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The Effect of Covid 19 Fear On Quality of Life In Hemodialysis Patients: A Correlation Study In Turkey

Covid 19 Korkusunun Hemodiyaliz Hastalarında Yaşam Kalitesine Etkisi: Türkiye'de Bir Korelasyon Çalışması

Ayşe Gül PARLAK[1], Zümrüt AKGÜN ŞAHİN[2]

[1] Kafkas Üniversitesi, Atatürk Sağlık Hizmetleri Meslek Yüksekokulu, Kars
• **aysegulozyildizparlak@hotmail.com** • ORCİD > 0000-0002-7242-799X

[2] Kafkas Üniversitesi, Sağlık Bilimleri Fakültesi Hemşirelik Bölümü, Kars
• **zumrut8136@hotmail.com** • ORCİD > 0000-0001-7141-273X

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Sorumlu Yazar: Zümrüt AKGÜN ŞAHİN

THE EFFECT OF COVID 19 FEAR ON QUALITY OF LIFE IN HEMODIALYSIS PATIENTS: A CORRELATION STUDY IN TURKEY

ABSTRACT:

Aim: The study aimed to determine the effect of Covid 19 Fear on Quality of Life in Hemodialysis Patients.

Method: Descriptive and cross-sectional study was conducted in Turkey. The research was conducted between October 2020 and January 2021. Data were collected from four dialysis centers. A webbased survey was used. Covid 19 Fear Scale and Nottingham Health Profile tolls was used.

Results: It was found that the fear of the patients increased due to the risk of Covid 19 and therefore their quality of life decreased. The pandemic process experienced fear due to emotional problems, sleep problems, social isolation and physical activity limitation.

Conclusion and Suggestions: It has been determined that the fear of Covid 19 negatively affects life activities and makes life difficult. In pandemic, it is necessary to carefully evaluate hemodialysis patients. Healthcare professionals serving hemodialysis patients should also help solve their psychological problems.

Keywords: *Hemodialysis; Covid 19; Fear; Quality of life*

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COVID 19 KORKUSUNUN HEMODIYALIZ HASTALARINDA YAŞAM KALITESINE ETKISI: TÜRKIYE'DE BIR KORELASYON ÇALIŞMASI

ÖZ:

Amaç: Çalışma, Hemodiyaliz Hastalarında Covid 19 Korkusu ve Yaşam Kalitesi Üzerindeki Etkisinin belirlenmesi amacıyla yapılmıştır.

Yöntem: Tanımlayıcı ve kesitsel çalışma Türkiye'de yapılmıştır. Araştırma Ekim 2020 ile Ocak 2021 arasında gerçekleştirilmiştir. Veriler dört diyaliz merkezinden toplanmıştır. Anketler, hastalar tarafından, Web tabanı üzerinden doldurulmuştur. Verilerin toplanmasında Covid 19 Korku Ölçeği ve Nottingham Sağlık Profili kullanılmıştır.

Bulgular: Covid 19 riski nedeniyle hastaların korkusunun arttığı ve bu nedenle

yaşam kalitelerinin düştüğü tespit edildi. Pandemi sürecinde hastalar en çok duygusal sorunlar, uyku sorunları, sosyal izolasyon ve fiziksel aktivite kısıtlılığı nedeniyle korku yaşadı.

Sonuç ve Öneriler: Covid 19 korkusunun yaşam aktivitelerini olumsuz etkilediği ve hayatı zorlaştırdığı tespit edilmiştir. Pandemide hemodiyaliz hastalarının dikkatlice değerlendirilmesi gerektiği sonucuna ulaşılmıştır

Anahtar Kelimeler: *Hemodiyaliz; Covid 19; Korku; Yaşam kalitesi*

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INTRODUCION

The new coronavirus (COVID 19) infection, which has recently started for the first time in the Wuhan region of China and then started to be detected in many countries of the world and has become a pandemic is high for dialysis patients, kidney transplant patients (Naicker ve ark., 2020; Chaolin et al., 2020). They are among the patients at risk. The fact that hemodialysis patients have an advanced age, have different accompanying chronic diseases, have to go to the hospital three days a week to receive treatments that suppress immune systems and hemodialysis (Martino, Plebani, & Ronco, 2020).

In hemodialysis units, patients and healthcare professionals have to stay close to each other for a long time, and the transfer of patients from their homes to dialysis centers and from dialysis centers to their homes by service vehicles creates a high risk of Covid 19 transmission (Schaier, 2018). In addition, information on how the disease progresses in this group and treatment options are limited (Xiong ve ark., 2020). In order to prevent the spread of the epidemic all over the world and in Turkey he has brought many restrictions in everyday life. The uncertainty about where the process will take causes anxiety and fear during the pandemic process (Meijers, Messa, & Ronco, 2020; Fotheringham ve ark., 2020). The tendency to show negative reactions to uncertain events and situations emotionally, cognitively and behaviorally manifests itself as intolerance (Fotheringham ve ark., 2020). Dialysis-related pain, depression, itching, hypotension etc. hemodialysis patients experience. In addition to the problems, conditions caused by restriction in the pandemic cause anxiety and fear (Rombolà, & Brunini, 2020).In addition, hemodialysis treatment may cause changes in the daily lives of patients, in addition to periodic dialysis sessions, symptoms such as nausea, vomiting, hypotension and fatigue and external environmental factors such as the temperature of the hemodialysis room adversely affect the comfort of patients (Meijers, Messa, & Ronco, 2020; Fotheringham et al., 2020; Rombolà, & Brunini, 2020). In addition, many

factors such as physical activity difficulties, change in nutritional habits, disruption in family and friends relations, restriction in their social life and negatively affecting the working life can negatively affect the overall quality of life of these patients (Fotheringham ve ark., 2020; Rombolà, & Brunini, 2020; Satici, Saricali, & Satici, 2020). In the current period, the fact that patients had to receive regular hemodialysis treatment brought along emotional problems (Rombolà, & Brunini, 2020; Satici, Saricali, & Satici, 2020; Ikizler, & Kliger, 2020). All these changes affect all areas of individuals undergoing hemodialysis such as social, psychological, physical and sleep problems and negatively affect the patient's quality of life (Rajkumar, 2020). Understanding illness behavior, psychological reactions, and adaptation difficulties in sick individuals and planning care interventions that will support the development of appropriate coping methods can be possible with quality of life assessments (Alimohamadi, Taghdir, & Sepandi, 2020). When the literature is examined, no research has been found on the fear and quality of life associated with Covid-19 experienced by hemodialysis patients during the pandemic process. For this reason, the research was conducted to determine the effect of Covid 19 Fear on Quality of Life in Hemodialysis Patients.

METHOD

Descriptive and cross-sectional and relational screening model was conducted in Turkey. The research was conducted between October 2020 and January 2021. Data were collected from four dialysis centers. A total of 103 people receive hemodialysis treatment in the centers where the study was conducted. At the time of the study, 12 patients died due to Covid 19 and 7 patients had Covid 19 infection, so 84 patients constituted the research universe. The sample consisted of 70 patients who volunteered to participate in the study covid and met the study criteria. Research criteria; Being over the age of 18, receiving hemodialysis treatment for at least 1 year, not having had Covid-19 since the beginning of the pandemic, having no psychiatric disorder requiring treatment, with person, place and time orientation, and giving verbal and written consent to participate in the study.

The Patient Questionnaire

In the form created by the authors, there were a total of sixteen questions that identify the patient's demographics and hemodialysis characteristics (Chaolin ve ark l., 2020; Martino, Plebani, & Ronco, 2020; Schaier, 2018).

Covid 19 Fear Scale: Ahorsu ve ark. (2020), it is a one-dimensional 7-item Likert scale with 5 points. The lowest score to be obtained from the scale is 7 and the highest score is 35 (Alimohamadi, Taghdir, & Sepandi, 2020).. The internal consistency and test-retest reliability (α = .82 and ICC = .72) of the scale are at

acceptable levels. The validity and reliability study for the Turkish population was conducted by Satici ve ark. (2020) and the Cronbach Alpha reliability coefficient was found to be 0.80. (Satici, Saricali, & Satici, 2020) The Cronbach's α value was 0.83 in the present study.

Nottingham Health Profile (NHP): It is a general quality of life questionnaire that measures the health problems perceived by the individual and the level of these problems affecting normal daily activities. It consists of six sub-sections evaluating the emotional, social and physical health problems perceived by the individual. These are: Energy level (3 items), pain (8 items), emotional reactions (9 items), sleep (5 items), social isolation (5 items) and physical activity (8 items). The questions are answered as yes or no in the questionnaire consisting of 38 questions in total. Each section is scored between 0 and 100. 0 points indicate the best health status, 100 points the worst health status. The validity and reliability of the NSP for the Turkish community was made by Küçükdeveci ve ark. (2000). (Küçükdeveci ve ark., 2000) and the Cronbach Alpha value of the scale was reported to be between 0.56 and 0.83. In evaluating the quality of life receiving hemodialysis treatment, the Cronbach Alpha value of a scale of NSP was found to be 0.93. In this study, the Cronbach's α value was 0.83-0.85 in the present study.

Data Collection

Data were shared on online platforms (Facebook, watsapp) via an online survey (via a survey website platform). The questionnaire forms were filled in by the participants via a computer or smartphone via a website link. The online questionnaire also includes a section that provides potential respondents with information about purpose, anonymity and privacy. Before answering the questionnaire questions, a directive was given regarding the purpose of the research and how the questionnaire forms should be filled. It is stated in the directive that the principle of volunteerism is based especially in filling the scale. Participants completed the study by connecting to the website, filling out the forms and clicking the submit button.

Statistical Analysis

The research data were analyzed using the Statistical Package for the Social Sciences Statistics software (version 22). While evaluating the data, the frequency distributions, and descriptive statistics of the variables were calculated. When parametric test assumptions are provided, the Significance Test of the Difference Between Two Means and Analysis of Variance in the comparison of independent group differences; When parametric test assumptions were not provided, Mann-Whitney U test and Kruskal Wallis Variance Analysis were used to compare independent group differences. Spearman Correlation analysis was used to exami-

ne the relationships between continuous variables. Results were evaluated at 95% confidence interval and significance level of p <0.05.

Ethics

In order to apply the data collection forms, permission and written approval from the ethics committee of the hospital where the research was conducted were obtained. Written permission was obtained from the Ministry of Health Ethics Committee (2020/10) for the study of Covid 19. Written informed consents were obtained from the legal guardians of the patients to be included in the study. After the purpose of the study was announced to the patients to be sampled, written informed consents was obtained. It was explained that the information obtained was stated to be kept confidential. The patients provided voluntary participation.

RESULTS

Table 1 and 2 shows socio-demographic characteristics and disease-related information of the patients. It was determined that 51.4% of the patients were aged between 18-64 years, 62.9% were male, primary school 48.6 %, 84.3% were married, 51.5% were income = expenditure, 90.0% were unemployed, 54.3% were lived province, 65.7% were living with children/relatives, 50.0 % were hemodialysis duration of 2-10 years, 97.1% were received hemodialysis treatment 3 times a week, 92.9% had presence of having another cronic diseases, 82.0% had hypertension, 74.3% service vehicle of the dialysis center, 52.9% relatives diagnosed with Covid 19, 64.3% relatives died of covid 19.

Table 1. Socio-Demographic Characteristics of Patients

Variables		Number	%
Age	18-64	36	51.4
	65-74	25	35.7
	>75	9	12.9
Gender	Female	26	37.1
	Male	44	62.9
Educational Status	Illiterate	19	27.1
	Literate	6	8.6
	Primary school	34	48.6
	High school and above	11	15.7
Marital Status	Married	59	84.3
	Single	11	15.7
Perceived level of income	Income > expenditure	12	17.1
	Income = expenditure	36	51.5
	Income < expenditure	22	31.4

Work Status	Working	7	10.0
	Unemployed	63	90.0
Patient's residence	Province	38	54.3
	District	11	17.7
	Village	21	30.0
Living arrangement	Alone	2	2.8
	Living with spouse	13	18.5
	Living with children/relatives	46	65.7
	Other	9	13.0
Total		70	100

Table 2. Hemodialysis -related Characteristics

Variables		**Number**	**%**
Hemodialysis duration	1 years	13	51.4
	2- 10 years	35	35.7
	>11 years	22	12.9
Number of weekly hemodialysis treatments	2 times a week	2	2.9
	3 times a week	68	97.1
Had presence of having another cronic diseases	Yes	65	92.9
	No	5	7.1
Having another cronic diseases	Diabetes	13	76.0
	Hypertension	29	82.0
	Coronary artery disease	28	56.0
How to come to hemodialysis treatment	Own vehicle	18	25.7
	Service vehicle of the dialysis center	52	74.3
Relatives diagnosed with Covid 19	No	33	47.1
	Yes	37	52.9
Relatives died of covid 19	No	25	35.7
	Yes	45	64.3
Total		70	100

Table 3. shows the distribution of mean scores of Socio-Demographic Characteristics by NHP and Covid 19 Fear Scale. It was found that the demographic characteristics of hemodialysis patients did not affect the fear of covid 19 and their quality of life ($p>0.05$).

Table 3. Socio-Demographic Characteristics by NHP and Covid 19 Fear Scale

Nottingham Health Profile	Energy level mean±sd	Pain mean±sd	Emotional reactions mean±sd	Sleep mean±sd	Social isolation mean±sd	Physical activity mean±sd	Covid 19 Fear Scale Mean±SD
Age							
18-64	20.45±15.75	32.09±18.28	29.36±15.66	25.66±23.45	25.48±21.56	28.16±21.27	15.20±5.10
65-74	21.66±16.38	31.75±19.33	28.87±16.45	25.47±22.84	26.88±20.36	28.22±21.42	15.05±5.65
>75	21.42±18.33	31.88±18.68	29.88±15.40	24.15±23.20	25.36±24.17	28.64±21.36	15.75±5.15
Test and p	KW:0.102 df: 2,p>0.05	KW: 0.078 df: 2,p>0.05	KW: 0.569 df: 2, p>0.05	KW:0.185 df: 2, p>0.05	KW: 0.563 df: 2, p>0.05	KW: 0.641 df: 2,p>0.05	KW: 0.645 df: 2,p>0.05
Gender							
Female	28.85±20.45	33.65±15.40	24.66±16.60	21.48±20.15	27.54±21.56	30.11±23.65	22.04±6.56
Male	28.32±22.56	32.48±15.85	24.94±17.12	21.89±22.56	26.92±20.38	30.36±24.87	22.18±6.22
Test and p	MWU:0.625 p>0.05	MWU:0.587 p>0.05	MWU:0.678 p>0.05	MWU:0.458 p>0.05	MWU:0.687 p>0.05	MWU:0.498 p>0.05	MWU:0.697 p>0.05
Educational Status							
Illiterate	25.12±13.57	31.25±24.08	35.47±14.56	28.12±18.36	34.12 ±21.45	28.15±20.30	15.60±5.04
Literate	26.45±12.63	31.36±23.66	35.78±15.76	27.75±17.52	34.09±20.12	28.32±20.50	15.25±5.66
Primary school	26.36±13.78	30.63±23.25	34.88±14.45	28.50±17.48	33.65±20.12	28.47±20.69	15.08±5.32
High school and above	25.20±14.46	30.42±25.80	34.34±15.56	27.66±18.64	34.23±20.32	28.47±20.74	15.88±5.54
Test and p	KW: 0.087 df: 3,p>0.05	KW:0.632 df: 3,p>0.05	KW:0.954 df: 3, p>0.05	KW:0.389 df: 3, p>0.05	KW:0.485 df: 3, p>0.05	KW:0.478 df: 3,p>0.05	KW:0.574 df: 3,p>0.05
Marital Status							
Married	33.52±25.85	30.56±14.52	32.66±14.47	30.65±23.65	25.32±20.82	28.69±22.58	20.52±7.96
Single	32.85±23.51	31.85±15.88	32.05±15.18	30.09±23.17	25.62±21.66	28.54±21.74	20.12±7.15
	MWU:0.520 p>0.05	MWU:0.785 p>0.05	MWU:0.641 p>0.05	MWU:0.287 p>0.05	MWU:0.654 p>0.05	MWU:0.741 p>0.05	MWU:0.945 p>0.05
Perceived level of income							
Income > expenditure	20.12±23.18	33.46±14.45	28.66±14.89	27.89±23.51	24.49±20.66	28.87±21.58	20.07±6.35
Income = expenditure	20.45±22.80	33.07±13.96	28.12±15.09	26.95±22.76	24.68±21.74	28.14±20.36	20.14±6.45
Income < expenditure	21.88±23.45	33.88±14.52	28.21±15.43	27.54±23.41	25.32±20.48	28.46±20.63	20.35±6.20
	KW:1.009 df: 2,p>0.05	KW:1.052 df: 2,p>0.05	KW:0.987 df: 2, p>0.05	KW:0.874 df: 2, p>0.05	KW:0.687 df: 2, p>0.05	KW:0.540 df: 2,p>0.05	KW:0.894 df: 2,p>0.05

Work Status							
Working	28.36±18.42	32.45±20.65	32.78±15.66	32.52±23.27	32.32±20.69	33.18±14.65	22.70±6.48
Unemployed	28.07±21.25	32.09±19.20	31.96±15.20	32.66±22.74	30.74±20.18	32.86±15.11	22.50±5.35
	MWU:0.740 p>0.05	MWU:0.428 p>0.05	MWU:0.561 p>0.05	MWU:0.862 p>0.05	MWU:0.674 p>0.05	MWU:0.580 p>0.05	MWU:0.641 p>0.05
Patient's residence							
Province	30.20±15.30	32.56±19.25	29.16±20.23	29.42±22.63	32.23±18.07	30.12±20.25	20.66±6.10
District	30.66±15.48	32.60±20.54	30.08±20.07	29.14±23.78	32.68±19.56	30.28±20.32	20.37±7.12
Village	30.47±15.42	31.14±20.33	29.86±21.54	29.20±23.12	32.09±20.36	30.39±21.47	20.24±5.47
	KW:0.634 df: 2, p>0.05	KW:0.908 df: 2,p>0.05	KW:0.478 df: 2, p>0.05	KW:0.961 df: 2, p>0.05	KW:0.489 df: 2, p>0.05	KW:0.671 df: 2,p>0.05	KW:0.278 df: 2,p>0.05
Living arrangement							
Alone	32.88±18.09	30.62±20.55	32.08±19.51	30.52±20.63	35.42±18.35	32.05±18.26	15.52±6.54
Living with spouse	32.07±18.23	30.85±20.48	31.17±20.41	30.18±22.08	35.36±15.14	32.12±17.47	15.02±5.81
Living with children/ relatives	32.42±18.58	31.14±20.35	32.66±18.30	30.24±23.32	35.15±19.85	31.63±21.20	15.12±5.95
	KW:0.254 df: 2,p>0.05	KW:1.074 df: 2,p>0.05	KW:0.674 df: 2, p>0.05	KW:0.752 df: 2, p>0.05	KW:0.628 df: 2, p>0.05	KW:0.785 df: 2,p>0.05	KW:0.588 df: 2,p>0.05

Table 4. Hemodialysis -related by NHP and Covid 19 Fear Scale. The average COVID 19 fear score of hemodialysis patients within the scope of the study; It was found to be higher and statistically significant in patients had hemodialysis duration for more than 11 years, hemodiasis treatment 3 times a week, had another chronic diseases, those who came to the treatment with the service vehicle of the hemodialysis center, who were diagnosed with Covid 19 in their relatives and who died due to Covid 19 ($p < 0.05$).

Table 4. Hemodialysis -related by NHP and Covid 19 Fear Scale

Nottingham Health Profile	Energy level mean±sd	Pain mean±sd	Emotional reactions mean±sd	Sleep mean±sd	Social isolation mean±sd	Physical activity mean±sd	Covid 19 Fear Scale Mean±SD
Hemodialysis duration							
1 years	20.18±23.45	30.66±15.23	32.56±23.32	30.15±20.32	30.15±20.31	32.52±21.07	15.00±5.95
2- 10 years	21.20±22.66	30.75±19.14	33.41±23.10	30.47±20.45	30.24±20.54	32.14±21.30	20.52±5.56
>11 years	20.38±23.52	31.09±15.21	33.20±23.44	30.55±20.60	30.47±20.74	32.66±21.10	25.28±6.48
	KW:0.687 df: 2,p>0.05	KW: 0.388 df: 2,p>0.05	KW: 0.852 df: 2, p>0.05	KW: 0.852 df: 2, p>0.05	KW: 0.574 df: 2, p>0.05	KW: 0.625 df: 2,p>0.05	KW: 3.947 df: 2,**p>0.05**

Number of hemodialysis treatments							
2 times a week	28.65±23.41	25.42±24.58	33.06±23.98	33.56±22.66	35.92±20.42	33.09±20.15	17.37±5.65
3 times a week	28.46±23.17	25.47±24.68	33.27±23.84	33.12±20.48	35.38±20.17	33.12±20.42	22.50±6.36
	MWU:0.530 p>0.05	MWU:0.741 p>0.05	MWU:0.698 p>0.05	MWU:0.698 p>0.05	MWU:0.520 p>0.05	MWU:0.971 p>0.05	MWU:3.428 **p>0.001**
Had presence of having another cronic diseases							
Yes	32.46±23.45	30.15±24.54	32.30±24.08	25.96±26.80	20.33±23.24	30.15±18.63	23.55±6.38
No	32.12±23.08	30.88±24.12	32.66±24.10	32.42±26.32	20.16±23.88	30.42±19.22	20.20±6.00
	MWU:0.641 p>0.05	MWU:0.520 p>0.05	MWU:0.908 p>0.05	MWU:0.806 p>0.05	MWU:0.798 p>0.05	MWU:0.678 p>0.05	t:2.462 **p>0.001**
Having another cronic diseases							
Diabetes	20.36±22.19	24.98±13.66	32.15±23.04	28.54±23.66	25.09±20.14	30.75±25.36	15.35±5.12
Hyperten-sion	20.27±23.30	25.09±14.23	32.40±24.36	28.63±21.48	25.12±20.23	30.96±25.87	15.40±5.58
Coronary artery disease	20.63±23.41	25.15±14.47	32.68±24.40	29.89±23.36	25.66±20.60	30.58±25.3	15.63±6.08
	KW:0.368 df: 2,p>0.05	KW: 0.287 df: 2,p>0.05	KW: 0.871 df: 2,p>0.05	KW:0.865 df: 2,p>0.05	KW: 0.887 df: 2,p>0.05	KW: 0.942 df: 2,p>0.05	KW: 0.845 df: 2, p>0.05
How to come to hemodialysis treatment							
Own vehicle	33.15±20.39	30.10±20.23	30.21±20.19	28.54±20.47	30.45±23.14	28.23±25.30	22.44±6.59
Service vehicle of the dialysis center	33.20±23.66	30.51±20.96	30.96±20.22	28.88±21.96	30.65±23.42	28.14±25.74	26.94±6.33
	MWU:0.752 p>0.05	MWU:0.423 p>0.05	MWU:0.458 p>0.05	MWU:0.763 p>0.05	MWU:0.930 p>0.05	MWU:0.908 p>0.05	MWU:3.425 **p<0.001**
Relatives diagnosed with Covid 19							
No	32.05±23.17	30.42±20.55	30.14±20.66	30.65±20.14	32.11±22.69	32.14±22.07	20.52±6.23
Yes	32.63±23.81	30.69±20.36	30.52±20.85	30.88±20.52	32.07±22.88	32.23±22.65	24.08±7.37
	MWU:0.641 p>0.05	MWU:0.687 p>0.05	MWU:0.750 p>0.05	MWU:0.832 p>0.05	MWU:0.519 p>0.05	MWU:0.879 p>0.05	t:2.237 **p<0.001**
Relatives died of covid 19							
No	30.22±23.21	30.24±15.58	30.61±20.45	28.66±20.86	34.12±20.12	34.96±23.22	21.68±6.05
Yes	30.47±23.58	30.40±15.05	30.47±20.74	28.41±20.74	33.88±21.90	35.10±23.65	24.12±6.81
	MWU:0.640 df: 2, p>0.05	MWU:0.752 df: 2,p>0.05	MWU:0.673 p>0.05	MWU:0.548 p>0.05	MWU:0.854 p>0.05	MWU:0.874 p>0.05	MWU:3.500 **p<0.001**

Table 5. shows the distribution of mean scores of NHP and Covid 19 Fear Scale. When the distribution of the scale mean scores was examined, the mean score of NHP subscales; Energy level was determined to 78.88±9.19, Pain was determined to 62.22±12.42, Emotional reactions was determined to 83.77±8.98, Sleep was determined to 82.57±7.63, Social isolation was determined to 81.34±7.59 and physical activity was determined to 82.34±8.48. The mean score of Total Covid 19 Fear Scale was determined to 28.37±4.35.

Table 5. Patient's NHP and Covid 19 Fear Scale Score Averages

NPH	Mean±SD	Min-Max
Energy level	78.88±9.19	0-100.00
Pain	62.22±12.42	0-100.00
Emotional reactions	83.77±8.98	0-100.00
Sleep	82.57±7.63	0-100.00
Social isolation	81.34±7.59	0-100.00
Physical activity	82.34±8.48	0-100.00
Covid 19 Fear Scale	28.37±4.35	7.00-35.00

Table 6. shows the correlation between NHP and subscale and Covid 19 Fear Scale. It was determined that as the total mean score of NHP subscales, Energy level and pain, Emotional reactions, social isolation, physical activity levels decreased, Covid 19 Fear level increased. A statistically significant and negative correlation was found between these scales ($p<0.001$).

Table 6. Correlation Between NHP and Covid 19 Fear Scale Score Averages

NPH	Covid 19 Fear Scale	
	r	p
Energy level	0.265	p<0.001
Pain	0.294	p<0.001
Emotional reactions	0.356	p<0.001
Sleep	0.294	p<0.001
Social isolation	0.274	p<0.001
Physical activity	0.326	p<0.001

DISCUSSION

This work; It was conducted to determine the effect of hemodialysis patients, one of the groups most affected by the pandemic, on the fear of COVID-19 and the quality of life. When Table 4 was examined, The average COVID 19 fear score of hemodialysis patients within the scope of the study; It was found to be higher and statistically significant in patients who received hemodiasis treatment 3 times a week, those who came to the treatment with the service vehicle of the hemodialysis center, who were diagnosed with Covid 19 in their relatives and who died due to Covid 19 ($p < 0.05$).

Studies showed that WHO stated that despite the recommendation of quarantine, isolation and social distance in combating the pandemic, patients had to go to the hemodialysis center for sessions lasting an average of 4 hours 3 times a week and contacted with patients and healthcare personnel for long hours in a closed area. It has been emphasized that this is a situation that increases the risk of COVID 19 infection in hemodialysis patients and their families (Nie et al., 2020; Naicker et al., 2020; Syed-Ahmed, & Narayanan, 2019). Lee ve ark. (2020) more than 85% of the participants report that they are worried about going to dialysis treatments (Lee et al., 2020). Patients he determined that they were worried about being in close contact during the dialysis session and the risk of infection during transportation (Lee ve ark., 2020). When the literature is examined, it has been found that the fear level of COVID-19 is high in those who are infected with the disease (Syed-Ahmed, & Narayanan, 2019; Lee ve ark., 2020; Shamya ve ark., 2020). In the study of Cao ve ark. (2020) a relative found that the anxiety level was significantly higher in those who had the disease (Cao ve ark., 2020). Studies that the fear of pandemic in individuals whose relatives were lost due to COVID-19 is at a significantly high level (Bakioğlu, Korkmaz, Ercan, & 2020; Cao ve ark., 2020; Duman, 2020). Our study results are compatible with the literature.

Table 3 shows the distribution of the means for the six subscales of NHP and Covid 19 Fear Scale low quality of life and high fear of covid 19 have been detected in hemodialysis patients. It has been determined that the quality of life is low especially in emotional reactions, sleep, social isolation and physical activity. Hemodialysis treatment leads to a decrease in the quality of life due to the limitation of physical strength, mobility, working order and the use of the arm with fistula (Anees ve ark., 2018). A study of found that the quality of life of dialysis patients was low due to the limitations in performing daily life activities, social life and physical activity activities (Pan, 2019). Social life and physically active hemodialysis patients who had the opportunity to get help from their family, friends and other groups were more comfortable with their diets and fluid restriction. Hemodialysis patients with social support better adapt to their treatment (Pan, 2019; Mosleh

ve ark., 2020). Mosleh ve ark. (2020) reported that increased social support levels decreased the susceptibility to depression and anxiety in hemodialysis patients (Mosleh ve ark., 2020). Flythe et al. found that the increase in the level of social support perceived by hemodialysis patients increased psychosocial adjustment (Flythe, 2019). A study found that hemodialysis patients who had active lives and received support from their families could cope more easily with routine care and their compliance with treatment increased (Medeiros ve ark., 2015). In this study, it was determined that hemodialysis patients were the areas most affected by the decrease in energy, sleep, physical activity caused by the pandemic process. It has been found that sleep disturbance negatively affects the daily comfort levels of patients in hard-working hemodialysis patients (Pan, 2019; Mosleh ve ark., 2020; Flythe, 2019). Studies have shown that hemodialysis patients have poor sleep quality, reduced total sleep time, shortened deep sleep time, and this situation negatively affects physical activity and reduces the quality of life (Nie ve ark., 2020; Naicker ve ark., 2020; Syed-Ahmed, & Narayanan, 2020; Lee ve ark., 2020)

When Table 5 was examined, It was determined that as the total mean score of NHP subscales, Energy level and pain, Emotional reactions, social isolation, physical activity levels decreased, Covid 19 Fear level increased. A statistically significant and negative correlation was found between these scales ($p<0.001$). Studies have shown that the spread of misleading and prejudiced information through social networks caused fear and panic during the COVID 19 epidemic worldwide (Qiu et al., 2020; Wang ve ark., 2021; Rajkumar, 2020). Especially Fear and anxiety chaos triggered by COVID 19 it may cause more emotional discomfort. It was stated that it may cause anxiety and depression caused by social isolation. In a study due to Covid 19, hemodialysis patients experience emotional difficulties and identified symptoms such as depression, anxiety, or poor sleep (Lee ve ark., 2020). Studies showed in their study that fear, depression and anxiety are common in hemodialysis patients, and their quality of life decreases, resulting in more hospitalization and death risk (Rajkumar, 2020; Lee ve ark., 2020; Silva ve ark., 2018). Stojanov ve ark. (2020) determined that the stressful situation affects patients more psychologically due to the pandemic, the deadly virus affects the patients emotionally negatively due to the potential transmission and their quality of life decreases (Stojanov ve ark., 2020).

CONCLUSION

As a result of this research; It was found that the fear of the patients increased due to the risk of Covid 19 and therefore their quality of life decreased. Our research findings revealed that individuals who received hemodialysis treatment during the pandemic process experienced fear due to emotional problems, sleep problems, social isolation and physical activity limitation. In addition, it has been

determined that the fear of Covid 19 negatively affects life activities and makes life difficult.

Implications For Nursing Practice

The results of the study found that hemodialysis patients had a high fear of Covid 19 and a low quality of life. Support is needed to identify patients with these high levels of fear and for effective care. The quality of life of patients can be improved by meeting the emotional needs of patients.

Conflict of Interests

The authors declare that there are no conflict of interests.

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Authorship Contribution Statement

Z.A.Ş: Conceptualization, Methodology, Investigation,Writing - original draft. A.G.P: Conceptualization, Methodology,Investigation, Writing - original draft. Z.A.Ş: Writing -review & editing. A.G.P: Writing -review & editing.

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