ORIGINAL ARTICLE / ORIJINAL MAKALE

Experiences of Patients Living with Peritoneal Dialysis: A Descriptive Qualitative Study

Periton Diyalizi Uygulayan Hastaların Deneyimleri: Tanımlayıcı Kalitatif Çalışma







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Abstract

Background: Peritoneal dialysis is a renal replacement therapy in which individuals themselves manage their treatment processes. During this treatment, patients who receive peritoneal dialysis go through a lot of experiences.

Objectives: The study aims to describe the experiences of patients receiving peritoneal dialysis.

Methods: This study used a qualitative descriptive design. In-depth face-to-face interviews with the participants (n = 16) were conducted using semi-structured interviews. Data were analyzed using the content analysis method.

Results: Three main themes emerged as a result of the content analyses: "experiences affecting adaptation", "daily life activities", and "emotional experiences".

Conclusion: Thanks to these learned experiences, nurses can give more individualized patient care. Arrangements can be made in areas that are difficult in daily life activities. Considering these experiences in patient care, they can facilitate the adaptation of the patient and help to cope with negative emotions.

Keywords: Peritoneal Dialysis, Patients Experiences, Nursing, Qualitative Research

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Öz

Giriş: Periton diyalizi bireylerin tedavi süreçlerini kendilerinin yönettiği bir renal replasman tedavisidir. Bu tedavi sırasında periton diyalizi uygulayan hastalar pek çok deneyim yaşamaktadırlar.

Amaç: Bu çalışma, periton diyalizi alan hastaların deneyimlerini tanımlamayı amaçlamaktadır.

Yöntem: Bu araştırma tanımlayıcı kalitatif bir çalışmadır. Katılımcılarla (n=16) yarı yapılandırılmış görüşmeler ile yüz yüze derinlemesine görüşmeler yapılarak veriler toplanmıştır. Toplanan veriler içerik analizi yöntemi ile incelenmiştir.

Bulgular: Yapılan içerik analizi sonucunda "uyumu etkileyen deneyimler", "günlük yaşam aktiviteleri" ve "duygusal deneyimler" olmak üzere üç ana tema ortaya çıkmıştır.

Sonuç: Öğrenilen deneyimler sayesinde hemşireler daha bireyselleştirilmiş hasta bakımı verebilirler. Günlük yaşam aktivitelerinde zorlanılan alanlarda düzenlemeler yapılabilir. Hasta bakımında bu deneyimler dikkate alındığında hastanın uyumu kolaylaştırılabilir ve olumsuz duygularla baş etmesine yardımcı olunabilir.

Anahtar Kelimeler: Periton Diyalizi, Hasta Deneyimleri, Hemşirelik, Nitel Araştırma

INTRODUCTION

End-stage renal disease patients receive renal replacement therapies such as hemodialysis, peritoneal dialysis, and renal transplantation. Out of approximately 3.9 million dialysis patients worldwide, 72% received hemodialysis, and 9% (439.000) peritoneal dialysis (PD) (Fresenius Medical Care, 2022). In Turkey, 3,292 out of 83,783 (3.93%) patients who had received renal replacement therapy were reported to receive PD (Süleymanlar, Ateş & Seyahi, 2020). PD is two types: continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD). In CAPD, the individual receives the treatment manually during the day, while a machine changes the dialysis fluid during sleep in APD (Bieber et al., 2014).

According to the recommendations of UK clinical guidelines (National Institute for Health & Care Excellence [NICE], 2018) all the patients who start renal replacement treatments should be given the choice of hemodialysis or PD (as

applicable), where PD is the first-line treatment for patients who have a residual renal function and do not have significant co-morbidities. PD is reported to be preferred over hemodialysis because it eliminates patients' dependence on the dialysis machine, makes the patient feel free, enhances patient satisfaction, reduces dietary restrictions, facilitates daily activities, and is also cost-effective (Ahmadi et al., 2018; Nakamura-Taira et al., 2013; Sinnakirouchenan & Holley, 2011). In addition to the advantages of PD, its disadvantages have also been reported in the literature. Patients with PD report being challenged by changes in body image, decreased self-esteem, deterioration in family life, sleeping problems, financial difficulties, and role change. All this leads to psychosocial problems such as anxiety, depression, social isolation, loneliness, despair, and hopelessness in a patient (Muringai et al., 2008; Öyekçin et al., 2012; Pugh - Clarke et al., 2017; Tong et al., 2013). When the studies on the experiences of the patients were examined, patients in a study investigating symptoms were

found to experience fatigue, cramp, pain, and gastrointestinal disturbances. (Pugh - Clarke et al., 2017). A meta-synthesis study carried out to examine the attitudes, beliefs, and experiences of patients receiving PD addressed issues such as the choice of dialysis methods, the experiences of patients in the treatment process, attitudes towards treatment, experiences of patients waiting for transplantation, fatigue, and sexuality (Tong et al., 2013). Sitjar-Suñer et al. (2020) stated that patients had problems in areas such as social life, working life, sleep, and social support, but that the support of health professionals was very important for them in this process. It was found that studies conducted with patients who received PD in Turkey only addressed behaviors and experiences related to sexuality (Yılmaz & Özaltın, 2011; Yılmaz, 2010).

Qualitative studies are crucial in understanding patients' perspectives and revealing the underlying facts. Learning from experiences is important as it helps patients in the proper choice of a dialysis modality and identifies areas that should be supported in patients receiving PD. Patients receiving PD can have various experiences in their daily life activity and treatment as they receive their care at home. There are a limited number of qualitative studies that investigate the experiences of patients who receive PD. Besides, according to a related paper, there are gaps in the qualitative studies regarding patient perspectives, the benefits and limitations of PD, and its effects on daily life activities and body image (Manera et al., 2018). Human is a whole with biological, physiological, psychological, social, cultural, and spiritual dimensions. Each of these dimensions is interrelated and affects one another. We think that our research, which aims to understand the experiences of patients within a holistic approach, will provide important results in increasing the quality of nursing care.

Therefore, this study aimed to describe the experiences of patients receiving PD.

METHODS

This study was designed using Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist (Tong et al., 2007).

Type of Research

This study was using qualitative descriptive design and purposive sampling method.

Place of the Research

This study was conducted at the nephrology outpatient clinic of a university hospital in the west of *İzmir* between June and July 2019.

Universe/Sample of the Research

In determining the sample size, the study employed a sampling approach that requires collecting data up to the point when no new information or concepts that can answer the research question are observed in the data. When the concepts and processes reached by the study start repeating each other, the study is thought to have reached a sufficient number of data sources (Yıldırım & Şimşek, 2016). In this study, indepth interviews held with the participants continued until the data collected were observed to repeat and no new data were available. The sample saturation point was reached with 16 people who were included using this method. None of the individuals among this group refused to participate in the study.

The sample of the study consisted of individuals who met the following criteria. Inclusion criteria; being aged 18 or over, speaking and understanding Turkish, voluntary participation in the study, receiving peritoneal dialysis for more than six months. Exclusion criteria; having mental problems, intense physical and psychological symptoms that prevent

participation in an interview.

Data Collection Instrument-Validity and reliability information

Data were collected using "The Socio-Demographic Information Form", "The Semi-Structured Interview Form", and "voice recorder".

The Socio-Demographic Information Form. This researcher-designed form was based on a review of the literature and completed using self-report (Baillie & Lankshear, 2015; Petersson & Lennerling, 2017). It consisted of data such as age, gender, educational level, marital status, income situation, people that the participant lives with, duration and type of PD, and the renal replacement therapy that was previously received by the patient.

The Semi-Structured Interview Form. Semi structured interviews were completed using open-ended questions created by the study team. It aimed at understanding the experiences of individuals receiving PD. Also, sub-questions were asked, depending on the course of the interview.

Semi-structured interview questions were as follows:

What is it like living with peritoneal dialysis?

How did you organize your life after you started receiving peritoneal dialysis?

How do you feel when receiving peritoneal dialysis?

Helpful questions:

-How has your daily life been affected after starting peritoneal dialysis? (For example, social life; work life; partner, family, and friendship relationships; differences in activities)

-Did the dialysis treatment process bring about restrictions in your life? How did you manage?

In order to assess whether the prepared interview questions worked, there were two initial pilot interviews that were conducted by the researchers to pilot test interview questions and revisions made as indicated. The data of the pilot interviews were not included in study data. The participants in the sample were informed about the method and purpose of the study and the use of a voice recorder during the interviews. In-depth face-to-face interviews with the participants were conducted using the interview questions. Notes were taken by the first researcher during the interviews when necessary. The interviews were held in the interview room of the outpatient clinic to ensure privacy and ranged in duration from 13 to 44 min.

Evaluation of the Data

The data of the study were analyzed by two researchers through the content analysis method in which the interview questions were read out repeatedly several times. The codes showing conceptual similarities were reviewed and then collected under subthemes and themes. This process was carried out by two researchers independently. Later, the researchers came together to review the themes and a consensus on the themes that best described the findings arrived.

Rigor

The study was conducted by three researchers. First and second author currently work as lecturers in a nursing faculty. They had undergone qualitative research training. The second researcher had experience in qualitative research. All patient interviews were held by the first researcher. The first two authors and participants had no prior interaction with one another.

In order to ensure the validity and reliability

of the study, the concepts of credibility, transferability, consistency, and confirmability were emphasized (Yıldırım & Şimşek, 2016). Long-term interaction, in-depth data collection, and expert review methods were employed to ensure the credibility of the study. For in-depth interviews with the participants to create longterm interaction, a suitable time scheduled was planned for the interviews. Interviews took an average of 25 min, suggesting long-term interaction. Data collection was continued until the required saturation point was reached (indepth data collection). Also, expert feedback on the process was rendered by critically examining all the steps of the study: data collection, analysis, and writing the results section. To ensure the transferability of the study, we employed detailed description and purposive sampling methods.

The expressions, arranged as per the themes in the study, were presented without interpretations (detailed description). The researcher behaved consistently with the participants at all stages of the study process to ensure consistency. The same data collection form and the same voice recorder were used in all interviews. For ensuring the confirmability of the study findings, data analysis was performed independently by both researchers. After the analyses were completed, Cohen's Kappa (κ) value was calculated to determine inter-rater reliability (Burla et al., 2008) which established an excellent consistency (κ =

1.00) between the researchers. Data collection tools, voice records, generated codes, and themes were saved for reconsider when required.

Variables of the Research and Ethical Aspect of the Research

The study was approved by the non-interventional ethics committee of the university. (Approval number: 2019/11-08, date: 24.04.2019). The permission of the institution where the study was conducted was obtained. First, the researchers informed the participants about the study, and then their written and verbal consents were obtained. Research and publication ethics were followed in this study.

RESULTS

Age ranged from 23-70 years and time on dialysis from 0.5 to 8 years supporting variability in background. The sample reflected diversity in socio-demographic characteristics in regard to gender, education, marital status, income and family support. Approximately half of the sample were receiving APD. Table 1 and Table 2 show the socio-demographic and dialysis treatment characteristics of the participants receiving PD.

Three main themes emerged as a result of the content analyses: "experiences affecting adaptation", "daily life activities", and "emotional experiences". Figure 1 shows three main themes and subthemes that emerged in this study.

Table 1. The Socio-Demographic Characteristics of the Participants							
Participant	Age	Gender	Education Level	Marital status	Income Situation	Lives with	
No				_			
1	39	Male	High school	Married	Low	Family	
2	59	Male	University	Married	Middle	Family	
3	54	Female	Primary school	Married	Low	Family	
4	55	Male	Primary school	Married	Low	Family	
5	67	Female	Primary school	Married	Middle	Family	
6	58	Male	Primary school	Married	Low	Family	
7	70	Female	Primary school	Single	Low	Alone	

Table 1. The Socio-Demographic Characteristics of the Participants								
8	63	Female	Literate	Single	Low	Alone		
9	39	Male	University	Married	High	Family		
10	23	Female	High school	Single	Low	Mother		
11	23	Female	High school	Single	Middle	Grandmother		
12	52	Female	Primary school	Single	Low	Mother and father		
13	36	Female	Primary school	Married	Middle	Family		
14	64	Female	Primary school	Single	Middle	Son		
15	41	Female	Primary school	Married	Low	Family		
16	50	Female	High school	Single	Low	Alone		

Table 2. Characteristics of participants regarding the dialysis treatment							
Participant	Duration of Peritoneal Dialysis	Type of peritoneal dialysis	The renal replacement therapy that was previously received				
1	0.5 years	CAPD	HD				
2	1.5 years	APD	CAPD				
3	2 years	APD	HD, CAPD				
4	1 year	APD	CAPD				
5	8 years	CAPD					
6	2.5 years	APD	CAPD				
7	6 years	APD	HD, CAPD				
8	4 years	CAPD					
9	2 years	APD	CAPD				
10	3.5 years	APD	HD				
11	5 years	APD	HD				
12	3 years	APD	HD, CAPD				
13	3 years	CAPD					
14	3 years	APD	HD				
15	6 years	CAPD					
16	1 year	CAPD					

^{*}CAPD: Continuous Ambulatory Peritoneal Dialysis; APD: Automated Peritoneal Dialysis; HD: Hemodialysis.

Theme 1. Experiences Affecting Adaptation

When the responses of the participants were evaluated, five sub-themes emerged under the theme of experiences affecting adaptation such as "preferences, previous dialysis treatments, social support structures, coping strategies, and responses of family members".

Sub-theme 1: Preferences

Participants who chose PD stated that they managed their processes better.

"PD is my preference ... I have a hemodialysis experience... I know its difficulties. That's why I preferred this." (Participant 1-CAPD)

"I'm glad I have started PD. I do not think if I had started hemodialysis, my health would have improved as much as it is now." (Participant 9-APD)

Sub-theme 2: Previous dialysis treatments

The majority of the participants in the study compared the previous and current dialysis treatments and expressed that their lives were more regular and trouble-free in current treatment than in the previous one.

"In addition to hemodialysis, this is something like a second life/chance given to me ... I was not even taken to the exam. I was not taken to the university exam. Invigilators asked me, 'What

are you using?' and said, 'your mind is not good either." (Participant 10-APD)

Sub-theme 3: Social support structures

All of the participants who received PD underlined the importance of social support and stated receiving support from their families, close circles, and dialysis nurses during this process. The majority of the participants indicated that they called their nurse when they did not understand or when a question arose in their mind while receiving PD in their home, and the nurse was always available.

"I just moved to my home, where I have been living for a year. I had a young child where I had been living previously; for example, a neighbor would come every day and took care of the child during dialysis hours." (Participant 15-CAPD)

"I got no support from anyone. I got support from only the nurse in the hospital. I did whatever she said." (Participant 16-CAPD)

Sub-theme 4: Coping strategies

While some of the participants stated that they did not spend any efforts to facilitate the adaptation process to the treatment, others stated that they coped with this process by sparing more time for themselves and being aware of themselves.

"This is my disease. I have got used to living with it. Also, I have no problem with my illness. This is my spiritual test. I am not feeling down at all. I am not saying I am sick. I am well. I always feel like this." (Participant 4-APD)

Sub-theme 5: Responses of family members

The participants expressed that their family members were also affected by the PD process. Some of the participants who said that their children were affected, stated that they turned the process into a game so that they remained unaffected. Other participants disclosed that

their parents were afraid of the treatment process and evinced excessive interest.

"My daughter was very upset when she first saw the fluid coming out of my body. She often gets upset but is trying to not make me understand it, so as not to upset me. Therefore, being aware of the situation, I try to make her laugh, especially when doing this process..." (Participant 13-CAPD)

Theme 2. Daily Life Activities

Six sub-themes emerged under the theme of daily life activities such as "sleep, clothing, travel, sexuality, bathing, and social life".

Sub-theme 1: Sleep

The participants stated that with PD, they experienced a disruption in their sleep patterns, they could not sleep in the desired position in APD and were disturbed by the noise of the dialyzer, and that they had to wake up early for dialysis change in CAPD. Others indicated that there was no change in their sleep patterns.

"I cannot sleep at all; when I turn to one side, the machine turns off and starts beeping. I cannot turn to this side (showing right side) due to the catheter of hemodialysis. That is, I have to lie on my back. Therefore, I cannot sleep in the bed, I sleep on an armchair" (Participant 3-APD)

Sub-theme 2: Clothing

Most of the participants in the study stated that they had restrictions on clothing and choosing clothes because of the dialysis catheter.

"I do not wear pants with a belt. I use suspenders with it." (Participant 2-APD)

"The exit of the catheter was under the belt. It would be better if it was a little below or a little above. It is pressing when I sit down because it is in the belt part." (Participant 9-APD)

Sub-theme 3: Travel

In the study, while some of the participants expressed that their freedom of travel was restricted, others stated that they did not limit themselves and that they did not experience any difficulties.

"I can go to short distances and come back; I arrange the time. When I undertake such long journeys, I make appropriate arrangements; I cannot just go out as normal." (Participant 13-CAPD)

Sub-theme 4: Sexuality

The participants mentioned that there were some limitations in their sexual life. These limitations included thoughts that they are not as fully functional as other people, the fear of damaging the catheter, and their partners' worries about harming the catheters. Some participants stated that there was no change in their sexual life.

"Does anything wrong occur? Do I harm it? Do I get damaged? I had something like a corset from the thinner ones made to protect it both for protecting and concealing it. In subsequent years, I realized that there was no problem. My husband got used to it, too, and I have no problem. I have completely removed the corset. Initially, I had some concerns about it, I was afraid. but tried to be more careful over time because I knew it is there." (Participant 13-CAPD)

"I am disturbed. I do not want to see the catheter appearing. I am a beautiful woman. I have a normal physique. I feel bad when it appears from here (pointing to the site where the catheter appears). I always want to see myself beautiful when I look at the mirror." (Participant 16-CAPD)

Sub-theme 5: Bathing

Some of the participants expressed that they had to face difficulty while bathing and had to cover the exit of the catheter with a waterproof adhesive wound dressing, while others stated that they had no problems.

"I have been using a waterproof adhesive wound dressing for six years. The nurse tells me not to use it anymore. I am scared. I am used to it. I take a bath, then I remove it, I dry catheter and dressing of it." (Participant 7-APD)

"Ah... how I forgot this. I have a bath nearly every three months. It shouldn't contact with water. (showing the peritoneal dialysis catheter). I can't do the dressing. That's why I can't often take a bath. I take a bath every three months when my daughter comes to me." (Participant 3-APD)

Sub-theme 6: Social Life

The majority of the participants who received CAPD mentioned that they experienced withdrawal from social life due to the frequent dialysis hours. However, the majority of the participants who received APD stated that their daily lives and social lives were not affected because they used PD at night. Participants on CAPD stated that their work-life balance was adversely impacted, but participants on APD expressed that there was no problem in their work-life balance.

"I have to prepare for CAPD in advance. I have to put the fluid an hour earlier; start the dialysis; spend one more hour for dialysis; thus two hours are consumed at a time. PD is repeated four times a day, and thus I lose 8 h in it; another 8 h are consumed for a sleep leaving only 8 h at my disposal. This implies that PD treatment takes one-third of my life. I cannot go to the meetings, especially meetings with my own friends meetings... Available time after PD is inadequate to spare time for meetings." (Participant 2-APD)

"I had to exchange fluid every 4 h before APD, in

the morning, then at noon, but I could not change it so I could not even go out for lunch. Thereafter, my body absorbed the fluid in my abdominal area. I changed the fluid in the evening, filled 2 liters, but could recover only one-liter fluid back as the body had absorbed the rest. I emptied as much as I could; filled it again. I had to sleep late at night because I wanted to do it properly in the evening. I felt tired the next day. It was bad for me, and I lost my balance. My routine was completely disturbed. However, this machine is very good." (Participant 10-APD)

Theme 3. Emotional Experiences

Sub-theme 1: Positive emotions

The participants on APD stated that they felt free and comfortable and were more optimistic about life.

"Frankly, it has made my life easier. I am free during the day. I am not connected to the hospital for three days, as is required in hemodialysis. It is better for me; the effect of being free is actually good for me." (Participant 11-APD)

"I have no issues other than a bulge in my stomach. I can say that I am reborn into life." (Participant 10-APD)

Sub-theme 2: Negative emotions

The majority of the participants on PD indicated that they experienced loneliness due to the desperation and pessimism caused by entering an irreversible process and being left alone for long during the treatment.

"I cope somehow but because I have to cope with it. Do I have another choice? Do I have such a chance if I say I will quit the dialysis? No. I have to cope with everything. I mean I have no other choice." (Participant 15-CAPD)

"Work, home, hospital, and the machine... This is now my routine. I have no holiday, no adventure, and no entertainment. My life is a machine ... It makes me lonely. It makes me desolate. After a while, I look at people as if they were foreigners. Even if there are people I know and love, I start hating them. I go into my shell." (Participant 10-APD).

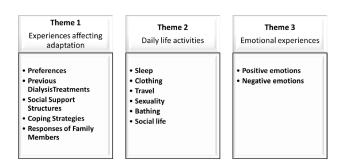


Figure 1. Themes and subthemes explaining the experiences of participants receiving peritoneal dialysis

DISCUSSION

Studies suggest that patients should be offered the opportunity to choose dialysis modality. (Covic et al., 2010; Salas-Gama et al., 2022). In this study, participants who chose their treatment were observed to better manage their processes and adapt easily. In parallel to the findings of our study, studies have emphasized the importance of involving patients in the selection of treatment methods (Erlang et al., 2015; Murray et al., 2013). Dahlerus et al. (2016) reported that when choosing between PD and hemodialysis in patients with end-stage renal disease, the key considerations are as much independence as possible, quality of life, and flexibility in daily schedule.

In our study, the participants who had previously received hemodialysis and CAPD were found to manage their treatment more positively as they switched to APD. This is because patients undergoing hemodialysis treatment experience more severe physiological symptoms, and the daily life of patients receiving CAPD is adversely affected by frequent bag changes during the day.

Similar to our findings, Morton et al. (2010) reported that patients receiving CAPD were unable to perform activities, such as traveling, working life, shopping, and defined themselves as physically "tied" due to frequent bag changes during the day.

PD nurse has an important role in supporting and encouraging patients. In this context, on the evaluation of our findings, it was observed that the participants acknowledged getting counseling from their nurses and being followed up regularly. The importance of social support that individuals receive from their environment and the nurses in the treatment process has also been documented in several studies, further confirming our findings (Derrett et al., 2010; Sadala et al., 2010). Hsieh (2018) reported that healthcare professionals can increase the self-confidence of peritoneal dialysis patients and help them adapt to the peritoneal dialysis process (Hsieh, 2018, as cited in Chen et al., 2022). The role of a PD nurse in facilitating the lives of individuals is understood from the statements of the participants. Study findings suggest that to achieve better care results, it is important for nurses to plan to meet the specific needs of patients, use effective communication techniques, and be accessible to patients.

The participants stated about feeling anxiety and despair when they first started treatment, but they used positive coping strategies in the process. In a qualitative study, one participant narrated experience on learning about his scheduled dialysis as "I felt the earth slip under my feet" (Sadala et al., 2010). The fact that individuals use positive coping strategies makes them aware of their values. In the literature, individuals who review their values in life, later on, overcome their anxiety by changing their attitudes toward the current situation (Chen et al., 2022; Duncanson et al., 2022; Tong et al., 2013).

Home PD is a treatment process that requires constant family care and support (Baillie & Lankshear, 2015; Tong et al., 2013). Family members who live with patients are affected by the treatment processes. The reactions of family members during the treatment process affect the adaptation process of the patients, too. In this study, the statement of a participant saying "They call my nurse without my knowledge..." suggests the inability of the family to cope. Gilbertson et al. (2019) reported that caregivers assume significant responsibilities in home dialysis and may experience an equal or greater psychosocial burden than patients. Therefore, family members who provide care should be supported psychologically, physiologically, and socially.

Individuals receiving APD in our study were found to experience sleep disorders due to the noise of the machine and fear of changing positions during sleep, similar to findings in other studies (Bieber et al., 2014; Losso et al., 2015; Mizuno et al., 2016). In addition, the patients on CAPD had to change bags in early hours, which caused problems in maintaining sleep.

Studies also emphasized that the participants on PD had problems in choosing clothes (Chen et al., 2022; Yılmaz, 2010). In our study, the clothing problems of the individuals were found to be related to not having the chance to choose the desired clothes and the catheter exit-site coinciding with the belt. Bridger (2017) stated that the determination of the catheter site was an important factor, and it is important to consider the body image and individual's preference for determining the catheter site. In our study, the site where the catheter would be placed was not marked, thereby possibly causing problems with dressing in individuals.

Participants in various studies have emphasized

that the opportunity to travel is important. (Morton et al., 2010; Tong et al., 2013). In the study of Morton et al. (2010), a participant who received APD stated that he could put the machine in the suitcase and go wherever he wanted and that it was a wonderful thing. Similarly, in our study, the participants who received APD expressed that they felt free about traveling. On the other hand, participants who received CAPD indicated that they could not go on long journeys because they had to frequently do exchanges during the day.

Similar to our findings, the majority of the individuals receiving the PD stated that their body image and sexual life were negatively affected, the catheter looked ugly, and that they did not want to be seen naked by their partners (Yılmaz & Özaltın, 2011; Yılmaz, 2010). The sexuality-related problems reported by the participants in our study included not wanting the catheter to be seen, negative body image, anxiety about damaging the catheter during sexual intercourse, and fear of damage by the partner.

As shown by our findings, the participants expressed their inability to take a bath whenever they wanted because of catheter dressing. They needed someone while taking a bath. Also, for fear of getting harmed, the participants were observed to continue using the waterproof adhesive dressing to avoid catheter getting wet. In the study of Nakamura-Taira et al. (2013), 76.47% of patients on CAPD stated that the catheter made it difficult to take a bath. This finding was similar to that of our study. It can be assumed that fears about damaging the dialysis catheter and the possibility of infecting the catheter site might have caused individuals to behave in this way.

According to our findings, the participants stated that they experienced withdrawal from social life due to frequent bag changes in CAPD and that this also negatively affected their work life. Nakamura-Taira et al. (2013) found that 82.35% of the participants on CAPD indicated frequent dialysis as the biggest problem. Similar to our study, one participant in the study of Leung and Shiu (2007) stated he wasted his life due to the necessity to make bag changes. In this study, the participants expressed that after switching to APD, they were more comfortable both in their social and work life. In the literature, the limitations that individuals experienced in social life and the positive effect of APD on social and work-life were shown by studies, and the results were similar to our findings (Bieber et al., 2014; Morton et al., 2010; Tong et al., 2013).

Similar to other studies, the participants in our study stated that they felt freer due to being able to participate in social life, continuing their work, and traveling during the PD treatment (Baillie & Lankshear, 2015; Chen et al., 2022; Morton et al., 2010; Tong et al., 2013). In the study of Nakamura-Taira et al. (2013), 94.32% of patients who received CAPD indicated that they felt freer, while 35.29% reported that they felt better mentally. In another qualitative study, patient said that he chose PD because his teaching was not affected, and it gave him more freedom (Chen et al., 2022). Petersson and Lennerling (2017) found that although their treatments had some limitations, patients were planning their future and were happy and hopeful.

Studies in the literature have reported that patients experienced feelings of anxiety, despair, hopelessness, sadness, and loneliness as well as positive emotions (Pugh-Clarke et al., 2017; Tong et al., 2013; Yapa et al., 2020; Yılmaz, 2010). Yılmaz (2010) found that patients appeared hopeless during PD. Some patients stated that PD did not provide sufficient freedom, restricted them, and made them helpless (Tong et al., 2013). In our study also, the participants expressed that they felt helpless and lonely.

Limitations

As the study has a qualitative nature, the results cannot be generalized to all the individuals who receive PD. The study findings could vary in different cultural settings and contexts. In addition, the study recruited individuals presenting to only one university hospital. Therefore, changes in the quality of institutions and nurses may lead to different results as well.

CONCLUSION

In our study, when the expressions of the participants who received PD were analyzed, three main themes were obtained. The inadequacy in one of these three main themes was observed to affect another theme. It was found that the problems experienced in daily life activities affected emotional experiences and adaptation processes to treatment. While participants who received APD experienced fewer restrictions in their social and work life, they were observed to experience more problems in the sleep subtheme. It was observed that patients who could choose their treatment were more comfortable carrying out their daily living activities and experienced more positive emotions. Participants who received hemodialysis and CAPD in their previous treatments were found to have more positive adaptation processes when they switched to APD. The care, counseling, discharge planning and treatment of the patients should be carried out in the most correct way. The experiences determined are important to provide the best care for the patient.

USE OF RESULTS IN PRACTICE

Experiences can guide patients in choosing a dialysis modality. Choosing the right dialysis facilitates the patient's adaptation process, reduces hospital dependency and patient burden in the hospital, and provides cost-effective care.

Learning about the impact of PD treatment on patient life will guide nurses in planning individualized care. As a result of the study, it was found that the chosen treatment had a direct effect on the patient's process management. Due to their close communication with patients, nurses have a unique role in improving patients' self-care in the best way, providing effective symptom management and compliance with treatment, supporting them in coping with the difficulties they experience, and increasing patient satisfaction and quality of health. In addition, by creating groups led by patients who have already adapted to the management of PD treatment, patients who will start dialysis for the first time can be encouraged to adapt to the new conditions and take an active role in society. At the same time, the results of the study will increase the awareness of nurses working in different fields in planning care in cases where they encounter patients receiving dialysis.

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REFERENCES

Ahmadi, S. M., Jalali, A., & Jalali, R. (2018). Factors associated with the choice of peritoneal dialysis in Iran: Qualitative study. *Open Access Macedonian Journal of Medical Sciences*, 6(7), 1253-1259.https://doi.org/10.3889/oamjms.2018.255

Baillie, J., & Lankshear, A. (2015). Patient and family perspectives on peritoneal dialysis at home: Findings from an ethnographic study. *Journal of Clinical Nursing*, 24(1-2), 222-234. https://doi.org/10.1111/jocn.12663

Bieber, S. D., Burkart, J., Golper, T. A., Teitelbaum, I., & Mehrotra, R. (2014). Comparative outcomes between continuous ambulatory and automated peritoneal dialysis: A narrative review. *American Journal of Kidney Diseases*, 63(6), 1027-1037. https://doi.org/10.1053/j.ajkd.2013.11.025

Bridger, S. (2017). Peritoneal dialysis access management: More than skin deep. *Nephrology Nursing Journal*, 44(5), 401-409.

Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings: intercoder reliability assessment in qualitative content analysis. *Nursing Research*, 57(2), 113-117.https://doi.org/10.1097/01.NNR.0000313482.33917.7d

Chen, S. T., Yao, Y., Tseng, Y. S., & Sun, F. K. (2022). Developing a theory to help guide end-stage renal disease patients to adapt to peritoneal dialysis: A grounded theory study. *Journal of Clinical Nursing*, 31(1-2), 134-144. https://doi.org/10.1111/jocn.15890

Covic, A., Bammens, B., Lobbedez, T., Segall, L., Heimbürger, O., Van Biesen, W., Fouque, D., & Vanholder, R. (2010). Educating end-stage renal disease patients on dialysis modality selection: Clinical advice from the European Renal Best Practice (ERBP) Advisory Board. *Nephrology Dialysis Transplantation*, 25, 1757-1759. https://doi.org/10.1093/ndt/gfq206

Dahlerus, C., Quinn, M., Messersmith, E., Lachance, L., Subramanian, L., Perry, E., Cole, J., Zhao, J., Lee, C., McCall, M., Paulson, L., & Tentori, F. (2016).

Patient perspectives on the choice of dialysis modality: Results from the Empowering Patients on Choices for Renal Replacement Therapy (EPOCH-RRT) Study. *American Journal of Kidney Diseases*, 68(6), 901–910. https://doi.org/10.1053/j. ajkd.2016.05.010

Derrett, S., Darmody, M., Williams, S., Rutherford, M., Schollum, J., & Walker, R. (2010). Older peoples' satisfaction with home-based dialysis. *Nephrology*, 15(4), 464-470. https://doi.org/10.1111/j.1440-1797.2010.01286.x

Duncanson, E., Chur-Hansen, A., & Jesudason, S. (2022). Patient perspectives of coping with automated peritoneal dialysis. *Peritoneal Dialysis International*, 42(4), 344-352. https://doi.org/10.1177/08968608211043411

Erlang, A. S., Nielsen, I. H., Hansen, H. O., & Finderup, J. (2015). Patients experiences of involvement in choice of dialysis mode. *Journal of Renal Care*, 41(4), 260-267. https://doi.org/10.1111/jorc.12141

Fresenius Medical Care. (2022). *Annual report 2022*. https://www.freseniusmedicalcare.com/fileadmin/data/com/pdf/Media_Center/Publications/Annual_Reports/FME_Annual_Report_2022_EN.pdf

Gilbertson, E. L., Krishnasamy, R., Foote, C., Kennard, A. L., Jardine, M. J., & Gray, N. A. (2019). Burden of care and quality of life among caregivers for adults receiving maintenance dialysis: a systematic review. *American Journal of Kidney Diseases*, 73(3), 332-343. https://doi.org/10.1053/j.ajkd.2018.09.006

Leung, S. S., & Shiu, A. T. (2007). Experience of Hong Kong patients awaiting kidney transplantation in mainland China. *Journal of Clinical Nursing*, 16(11c), 341-349. https://doi.org/10.1111/j.1365-2702.2007.02070.x

Losso, R. L., Minhoto, G. R., & Riella, M. C. (2015). Sleep disorders in patients with end-stage renal disease undergoing dialysis: Comparison between hemodialysis, continuous ambulatory peritoneal dialysis and automated peritoneal dialysis. *International Urology and Nephrology*, 47(2), 369-

375. https://doi.org/10.1007/s11255-014-0860-5

Manera, K. E., Craig, J. C., Johnson, D. W., &Tong, A. (2018). The power of the patient voice: conducting and using qualitative research to improve care and outcomes in peritoneal dialysis. *Peritoneal Dialysis International*, 38(4), 242-245.https://doi.org/10.3747/pdi.2017.00280

Mizuno, M., Suzuki, Y., Sakata, F., & Ito, Y. (2016). Which clinical conditions are most suitable for induction of automated peritoneal dialysis? *Renal Replacement Therapy*, 2(1), 46. https://doi.org/10.1186/ s41100-016-0057-8

Morton, R. L., Devitt, J., Howard, K., Anderson, K., Snelling, P., & Cass, A. (2010). Patient views about treatment of stage 5 CKD: A qualitative analysis of semistructured interviews. *American Journal of Kidney Diseases*, 55(3), 431-440. https://doi.org/10.1053/j. ajkd.2009.11.011

Muringai, T., Noble, H., McGowan, A., & Chamney, M. (2008). Dialysis access and the impact on body image: Role of the nephrology nurse. *British Journal of Nursing*, 17(6), 362-366. https://doi.org/10.12968/bjon.2008.17.6.28900

Murray, M. A., Bissonnette, J., Kryworuchko, J., Gifford, W., & Calverley, S. (2013). Whose choice is it? Shared decision making in nephology care. *Seminars in Dialysis*, 26(2), 169–174. https://doi.org/10.1111/sdi.12056

Nakamura-Taira, N., Muranaka, Y., Miwa, M., Kin, S., & Hirai, K. (2013). Views of Japanese patients on the advantages and disadvantages of hemodialysis and peritoneal dialysis. *International Urology and Nephrology*, 45(4), 1145-1158. https://doi.org/10.1007/s11255-012-0322-x

National Institute for Health and Care Excellence. (2018). *Renal replacement therapy and conservative management*. https://www.nice.org.uk/guidance/ng107/resources/renal-replacement-therapy-and-conservative-management-pdf-66141542991301

Öyekçin, D. G., Gülpek, D., Sahin, E. M., & Mete,

L. (2012). Depression, anxiety, body image, sexual functioning, and dyadic adjustment associated with dialysis type in chronic renal failure. *The International Journal of Psychiatry in Medicine*, 43(3), 227-241. https://doi.org/10.2190/PM.43.3.c

Petersson, I., & Lennerling, A. (2017). Experiences of living with assisted peritoneal dialysis—A qualitative study. *Peritoneal Dialysis International*, 37(6), 605-612. https://doi.org/10.3747/pdi.2017.00045

Pugh-Clarke, K., Read, S. C., & Sim, J. (2017). Symptom experience in non-dialysis-dependent chronic kidney disease: A qualitative descriptive study. *Journal of Renal Care*, 43(4), 197-208. https://doi.org/10.1111/jorc.12208

Sadala, M. L. A., Miranda, M. G., Lorençon, M., & de Campos Pereira, E. P. (2010). Nurse–patient communication while performing home dialysis: The patients' perceptions. *Journal of Renal Care*, 36(1), 34-40. https://doi.org/10.1111/j.1755-6686.2010.00135.x Salas-Gama, K., Díaz-Gómez, J. M., & Ribas, I. B. (2022). Appropriateness of the dialysis modality selection process: A cross-sectional study. *Medicine*, 101(42), e31041. http://dx.doi.org/10.1097/MD.000000000000031041

Sinnakirouchenan, R., & Holley, J. L. (2011). Peritoneal dialysis versus hemodialysis: Risks, benefits, and access issues. *Advances in Chronic Kidney Disease*, 18(6), 428-432. https://doi.org/10.1053/j.ackd.2011.09.001

Sitjar-Suñer, M., Suñer-Soler, R., Masià-Plana, A., Chirveches-Pérez, E., Bertran-Noguer, C., & Fuentes-Pumarola, C. (2020). Quality of life and social support of people on peritoneal dialysis: Mixed methods research. *International Journal of Environmental Research and Public Health*, 17(12), 4240. https://doi.org/10.3390/ijerph17124240

Süleymanlar, G., Ateş, K., & Seyahi, N. (2020). *Registry of the Nephrology, Dialysis and Transplantation in Turkey,* Ministry of Health and Turkish Society of Nephrology Joint Report. Retrieved from http://www.nefroloji.org.tr/uploads/folders/file/registry_2019.pdf

Tong, A., Lesmana, B., Johnson, D. W., Wong, G., Campbell, D., & Craig, J. C. (2013). The perspectives of adults living with peritoneal dialysis: Thematic synthesis of qualitative studies. *American Journal of Kidney Diseases*, 61(6), 873-888. https://doi.org/10.1053/j.ajkd.2012.08.045

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349-357. https://doi.org/10.1093/intqhc/mzm042

Yapa, H. E., Purtell, L., Chambers, S., & Bonner, A. (2020). The relationship between chronic kidney disease, symptoms and health-related quality of life:

A systematic review. *Journal of Renal Care*, 1-11. https://doi.org/10.1111/jorc.12303

Yıldırım, A., & Şimşek, H. (2016). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (11th ed.). Seçkin Publishing.

Yılmaz, M., & Özaltın, G. (2011). The sexual behaviors of patients receiving peritoneal dialysis treatment. *Sexuality and Disability*, 29, 21-32. https://doi.org/10.1007/s11195-011-9199-3

Yılmaz, M. (2010). Opinions of unmarried patients receiving peritoneal dialysis treatment about sexuality. *Sexuality and Disability*, 28, 213-221. https://doi.org/10.1007/s11195-010-9174-4