



COVID-19 PHOBIA AND PSYCHOLOGICAL WELL-BEING IN PERITONEAL DIALYSIS PATIENTS DURING THE PANDEMIC PROCESS

Nurcan UZDIL^{1*}, Mahmut EVLİ¹, Bülent TOKGÖZ²

¹Erciyes University, Faculty of Health Sciences, Department of Mental Health and Disease Nursing, 38030, Erciyes, Turkey


²Erciyes University, Faculty of Medicine, Department of Internal Diseases, 38030, Erciyes, Turkey


Abstract: Important and compulsory changes in many areas of life, especially the mandatory quarantine that emerged due to the COVID-19 pandemic, negatively affect the mental health of these individuals. In this study, it is aimed to determine the effect of the pandemic process on COVID-19 phobia and the psychological well-being of peritoneal dialysis patients. This study was completed with 83 patients. Data were analyzed with Kolmogorov-Smirnov, Mann-Whitney U test, Kruskal-Wallis one-way analysis of variance and Spearman's rank correlation coefficient. The relational status between the variables was tested by simple linear regression analysis. Among the participants 54.2% were female, and the mean age was 53.52±15.06. It is seen that the mean score of psychological well-being of peritoneal dialysis patients is 34.71±9.71, and the mean total score of COVID-19 phobia is 61.85±17.73. It was determined that the 18.9% variance in psychological well-being in peritoneal dialysis patients was due to coronavirus phobia. Social distance and long-term restrictions and uncertainties brought about by the COVID-19 pandemic process have negatively affected people in terms of coronavirus phobia and psychological well-being. In this process, early diagnosis of peritoneal dialysis patients with coronavirus phobia and arranging appropriate psychological interventions are important.


Keywords: Peritoneal dialysis, COVID-19 phobia, Psychological well-being, Pandemic

*Corresponding author: Erciyes University, Faculty of Health Sciences, Department of Mental Health and Disease Nursing, 38030, Erciyes, Turkey

E mail: nuzdil@erciyes.edu.tr (N. UZDIL)

Nurcan UZDIL  <https://orcid.org/0000-0001-8559-8299>

Mahmut EVLİ  <https://orcid.org/0000-0002-5113-7619>

Bülent TOKGÖZ  <https://orcid.org/0000-0003-0880-3396>

Received: January 18, 2022

Accepted: March 10, 2022

Published: May 01, 2022

Cite as: Uzdil N, Evli M, Tokgöz B. 2022. COVID-19 phobia and psychological well-being in peritoneal dialysis patients during the pandemic process. *BSJ Health Sci*, 5(2): 245-251.

1. Introduction

In January 2020, the World Health Organization (WHO) declared the COVID-19 epidemic, a novel coronavirus disease, as a Public Health Emergency of International Concern (WHO, 2020). In March 2020, WHO stated that COVID-19 can be characterized as a pandemic. Many healthy individuals experience mild to moderate respiratory illness from contracting the virus and recover without the need for special treatment. Those with medical problems such as cancer, chronic respiratory diseases, diabetes, cardiovascular disease and the elderly suffer the disease caused by COVID-19 more severely, and therefore the risk of death in this group increases (WHO, 2020). Patients with chronic kidney disease who have a weak immune system, especially dialysis patients, constitute a significant majority of chronic diseases. This majority is likely to be adversely affected by the symptoms caused by COVID-19. Therefore, individuals in this group require periodic medical and multidisciplinary follow-up (Michaels et al., 2020; Deboni et al., 2020; Yerram et al., 2019). In addition, it is important to pay attention to social distance in order to reduce the spread of COVID-19 in dialysis patients, as in all groups (Deboni

et al., 2020). When routine hospital visits and social activities are limited in peritoneal dialysis patients, there are advantages in terms of applying their own care at home. Even during the quarantine period, peritoneal dialysis (PD) patients are likely to be at a lower risk of being affected by the COVID-19 pandemic than hemodialysis patients who need to go to the dialysis center two or three times a week, because PD patients can apply their treatment in the home environment (Yerram et al., 2019). However, these patients may face many challenges, including dialysis supply chain restrictions, dialysis safety, difficulty in problem-solving, reduced social support, social isolation, and vascular access issues (Yang and Dong, 2020). Patients may have been psychologically affected by many problems during the pandemic process. This influence can negatively affect patients' self-confidence, their treatment, and their environment. Psychological well-being, which is an important concept in this respect, is a concept that includes the evaluations of individuals about having vital intentions, responsibilities, self-actualization and establishing appropriate relations with other people. It is defined as living well and doing good things, and it means



the same as happiness (Telef et al., 2013). As the individual's needs are met, the level of psychological well-being also increases (Doğan et al., 2016). The COVID-19 pandemic has upended every aspect of life. It is thought that this situation will be more pronounced in individuals with chronic diseases, especially in dialysis patients. It is assumed that important and mandatory changes in many areas of life, especially the mandatory quarantine brought by the COVID-19 pandemic process, disrupt the routines of these patients and pose a threat to their psychological well-being. As a result of the literature studies, it has been determined that there are limited studies on psychological well-being in dialysis patients during the COVID-19 pandemic process (Bonenkamp et al., 2021). In this study, it is aimed to determine the effect of the pandemic process on COVID-19 phobia and the psychological well-being of peritoneal dialysis patients.

The research sought answers to the following questions:

1. What are the COVID-19 phobia levels in PD patients during the pandemic period?
2. What is the psychological well-being of PD patients during the pandemic period?
3. Is there a relationship between COVID-19 phobia and the psychological well-being of PD patients?
4. Do descriptive characteristics of PD patients have an effect on COVID 19 phobia and psychological well-being?
5. Does psychological well-being have an effect on COVID 19 phobia?

2. Materials and Methods

2.1. Type of the Research

The research was conducted as a descriptive study to determine the interaction between COVID 19 phobia and the psychological well-being of peritoneal dialysis patients during the pandemic process.

2.2. Location and Characteristics of the Research

The research was carried out at the Adult Peritoneal Dialysis Unit Center of the Erciyes University Health Practice and Research Center Semiha Kibar Organ Transplantation and Dialysis Hospital in Kayseri. Since we are in the pandemic process, the numbers of the patients can be reached from the unit and the questionnaires were sent online via WhatsApp messenger.

2.3. Sample of the Research

The population of the study consists of 92 patients registered at Erciyes University Health Practice and Research Center Semiha Kibar Organ Transplantation and Dialysis Hospital, Adult Peritoneal Dialysis Unit Center. Since the whole population will be studied in the sample, no sample calculation was made. All of the patients were invited to the study between 08.02.2020 and 20.04.2020, and the study was completed with 85 patients who met the inclusion criteria. However, 2 people were excluded from the study because they gave incomplete answers to the questionnaire and scale

questions.

2.4. Inclusion Criteria

Those who volunteered to participate in the study, were literate, over the age of 18, duration of peritoneal dialysis 6 months or more, no history of psychiatric disease, no aphasia, no problems preventing communication, using social media and smartphones, and individuals who approved the informed voluntary consent form were included. Patients who gave incomplete answers to the questionnaire and scale questions were excluded from the study.

2.5. Data Collection Forms in Research

Three forms were used as data collection tools in the study. These are the Introductory Information Form, the Coronavirus-19 Phobia (CP19-S) scale and the Psychological Well-Being Scale.

2.5.1. Introductory information form

It consists of sociodemographic questions to get to know the patients. This form, which was prepared by making use of the literature, consists of a total of 19 questions dealing with sociodemographic and disease characteristics, Covid-19 and pandemic process situations (Hiçdurmaz and Öz, 2005).

2.5.2. Coronavirus-19 phobia scale (C19P-S)

The scale developed by Arpacı et al. (2020) is a 5-point Likert-type self-assessment scale developed to measure phobia that may develop against the coronavirus (Arpacı et al., 2020). The scale, which is a five-point Likert type, consists of psychological, somatic, social and economic sub-dimensions. While the sub-dimension scores are obtained by the sum of the answers given to the items of that sub-dimension; the total C19P-S score is obtained by the sum of the sub-dimension scores and ranges from 20 to 100 points. Higher scores indicate a high level of sub-dimensions and general corona phobia. The Cronbach Alpha internal consistency coefficient of the scale was .87 for the psychological sub-dimension, .89 for the somatic sub-dimension, .85 for the social sub-dimension, .90 for the economic sub-dimension, and .92 for the total dimension (Arpacı et al., 2020). In our study, the Cronbach's alpha value of the scale was calculated as .85 for the psychological sub-dimension, .78 for the somatic sub-dimension, .87 for the somatic sub-dimension, 0.75 for the economic sub-dimension, and 0.94 for the total dimension.

2.5.3. Psychological well-being scale (PWB)

It was developed by Diener et al. (2010) to measure socio-psychological well-being as a complement to existing well-being measures (Diener et al., 2010). The Turkish adaptation of the scale was done by Telef (2013). The scale is a 7-Likert one-dimensional scale consisting of 8 items. The lowest score that can be obtained from the scale is 8, and the highest score is 56. A high score indicates that the individual has many psychological resources and strengths. The Cronbach Alpha internal consistency coefficient of the scale was calculated as 80.11 or our study, this value was calculated as 0.86.

2.6. Data Collection

Since the current situation regarding the coronavirus epidemic in Turkey is not fully clear, the data forms were sent to the patients via Google Form and they were asked to fill in. "Informed Consent Form" was placed on Google Form and the voluntary consent tab was made mandatory.

2.7. Statistical Analysis of Data

The data obtained from the research were evaluated in the computer environment. In the evaluation, the Kolmogorov-Smirnov test was used for compliance with normal distribution and it was determined that the data were not normally distributed. For this reason, the Mann-Whitney U test was applied for binary variables and Kruskal-Wallis one-way analysis of variance was applied for three or more variables. Spearman's rank correlation coefficient was used for correlation between variables. The relational status between the variables was tested with simple linear regression analysis and $P < 0.05$ was considered statistically significant in comparisons.

3. Results

Among peritoneal dialysis patients participating in our study, 54.2% of them were female, the mean age was 53.52 ± 15.06 , the mean age of diagnosis was 10.57 ± 7.39 years, and the mean duration of peritoneal dialysis was 6.00 ± 4.27 . Besides, 92.8% were not diagnosed with Covid-19 during the pandemic process, 66.3% had many psychological problems such as anxiety, stress, fear of death, as well as hopelessness, disappointment, anger, future anxiety, and 62.7% stated that they experienced many social changes such as deterioration in family relations, changes in lifestyle, fulfilling roles in addition to the decrease in social interaction (Table 1).

In our study, it was observed that the mean psychological well-being score of peritoneal dialysis patients was 34.71 ± 9.71 , and the total mean score of COVID-19 phobia was 61.85 ± 17.73 . There was a negative and moderate correlation between the mean score of psychological well-being and the total score of COVID-19 phobia and its psychological, somatic and social sub-dimensions ($P \leq 0.01$). There was a negative and weak correlation between the mean score of psychological well-being and the economic sub-dimension ($P \leq 0.01$). A positive and very good correlation was found between the COVID-19 phobia total score and the sub-dimension mean score ($P \leq 0.01$) (Table 2).

Table 1. Descriptive characteristics of Peritoneal Dialysis Patients (n=83)

Characteristics	n	%
Gender		
Female	45	54.2
Male	38	45.8
Marital status		
Single	63	75.9
Married	20	24.1
Educational status		
Literate	15	18.1
Primary school	30	36.1
Secondary school	11	13.3
High school	17	20.5
Bachelor's degree	10	12.0
Number of Children		
0	16	19.3
1-2	19	22.8
3-4	32	38.6
5 and more	16	19.3
Income status		
Income less than expenses	46	55.4
Income equals expense	31	37.3
Income more than expenses	6	7.3
People living with		
With spouse	26	31.3
With spouse and children	29	34.9
With other relatives	28	33.8
Dependent status		
Yes	35	42.2
No	48	57.8
Presence of chronic disease other than peritoneal dialysis		
Yes	66	79.5
No	17	20.5
Status of being diagnosed with COVID-19		
Yes	6	7.2
No	77	92.8
Perceived psychological changes compared to pre-pandemic		
Anxiety, stress and fear of death	28	33.7
Multiple responses to anxiety, stress, and fear of death	55	66.7
Perceived social changes compared to pre-pandemic		
Decreased social interaction	31	37.3
Decreased social interaction and additional multiple responses	52	62.7

Table 2. The relationship between psychological well-being, Covid-19 Phobia and its sub-dimensions (n=83)

Variables	Min-Max	Mean ± SD	1.	2.	3.	4.	5.	6.
1. PWB	8.00-53.00	34.71±9.71	-					
2. CP	20.00-96.00	61.85±17.73	-.45**	-				
3. P	6.00-30.00	21.50±5.88	-.41**	.92**	-			
4. SM	5.00-22.00	11.49±4.64	-.44**	.81**	.64**	-		
5. SC	5.00-25.00	18.10±5.22	-.40**	.91**	.86**	.63**	-	
6. E	4.00-20.00	10.74±4.20	-.31**	.87**	.76**	.67**	.72**	-

PWB= psychological well-being; CP= covid-19 phobia; P= psychological; SM= somatic; SC= social; E= economic; *P < 0.05, **P < 0.01

While the mean scores of psychological well-being of the patients participating in our study whose income is equal to their expenses are high (P < 0.05), it is seen that the mean scores of coronavirus phobia and sub-scores do not differ according to their income status (P > 0.05). It is observed that the mean scores of psychological well-being, coronavirus phobia and lower scores differ according to the perceived psychological and social changes compared to the pre-pandemic period (P < 0.05) (Table 3).

Simple linear regression analysis was performed to determine how much coronavirus-19 phobia affects psychological well-being in peritoneal dialysis patients. It is seen that the results of the analysis are statistically significant (F (1,81): 20,064; P < 0.001). According to the results of the analysis, it is seen that the 18.9% variance in psychological well-being is due to coronavirus phobia (Table 4).

4. Discussion

The COVID-19 pandemic is a global crisis that affects and changed the world order and caused hundreds of thousands of deaths. During this period, people's social lives are restricted, and perhaps most importantly, there are delays in the diagnosis and treatment of diseases that require regular follow-up (Yeter et al., 2021). In addition, fear, worrying daily news and words expressing an uncertain future in the media prepare the ground for psychological problems in these individuals (Wong and Pitting, 2020). Individuals with the end-stage renal disease treated with dialysis have a higher risk of serious clinical course and worse outcomes of COVID-19 (Williamson et al., 2020; Zautra, 2006). The higher risk of infection and death due to this pandemic may cause emotional problems such as anxiety, sadness, tension, and sleep problems in this group of patients. However, when the literature is reviewed, it is seen that psychological well-being studies in PD patients during the Covid-19 process are limited (Bonenkamp et al., 2021).

The primary way to prevent the disease during the Covid-19 epidemic is social isolation and protection from droplets. Individuals with chronic diseases and over the age of 65 in Turkey have completed this process with lockdowns. Hence, it is seen that the majority (92.8%) of the individuals participating in our study were not affected by the Covid-19 pandemic with the extent of infection. From this point of view, it can be said that social isolation and lockdowns during the pandemic process have a protective effect for patients in this group. However, it is reported that the course, results and psychological effects of this pandemic are negative in dialysis patients (Williamson et al., 2020; Zautra, 2006). In our study, 66.3% of individuals reported that in addition to anxiety, stress and fear of death, they had many psychological problems such as hopelessness, disappointment, anger, and future anxiety, and 62.7% of them stated that in addition to a decrease in social interaction, they experienced deterioration in family relations and many social field changes such as changes in style (Table 1). Barutçu Atas et al. (2021) stated that kidney transplant individuals who had a high perception of stress after the pandemic experienced poor sleep quality and insomnia and that this stress causes anxiety and depression in individuals (Barutçu Atas et al., 2021). Liu et al. (2020), on the other hand, stated in their study in the general population that healthy individuals had more state anxiety than trait anxiety, and depression and psychological abnormalities were observed. In the same study, it is reported that approximately 93.3% of individuals avoided going to public places and at least 70.9% applied three or more preventive measures to avoid infection (Liu et al., 2020). It is natural for individuals to be more prone to anxiety, stress and fear when they encounter unknown things or diseases during the pandemic process. It is thought that psychological and social problems may occur in PD patients due to the increase in the number of cases and deaths due to COVID-19, as well as the burden due to chronic diseases, lockdowns and the increase in the length of stay at home.

Table 3. The distribution of psychological well-being, Covid-19 phobia and sub-dimension mean scores (mean ± standard deviation) of Peritoneal Dialysis Patients according to the descriptive characteristics (n=83)

Characteristics	PWB	CP	P	SM	SC	E
Gender						
Female	35.04±10.70	64.35±17.44	22.13±5.45	11.97±4.83	18.35±5.15	11.88±4.10
Male	34.31±8.51	58.89±17.84	20.76±6.34	10.92±4.40	17.81±5.36	9.39±3.96
Statistical analysis	*Z: -0.704 p=0.481	*Z: -1.157 P=0.247	*Z: -0.871 P=0.384	*Z: -0.734 p=0.463	*Z: -0.486 P=0.627	*Z: -2.463 P=0.014
Marital status						
Single	34.93±9.23	62.36±18.14	21.47±6.21	11.69±4.77	18.17±5.16	11.01±4.22
Married	34.00±11.32	60.25±16.70	21.60±4.83	10.85±4.27	17.90±5.54	9.90±4.15
Statistical analysis	*Z: -0.080 p=0.936	*Z: -0.479 P=0.632	*Z: -0.160 P=0.873	*Z: -0.770 p=0.441	*Z: -0.069 P=0.945	*Z: -0.914 P=0.361
Educational status						
Literate	38.46±7.95	61.46±14.90	20.60±5.30	11.86±4.06	17.66±4.63	11.33±3.19
Primary school	33.83±12.00	62.73±17.57	21.56±6.38	11.23±4.32	18.70±4.96	11.23±4.26
Secondary school	30.00±10.47	61.63±18.18	22.00±5.96	11.63±4.78	18.45±5.24	9.54±3.50
High school	34.94±6.54	61.17±22.12	21.76±6.27	12.00±6.21	16.82±6.39	10.58±5.33
Bachelor's degree	36.50±6.46	61.20±16.80	21.70±5.39	10.70±3.88	18.80±5.24	10.00±4.32
Statistical analysis	**KW: 4.603 p = 0.331	**KW: 0.316 p = 0.989	**KW: 0.549 p = 0.969	**KW: 0.260 p = 0.992	**KW: 1.280 p = 0.865	**KW: 2.152 p = 0.708
Number of children						
0	32.75±9.70	59.00±16.74	21.81±5.04	9.93±4.43	17.56±4.47	10.18±4.26
1-2	34.84±8.54	64.26±20.42	22.05±6.28	11.73±4.84	18.73±6.12	11.73±5.14
3-4	35.78±10.95	62.34±17.99	21.40±6.15	12.21±4.83	18.00±5.50	10.71±4.08
5 and more	34.37±8.91	60.37±15.89	20.75±6.08	11.31±4.25	18.12±4.55	10.18±3.25
Statistical analysis	**KW: 1.389 p = 0.708	**KW: 0.943 p = 0.815	**KW: 0.520 p = 0.915	**KW: 3.104 p = 0.376	**KW: 1.209 p = 0.751	**KW: 1.602 p = 0.659
Income status						
Less than expenses	32.47±9.85 ^a	62.34±17.92	21.69±6.05	11.21±4.63	18.50±4.95	10.93±4.23
Equals expense	38.48±8.37 ^b	61.32±17.72	21.51±5.59	11.19±4.50	17.93±5.61	10.67±4.47
More than expenses	32.33±10.57 ^{ab}	60.83±19.35	20.00±6.92	15.16±4.66	16.00±5.58	9.66±2.62
Statistical analysis	**KW: 6.605 p = 0.037	**KW: 0.217 p = 0.897	**KW: 0.311 p = 0.856	**KW: 3.574 p = 0.167	**KW: 1.244 p = 0.537	**KW: 0.760 p = 0.684
People living with						
Spouse	37.38±9.97	61.61±19.70	21.65±6.24	11.07±5.43	18.26±5.59	10.61±4.44
Spouse and children	33.48±9.35	64.89±17.55	22.48±6.13	12.31±4.75	18.51±5.40	11.58±4.13
Other relatives	33.50±9.67	58.92±16.03	20.35±5.25	11.03±3.70	17.53±4.81	10.00±4.04
Statistical analysis	**KW: 2.934 p = 0.231	**KW: 1.578 p = 0.454	**KW: 2.880 p = 0.237	**KW: 1.622 p = 0.444	**KW: 0.950 p = 0.622	**KW: 1.955 p = 0.376
Dependent status						
Yes	34.57±9.63	62.51±18.82	21.57±6.47	11.71±4.75	18.00±5.70	11.22±4.33
No	34.81±9.86	61.37±17.07	21.45±5.48	11.33±4.61	18.18±4.91	10.39±4.11
Statistical analysis	*Z: -0.342 p=0.733	*Z: -0.069 P=0.945	*Z: -0.282 P=0.778	*Z: -0.120 p=0.904	*Z: -0.069 P=0.945	*Z: -0.699 P=0.485
Presence of chronic disease other than peritoneal dialysis						
Yes	34.68±9.50	63.39±17.79	21.75±6.04	11.96±4.59	18.48±4.96	11.18±4.19
No	34.82±10.80	55.88±16.64	20.52±5.28	9.64±4.52	16.64±6.09	9.05±3.91
Statistical analysis	*Z: 0.141 p=0.888	*Z: -1.710 P=0.087	*Z: -0.911 P=0.362	*Z: -1.886 p=0.059	*Z: -1.063 P=0.288	*Z: -1.823 P=0.068
Status of being diagnosed with COVID-19						
Yes	31.83±4.020	67.50±14.92	22.50±4.80	12.66±1.86	20.00±4.60	12.33±5.00
No	34.93±10.00	61.41±17.94	21.42±5.98	11.40±4.79	17.96±5.27	10.62±4.15
Statistical analysis	*Z: 1.206 p=0.228	*Z: -0.660 P=0.509	*Z: -0.256 P=0.798	*Z: -0.883 p=0.377	*Z: -0.864 P=0.388	*Z: -0.803 P=0.422
Perceived psychological changes compared to pre-pandemic						
A, S and FD	40.42±8.53	51.89±14.74	19.14±5.46	9.32±4.51	15.57±5.69	7.85±3.05
Multiple responses to A, S and FD	21.80±9.01	66.92±17.06	22.70±5.77	12.60±4.34	19.40±4.49	12.21±3.96
Statistical analysis	*Z: -4.006 p≤0.001	*Z: 3.724 p≤0.001	*Z: 2.887 p=0.004	*Z: 3.089 p=0.002	*Z: 2.960 p=0.003	*Z: 4.587 p≤0.001
Perceived social changes compared to pre-pandemic						
Decreased SI	37.54±9.70	52.19±17.96	18.74±6.59	9.29±4.18	15.32±5.74	8.83±4.01
Decreased SI and MI	33.01±9.40	67.61±15.00	23.15±4.76	12.80±4.44	19.76±4.12	11.88±3.92
Statistical analysis	*Z: -2.158 p=0.031	*Z: 3.626 p≤0.001	*Z: 3.049 P=0.002	*Z: 3.492 p≤0.001	*Z: 3.530 p≤0.001	*Z: 3.141 p=0.002

*Mann-Whitney U, **Kruskal-Wallis; PWB= psychological well-being; CP= Covid-19 phobia; P= psychological; SM= somatic; SC= social; E= economic, A= anxiety, S= stress, FD= fear of death, SI= social interaction, MI= additional multiple responses

Table 4. The predictive effect of coronavirus phobia on psychological well-being

Variables	B	SE	β	t	P
Model 1 PWB	R=0.446;	R ² =0.199;	Adjusted R ² :0,189;	F _(1,81) :20,064;	P < 0.001
CP	-0.244	0.054	-0.446	-4.479	P < 0.001

Simple linear regression, SE= standard error, PWB= psychological well-being; CP= Covid-19 phobia.

Fear due to the COVID-19 pandemic has led to the emergence of many psychiatric symptoms in different layers of society (Dubey et al., 2020). While fear is a common psychological consequence during pandemics, the COVID-19 pandemic is a constantly evolving disease and has many risk factors (Arora et al., 2020). In our study, it was determined that PD patients had a moderate level of COVID-19 phobia (Table 2). Similarly, in the study of Keskin et al (2021), it was reported that neurosurgery patients had moderate Covid-19 phobia due to the pandemic, and therefore 16.1% of the patients postponed their follow-up dates at least once (Keskin et al., 2021). In the study of Toprak Çelenay et al. (2020), it was found that the Covid-19 phobia of those who stayed at home during the Covid-19 pandemic and who worked at a workplace outside the home was high (Toprak Çelenay et al., 2020).

It is thought that despite having multiple chronic diseases, the weak immune system, uncertainties about the pandemic in the country and deaths, rapid increase in cases and restrictions may have contributed to Covid-19 phobia in PD patients. Furthermore, while PD patients came to the unit for routine control once a month before the pandemic, they were called for routine control every two months during the pandemic period. In this difficult process, the fact that these individuals entered a risky environment such as a hospital, the information and uncertainties they acquired may have allowed the emergence of Covid-19 phobia.

Even in the official quarantine phases and in the absence of quarantine, social and physical distancing in groups with chronic diseases such as PD caused loneliness and social isolation in individuals. This situation includes many physical and psychological health risks (Blanco et al., 2020). In our study, it was determined that the psychological well-being of peritoneal dialysis patients was moderate (Table 2). Moreover, with the increase in psychological and social negativities, it is observed that the mean scores of psychological well-being, coronavirus phobia and sub-scores also differ (Table 3). It can be said that the long-term isolation, social distance and uncertainty of the process during the pandemic process make patients psychologically tired, but on the other hand, it can cause them to feel psychologically comfortable because they protect them from the risk of Covid-19. In the study, it was determined that the mean scores of psychological well-being of the patients whose income was equal to their expenses were high. It can be said that the fact that PD patients were financially comfortable while they were at home during the pandemic period may have affected their psychology in a

good way.

When the literature is examined, it is seen that psychological well-being is related to many variables. One of these variables is anxiety. It has been stated that anxiety impairs functionality in social relations, causes difficulties in interpersonal relations, and therefore causes a decrease in psychological well-being (Kermen et al., 2016). As a result of the study conducted by Beydoğan Tangör and Curun (2016), the importance of feeling less anxiety in increasing the psychological well-being of university students was emphasized (Beydoğan Tangör and Curun, 2016). In our study, a negative and moderate relationship was found between the mean score of psychological well-being and the total score of COVID-19 phobia and its psychological, somatic and social sub-dimensions (Table 2). In our study, it is seen that the 18.9% variance in psychological well-being is related to coronavirus phobia (Table 4). As a result of the study, we can say that while individuals were in a better psychological and social situation before the pandemic, the increase in coronavirus phobia during the pandemic period reduced their psychological well-being. Moreover, the difficulties in the pandemic process can be explained by the fact that it threatens patients with coronavirus phobia and affects them psychologically.

5. Conclusion

The current study shows that the risk of Covid-19 is low in PD patients who are limited to leaving their homes during the pandemic process. The social distance and long-term restrictions brought by the difficult process, and the experienced uncertainties affected people in terms of coronavirus phobia and psychological well-being. As the Covid-19 pandemic continues to spread worldwide, early detection and appropriate psychological interventions for PD patients with coronavirus phobia should be urgently considered.

Author Contributions

All authors contributed equally. All authors reviewed and approved the article.

Conflict of Interest

The authors declared that there is no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

Acknowledgements

Thanks for all the researchers and participants in this study.

Ethical Approval/Informed Consent

Institutional permission was obtained from Erciyes University Health Application and Research Center. In addition, approval was obtained from the Scientific Research Studies Commission on COVID-19 of the Ministry of Health of the Republic of Turkey (2021-01-06T12_13_56) and Erciyes University Clinical Research Ethics Committee (2021/97).

References

- Arora A, Jha AK, Alat P, Das SS. 2020. Understanding coronaphobia. *Asian J Psychiatry*, 54: 102384.
- Arpacı I, Karataş K, Baloğlu M. 2020. The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S). *Personal Individual Differen*, 164: 110108.
- Barutcu Atas D, Aydın Sunbul E, Velioglu A, Tuğlular S. 2021. The association between perceived stress with sleep quality, insomnia, anxiety and depression in kidney transplant recipients during Covid-19 pandemic. *PloS one*, 16(3): e0248117.
- Beydoğan Tangör B, Curun F. 2016. Individual differences as predictors of psychological well-being: authenticity, self-esteem and trait-anxiety. *J Res Educ Teach*, 5(4): 1-13.
- Blanco C, Wall MM, Olfson M. 2020. Psychological aspects of the COVID-19 pandemic. *J General Inter Med*, 35(9): 2757-2759.
- Bonenkamp AA, Druiventak TA, Van der Sluijs AVE, Van Ittersum FJ, Van Jaarsveld BC. 2021. The impact of COVID-19 on the mental health of dialysis patients. *J Nephrol*, 34(2): 337-344.
- Deboni LC, Neermann EMV, Calice-Silva V, Hanauer MA, Moreira A. 2020. Development and implementation of telehealth for peritoneal dialysis and kidney transplant patients monitoring during the COVID-19 pandemic. *J Bras Nefrol*, 43(3):422-428.
- Diener E, Wirtz D, Tov W, Kim-Prieto C, Choi D, et al. 2010. New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Soc Indic Res*, 97(2):143-156.
- Doğan U, Kaya S, Eren D. 2016. High school students' risk taking behaviors and its relation with life satisfaction and psychological well-being. *Turkish Stud*, 11: 953-964.
- Dubey S, Biswas P, Ghosh R, Chatterjee S, Dubey MJ, Chatterjee S, Lahiri D, Lavie CJ. 2020. Psychosocial impact of COVID-19. *Diabetes Metab Syndr*, 4(5): 779-788.
- Hiçdurmaz D. 2005. Coping strategies of hemodialysis and continuous ambulatory peritoneal dialysis (CAPD) patients. Master Thesis, Hacettepe University, Institute of Health Sciences, Department of Psychiatric Nursing, Ankara, Turkey, pp. 128.
- Kermen U, Tosun Nİ, Doğan U. 2016. Social phobia as predictor of life satisfaction and psychological well-being. *EKUAD*, 2(1): 20-29.
- Keskin E, Çelik S, Köstekli S. 2021. Surgical process anxiety from the perspective of neurosurgery patients in the covid-19 pandemic. *Kocaeli Med J*, 10(1): 72-84.
- Liu X, Luo WT, Li Y, Li CN, Hong ZS. 2020. Psychological status and behavior changes of the public during the COVID-19 epidemic in China. *Infect Diseases of Poverty*, 9: 1-11.
- Michaels MG, La Hoz RM, Danziger-Isakov L, Blumberg EA, Kumar D, et al. 2020. Coronavirus disease 2019: implications of emerging infections for transplantation. *Am J Braz J Nephrol*, 20(7): 1-5.
- Telef BB. 2013. the adaptation of psychological well-being into Turkish: A validity and reliability study. *HU J Educat*, 28(3): 374-384.
- Telef BB, Uzman E, Ergün E. 2013. Examine the relation between psychological well-being and values in teacher candidates. *Turkish Stud*, 8: 1297-1307.
- Toprak Celenay S, Karaaslan Y, Mete O, Ozer Kaya D. 2020. Coronaphobia, musculoskeletal pain, and sleep quality in stay-at home and continued-working persons during the 3-month Covid-19 pandemic lockdown in Turkey. *Chronobiol Inter*, 37(12): 1778-1785.
- Yang Z, Dong J. 2020. Operational considerations for peritoneal dialysis management during the COVID-19 pandemic. *Adv Chronic Kidney Dis*, 27(5): 442-446.
- Williamson EJ, Walker AJ, Bhaskaran K, Bacon S, Bates C. 2020. Factors associated with COVID-19-related death using. *Open SAFELY Nature*, 584: 430-436.
- Wong AHK, Pittig A. 2020. Costly avoidance triggered by categorical fear generalization. *Behav Res Ther*, 129: 103606.
- WHO. 2020. World Health Organization, Health topics – Coronavirus Geneva: WHO. URL: <https://www.who.int/health-topics/coronavirus> (accessed date: January 02, 2021).
- Yerram P, Misra M. 2020. Home dialysis in the coronavirus disease 2019 Era. *Adv Chronic Kidney Dis*, 27(5): 442-446.
- Yeter HH, Gok Oguz E, Akcay OF, Karaer R, Yasar E. 2021. The reliability and success of peritoneal dialysis during the COVID-19 pandemic. *In Seminars Dialysis*, 34(2): 147-156.
- Zautra AJ. 2006. Emotions, stress and health. Oxford University Press, Oxford, UK, 1st ed., pp. 328.