

# THE PROCESS OF PATIENT ADAPTATION TO PERFORM PERITONEAL DIALYSIS AT HOME

## O PROCESSO DE ADAPTAÇÃO DO PACIENTE PARA REALIZAÇÃO DA DIÁLISE PERITONEAL NO DOMICÍLIO

## EL PROCESO DE ADAPTACIÓN DEL PACIENTE PARA LA REALIZACIÓN DE LA DIÁLISIS PERITONEAL EN EL DOMICILIO

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**Objectives:** to identify the strategies of adaptation at home, used by patients to begin treatment of peritoneal dialysis; to describe the main facilities and difficulties encountered by patients in performing peritoneal dialysis at home; to identify the patient's understanding and acceptance of the peritoneal dialysis method. **Method:** descriptive study with qualitative approach. Data were collected through semi-structured interviews, organized and analyzed according to Bardin's content analysis technique. **Results:** three thematic categories emerged from the analysis of the units of meaning, which were representations of PD; experiences and feelings regarding the disease and the choice of method; (re)knowing aspects that facilitate and hinder peritoneal dialysis at home; strategies for the adaptation of daily life to peritoneal dialysis. **Conclusion:** after recognizing the need to use peritoneal dialysis for life maintenance, the patient develops a series of adaptations to enable daily treatment at home.

**Descriptors:** Peritoneal Dialysis. Psychological adaptation. Home care

*Objetivos:* identificar as estratégias de adaptação no domicílio, utilizadas pelos pacientes para início do tratamento da diálise peritoneal; descrever as principais facilidades e dificuldades encontradas pelos pacientes na realização da diálise peritoneal no domicílio; identificar o entendimento e a aceitação do paciente sobre o método de diálise peritoneal. *Método:* estudo descritivo, com abordagem qualitativa. Os dados foram coletados através de entrevistas semi-estruturadas, organizadas e analisadas conforme a técnica de análise de conteúdo de Bardin. *Resultados:* da

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*análise das unidades de significação emergiram três categorias temáticas, sendo elas representações da DP; vivências e sentimentos frente à doença e na escolha do método; (re) conhecendo aspectos facilitadores e dificultadores diante da diálise peritoneal em casa; identificando as estratégias para adequação do cotidiano à diálise peritoneal. Conclusão: após o reconhecimento da necessidade da utilização da diálise peritoneal para manutenção da vida, o paciente desenvolve uma série de adaptações para viabilizar o tratamento diário em domicílio.*

*Descritores: Diálise Peritoneal. Adaptação psicológica. Assistência domiciliar*

*Objetivos: identificar las estrategias de adaptación en el domicilio, utilizadas por los pacientes para iniciar el tratamiento de la diálisis peritoneal; describir las principales facilidades y dificultades encontradas por los pacientes en la realización de la diálisis peritoneal en el domicilio; identificar la comprensión y aceptación del paciente sobre el método de diálisis peritoneal. Método: estudio descriptivo, con enfoque cualitativo. Los datos fueron recogidos a través de entrevistas semi-estructuradas, organizadas y analizadas conforme a la técnica de análisis de contenido de Bardin. Resultados: del análisis de las unidades de significación emergieron tres categorías temáticas, siendo ellas representaciones de la DP; vivencias y sentimientos frente a la enfermedad y en la elección del método; (re) conociendo aspectos facilitadores y dificultadores ante la diálisis peritoneal en casa; identificando las estrategias para adecuación del cotidiano a la diálisis peritoneal. Conclusión: tras el reconocimiento de la necesidad de la utilización de la diálisis peritoneal para el mantenimiento de la vida, el paciente desarrolla una serie de adaptaciones para viabilizar el tratamiento diario en domicilio.*

*Descriptores: Diálisis Peritoneal. Adaptación psicológica. Asistencia domiciliaria*

## Introduction

The object of the study is the process of adaptation of the patient to perform peritoneal dialysis at home. Peritoneal dialysis is one of the existing methods for patients affected by chronic kidney disease (CKD), when they already require Renal Replacement Therapy (RRT). CKD is defined by several changes that affect the kidneys in both structure and function, in addition to being a disease of usually asymptomatic and prolonged course<sup>(1)</sup>.

The patient is classified as having CKD when he/she presents structural or functional abnormalities of the kidneys for a period of more than three months, with reflexes in his/her health<sup>(2)</sup>.

Faced with the evolution of renal dysfunction and, consequently, the accumulation of toxic substances in the blood, the individual may present symptoms such as fatigue, oliguria, dyspnea, edema, hypertension, lack of appetite, nausea, vomiting, mental confusion, and may progress to coma<sup>(3)</sup>.

CKD is a progressive and irreversible disease, distributed in five stages, with stages 1 to 3 classified as conservative treatment, stage 4 called pre-dialysis and stage 5 divided into 5-ND

(non-dialysis) and 5-D (dialysis), when renal function is lost<sup>(4)</sup>.

After progression to the dialysis stage, the patient will need some RRT, with three modalities available: hemodialysis (HD), peritoneal dialysis (PD) and renal transplantation (RT)<sup>(4)</sup>.

According to the Census conducted by the Brazilian Society of Nephrology (BSN)<sup>(6)</sup>, the number of patients using any dialysis method in Brazil on July 1, 2018 was 183,464. This means an increase of 5,587 patients in a year. The estimated prevalence rate of patients on chronic dialysis in the same year was 640 patients per million inhabitants (pmp), an average increase of 6.4% per year.

Also according to the BSN, 7.8% of these patients used peritoneal dialysis as a dialysis method, most of them on automated peritoneal dialysis (APD). The proportion of patients in PD assisted by the UHS was, for the first time, higher than those in health insurance (7.8% VS 7.0% respectively)<sup>(6)</sup>.

PD is a process that occurs inside the peritoneal cavity and uses the peritoneal membrane as a natural exchange filter for the diffusion of uremic solutes and ultrafiltration of the body fluid, thus

performing the replacement of the individual's renal function<sup>(6,7)</sup>.

PD requires the surgical insertion of a catheter that gives access to the peritoneal cavity of the patient. This catheter is used to inject and drain dialysis fluid. Dialysate is infused, and, after a certain time of permanence within the peritoneal cavity, the liquid is drained<sup>(8)</sup>. There are three types of PD: Continuous Ambulatory Peritoneal Dialysis (CAPD), Automated Peritoneal Dialysis (APD) and Intermittent Peritoneal Dialysis (IPD)<sup>(1)</sup>.

Automated peritoneal dialysis (APD) is a therapy performed with the use of a cycler (machine that makes the infusion and drainage in the peritoneal cavity automatically)<sup>(9)</sup>, which can be performed at home, providing greater autonomy and flexibility to the patient in the treatment. However, in order to begin therapy, the person responsible for performing the technique undergoes a rigorous training process given by the nurses of the service, until he/she is able to perform the technique<sup>(10)</sup>.

In peritoneal dialysis, one of the duties of the nurse is to perform the home visit, whose objective is to evaluate the environment where the therapy is intended and the place where the materials will be stored<sup>(11)</sup>. The structural conditions, such as the walls and floor of the site where the PD will be held, as well as the place where the material, water network and sanitary sewage will be stored, are analyzed during these visits, in addition to the suitable place for discharge of the dialysate effluent and sink for hand hygiene. On this occasion, the nurse guides the patient and his/her family about the need for space adaptations so that therapy can be performed<sup>(12)</sup>.

In addition to the analysis of the environment, the nurse can observe the individual/family relationships and their way of life, which leads him/her to take this opportunity to address issues that go beyond CKD and PD, and that may be linked to emotional or social issues, for example. These attitudes favor the provision of comprehensive individualized health care,

focused on the real needs of the patient and his/her family<sup>(13)</sup>.

Understanding how the patient perceives pathology, complications and treatment, as well as his/her fears, sources of stress and the impact of dialysis on his/her life, thus promoting empowerment in order to recover self-esteem and own value as a person<sup>(10)</sup>.

The beginning of the use of PD as a dialysis method may be perceived by some patients as an unpleasant experience due to a series of restrictions, as well as the complexity of the therapy<sup>(14)</sup>. Therefore, the nurse needs to assist in the development of technical skills, offering support to the demands presented by these patients from the experiences lived during therapy.

From the confirmation of the need to perform a RRT, the patient is perceived in a new and unknown situation, which can trigger feelings of insecurity, fear, doubts and anguish. In this sense, there is need to develop an adaptive response in the process of coping with the disease and, consequently, its treatment<sup>(15)</sup>.

Due to the complexity of treatment, some patients need a support network, whether from family or close friends, for direct care or other needs inherent to CKD.

The relevance of this study lies in the search for the improvement of care practices based on scientific knowledge, which result in the improvement of care and qualification of care. Thus, the study will contribute to nursing care by characterizing the process of adaptation to PD, based on the understanding of the means used in this process. Thus, the nurse will be able to recognize the potential difficulties and facilities found by patients and relatives and assist in the process of acceptance and adaptation to PD.

The objectives of this study were therefore: to identify the adaptation strategies at home used by patients to start treatment of peritoneal dialysis; describe the main facilities and difficulties encountered by patients in performing peritoneal dialysis at home; identify patient's understanding and acceptance of the PD method.

## Method

Descriptive study with qualitative approach. The study scenario was the PD sector of the nephrology service of a university hospital located in the state of Rio de Janeiro, Brazil. The service had 19 patients during the data collection period, of which 11 participated in the study. In total, there were 8 female and 3 male participants, aged between 27 and 65 years. Participants were invited to collaborate with the research according to the schedule of the consultation, which was restricted at that time, due to the Covid-19 pandemic and schedule deadline established by the researchers. The invitation to participate in the study was based on the availability of users of the health service, thus configuring a convenience sampling. No patient refused to participate in the study.

Inclusion criteria were: patients enrolled in the peritoneal dialysis program, of both sexes, older than 18 years, responsible or co-responsible for performing PD at home. As exclusion criteria, patients with less than 2 months of inclusion in the program, being this criterion established for the participant who had a minimum time necessary to live the experience in order to understand it and describe it.

The technique used to obtain the data was the semi-structured interview. The interview script consisted of two parts, the first one related to the sociodemographic characterization of the participants, containing variables such as gender, age, marital status, date of initiation of PD, schooling, family income and responsible for therapy. And the second, containing six questions inherent to the objective of the study, referring to the experience of living with kidney disease, elements considered most uncomfortable and how they deal with their problems related to therapies.

All interviews were recorded in audio through the recorder of the cell phone, lasting about 12 minutes, with prior authorization of the participants, fully transcribed, without returns to the participants and subsequently analyzed. We used the Consolidated Criteria for Reporting

Qualitative Research (COREQ) as a support tool. This consists of a list of 32 items of verification, which are related to the research team; to the research project and data analysis and qualitative research methods.

Data were collected by the main researcher, nursing resident of the service where the study occurred. The interest in this research issue was based on the experience in the peritoneal dialysis service, by assisting people who were beginning the treatment.

Data collection occurred in the PD service, in a reserved room, restricted to the presence of the researcher and the participant so that the interview could occur without interference. Data collection took place between July and August 2020, after the monthly consultation and consent of the participants by signing the Informed Consent Form (ICF). The recorded interviews were later transcribed in full. To ensure the secrecy and anonymity of the participants, they were identified by colors.

The transcribed speeches were organized, coded and analyzed using Bardin's content analysis technique, which comprised three phases: pre-analysis, material exploration and results treatment. In the pre-analysis, the statements were read in order to grasp the senses, giving rise to the units of record; during the exploration of the material, the separation and grouping of the units of record occurred, generating the units of meaning.

After the inferences and interpretation of the ideas, the following thematic categories emerged: representations of PD, experiences and feelings about the disease and the choice of the method; (re)knowing aspects that facilitate and hinder PD at home; strategies for adaptation of everyday life to PD. The study was evaluated and approved by the Research Ethics Committee (CEP) of the institution, receiving the opinion n. 4,109,647, and met the formal requirements that regulate research involving human beings following the regulations of resolution 466/2012 of the National Health Council<sup>(16)</sup>.

## Results

The study included 11 patients. As for the sociodemographic characterization of the interviewees, their age ranged from 30 to 79 years, being six female (54%) and five male (45%). Four are married, two widowers and three singles. Only one has paid work activity and the monthly income of the participants is around one to three minimum wages. Five of the participants have High School, five have Elementary School and one has Incomplete Higher Education. All participants use automated peritoneal dialysis (APD). Of these, seven are responsible for therapy and four are dependent on family members to perform PD. The duration of therapy of the participants ranged from six months to eight years.

After analyzing the interviews, three categories emerged from the 485 units of record and nine subcategories. The categories discuss the complexity of PD at home from the perspective of the participants, as well as the adaptation strategies in the context of this therapy, which are based on: representations of PD, experiences and feelings regarding the choice of method; (re) knowing aspects that facilitate and hinder PD; identifying the strategies for adaptation of daily life to PD.

### *Category 1 - Representations of PD: experiences and feelings regarding the disease and the choice of method*

Seventy-six units of record (16%) were selected from the entire study, organized into three subcategories described below.

#### 1.1 Understanding the health condition and need for therapy

This subcategory discusses how the understanding of the disease and therapy helped or not in the process of initiation and acceptance of the use of the method as renal replacement.

The dialectical emergence was cited as an unexpected impact on the individual's health condition due to lack of knowledge about CKD:

*When I found out the kidney problem, it was already very advanced.* (Gray).

*I did not know the severity of my illness* (Gray).

However, some participants mentioned knowing in advance the forms of RRT available during conservative treatment as a benefit:

*Luckily, I did the conservative treatment before, I already knew that one day I would have to undergo dialysis. I was already oriented* (Purple).

The preliminary knowledge about the health condition, in the case of CKD, its progression and especially the available forms of treatment may favor a calmer initiation in therapy and without much trauma. Unfortunately, in clinical practice, many patients start RRT due to dialysis emergencies and there is no time to present the therapeutic possibilities, neither to prepare patients for treatment.

On the other hand, there are reports of patients who have already understood the need for life-sustaining therapy:

*Which made me understand that I would have to use the machine to survive... I need the machine* (Mustard).

*Because I know it is a treatment that will preserve my health better* (Gray).

#### 1.2 Insertion into PD

Regarding the insertion into peritoneal dialysis, the paths through which patients walked until the beginning of therapy were evidenced. Thirty units of record were included, organized into four units of meaning. The analysis of the participants' speeches revealed the reasons for choosing peritoneal dialysis as the form of RRT ranging from the conscious choice of method to knowledge of the other forms of treatment:

*They showed me two options, I saw dialysis (HD) and did not like* (Purple).

Going through some kind of adversity with hemodialysis, portrayed in the speeches described:

*I preferred peritoneal dialysis to hemodialysis. I hate hemodialysis* (Red).

Or even for not having another therapy option, such as access failure, for example:

*I have access failure, so I hose peritoneal dialysis* (Black).

### 1.3 Feelings involving the therapeutic process

From the choice of method, the statements analyzed directed to the feelings involving therapeutic process. In this segment, 36 units of record that talk about emotion arose, mentioning: anxiety, hope, stress, sadness, shame/embarrassment, trauma in PD. However, the emotion that stood out was fear (in particular of not being accepted by the spouse):

*At the time, I was afraid, frightened with that. I got scared* (Cyan).

*I thought he would look at me differently because he got married with someone without anything on the belly* (Red).

### *Category 2 – (Re)Knowing aspects that facilitate and hinder PD at home*

The analysis of the participants' speeches showed that there are conditions that facilitate or hinder the process of adaptation to therapy. In this category, 182 units of record (38%) emerged, as well as 15 units of meaning that were grouped into three subcategories, namely: Obstructive factors, Facilitating factors and Reactions to the onset of PD.

#### 2.1 Obstructive factors

Among the complicating factors, there were reports on the disadvantages of PD, with 68 units of record. The difficulties range from problems with catheter, with training to therapy time:

*This catheter did not work... I could not drain it. I went through everything, manually and nothing worked.* (Black).

*You spend nine hours on the machine (PD)... It really holds you back, it is nine hours* (Cyan).

*At first it was kind of difficult for my wife, you know. So she can get practice dealing with equipment, cleaning, everything.* (Blue).

#### 2.2 Facilitating Factors

The factors that favored the adaptation process, generated 36 units of record that were

distributed in four units of meaning. The theme that stood out was related to the advantages of PD, which ranged from the convenience of performing therapy in the comfort of the home, since the fact that there is no puncture as in hemodialysis, to the perception of improved health after the use of therapy:

*Doing it at home, I am able to spend more time with my husband. More at home.* (Red)

*When I started doing peritoneal surgery, I improved a lot... I became much happier, more willing* (Pink).

*Not needing venous puncture every day* (Purple).

### 2.3 Reactions to the onset of PD

In this subcategory, 68 units of record were selected, distributed in seven units of meaning. Among the reactions most portrayed by the interviewees is the denial at the beginning of treatment, a large number of restrictions related to insertion into treatment:

*Every time I entered the machine I cried* (Mustard).

*I wish it was different... I wanted to accept it... but I cannot* (Mustard).

### *Category 3 – Identifying strategies to adapt daily life to PD*

For the formation of this category, 210 units of record (43%) were identified, divided into 12 units of meaning and three subcategories, described below.

#### 1.1 Adapting daily life according to Peritoneal Dialysis

The daily adaptations to peritoneal dialysis go through changes in lifestyle, environment, home and daily life of individuals and their families:

*I have always used shorts, shorter T-shirts. So I had to change my clothes a little* (Mustard).

*I stopped working, going out... I do not do anything, I used to do many things... I do not even cook anymore* (Black).

*I used to go out... I used to have fun at night... Then I had to adapt suddenly* (Grape).

The other 60% of the units of record analyzed were related to adaptations made in daily life

and at home, as can be seen in the statements below:

*My drugs are all beside my bed. My bed is a nursery now (Blue).*

*Everywhere I go is adapted for my machine. At my father's house, at my mother's house, at my aunt's... at my mother-in-law's house... they are all adapted for my treatment (Red).*

*I took me a little while to learn, but after I learned the things I would do, I was not scared anymore (Pink).*

*When I want to go out, I do it on the machine early or manually (Cyan).*

*I managed to work at day and do the therapy at night (Gray).*

## Discussion

### 3.2 With a network of support

There were 62 units of record distributed in five units of meaning related to family support, friends, professionals and dependence on third parties to help the individual in home treatment. Psychological adaptation was used to highlight the resilience mechanism of patients and their families:

*My granddaughter cleans everything, leaves everything perfect, because she studies at night, then she outs me on the machine (Orange).*

*If you have no family and will power, you die! You need someone to support you (Grape).*

The help of the multiprofessional team was reported as an important factor of adaptation to therapy, as in the following reports:

*I need the machine to survive, I had to work this out in my mind. I also required the help of psychologists and psychiatrists (Mustard).*

*Good professionals who treated me here and who embraced me during all this time of treatment helped me to be more motivated to face therapy (Gray).*

The strength of spirituality was pointed out as a way to support the adaptation of patients to therapy:

*What motivated me to face everything was God, indeed, because He helped me a lot, if it weren't him, I would not be here (Red).*

### 3.3 Feeling adapted to therapy

After the incorporation of therapy, initiated by the challenge of understanding and accepting their new health condition, and the need for a renal replacement therapy for life maintenance, where difficulties, fear, denial were portrayed as a setback to the adequacy of therapy, there comes the time when respondents report the condition of adaptation to treatment:

The results evidenced in this study reveal that adaptation to treatment is a dynamic process that is all the time oscillating due to the chronicity of CKD. These variations are directly related to psychophysiological changes and the constant hemodynamic instabilities that the patient experiences during the treatment.

Moreover, some issues interfere directly in the adaptation process, such as knowledge of the disease and treatment, as well as acceptance of the method as a means of maintaining life.

CKD is the progressive and irreversible loss of renal function. The advance of the disease is inevitable, however, when the patient receives the news that his/her kidneys can no longer perform their functions and that he/she will need some RRT to maintain life, the individual experiences strong emotions<sup>(17)</sup>. According to the findings of this study, patients highlighted feelings of uncertainty, anguish, stress, sadness and, especially, fear.

The study showed that, when the disease arises suddenly, without at least having time to prepare the dialectical need, the feeling of fear becomes stronger and, with this, both the disease and the treatment acquire an even more negative connotation, and this panorama can significantly influence adherence to treatment and understanding of the whole process.

There were also cases of patients who did not even know about the existence of CKD and were inserted in a RRT modality from a dialectical urgency. In another study<sup>(18)</sup>, there are reports of patients who were already aware of their health condition, but could not be trained in a timely manner to initiate PD, also due to dialysis urgency.

These facts caused difficulties in the adaptation process of these individuals<sup>(18)</sup>. Unfortunately,

the insertion of patients into RRT of urgency or dialysis emergency is not an uncommon event<sup>(5)</sup>. For some participants, the process of acceptance of the disease and adaptation to therapy was impaired due to traumatic experience of joining a RRT from dialysis urgency.

In contrast to this reality, the patient's adaptation can be facilitated by understanding the health condition and the need for life-sustaining therapy since conservative treatment<sup>(18)</sup>.

After the discovery of the disease and the obligation to start some RRT, the carrier of CKD is subjected to a sudden change in his/her lifestyle. At this moment, he/she needs to adapt to a new health condition and a treatment that implies several limitations, affecting the loss of autonomy<sup>(19)</sup>. Several reports showed that there was a need to adjust schedules for both social and labor activities in order to prioritize treatment.

Other factors that favor the process of adaptation to therapy are the benefits related to peritoneal dialysis at home, which were pointed out in this study. Patients report having more disposition, joy and freedom to perform the daily tasks, thus favoring family life, because they do not need to leave home to perform the treatment.

Among the advantages mentioned, there is still a comparison with the hemodialysis session, since in PD there is no need for venous puncture. The benefits of PD go beyond those mentioned above, because the patient can preserve its residual function for longer, has a greater balance of blood pressure and heart function<sup>(20)</sup>.

The need to use a long-term catheter in the abdomen can cause a strong psychological impact on the stigma caused by the change in their self-image, and this discomfort can be both physical and aesthetic<sup>(19)</sup>. The patients also described the strangeness and even some shame of having a catheter in the abdomen, causing a fear of not being accepted by the spouse due to the affected body image, which was observed especially in female participants.

Still on the initial difficulties reported by the participants, the process of learning the technique and the handling with the cyclor was

evidenced in this and other studies, in which the participants describe this phase as complex and permeated by fear<sup>(21)</sup>.

Fear is the feeling most experienced by participants, being related to the beginning of treatment and the first experiences at home without professional support<sup>(22)</sup>. The need for a RRT triggers a series of feelings such as frustration, disappointment and fear, especially of making mistakes and causing a situation whose outcome is an infection<sup>(22)</sup>, together with the uncertainties of the unknown and all the restrictions that this treatment requires<sup>(18)</sup>. Nevertheless, if there is a satisfactory follow-up of this clientele, these feelings, over time, give way to the ability and self-confidence to take care of oneself<sup>(23)</sup>.

The most common strategies reported by the study participants were those related to adaptation to daily life, which involve changes in lifestyle, environment and household. The individual in home dialysis treatment develops adjustments in his/her routine, such as changing the schedules of the daily activities, whether social, professional or even family, which are performed according to the established treatment schedule<sup>(21,24)</sup>.

Other adaptations reported involve changes in the environment and home, being necessary changes for the packaging of materials and adequacy of the environment where the treatment will be done. These changes imply not only the own patient, but the whole family, since the large amount of materials compromises the comfort of all<sup>(23)</sup>.

The patient with CKD suffers from a series of limitations that can significantly affect his/her quality of life and his/her family, since his/her family members start to live with a member who was once healthy, but is now a chronic patient with the use of a continuous therapy<sup>(1)</sup>.

Among the strategies mentioned by the participants in this study, family support is considered an important resource in the challenge of facing all the changes that therapy requires. This individual needs a support network in coping with the disease<sup>(22)</sup>, and the support network for chronic renal patients is pointed out as an essential part in coping with the change



in health condition and its treatment. In some cases, other people may be necessary to assist the patient in the daily tasks and activities related to treatment, and the responsible in the aid of this care is called caregiver, who may be family members or friends of the patient<sup>(24)</sup>.

This study unveiled that, in addition to family support, which is usually linked to the preparation of the material and the handling of the cyclor, the patient has the support of friends and especially the health team that accompanies him/her. This relationship of trust between the health team and the patient is essential for the success of the process of adaptation to therapy, being a movement that builds the bond between the parties, which subsidizes a partnership so that together they can draw strategies that facilitate adaptation to PD, which, consequently, generate safer treatment<sup>(18)</sup>.

The nurse who works in PD has an essential role for this type of RRT to happen. His/her mission is to embrace the patient and his/her family, guiding on the treatment, in addition to planning and developing actions aimed at self-care, after all, the patient treated with PD assumes the responsibility of performing his/her treatment at home. The professional adopts the role of educator, providing the basis of care so that the patient and his/her family members are able to take control of the therapy, taking charge of dialysis procedures, catheter care and prevention of complications<sup>(8)</sup>.

This care should extend throughout the treatment process, since the individuals responsible for the procedure, even after receiving training to perform the PD technique, may feel afraid and insecure when starting the therapeutic process at home<sup>(21)</sup>. Understanding the health condition may facilitate the process of adaptation of the patient, however, this understanding hardly ever happens and such situation directly affects the adherence to treatment.

## **Conclusion**

When concluding the study, we consider that the data presented provided the construction

of consistent results that allowed achieving the initial proposed objective. Thus, we consider that the main theme and the underlying themes were adequately discussed. Therefore, it was possible to verify that CKD and RRT imply changes in the way of living of the patient and his/her relatives.

Individuals who perform peritoneal dialysis at home suffer from fears, anxieties and uncertainties. For this reason, they need to create means of adaptation and organization in the face of the disease condition and the need to perform the procedure for the maintenance of life, thus developing devices that can facilitate daily and home treatment.

Knowledge about the their health condition, the means of maintaining life, diet management and, above all, how and why they need to use a RRT are important tools for patients' autonomy in relation to their treatment. Understanding how PD works and how their body reacts to therapy facilitates the process of adaptation and, consequently, adherence to treatment. However, this understanding is not always achieved, and this adherence suffers oscillations. Still on the knowledge of PD, the difficulties reported included the management of the equipment involved for dialysis, especially in the initial phase of treatment.

Another adaptation of daily life was also mentioned in this study, being necessary to incorporate PD in family daily life, adapt the rigid schedules of therapy to those of daily family leaving in the background the leisure activities, for example, for the execution of therapy and all other demands that include PD in the family context to enable treatment.

Most participants mentioned the adaptation of the environment as a necessary strategy to enable therapy in the home environment. Changes in the structure of the house and availability of place for the storage of dialysis materials are the main modifications made by the individual and his/her family. These changes generate impacts not only to the patient, but also throughout the family.

This study also showed that individual adaptations are cited by participants and require a personal dedication, especially changes in lifestyle that encompass social issues, living with

the permanent catheter and emotional changes due to sudden change in lifestyle.

However, it identified that the family support of health professionals and spirituality collaborated so that the process of acceptance and adaptation to therapy passed in a positive way, facilitating adherence to therapy.

Thus, it is important to know the possible forms of adaptation to the process of performing PD, being the nurse responsible for participating in this process, aiming at a better care, focused on the real demands of the patient and not only on the mechanical process with the peritoneal dialysis cyler. A limiting factor of this study concerns its collection during the Covid-19 pandemic, which hindered the insertion of all patients in the PD program from the hospital where the research was conducted. Therefore, further investigations are recommended, aiming at the development and understanding in the care of patients in PD.

This study contributes to the area of research, collaborating with the increase in production on the subject and encouraging discussion for future studies. It also contributes to professionals in the development of skills to help the patient adapt to perform this therapy at home. By identifying which means were used in the adaptive process, the patient can benefit from the implementation of care plans aimed at overcoming the adversities imposed by this therapy.

### Collaborations

1 – conception and planning of the project: Roberta da Silva Mendes Marins, Felipe Kaezer dos Santos;

2 – analysis and interpretation of data: Frances Valéria Costa e Silva, Tatiane da Silva Campos;

3 – writing and/or critical review: Joyce Martins Arimatea Branco Tavares;

4 – approval of the final version: Roberta da Silva Mendes Marins.

### Competing interests

There are no competing interests

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