale vary between 0-100. SF-36, which has positive scoring, has been scored in a way that as the score of each field of health increases, the quality of life related to health would also increase (23). The adaptation of the scale into Turkish and validity and reliability study were carried out by Kocyigit et. al in 1999. In the reliability studies of the scale, Cronbach alpha coefficient was obtained between 0.73-0.76 for each sub-scale (24). In this study, Cronbach alpha coefficient was found as 0.94.

Multidimensional perceived social support scale (MSPSS): Multidimensional perceived social support scale was developed by Zimet et. al. in 1988. The scale was adapted into Turkish and its validity and reliability tests were conducted by Eker et. Al in 2001. The scale consists of 12 items. It contains 3 groups regarding the source of support, each of which consists of 4 items. These are family, friend, and someone special. The scale is of 7 degree likert type as “Definitely no 1, 2, 3, 4, 5, 6, 7 Definitely yes". If the score obtained from the scale is high, this means social support is high as well. Cronbach alpha coefficient of the scale is 0.80-0.95 (25). Cronbach’s alpha coefficient of this study is 0.97.

Statistical Analyses

The data obtained from the research was assessed by SPSS 17.0 package program. Number and percentage were used in statistical assessment, whereas t test, Kruskall Wallis, Mann Whitney-U, Correlation analysis, and Cronbach Alpha internal consistency tests were used in independent groups.

Permission and Ethics

Written permission was obtained from Malatya Clinical Research Ethics Committee for this research to be conducted. Volunteers were included in the research. Since the study was conducted in only one region, the results cannot be generalized to the dialysis patients living in other regions.

RESULTS

Average age of the HD patients who participated in the research was 54.84±12.7 years. It has been determined that 51% of the patients were women, 72.9% were married, 44.8% were illiterate, 40.6% were housewives, 72.9% were unemployed, 55.2% had less income than expense, 52.1% were dialysis patients between 1-5 years (Table 1). Quality of life of the patients physical health score average is 44.43±9.31 and mental health score average is 42.79±9.98’dir (Table 2). It has been determined that in all sub-components of quality of life, the score of 20-49 age group was higher than 50 and above age group and the difference between the groups is statistically significant ($p<0.05$). It has been determined that in all sub-dimensions of SF-36 quality of life, women’s score is higher compared to men’s and the difference between groups is significant in health sub-components ($p<0.05$) whereas not significant in others ($p>0.05$) (Table3).

Table 1. Introductory Characteristics of the Patient (n=96)

Characteristics	N	%
Age		
20-49	34	35.4
50 and above	62	64.6
Gender		
Female	49	51.0
Male	47	49.0
Marital Status		
Married	70	72.9
Single	26	27.1
Education		
Illiterate	43	44.8
Literate	22	22.9
Primary School	20	20.8
High School	11	11.5
Occupation		
Housewife	39	40.6
Officer	8	8.3
Worker	21	21.9
Retired	28	29.2
Employment status		
Employed	26	27.1
Not employed	70	72.9
Social Security		
Yes	93	96.9
No	3	3.1
Income status		
Income less than expense	53	55.2
Income equal to expense	43	44.8
Living with		
Family	84	87.5
Alone	12	12.5
Duration of Dialysis Disease		
1-5 years	50	52.1
6-10 years	21	21.9
More than 11 years	25	26.0
Other Chronic Diseases		
Yes	81	84.4
No	15	15.6

Table 2. Patient's Average Scores of Physical and Mental Quality of Health

Quality of Health	Scale Min-Max	X±SD	Min	Max
Physical Health	21- 75	44.43±9.31	23	68
Mental Health	14-70	42.79±9.98	21	70

Quality of life has been determined to be higher in the scores of employed patients compared to the ones who are not employed and the difference between groups has been determined to be significant in others except the sub-components of physical role, mental role, and mental function ($p<0.05$). It has been determined that quality of life of the ones with equal income and expense is higher compared to those with less income than expense yet the difference between groups is not statistically significant ($p>0.05$). Average social support score of the patients is 60.57±12.27. It has been determined that 20-49 age group compared to 50 and above, high school graduates compared to other groups, those who are employed compared to those who are not employed, those whose income is equal to their expense compared to those whose income is less than their expense, and those who are dialysis patients for 1-5 years receive higher social support ($p<0.05$). It has been found that men compared to women and those who are married compared to those who are single have higher social support yet the difference between groups is not statistically significant ($p>0.05$) (Table 4). In our research, it has been determined that there is a positive significant relation between social support and quality of life (Table 5).

DISCUSSION

It has been determined that most of the patients taken within the scope of the research are female and married, 52.1% have been dialysis patients for 1-5 years (Table 1). In our research, dialysis patients were determined to have a low quality of life. In the study conducted in order to determine the quality of life of dialysis patients by Ersin et. al., (4) it was also found that the patients have a low quality of life. In the studies conducted by Petrovic et. al., (26), Fructuoso et. al. (27), Kader et. al. (28), Braga et. Al. (29) it has also been determined that dialysis patients have low quality of life. The result of our research is parallel to the literature. Hemodialysis treatment is considered to cause a decrease in the quality of life of patients for affecting individuals in all aspects physically, psychologically, socially, and economically. In our study, it has been determined that quality of life decreases as the age increases and the difference between age groups is statistically significant ($p<0.05$) (Table 3). As a result of the study conducted by Bayoumi et. al. (30) in order to determine the quality of life of dialysis patients, it has been found that quality of life decreases as age increases and the difference is statistically significant.

Table 3. Comparison of the Introductory Characteristics of Patients and Their Average Scores of Quality of Life Sub-Scales

Characteristic	n	FI X±SD	FR X±SD	Pain X±SD	GS X±SD	Vitalness X±SD	SI X±SD	MR X±SD	MI X±SD
Age group									
29-49 age	34	63.67±20.46	53.67±34.34	55.00±18.13	46.32±20.71	60.00±18.70	69.11±20.92	48.03±45.08	61.52±17.83
50 and above	62	40.43±18.43	28.62±32.27	43.38±17.07	28.87±18.76	42.17±18.09	50.00±18.24	20.96±32.63	50.70±16.38
p-value		5.605 p=.000[a*]	3.555 p=.001*	3.118 p=.002**	4.200 p=.000*	4.560 p=.000*	4.659 p=.000*	3.385 p=.001*	2.999 p=.003**
Gender									
Female	49	51.04±21.08	37.75±35.03	47.95±18.02	40.51±22.06	51.93±20.91	58.16±20.34	34.01±40.53	56.57±18.05
Male	47	46.81±23.15	37.23±35.30	47.02±18.64	29.36±18.63	44.89±18.83	55.31±22.23	26.95±38.47	52.42±17.05
p value		0.912 p=.364[a]	0.073 p=.942	0.251 p=.803	2.669 p=.009**	1.732 p=.087	0.654 p=.514	0.875 p=.384	1.155 p=.251
Marital Status									
Married		50.52±21.46	35.35±33.91	47.71±18.11	34.78±19.98	47.28±18.70	56.42±20.82	25.71±36.85	52.74±16.72
Single	70	45.00±23.97	43.26±37	46.92±18.92	35.76±24.27	51.73±23.66	57.69±22.65	43.58±43.98	59.38±19.28
p-value	26	740.5 p=.393[c]	806.5 p=.369[c]	876.0 p=.776[c]	898.5 p=.924	791.5 p=.326	877.0 p=.782	712.0 p=.72	724.0 p=.124
Education									
Illiterate									
Literate	43	40.51±17.46	27.90±32.37	42.32±17.70	28.48±20.45	39.06±16.84	49.70±20.50	11.62±26.10	48.27±17.44
Primary School	22	48.63±20.76	42.04±33.08	48.63±16.70	34.31±19.89	47.50±18.69	55.68±16.24	43.93±39.01	53.45±14.26
High School	20	60.00±20.13	53.75±34.67	58.50±15.65	43.50±19.87	62.00±15.59	71.25±18.18	50.00±43.92	64.80±14.01
p-value	11	60.00±31.38 13.43 p=.009[b**]	36.36±40.87 8.24 p=.041***	45.45±20.67 11.52 p=.009**	46.81±20.28 13.83 p=.003**	62.72±22.17 23.19 p=.000*	60.22±26.11 14.44 p=.002**	42.42±47.35 20.34 p=.000*	54.54±17.60 15.63 p=.001*
Employment Status									
Employed	26	63.26±21.76	46.15±33.68	55.76±17.01	41.73±19.18	67.78±22.40	67.78±22.40	44.87±45.15	59.53±17.17
Unemployed	70	43.40±19.82	34.28±35.14	44.42±17.82	32.57±21.37	52.67±19.35	52.67±19.37	25.23±36.07	52.68±17.52
p-value		407.000 p=.000[c*]	730.000 p=.118	557.000 p=.003**	591.000 p=.008**	535.000 p=.002**	514.500 p=.001*	699.500 p=.056	673.000 p=.050***
Occupation									
Housewife	39	**47.23**±21.01	35.25±35.22	48.46±18.71	41.02±24.03	49.35±20.71	57.05±20.63	35.04±39.69	55.79±18.58
Officer	8	64.37±26.24	43.75±39.52	50.00±22.67	41.25±10.26	61.25±22.95	65.62±28.14	54.16±50.19	58.50±21.79
Worker	21	57.14±24.37	45.23±35.01	54.76±13.27	39.76±20.21	54.04±20.53	64.28±19.47	31.74±42.78	59.23±15.83
Retired	28	40.00±16.20	33.03±34.05	40.00±17.63	21.42±12.31	39.46±14.67	48.21±18.85	16.66±29.39	48.14±15.14
p-value		11.234 p=.011[b***]	2.147 p=.543[b]	9.660 p=.022[b]	18.921 p=.000*	9.607 p=.022***	9.300 p=.026***	5.822 p=.121	6.515 p=.089
Income status									
Income less than expense	53	46.00±23.49	36.79±36.88	46.60±19.10	33.96±22.87	45.56±20.90	54.95±23.17	27.04±38.70	53.81±19.01
Income equal to expense	43	52.61±20.18	38.37±32.89	48.60±17.26	36.39±18.87	52.09±18.74	59.01±18.56	34.88±40.46	55.44±15.87
p-value		-1.434 p=.155[a]	-0.219 p=.827[a]	-o.533 p=.596	-0.560 p=.577	-1.592 p=.115	-0.931 p=.354	-0.967 p=.336	-0.449 p=.654
Duration of dialysis									
1-5 years	50	58.67±21.88	42.00±35.51	51.20±18.58	41.30±21.91	52.90±20.43	61.00±22.67	38.66±42.78	56.08±17.93
6-10 years	21	43.75±14.31	40.47±33.04	47.61±15.13	32.38±16.62	45.95±18.00	57.14±15.08	28.57±36.94	56.19±15.41
11 and more years	25	33.04±17.69	26.00±34.21	40.00±18.25	24.80±18.84	41.80±19.73	48.00±20.62	16.00±30.61	50.08±18.55
p-value		23.458 p=.000[b*]	3.682 p=.159[b]	7.149 p=.028***	13.613 p=.001*	5.875 p=.053	6.872 p=.032***	5.460 p=.065	2.855 p=.240

*p< 0.001 ** p< 0.01 *** p< 0.05 a= t test b= Krusskal-Wallis c=Minn-whitney

Also in the studies conducted by Pezeshki et. al. (31), Walters et. al. (32), Ugurlu et. al. (33) it has been determined that the quality of life decreases as age increases. It is considered that the decrease in the quality of life as age increases might be related to the negative impact of physical and mental problems that increase with age on the patients' coping capacity. In our research, it has been determined that males have a lower quality of life in all subdimensions compared to females yet the difference is statistically insignificant (p>0.05) (Table 3). However, in the studies conducted by Tel et. al. (34) and Abdelbasit et. al. (35) it has been determined that females have a lower quality of life. This result is different than our research finding. Since males are less resilient than females against diseases, they are considered to have a lower quality of life compared to women. In our research, it has been determined that the quality of life decreases as the duration of dialysis becomes longer

and Fi, Pain, Gs, Si sub-scales are statistically significant ($p<0.05$). In the study conducted by Acaray and Pinar (11), Pakpour et. al. (36) it has been found that the quality of life decreases as the duration of disease becomes longer. Quality of life is considered to decrease in parallel to the increase in the duration of the disease depending on the increase in physical incapability and the need of social support with age. In our research, dialysis patients have been determined to get the utmost social support from their families. In the studies conducted by Burhanettin et. al. (21) and Mollaoglu (22), it has been found that dialysis patients receive the utmost support from family members.

Table 4. Comparison of the Introductory Characteristics of Patients and Their Average Scores of Social Support

		CBASDO			
		Family	Friend	Someone Special	Total
Characteristic	n	X±SD	X±SD	X±SD	X±SD
Age group					
29-49 age	34	22.82±3.93	21.82±3.30	21.55±3.58	66.20±9.47
50 and above	62	20.12±4.36	18.87±4.56	18.48±5.11	57.48±12.60
p-value		2.978	3.319	3.107	3.523
		p=.004[a]	p=.001[a]	p=.003	p=.001
Gender					
Female	49	21.04±4.22	19.95±4.27	19.61±4.72	60.61±4.72
Male	47	21.12±4.64	19.87±4.53	19.53±5.02	60.53±12.80
p value		-0.096	0.097	0.081	0.032
		p=.924[a]	p=.923[a]	p=.936	p=.975
Marital Status					
Married		21.80±4.59	20.32±3.80	20.00±4.08	62.12±10.82
Single	70	19.15±4.81	18.80±5.60	18.42±6.42	56.38±14.88
p-value	26	622.500	754.000	785.000	706.500
		p=.017[c]	p=.190[c]	p=.296	p=.093
Education					
Illiterate		20.69±3.80	19.11±4.08	19.30±3.83	59.11±10.52
Literate		20.04±5.21	18.18±4.66	16.54±5.98	54.77±14.60
Primary School	43	21.70±4.78	21.85±3.42	21.70±3.48	65.25±9.62
High School	22	23.54±3.61	23.00±4.12	22.81±4.66	69.36±11.43
p-value	20	5.648	12.816	14.153	12.903
	11	p=.130[b]	p=.005[b]	p=.003[b]	p=.005
Employment Status					
Employed	26	22.42±4.69	22.26±4.19	21.30±5.36	66.00±13.07
Unemployed	70	20.58±4.23	19.04±4.15	18.92±4.50	58.55±11.42
p-value		633.000	519.500	626.000	554.000
		p=.021[c]	p=.001[c]	p=.018[c]	p=.003
Occupation					
Housewife	39	20.20±3.95	19.20±3.77	19.35±3.97	58.76±10.39
Officer	8	23.75±3.41	23.50±3.96	22.25±4.94	69.50±11.33
Worker	21	21.33±5.23	20.85±4.82	20.52±5.34	62.71±14.20
Retired	28	21.35±4.44	19.17±4.51	18.39±5.34	58.92±12.68
p-value		6.124	8.768	4.999	7.237
		p=.106[b]	p=.033[b]	p=.172	p=.065
Income status					
Income less than expense	53	20.41±4.27	18.92±4.23	18.86±4.74	58.20±12.31
Income equal to expense	43	21.90±4.49	21.13±4.29	20.44±4.88	63.48±11.73
p-value		-1.663	-2.531	-1.596	-2.134
		p=.100[a]	p=.013[a]	p=.114[a]	p=.035
Duration of dialysis					
1-5 years	50	21.76±4.64	20.82±4.13	20.24±4.63	62.82±11.99
6-10 years	21	20.57±4.38	19.71±4.83	20.14±5.25	60.42±13.42
11 and more years	25	20.16±3.85	18.28±4.13	17.76±4.62	56.20±11.06
p-value		3.36	6.63	6.49	6.59
		p=.186[b]	p=.036[b]	p=.039	p=.037

a= t test b= Krusskal-Wallis c=Minn-whitney

Table 5. Relation Between Quality of Life and Social Support Score Averages

	Social Support Scale							
	Family		Friend		Special		Total	
Quality of Life Scale	**r**	**p**	**r**	**p**	**r**	**p**	**r**	**p**
Physical Health	.364*	.000	.414*	.000	.349*	.001	.412*	.000
Mental Health	.146	.155	.306***	.002	.218**	.033	.248**	.015

*p≤ 0.001 **p<0.05 ***p<0.01

In our culture, family is the most important source of social support for the sick individual in coping with the disease and this situation is an indicator of the fact that Turkish family bonds are strong. For this reason, family has an important role to enable sick individuals to adapt to treatment and for them to be able to cope with the problems brought about by the disease. In our research, it has been determined that there is a positive significant relation between social support and quality of life. Also in the studies conducted by Rambod et. al. (3) and Pereira et. al. (37) a positive significant relation was detected between social support and quality of life. In the study conducted by Patel et. al., (38) it has been found that quality of life increases with higher level of social support. The level of perceived social support increases physical and psychological wellness level of dialysis patients (21,34). Since the quality of life of an individual who is physically and psychologically well would increase, it is considered that social support is an important factor for increasing the quality of life of dialysis patients.

CONCLUSION

According to the results of our research, quality of life of dialysis patients has been found to be low and social support has been found to be of medium level. Since dialysis treatment is a tough and long process, patients may face numerous physical and psychological problems and these problems may cause decrease in quality of life by reducing adaptation to the disease. In order for the patients quality of life to be increased, we can suggest increasing the level of social support and including social support strategies in the care plans of nurses, who are important factors in providing social support.

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