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Comparison of Psychological Distress and Demand Induced by COVID-19 during the Lockdown Period in Patients Undergoing Peritoneal Dialysis and Hemodialysis: A Cross-Section Study in a Tertiary Hospital

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Keywords
COVID-19 · Psychological distress · Psychological demand · Hemodialysis · Peritoneal dialysis

Abstract
Background: Since the outbreak of COVID-19 in December 2019, it has spread rapidly and widely, bringing great psychological pressure to the public. In order to prevent the epidemic, traffic lockdown was required in many areas of China, which led to inconvenience of treatment for dialysis patients. This study was conducted to explore the psychological distress and the psychological demand induced by COVID-19 in the patients undergoing dialysis and compare the difference between hemodialysis (HD) and peritoneal dialysis (PD) patients during the traffic lockdown period. ***Methods:*** Questionnaires were given to the dialysis patients in the West China Hospital of Sichuan University. The Impact of Event Scale (IES) was used to investigate the patients' trauma-related distress in response to COVID-19. ***Results:*** 232 eligible respondents were enrolled in this cross-section study, consisting of 156 PD patients and 76 HD patients. The median IES score for all the enrolled patients was 8.00 (2.00–19.00), which belonged to the subclinical dimension of posttraumatic stress symptoms (PTSS). HD patients had a significant higher IES score than PD patients (11.50 vs. 8.00) ($p < 0.05$). HD patients already got more psychological support from the medical staff. According to IES scores, 22.4% HD patients and 13.4% PD patients were classified as having moderate or severe PTSS, which need psychological support ($p < 0.05$). But more patients of both groups considered psychological support was necessary (HD: 50%, PD: 45.5%) ($p > 0.05$). In the multivariate regression analysis, we found that dialysis vintage, the impact of COVID-19 on the severity of illness and daily life, and confidence in overcoming the disease contributed to IES score ($p < 0.05$). ***Conclusions:*** HD patients had more severe trauma-related stress symptoms than PD patients. When major public healthy events occurred, careful psychological estimate and sufficient psychological support should be provided to the dialysis patients, especially to the HD patients.

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Introduction

In December 2019, the COVID-19 broke out in Wuhan, China [1]. Then, this disease spread quickly to other provinces in China and some other countries [2]. Until February 29, 2020, China has reported a total of 79,394 confirmed cases of COVID-19, including 2,838 deaths [3]. The epidemic of COVID-19 had brought great pressure to the public [4].

It is reported that health emergencies have great psychological impact on the population [5]. After the health emergencies, such as SARS epidemic in 2003, the Ebola outbreak in 2014, and the MERS period in 2015, psychological problems, such as fear, boredom, anxiety, and depression, were reported [6–9]. And several studies reported that taking effective psychological intervention was essential to improve the mental health of the population after the epidemic [10, 11]. Dialysis patients have many psychological problems even under normal circumstances; 38.1% of them had symptoms including anxiety and depression and 57.1% presented stress [12]. But little is known about the mental health of hemodialysis (HD) or peritoneal dialysis (PD) patients in the context of public health emergencies.

Due to the human-to-human transmission of COVID-19 [13], strict control of transportation was undertaken, which brought many problems to dialysis patients. Meanwhile, the shortage of protective materials caused the psychological panic or anxiety among ordinary people. With the rapid increase of the confirmed cases and deaths of COVID-19, the public has been experiencing psychological problems [14]. However, there are few studies on the mental health of dialysis patients with ESRD after health emergencies and the comparison between HD and PD is less. We intend to conduct this study to explore the psychological distress and the psychological demands induced by COVID-19 in the patients undergoing dialysis and compare the difference between HD and PD patients during the lockdown period.

Materials and Methods

Study Design and Population

Questionnaires were given to our dialysis patients from February 24 to February 29, 2020, and the survey was conducted by smartphones. The patients included all the PD patients who followed up regularly in the Department of Nephrology and the HD patients in Wenjiang branch, both of them belong to the West China Hospital of Sichuan University. The inclusion criteria were dialysis patients with ESRD over 18 years of age and could use the smartphones to fill the questionnaires, and consent was obtained before the data collection. Those who could not use smartphones or were unwilling to answer the questionnaires were excluded.

The questionnaire consisted of 4 parts: (1) basic demographic data; (2) the impact of COVID-19 on the illness, treatment, and daily life; (3) the Impact of Event Scale (IES); and (4) their psychological demands during the epidemic. The impact on the illness and treatment was related to the virus and limited transportation. Therefore, we included influence on severity of illness and influence on hospital visit (frequency to hospital per week and who went to the hospital) in this issue. The influence on severity of illness was classified according to their subjective sensation about worsening of disease, such as fatigue, nausea, poor appetite, difficult to breathe, edema, or loss of weight, which were listed in the questionnaire. Similarly, impact on daily life consisted of the influence on daily life (inconvenience due to the transportation limitation), reasons for going out, and supports wanted for treatment during the lockdown period.

Impact of Event Scale

The IES is a self-report scale that has been used widely to investigate trauma-related distress in response to a specific stressful life event and has demonstrated extensive reliability and validity [15, 16]. Each of the 15 items is rated on a 4-point frequency scale (0, not at all; 1, rarely; 3, sometimes; 5, often). The IES yields a total score (ranging from 0 to 75) and subscale scores, which can be calculated for the intrusion (ranging from 0 to 35) and avoidance (ranging from 0 to 40) [17]. The total IES scores can be interpreted according to the following dimensions of post-traumatic stress symptoms (PTSS): 0–8 (subclinical range), 9–25 (mild range), 26–43 (moderate range), and 44+ (severe range). It is suggested that the cutoff point is 26, above which a moderate or severe impact is indicated, and psychological referral is suggested [17].

Statistical Analyses

Statistical analysis was done with SPSS (version 21.0). Continuous variables were expressed as means ± SDs or medians (interquartile ranges). Categorical variables were expressed as number and percentages (%). Student's t test or Mann-Whitney U test was used for continuous variables and χ^2 test was used for categorical variables. The unitary linear correlation was used to examine the relationship between IES scores and other variables, and then, the significant factors were further analyzed for IES score using multivariate regression analysis. A 2-tailed $p < 0.05$ was considered statistically significant.

Results

Patient Characteristics

Of the 254 questionnaires received in the survey, 22 patients were excluded, among which 15 patients (5.91%) had incomplete questionnaires and 7 patients (2.76%) underwent combined PD and HD. The remaining 232 respondents included 156 PD patients and 76 HD patients in Wenjiang branch. HD patients had an obviously longer dialysis vintage than the PD patients ($p < 0.01$). Most of the HD patients (86.8%) lived in the city of

Table 1. Patient characteristics

	HD ($N = 76$)	PD ($N = 156$)	Total ($N = 232$)	p value
Gender, *n* (%)				
Male	41 (53.9)	63 (40.4)	104	0.067
Female	35 (46.1)	93 (59.6)	128	
Age, years, *n* (%)				
≤40	33 (43.4)	65 (41.7)	98	0.378
41–60	41 (53.9)	74 (47.4)	115	
≥61	2 (2.6)	17 (10.9)	19	
Marital status, *n* (%)				
Married	59 (77.6)	123 (78.8)	182	0.473
Single	7 (9.2)	20 (12.8)	27	
Divorced	9 (11.8)	10 (6.4)	19	
Widowed	1 (1.3)	3 (1.9)	4	
Education, *n* (%)				
Primary	4 (5.3)	8 (5.1)	12	0.162
Junior	20 (26.3)	60 (38.5)	80	
Senior	25 (32.9)	41 (26.3)	66	
University degree or above	27 (35.5)	47 (30.1)	74	
Occupation, *n* (%)				
Medical staff	2 (2.6)	3 (1.9)	5	0.473
Worker/farmer	15 (19.7)	42 (26.9)	57	
Teacher	5 (6.6)	6 (3.8)	11	
Government	5 (6.6)	5 (3.2)	10	
Company employee	7 (9.2)	11 (7.1)	18	
Retired	8 (10.5)	26 (16.7)	34	
Unemployment or others	34 (44.7)	63 (40.4)	97	
Habitation, *n* (%)				
City of Chengdu	66 (86.8)	77 (49.4)	143	0.000
Other areas outside Chengdu	10 (13.2)	79 (50.6)	89	
Dialysis vintage, years, *n* (%)				
<1	6 (7.9)	43 (27.6)	49	0.000
1–2	27 (35.5)	55 (35.3)	82	
3–5	18 (23.7)	27 (17.3)	45	
>5	25 (32.9)	31 (19.9)	56	

HD, hemodialysis; PD, peritoneal dialysis.

Chengdu, where our hospital located. About 50.6% PD patients lived in the areas outside Chengdu ($p < 0.01$). There were no significant differences in gender, age, education, marital status, or occupation between the 2 groups (Table 1).

Comparisons between HD and PD on the Illness, Treatment, and Daily Life

In our study, most of HD patients (94.7%) needed to visit the hospital 3 or more times per week. On the contrary, PD patients could do dialysis at home, and 80.1% of patients had not been to the hospital since the outbreak ($p < 0.01$). Most of the patients did not feel that COVID-19 had obvious impact on the severity of illness or daily life and there was no significant difference between the 2 groups. The more detailed comparison between HD and PD is shown in Table 2.

Comparisons of Psychological Supports and Demands

The 2 groups had significant difference in the psychological support received from medical staff ($p < 0.05$). More HD patients (55.3%) admitted received great psychological support from medical staff. Almost half patients of both groups considered further psychological support was necessary (moderate and eager) ($p > 0.05$) (Table 3). Table 3 also illustrates the way of relieving their

Table 2. Comparisons between HD and PD on illness, treatment, and daily life

	HD ($N = 76$)	PD ($N = 156$)	Total ($N = 232$)	p value
Influence on severity of illness, *n* (%)				
No	34 (44.7)	53 (34.0)	87	0.370
Mild	29 (38.2)	82 (52.6)	111	
Moderate	9 (11.8)	17 (10.9)	26	
Severe	4 (5.3)	4 (2.6)	8	
Frequency to hospital per week, *n* (%)				
0	0 (0.0)	125 (80.1)	125	0.000
1–2	4 (5.3)	28 (17.9)	32	
≥3	72 (94.7)	3 (1.9)	75	
Who went to the hospital, *n* (%)				
Only myself	69 (90.8)	87 (55.8)	156	0.000
Replaced by family members	0 (0.0)	47 (30.1)	47	
Accompanied by family members	7 (9.2)	22 (14.1)	29	
Influence on daily life, *n* (%)				
No	14 (18.4)	31 (19.9)	45	0.402
Mild	42 (55.3)	92 (59)	134	
Moderate	13 (17.1)	26 (16.7)	39	
Severe	7 (9.2)	7 (4.5)	14	
	HD, *n* (%)	PD, *n* (%)	Responses, *n* (%)	Percent of cases, *n* (%)
Reasons for going out				
Total	76 (100)	156 (100)	321 (100.0)	138.4
Shopping	32 (42.1)	80 (51.3)	112 (34.9)	48.3
Therapy	71 (93.4)	26 (16.7)	97 (30.2)	41.8
Prescribe medicine	6 (7.9)	66 (42.3)	72 (22.4)	31.0
Work	1 (1.3)	13 (8.3)	14 (4.4)	6.0
Walk	0 (0.0)	17 (10.9)	17 (5.3)	7.3
Others	0 (0.0)	9 (10.9)	9 (2.8)	3.9
Supports wanted for treatment				
Total	6 (100)	156 (100)	524 (100)	225.9
Protective equipment from government	45 (59.2)	62 (39.7)	107 (20.4)	46.1
Hospitals remained open	63 (82.9)	71 (45.5)	134 (25.6)	57.8
Convenient drug delivery	8 (10.5)	93 (59.6)	101 (19.3)	43.5
Protective information from medical staff	14 (18.4)	11 (7.1)	25 (4.8)	10.8
Adjust the treatment protocol	4 (5.3)	23 (14.7)	27 (5.2)	11.6
Strengthen government management	39 (51.3)	53 (34.0)	92 (17.6)	39.7
Family support	8 (10.5)	11 (7.1)	19 (3.6)	8.2
Others	2 (2.6)	15 (9.6)	17 (3.2)	7.3

HD, hemodialysis; PD, peritoneal dialysis.

psychological distress. HD patients seemed more likely to choose chatting with medical staff for psychological support.

IES Score and the Severity of Psychological Distress

The median IES score for all the enrolled patients was 8.00 (2.00–19.00), which belonged to the subclinical dimension of PTSS. HD patients had a significant higher score than PD patients (11.50 vs. 8.00) ($p < 0.05$). This discrepancy mainly lied in avoidance symptoms (Table 4). The severity of stress symptoms varied between the 2 groups and is presented in Table 4.

Table 3. Comparisons between HD and PD on psychological support

	HD ($N = 76$)	PD ($N = 156$)	Total ($N = 232$)	p value
Psychological support from medical staff, *n* (%)				
Great support	42 (55.3)	62 (39.7)	104	0.003
Moderate support	33 (43.4)	69 (44.2)	102	
No support	1 (1.3)	25 (16.0)	26	
Protective information from medical staff, *n* (%)				
Yes	76 (100.0)	116 (74.4)	192	0.000
No	0 (0.0)	40 (25.6)	40	
Confidence in overcoming the disease, *n* (%)				
Full	58 (76.3)	107 (68.6)	165	0.199
Moderate	18 (23.7)	46 (29.5)	64	
Rare	0 (0.0)	3 (1.9)	3	
Demand for psychological support, *n* (%)				
Eager	13 (17.1)	15 (9.6)	28	0.304
Moderate	25 (32.9)	56 (35.9)	81	
No	38 (50)	85 (54.5)	123	
	HD, *n* (%)	PD, *n* (%)	Responses, *n* (%)	Percent of cases, *n* (%)
Worries				
Total	76 (100)	156 (100)	452 (100.0)	194.8
Being infected themselves	34 (44.7)	54 (34.6)	88 (19.5)	37.9
Family members being infected	40 (54.1)	59 (38.8)	99 (21.9)	42.7
What to do if infected	11 (14.5)	24 (15.4)	35 (7.7)	15.1
Hospital closed	25 (32.9)	85 (54.5)	110 (24.3)	47.4
Short of protective equipment	37 (48.7)	44 (28.2)	81 (17.9)	34.9
Short of living necessaries	8 (10.5)	19 (12.2)	27 (6.5)	11.6
Others	1 (1.3)	11 (7.1)	12 (2.9)	5.2
Ways to relieve psychological stress				
Total	76 (100)	156 (100)	453 (100)	195.3
Music or television	64 (84.2)	124 (79.5)	188 (41.5)	81.0
Chat with family members or friends	51 (67.1)	89 (57.1)	140 (30.9)	60.3
Chat with medical staff	20 (26.3)	23 (14.7)	43 (9.5)	18.5
Chat with other dialysis patients	12 (15.8)	30 (19.2)	42 (9.3)	18.1
Negative ways	2 (2.6)	5 (3.2)	7 (1.5)	3.0
Others	6 (7.9)	27 (17.3)	33 (7.3)	14.2

HD, hemodialysis; PD, peritoneal dialysis.

Univariate Analysis and Multivariate Analysis: Risk of IES Score

After conducting the univariate analysis, our study revealed that the median IES score was significantly higher in patients who lived in Chengdu, in patients who had longer dialysis vintage, and in patients who went to the hospital more frequently, as well as in patients who were more influenced by COVID-19 in terms of the severity of illness or daily life. We also found that patients who had less confidence in overcoming the disease got higher IES scores (Table 5, for detail data, see Appendix 1). Additionally, we did not find difference between IES and other variables, such as age, gender, education, and dialysis modality (Table 5).

The significant factors above were then analyzed by multivariate regression analysis. It was found that dialysis vintage, the impact of COVID-19 on the severity of illness or daily life, and confidence in overcoming the disease were independent risk factors (Table 6).

Table 4. Comparisons between HD and PD on IES

	HD	PD	*p* value
IES scores: median (IQR)			
IES (total)	11.50 (3.00–25.00)	8.00 (1.00–15.00)	0.020
Avoidance	6.00 (1.00–13.75)	3.50 (0–8.75)	0.023
Intrusion	4.50 (1.25–12.00)	3.00 (0.25–7.00)	0.062
Severity, *n* (%)			
Subclinical (0–8 points)	33 (43.4)	89 (57.1)	0.036
Mild (9–25 points)	26 (34.2)	46 (29.5)	
Moderate (26–43 points)	12 (15.8)	13 (8.3)	
Severe (≥44 points)	5 (6.6)	8 (5.1)	

IQR, interquartile range; IES, Impact of Event Scale; HD, hemodialysis; PD, peritoneal dialysis.

Table 5. Univariate analysis of the IES scores of the study respondents

	p value		*p* value
Gender	0.616	Dialysis modality	0.020
Age, years	0.097	Frequency to hospital per week	0.041
Marital status	0.268	Influence on severity of illness	0.000
Education	0.408	Influence on daily life	0.000
Occupation	0.762	Who went to the hospital	0.089
Habitation	0.012	Confidence in overcoming the disease	0.000
Dialysis vintage, years	0.006	Relationship with family	0.050

IES, Impact of Event Scale.

Table 6. Multivariate analysis: risk of IES score

Model	Unstandardized coefficients		Standardized coefficients	
	B	SE	beta	Sig
(Constant)	6.03	6.394		0.347
Influence on state of illness	3.68	1.370	0.195	0.008
Dialysis vintage	2.378	0.819	0.176	0.004
Confidence in overcoming the disease	−4.309	1.849	−0.145	0.021
Influence on life	2.84	1.361	2.087	0.038

IES, Impact of Event Scale.

Discussion

In this cross-sectional study, we explored the psychological distress of patients undergoing dialysis and compared the difference between HD and PD during the lockdown period. We found that the median IES score for all the enrolled patients was 8.00 (2.00–19.00), which belonged to the subclinical dimension of PTSS. HD patients had significant higher IES scores than PD patients. And we observed that HD patients' psychological reaction to stress was mainly avoidance. Our study also showed that dialysis vintage, the impact of COVID-19 on the severity of illness and daily life, and confidence in overcoming the disease were independent risk factors for IES.

We were surprised to find the median score of IES was not high in the whole enrolled patients. The median IES scores of HD and PD patients were 11.5 and 8.00 and represented as mild and subclinical range of PTSS, respectively. Most of the dialysis patients could face the current epidemic calmly.

Several reasons might lead to higher IES scores in HD patients. First, significant higher frequency of going out for dialysis treatment and inconvenient transportation might put great psychological pressures on HD patients. Regular HD was the main reason for going out in HD patients (93.4%). On the contrary, PD patients could complete the dialysis treatment at home and 80.1% of PD patients did not need to go to the hospital per week since the outbreak. In order to prevent the spreading, the Chinese government initiated first-level responses to major public health emergencies and the public transport was suspended [14, 18]. People were limited within their community, which made it difficult for HD patients to go to the hospital.

Second, HD patients had more concerns of being infected and lacking protective equipment. Hospitals were high-risk areas for infection because of the influx of febrile patients [19], but the HD patients had to go there for treatment. Unfortunately, the patients with ESRD are susceptible to infection because of low immunity [20]. Therefore, 44.7% HD patients worried about themselves being infected. In contrast, only 34.6% PD patients were anxious about this. Meanwhile, the shortage of masks and other protective materials was serious in February [21]. Higher frequency of going out required more protective materials.

After conducting the multivariate analysis for IES, our study suggested that dialysis vintage was the independent factor for IES. Precedent studies reported that dialysis patients with longer dialysis duration usually accompanied more comorbidities [22, 23]. It was reported that higher illness severity might contribute to HD patients' stress [24, 25]. The longer dialysis vintage, the more severe of their illness, which might cause the patients become more distressed.

Multivariate analysis also revealed that the confidence to overcome the disease was related to IES. Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach goals [26]. And self-efficacy is one of the strongest predictors of anxiety in ESRD [27]. The patients who lacked confidence to overcome the disease might have lower self-efficacy and thought that they did not have the ability to fight against the virus. As a result, they might be more distress.

An interesting finding was that more patients want to get psychological support than they actually needed in both groups. Only 22.4% HD patients and 13.4% PD patients were classified as moderate or severe PTSS, which need psychological support [17]. But there were 50% HD patients and 45.5% PD patients considered psychological support was necessary. This phenomenon might reflect these patients were trying to use the available resources to go through the epidemic.

Another interesting finding was that although HD patients had higher IES scores, they did not have a higher demand for further psychological support. HD patients had more chance to chat with the medical staff and they already received more psychological support and protective information during their dialysis.

According to our study, we think it is important to identify high-risk individuals and provide psychological intervention for them in advance. Previous studies about SARS pointed out that the psychological implications of the epidemic should not be ignored [28, 29]. In order to relieve their stress, medical staff, including the physicians and nurses of dialysis center and professional psychologists as well, should offer psychological support as soon as possible.

Our study found that about 60% PD patients hoped more convenient delivery service of drug. The hospitals might improve the delivery service during this epidemic. Some patients expected more flexible and convenient way for adjusting their treatment regimens. Remote medical treatment through the online service might be a good choice, particularly telephone-based and internet-based counseling [30].

There were several limitations in our study. First, the sample size was relatively small. We only included 232 dialysis patients in total, especially the small number of HD patients. Furthermore, smartphones were used to conduct the questionnaire survey. The information of some elderly patients was not available because they could not use smartphones. This might lead to non-respondent bias in our study. Maybe it would be better to use telephone survey for the elderly patients in future study. Finally, the comparison of results with healthy subjects is lacking.

Until now, no precedent studies have been reported on COVID-19-related stress for the dialysis patients. As far as we know, this is the first research comparing the psychological distress between HD and PD patients during the public health emergency. COVID-19 is still spreading worldwide and probably will last for a long period. Our study may have some practical significance for dialysis patients during this epidemic.

Conclusion

This study explored the psychological distress of dialysis patients during the lockdown period of the epidemic of COVID-19. HD patients had significant higher IES scores and more severe trauma-related stress symptoms than PD patients. Dialysis vintage, confidence to overcome COVID-19, influence on state of illness, and the influence on daily life were independent risk factors for IES. When major public health events occurred, careful psychological estimate and sufficient psychological support should be provided to the dialysis patients, especially to the HD patients.

Acknowledgements

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Statement of Ethics

This cross-section study was approved by the Biomedical Ethics Committee of West China Hospital of Sichuan University (IRB No. 2020-185). And the informed consent was obtained for all patients.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Funding Sources

There are no funding sources to declare.

Author Contributions

X.X., X.W., X.Z, and Z.L. contributed to the design of the questionnaire. X.X., X.W., X.Z., and L.P. contributed to the data collection. X.X., X.W., X.Z., and Z.Z. contributed to the data analysis, interpretation, and manuscript preparation of this study. Z.L. contributed to the concept, design, data analysis, interpretation, and manuscript preparation and supervision of this study. All authors have read and approved the final manuscript.

Appendix 1

Univariate analysis of the IES scores of the study respondents[a]

	IES score (median [IQR])	*p* value
Gender		
Male	8.00 (1.00–17.00)	0.616
Female	8.00 (1.00–21.5)	
Age, years		
≤40	6.50 (1.00–14.00)	0.097
41–60	9.00 (3.00–23.00)	
≥61	8.00 (0.00–14.00)	
Marital status		
Married	8.00 (2.00–19.00)	0.268
Single	5.00 (1.00–13.00)	
Divorced	13.00 (5.00–26.00)	
Widowed	9.00 (0.00–24.75)	
Education		
Primary	12.0 (1.50–28.75)	0.0408
Junior	8.00 (1.00–18.75)	
Senior	11.00 (3.00–18.25)	
University degree or above	7.00 (1.00–19.00)	
Occupation		
Medical staff	3.00 (1.00–13.00)	0.762
Worker/farmer	8.00 (1.50–15.50)	
Teacher	6.00 (1.00–11.00)	
Government	9.00 (3.75–27.25)	
Company employee	5.00 (1.00–19.25)	
Retired	11.00 (0.00–27.00	
Unemployment or others	9.00 (2.00–20.00)	
Habitation		
City of Chengdu	10.00 (3.00–23.00)	0.012
Other areas outside Chengdu	6.00 (1.00–13.50)	
Dialysis vintage, years		
<1	5.00 (0.00–13.50)	0.006
1–2	6.00 (1.00–16.25)	
3–5	8.00 (3.00–23.50)	
<5	13.00 (5.00–23.00)	
Dialysis modality		
HD	11.5 (3.00–25.00)	0.020
PD	8.00 (1.00–15.00)	
Frequency to hospital per week		
0	7.00 (1.00–14.00)	0.041
1–2	10.50 (1.25–21.25)	
≥3	12.00 (3.00–25.00)	
Influence on severity of illness		
No	4.00 (1.00–11.00)	0.000
Mild	10.00 (2.00–19.00)	
Moderate	20.00 (8.75–26.25)	
Severe	21.50 (7.75–56.25)	
Influence on daily life		
No	5.00 (0.00–11.00)	0.000
Mild	7.00 (2.00–15.25)	
Moderate	14.00 (5.00–27.00)	
Severe	21.50 (11.75–40.5)	
Who went to the hospital		
Only myself	8.5 (2.00–19.00)	0.889
Replaced by family members	8.00 (2.00–19.00)	
Accompanied by family	8.00 (1.50–17.50)	
Confidence in overcoming the disease		
Full	6.00 (1.00–15.00)	0.000
Moderate	13.00 (7.250–23.00)	
Rare	27.00 (6.00)	
Relationship with family		
Better	10.00 (2.50–24.50)	0.050
Same	7.00 (1.75–16.25)	
Worse	20.00 (7.5–28.50)	

IQR, interquartile range; IES, Impact of Event Scale; HD, hemodialysis; PD, peritoneal dialysis.
[a] This table is the same as Table 5 but we provided specific IES scores in this table.

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