

**Occupational performance of chronic kidney patients undergoing hemodialysis\*****Desempenho ocupacional de pacientes renais crônicos submetidos à hemodiálise****Rendimiento ocupacional de pacientes con insuficiencia renal crónica sometidos a hemodiálisis****Received: 30/04/2020****Approved: 11/02/2021****Published: 21/06/2021****Bruna Caroline Voltarelli<sup>1</sup>****Andrea Ruzzi-Pereira<sup>2</sup>**

This is a descriptive exploratory study of a qualitative nature, carried out in a kidney treatment unit of a federal public hospital in the interior of the state of Minas Gerais, in 2018. It aimed to evaluate changes in occupational performance and participation in other health services in people with chronic kidney disease on hemodialysis after the implementation of an identification card. Interviews used the Canadian Occupational Performance Measure as a guideline. Then, there was a thematic content analysis. Fourteen patients participated, and four categories were emerged: *Self-care; Productivity; Leisure; and Use of the Chronic Kidney Identification Card*. Changes in food, work, and leisure (socialization and travel) were reported; and that the portfolio made the service in other establishments safer, although some did not get any benefit from it. The occupational performance of chronic kidney patients is mainly affected in regards to food, work and leisure. The identification card was recognized as a facilitator in assistance in other health services.

**Descriptors:** Occupational Therapy; Kidney diseases; Hemodialysis units, Hospital.

Trata-se de um estudo exploratório descritivo, de natureza qualitativa, realizado em uma unidade para tratamento renal de um hospital público federal do interior de Minas Gerais em 2018, que teve como objetivo avaliar em pessoas com doença renal crônica em hemodiálise as mudanças no desempenho ocupacional e a participação em outros serviços de saúde após a implantação de uma carteira de identificação. Utilizou-se entrevista com o uso da Medida Canadense de Desempenho Ocupacional. Procedeu-se a análise de conteúdo temática. Participaram 14 pacientes e construiu-se quatro categorias: *Autocuidado; Produtividade; Lazer; e Utilização da Carteira de Identificação de Renal Crônico*. Relatou-se alterações na alimentação, no trabalho, e no lazer (socialização e viagens); e que a carteira tornou o atendimento em outros serviços mais seguro, apesar de que alguns não conseguiram benefícios desta. O desempenho ocupacional de pacientes renais crônicos é afetado principalmente quanto à alimentação, ao trabalho e ao lazer. A carteira de identificação foi reconhecida como um facilitador em atendimento em outros serviços de saúde.

**Descritores:** Terapia Ocupacional; Nefropatias; Unidades hospitalares de hemodiálise.

Se trata de un estudio exploratorio descriptivo, de carácter cualitativo, realizado en una unidad de tratamiento renal de un hospital público federal del interior de Minas Gerais en 2018, que tuvo como objetivo evaluar en personas con enfermedad renal crónica en hemodiálisis los cambios en el rendimiento ocupacional y la participación en otros servicios de salud después de la implementación de una tarjeta de identificación. Se utilizaron entrevistas con el uso de la Medida Canadiense de Rendimiento Ocupacional. Se procede al análisis del contenido temático. Participaron 14 pacientes y se construyeron cuatro categorías: *Autocuidado; Productividad; Ocio; y Utilización de la Tarjeta de Identificación del Renal Crónico*. Se relató cambios en la alimentación, en el trabajo y en el ocio (socialización y viajes); y que la tarjeta hizo que la atención en otros servicios fuera más segura, a pesar de que algunos no obtuvieron beneficios de ella. El rendimiento ocupacional de los pacientes con enfermedad renal crónica se ve afectado principalmente en lo que respecta a la alimentación, el trabajo y el ocio. La tarjeta de identificación fue reconocida como un facilitador de la atención en otros servicios de salud.

**Descritores:** Terapia Ocupacional; Enfermedades renales; Unidades de hemodiálisis en hospital.

\* Study financend by Gerência de Ensino e Pesquisa (GEP-UFTM), under No. 13/2018 - Notice No. 01/2018/GEP/HC-UFTM

1. Student of Occupational Therapy at the Universidade Federal do Triângulo Mineiro (UFTM), Uberaba, MG, Brazil. ORCID: 0000-0002-7045-8522 E-mail: brunac\_voltarelli@hotmail.com

2. Occupational Therapist. Specialist in Public Health with an emphasis on Mental Health. Master and PhD in Community Health. Post-Doctorate degree holder in Psychology. Adjunct Professor of the Occupational Therapy course at UFTM, Uberaba, MG, Brazil. ORCID: 0000-0001-6014-0468 E-mail: andrea.pereira@uftm.edu.br

## INTRODUCTION

**T**he increase in life expectancy and the lack of health care with actions to prevent chronic diseases, such as diabetes and high blood pressure, has become one of the major factors influencing the growth in the number of people with Chronic Kidney Disease (CKD). CKD is a syndrome caused by a series of nephropathies that, due to its progressive evolution, make the kidneys incapable of performing their multiple and essential homeostatic functions, thus making it difficult to maintain electrolyte and metabolic balance<sup>1</sup>.

Based on the clinical guidelines of the Ministry of Health for the care of patients with CKD in the Unified Health System (SUS), the different treatment conducts were classified as: conservative, which consists of keeping control of risk and conservation factors from glomerular filtration rate (GFR) for non-progression of CKD; pre-dialysis, which consists of maintaining conservative treatment and preparation for the start of renal replacement therapy in patients with more advanced CKD; and dialysis, when the GFR is lower than 10 mL/min/1.73m<sup>2</sup>; therefore, hemodialysis or peritoneal dialysis treatment and preparation for referral to specialized services in kidney transplantation should start<sup>2</sup>.

In the acceptance process in CKD, users may experience disconnection from their world, lose the will to work, the fullness of reasoning, lose social bonds and their autonomy during hemodialysis treatment, generating changes and disruptions in their physical environment and psychological<sup>3,4</sup>.

Occupational Performance (OP) refers to the ability to perform tasks that allow the performance of occupational and social roles in a satisfactory and appropriate manner for the individual's stage of development, culture and environment<sup>5</sup>; and it can be assessed with the Canadian Occupational Performance Measure (COPM). According to the American Occupational Therapy Association, human occupations are: activities of daily living; instrumental activities of daily living; rest and sleep; work; play and leisure; education; and social participation<sup>6</sup>. In CKD, OP can change drastically.

Once diagnosed with CKD, the person should undergo treatment as early as possible, whether conservative or dialysis. Hemodialysis treatment is characterized as a difficult and painful experience, but essential for maintaining the life of a person with CKD. From the beginning of hemodialysis, these people must adapt to changes, such as new eating habits, modified routine, family dependence and loss of autonomy that can lead to changes in physical and emotional integrity, which can compromise occupational performance in productive and leisure activities<sup>7</sup>.

Thus, this study aimed to evaluate the changes in occupational performance and participation in other health services of people with chronic kidney disease on hemodialysis after the implementation of an identification card.

## METHODS

This is a descriptive-exploratory study, of a qualitative nature, carried out in a Renal Treatment Unit of a Hospital de Clínicas in a city in the Triângulo Mineiro region, which is exclusively attended by the SUS. The target population consisted of chronic renal patients undergoing hemodialysis treatment.

Data were collected in August and September 2018, in different shifts and days of care at the hemodialysis clinic. As procedures for collection, the following steps were adopted: contact with the Renal Treatment Unit (RTU) to: check the best time, contact and schedule data collection with patients.

The following inclusion criteria were chosen: being over 18 years old; being on hemodialysis treatment for CKD; have received the Chronic Kidney Identification Card (CKIC). The final number of participants was defined by understood exhaustion, in which all available/eligible individuals are considered. However, the sample closure was due to

theoretical saturation, that is, the inclusion of new participants was suspended when the data obtained began to present redundancy or repetition, and it was not considered relevant to persist in data collection<sup>8</sup>.

Data were collected privately on the premises of the RTU. The interview questions were about the participant's sociodemographic characteristic, in addition to the following five questions: 1) *What activities did the patient do and stop after starting hemodialysis treatment?*; 2) *(If yes) What the patient believed made it difficult to perform these activities?*; 3) *After starting hemodialysis, did they start doing any activity that they did not do before?*; 4) *Did you notice any improvement in care at other health services outside the RTU with the use of the Chronic Kidney Identification Card?*; and 5) *(If perceived) What kind of improvement?*. Also, the participants were asked to talk about the process of using the Chronic Kidney Identification Card in other services.

The CKIC was developed by the multidisciplinary team of the RTU. It is the size of an ID card. On one side (front), at the top, there sentence "I HAVE CHRONIC KIDNEY DISEASE" is written, and below that sentence, a 30x40mm photo of the patient and their identification information, such as name, registration number at Hospital de Clínicas, address and telephone number. Also on this side are clinical information such as: if the patient is diabetic, hypertensive, has allergies or other clinical conditions; which side is the fistula or if you have a Permcath.

On the back of the CKIC, there is information on clinical care in urgent or emergency situations, such as: avoid hyperhydration and potassium replacement, do not promote hypotension; care of the fistula limb and exclusive use of the double lumen catheter for hemodialysis and the telephone contact of the RTU in case of any doubts. The CKIC proposes to favor safety of patients and the professionals who come to assist them<sup>9</sup>.

To assess occupational performance, the Canadian Occupational Performance Measure (COPM) was used. The COPM is a standardized and validated instrument for Brazil that allows individuals to identify any important activity that they consider difficult to perform in a context of illness<sup>10</sup>.

COPM aims to detect changes in the customer's perception of their occupational performance over time. In this tool, occupations are divided into: self-care (personal care, functional mobility and functioning in the community); productivity (paid or unpaid work, handling household chores, school and playing); leisure (quiet recreation, active recreation and socialization)<sup>10</sup>.

COPM focuses on the needs and problems of individual patients and is not specific to a specific health condition, being used to establish and plan treatment and measure the patient's progress<sup>11</sup>.

Interview data were digitally recorded and transcribed for further analysis. The information collected was analyzed through content analysis, with a qualitative approach<sup>12</sup>. Content analysis comprises the following steps: 1) General reading of the set of selected material; 2) Coding to formulate categories of analysis, this step uses the theoretical framework adopted in the research and the indications brought by the general reading; 3) Cut the material, in order to group sentences and words with the same semantic content; 4) Organization of data into categories; 5) Grouping of registration units into common categories; 6) Final grouping of categories; and 7) Inference and interpretation of categories, based on the theoretical framework<sup>12</sup> of the Structure of Occupational Therapy Practice, proposed by the American Association of Occupational Therapy and followed by several occupational therapists in different countries<sup>13</sup>.

The ethical aspects of this research met the guidelines of good practices for and research in accordance with Resolutions No. 466/12 and 510/16 of the National Health Council, with the approval of the Research Ethics Committee of the Universidade Federal do Triângulo Mineiro, in accordance with Opinion No. 2,759,841 and registration CAAE 89365418.9. 0000.5154 on

July 6, 2018. Participants' anonymity was ensured by coding from A to N, according to the order of participation in the research; autonomy was manifested through the agreement to participate in the study by signing the Free and Informed Consent Form (ICF).

## RESULTS

The research participants' were 14 patients who underwent hemodialysis in the UTR. In Table 1, the participants are presented regarding sociodemographic data and time on hemodialysis. Most participants were female, aged between 21 and 64 years old; and had an education level ranging from the 1<sup>st</sup> year of elementary school to graduate school. Only four participants do not live in the hospital's host city, having the need to travel to get to the location; seven users do not perform any paid work outside the home, four are on leave from work and three are self-employed. As for the time of hemodialysis treatment in the unit, it ranged from eight months to seven years.

**Table 1.** Sociodemographic Characterization of people with CKD on hemodialysis. Uberaba, MG. 2020.

Participant	Age	Gender	Educational Level	City of Residence	Time Hemodialysis	Work
A	48	F	High school (incomplete)	Conceição das Alagoas	1 year	Does not work
B	60	F	Elementary (incomplete)	Uberaba	6 years	Works at home
C	50	F	Elementary (incomplete)	Uberaba	7 years	Embroiderer
D	29	F	Postgraduate studies	Uberaba	2 years	On leave
E	61	F	High school (incomplete)	Uberaba	1 year	Does not work
F	39	F	High school (incomplete)	Uberaba	3 years	Does not work
G	40	F	University degree	Conquista	6 years	Does not work
H	38	M	Elementary	Uberaba	6 years	Does not work
I	64	M	High school (incomplete)	Uberaba	8 months	Does not work
J	21	M	University degree	Uberaba	4 years	Does not work
K	45	F	Elementary (incomplete)	Uberaba	3 years	Works at home
L	33	M	Elementary (incomplete)	Belo Horizonte	7 years	On leave
M	56	M	Elementary (incomplete)	Conceição das Alagoas	1 year	On leave
N	41	M	Elementary (incomplete)	Uberaba	5 years	On leave

Four categories emerged, namely: *Self-care*; *Productivity*; *Leisure*; and *Use of the Chronic Kidney Identification Card*.

### **Self-care**

This category refers to personal care: clothing, bathing, food and personal hygiene, mobility and independence (catching transportation, shopping and controlling finances).

It was observed that hemodialysis did not change personal care, as participants were able to perform them independently. As for the level of importance they attributed to this activity (from zero to 10), 12 respondents rated the level of importance of carrying out clothing, food and personal hygiene alone as 10. Users who had secondary chronic diseases such as hypertension and diabetes reported difficulty, but not due to hemodialysis, as reported by participant G, who had diabetes:

*Now, for walking, there's no way, because of my foot, I walk a little and it hurts a lot, then I have to stay still'.*

Other participants also reported difficulties in carrying out activities due to blindness caused by diabetes, as mentioned in the I:

*The problem with my activities, I don't smoke, I don't drink and today because of my sights I can't do it.*

Vision loss is also a problem and all reported that no longer perform any activity they did before hemodialysis treatment, such as going out alone, cooking, taking care of the house.

However, a change in relation to personal care was observed with regard to food, which they reported to be difficult due to the restriction of CKD. Foods that retain fluid, which have a lot of sodium or potassium, or water are on the list of restrictions or even prohibitions, as participant B brings:

[Changes] *The diet, because we can't eat a lot of things, so you have to go slower, right, that's all. You can't eat everything you want, you must have a balanced diet. A lot you cannot eat.*

### **Productivity**

It is presented here: paid or unpaid work; household tasks such as cleaning the house, washing clothes, preparing meals; playing and school. Only three participants were still able to keep a paid job. The others were either on leave, or were no longer able to keep worked, because they were unable to carry weight and other precautions with the fistula, as reported by participant F, when explaining why she stopped working:

*Because of the fistula arm, I can't carry heavy weight. The left arm that can't hold heavy weight.*

In addition, they described feeling tired and weak due to the new way of eating and the time they spent on the machine, a procedure performed three times a week, for four hours each, as reported by participant A:

*After I started hemodialysis, it was over, because I can't handle it, I get very tired, I get very discouraged.*

Of the 14 participants, 11 rated the level of importance in being able to have a job as 10, but most stopped working, as reported by E:

*I really enjoyed working, doing charity work for others. I worked in an asylum, I dedicated my life to it. I loved the elderly, I still do, I love working with the elderly, I liked them a lot, they liked me a lot, it was very good to work there.*

If the productive activity requires physical strength, when starting hemodialysis treatment and performing the fistula, the patient immediately needs to abandon the job they perform, often not adapting to other paid work options. Participant A reported that, before treatment, she worked in a farm, but she could no longer perform this type of work, which she liked very much:

*I liked working in the farm. I didn't really like working as a maid, but on the farm, I've always liked a lot of things that I left behind and now I cannot.*

The participants also mentioned leaving work due to the malaise they started to feel because of the CKD and the treatment, as pointed out by J:

*I can't work anymore, I usually have migraines and feel indisposed.*

In addition to tiredness, D reported less willingness in daily activities:

*I get tired when I leave here, my strength decreases a lot, my pace has changed a lot, I was more agitated, I was more dynamic, I did a lot at the same time, nowadays I can't do it anymore.*

The loss of work reduced financial and social independence and they wanted to adapt them to be able to reconcile another practice in their lives, as participant I refers:

*I did philanthropic work, I miss it, I would like to continue doing this service and working.*

### **Leisure**

This category consisted of: quiet recreation (hobbies); active recreation (sports and travelling); and socialization (visits, phone calls, participation in events), and hemodialysis influenced the performance of these occupations.

Participants reported that leisure activities were restricted due to hemodialysis, and some can no longer occur, either due to tiredness, or due to the hemodialysis routine, or even due to the fistula. However, some participants report a change in routine, with the replacement of leisure activities, as reported by G:

*Doing physical exercise, going for a walk, playing dodgeball, it's simpler and now I don't do it, sport activities [...]. I participate in the coexistence group, before I did not participate and that helped me a lot, because the beginning of hemodialysis is very difficult, I was afraid of needles, I had depression.*

Leisure activities that require greater physical effort or muscle strength are no longer performed by users due to the same factors that led them to abandon productive activities, as reported by participant N, who stopped exercising at the gym, but keeps walking:

*I used to go to the gym and stopped. I used to jog and I still do it.*

Some participants needed to include physical activities in their routine for better health care, such as improving cholesterol and blood pressure, as participant M, who, due to changes in blood pressure, needed to make changes in their physical activities after starting hemodialysis:

*Walking, jogging, I did it even on dialysis, but now that my blood pressure has dropped a lot I can't walk very far anymore, only nearby.*

Another difficult activity mentioned was traveling, as it requires one to leave the city to undergo hemodialysis as reported by J:

*I don't take long trips anymore and I quit my job. With regard to travelling, the issue is that we cannot be without treatment and it is very difficult for you to get hemodialysis in transit, there is a lot of bureaucracy, they ask for a minimum of thirty days to request it. I've already tried to go to the coast three times and I couldn't. I stay at home more, everything I didn't have time to do now I have, I read more, I watch a lot more television, I watch TV shows, movies.*

This report shows that active recreation, although of great importance for health and well-being, can be replaced by quiet recreation activities. Some participants started to develop leisure activities that they wanted to do before, but that was not possible due to the activities they developed, as reported by H:

*I stopped playing soccer, but [started playing] the guitar. Before, I didn't do it, I had no incentive to do it, now I do it. Now I'm also interested and I listen to music. The Braille thing, I seem to like it more.*

### **Use of the Chronic Kidney Identification Card**

Table 2 shows the use of the card and the possibility of greater participation by users in other health services.

**Table 2.** Use of the Chronic Kidney Identification Card. Uberaba, MG. 2020.

Participant	Used the card	Knows the Card's function
A	No	Yes
B	No	Yes
C	No	Yes
D	No	Yes
E	No	Yes
F	Yes	Yes
G	Yes	Yes
H	Yes	Yes
I	No	Yes
J	Yes	Yes
K	No	Yes
L	Yes	Yes
M	No	Yes
N	No	Yes

Users recognize that the card favors clinical care with more security in other services outside the Hospital de Clínicas (HC), as reported by participant B:

*It's because I have allergies, so it's already written [on the card], it also says how the place I'm attended should take care of me.*

Respondents reported that some health services do not know how to proceed in the care of CKD, sometimes applying saline solution to treat other clinical issues, or trying to use the fistula as an access to intravenous medication, which poses a risk to these people's lives. Patient G reports that, although he explained in the service that attended him, it was thanks to the identification card of the chronic kidney patient that he was heard in the emergency care:

*There was only one time when I needed to [use the card], the doctor wanted to use an IV. Sometimes the doctors don't understand this, that we can't take a lot of saline, then you have the card, show it to them and they do a different method, in my city, it was very useful, because when I got sick, the first thing is to apply saline.*

However, participant J reported that he used the card, but did not feel that it helped him, as the service professionals did not respect the guidelines contained in it:

*I went to the UPA [emergency care unit], I showed my card and it was the same thing as nothing, because they were giving me an IV. I still told the nurse, I do dialysis, is that correct? The nurse still said I don't think so, but the doctor did it, even when I showed the card, I never saw any benefit from it.*

Another usefulness of the card is to be able to streamline procedures in services outside the HC, as it contains recommendations about basic care and which methods cannot be performed with the DRC. In addition, it has the contact of the Renal Treatment Unit, so that professionals from other services can contact the RTU in case of doubts, as explained I:

*It is for identifying that you have chronic kidney disease, I know that any little issue you have, we present it, because the phone number is here, there are recommendations for what can and cannot be done.*

The card contains information for the most varied procedures, including vaccines, but a participant who used the private health network states that the document was not useful:

*I used it once, but it had no impact, because I have health insurance, so, usually when I need it, I prefer to go to a private hospital, then there was a time when I was in a lot of pain, kidney colic and I needed to go to the hospital. I presented the card, because in my understanding I could have a priority issue in relation to others, because there were many people and it had no impact whatsoever, you know, after the presentation they knew I had chronic kidney disease, because I also spoke then there was no difference.*

## DISCUSSION

The Human Occupation Model considers the patient's needs based on the performance in significant activities aiming to enable the performance of occupations<sup>14</sup>. The structure of the Occupational Therapy (OT)<sup>13</sup> practice presents a summary of interrelated ideas that define, guide and support the understanding of occupation, patient and contexts. Also, for OT, participation is understood as involvement in a life situation and occurs when patients are actively involved in carrying out occupations or activities of daily living in which they find purpose and meaning<sup>13</sup>.

The occupational therapist is a health professional who, among various skills, focuses on improving occupational performance and engagement (or participation) of their patients in daily occupations, considering physical, cognitive, affective and spiritual aspects of their patient, which in turn is inserted in a physical, social, cultural or institutional environment<sup>15</sup>.

Most participants in this study were female. Some researches have shown that women with chronic kidney disease feel more debilitated than men with CKD<sup>16,17</sup>. In a study that applied the functional independence measure<sup>16</sup>, it was found that women tend to become more dependent than men after starting treatment, as they are involved with a large part of the responsibilities with household chores and caring for the family.

Another investigation with the COPM showed that, in the occupational performance of people with chronic kidney disease on peritoneal dialysis, there was a reduction in the efficiency of the performance of women's household activities after the start of treatment<sup>15</sup>. The change in the occupational performance of these women was due to the difficulty in performing daily tasks, such as picking up heavy objects; in addition to feelings of weakness and tiredness that hemodialysis generates and the necessary care with the fistula, making it difficult to perform fully independent household tasks that required strength and endurance<sup>17</sup>.

In different cultures, women have the role of family caregivers. With their illness, the family needs reorganization so that someone else takes responsibility for this occupational role. This can cause emotional and psychological damage, making the woman feel frustrated and often helpless because she is no longer able to efficiently perform tasks that were previously her responsibility<sup>18</sup>. Independence and autonomy in performing tasks that are significant for these women are essential for a complete quality of life, improvement in occupational performance and personal satisfaction<sup>15</sup>.

One of the respondents started hemodialysis treatment while still an adolescent. In a study carried out in 2011<sup>19</sup> with adolescents, it was observed that, after starting treatment, they had a tendency of social isolation from the moment they were no longer able to perform the

same quality of social interaction as before hemodialysis treatment. This is because the treatment required availability of time during the week, interfering with living with other people of the same age group, leading them to a preference for staying at home, performing activities that could be performed alone, such as watching television or reading.

Social isolation can occur due to the care provided by the treatment, which involves a strict diet, use of highly complex medications, adaptation to a new routine, a process that ended up quickly removing the teenager from contact with their group of friends. Adolescents start their productive lives, but with difficulties in performing daily activities due to CKD and hemodialysis, they find themselves incapable, no longer performing some occupations, such as studying, working or active leisure. This can affect daily life, requiring adaptation to the treatment process to improve interpersonal relationships<sup>19</sup>.

In terms of nutrition, it has been observed that, after starting hemodialysis, changes are needed in the daily habits of patients. They must control their salt, fat and liquid intake, and it is necessary to adapt to improve the quality of life during hemodialysis, in relation to water consumption and compliance with the diet, thus losing autonomy in choice and quantity of food and liquids. Insecurity and loss of autonomy can lead to disabilities in everyday life<sup>20</sup>. A study<sup>21</sup> showed that 49.8% to 53.9% of patients, respectively, reported a level of difficulty that ranged from moderate to extreme in complying with the prescribed dietary recommendations.

Hemodialysis affects professional activities when spending a lot of time on the machine, caring for the fistula; in addition to the symptoms of weakness, tiredness and indisposition that make it difficult to continue paid work<sup>21</sup>.

Work is a determinant in the psychological balance of individuals, as it is through it that people maintain a link with reality. Work promotes a guiding direction of life, and involves the individual's physiological, psychological, mental and social conditions<sup>22</sup>. However, individuals on hemolytic treatment need adaptations, and that is why it is important to seek occupations with the help of professionals to: plan, adapt and build possibilities to do significant tasks for life, enabling independence and autonomy.

The loss of work causes financial difficulties and other problems such as feelings of uselessness, idleness and the feeling of being a burden on family members. Furthermore, the social relationships that were established at work are lost and, often, a new social support network is not established.

In leisure, recreation activities become difficult due to physical effort, care for the fistula and the discomfort caused by the treatment. Travelling is impractical due to the time and weekly frequency required by the treatment. Thus, hemodialysis is an important care strategy for maintaining the lives of people with kidney disease, but it is also a debilitating experience and sometimes described as a situation of dependence and loss of autonomy, which creates difficulties for interrelationships, for work and for traveling.

The departure from the original life consisting of family, work and, above all, the symbolic value of autonomy in relation to machine and hospital, is a watershed in the user's life, as they start to submit to an institution that will control their disease, frequency of hemodialysis treatment, times to eat, restrictions on significant activities within that environment and little contact with other people in their social cycle, causing a low efficiency in the occupational performance of their routine built years ago, which generates low personal satisfaction<sup>15</sup>.

Only one participant reported that he did not perceive any benefit in using the CKIC, as he had a health insurance plan and because he thought that having this card would give him priority in emergency care.

The *Chronic Kidney Identification Card* is a low-tech and high-impact resource, which highlighted the importance of integrated work between the team and patients, from the valuation of listening and the horizontalization of relationships, promoting safer, more humanized and responsible care shared, to ensure the best assistance for your safety and, following the guidelines of the Choosing Wisely<sup>9</sup> methodology.

CKD is frequent in Emergency Care Units (UPA), which shows the need for effective procedures by health professionals with chronic renal users, which can be favored with the implementation of the identification card model, facilitating quick access to information about care, which can reduce procedure errors and increase the quality and effectiveness of care<sup>23</sup>.

## CONCLUSION

The occupational performance of chronic renal patients is affected in some areas. Food needs to be readjusted when starting treatment; productivity also decreases, as patients are no longer able to perform their jobs, as they cannot carry heavy weight, due to the need to take care of the fistula, in addition to feelings of tiredness and weakness due to the new way of eating and the time that pass in hemodialysis sessions.

The performance of leisure activities also changed, especially physical activities, which require greater physical effort or muscle strength; and travelling, which requires greater availability of time and distance from the city where they receive hemodialysis, being replaced by quiet recreation activities.

The performance of a multidisciplinary team is important with chronic renal patients, and the occupational therapist must be part of this team, favoring improvements and adaptations for carrying out activities of daily living and in the quality of life of each user.

The CKIC was appointed by the majority of respondents as a facilitating agent in clinical care, with the perception of more safety when using it in other services outside the HC, as it brings recommendations about the basic care they should receive and about which procedures cannot be performed with the DRC. The CKIC also proved to be a form of communication between health professionals from different services, increasing communication between support networks and health professionals.

As a limitation of this study, it is possible to mention the fact that it was carried out in only one hemodialysis service, which suggests expansion of research in the area and adequacy of the Chronic Kidney Identification Card in other places and regions.

## REFERENCES

1. Sharaf El Din UA, Salem MM, Abdulazim DO. Stop chronic kidney disease progression: time is approaching. *World J Nephrol*. [Internet]. 2016 [cited in 30 Apr 2020]; 5(3):258-73. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4848149/>. DOI: <https://doi.org/10.5527/wjn.v5.i3.258>
2. Ministério da Saúde (Br), Secretaria de Atenção à Saúde, Departamento de Atenção Especializada e Temática. Diretrizes clínicas para o cuidado ao paciente com Doença Renal Crônica – DRC no Sistema Único de Saúde. Brasília, DF: Ministério da Saúde; 2014. 37p
3. Andrade SV, Sesso R, Diniz DHMP. Desesperança, ideação suicida e depressão em pacientes renais crônicos em tratamento por hemodiálise ou transplante. *Einstein (São Paulo)* [Internet]. 2015 [cited in 30 Apr 2020]; 37(1):55-63. Available from: <https://www.scielo.br/pdf/jbn/v37n1/0101-2800-jbn-37-01-0055.pdf> DOI: <https://doi.org/10.5935/0101-2800.20150009>
4. Campos C, Montovani M. Representações sociais da doença entre pessoas com doença renal crônica. *Rev Gaúcha Enferm*. [Internet]. 2015 [cited in 30 Apr 2020]; 36(2):106-12. Available from: [https://www.scielo.br/pdf/rngen/v36n2/pt\\_1983-1447-rngen-36-02-00106.pdf](https://www.scielo.br/pdf/rngen/v36n2/pt_1983-1447-rngen-36-02-00106.pdf). DOI: <http://dx.doi.org/10.1590/1983-1447.2015.02.48183>
5. Caldas A, Facundes VL, Silva H. O uso da Medida Canadense de Desempenho Ocupacional em estudos brasileiros: uma revisão sistemática. *Rev Ter Ocup Univ São Paulo (Online)* [Internet]. 2011 [cited in 30 Apr 2020]; 22(3):238-44. Available from: <http://www.revistas.usp.br/rto/article/view/46397> DOI: <https://doi.org/10.11606/issn.2238-6149.v22i3p238-244>
6. American Occupational Therapy Association A. Estrutura da prática da terapia ocupacional: domínio & processo. 3ed. traduzida. *Rev Ter Ocup. Univ São Paulo (Online)* [Internet]. 2015 [cited

- in 30 Apr 2020]; 26(esp):1-9. Available from: <http://www.revistas.usp.br/rto/article/view/97496>  
DOI: <https://doi.org/10.11606/issn.2238-6149.v26iespp1-49>
7. Silva RAR, Souza Neto VL, Oliveira GJN, Silva BCO, Rocha CCT, Holanda JRR. Estratégias de enfrentamento utilizadas por pacientes renais crônicos em tratamento hemodialítico. *Esc Anna Nery Rev Enferm*. [Internet]. 2016 [cited in 30 Apr 2020]; 20(1):147-54. Available from: <https://www.scielo.br/pdf/ean/v20n1/1414-8145-ean-20-01-0147.pdf> DOI: <https://doi.org/10.5935/1414-8145.20160020>
8. Fontanella BJB, Luchesi BM, Saidel MGB, Ricas J, Turato ER, Melo DG. Amostragem em pesquisas qualitativas: proposta de procedimentos para constatar saturação teórica. *Cad Saúde Pública* [Internet]. 2011 [cited in 30 Apr 2020]; 27(2):388-94. Available from: <https://www.scielo.br/pdf/csp/v27n2/20.pdf> DOI: <https://doi.org/10.1590/S0102-311X2011000200020>
9. Pereira PE, Felipe EA. Carteiras de identificação “Renal Crônico” como medida de segurança de pacientes assistidos por um hospital universitário federal no Triângulo Mineiro. In: 3º Congresso Brasileiro de Política, Planejamento e Gestão em Saúde; 2017; Natal, Brasil. Natal, RN: ABRASCO; 2017. p. 108-9.
10. Law M. Medida Canadense de Desempenho Ocupacional (COPM). Cardoso AAC, Magalhães L, Magalhães LC, tradutoras. Belo Horizonte: Editora UFMG; 2009. 63p.
11. Dedding C, Cardol M, Eyssen Ic, Dekker J, Beelen A. Validity of the Canadian Occupational Performance Measure. *Clin Rehabil London* [Internet]. 2004 [cited in 30 Apr 2020]; 19(1):888-94. Available from: <https://journals.sagepub.com/doi/abs/10.1191/0269215505cr883oa> DOI: <https://doi.org/10.1191/0269215505cr883oa>
12. Bardin L. Análise de conteúdo. 3ed reimpr. Lisboa, Portugal: Edições 70; 2016.
13. Occupational therapy practice framework: domain and process - fourth edition. *Am J Occup Ther*. [Internet]. 2020 [cited in 28 Apr 2021]; 74(Suppl 2):7412410010. DOI: <https://doi.org/10.5014/ajot.2020.74S2001>
14. Pontes, T, Polatajko H. Habilitando ocupações: prática baseada na ocupação e centrada no cliente na terapia ocupacional. *Cad Bras Ter Ocup*. [Internet]. 2016 [cited in 28 Apr 2021]; 24(2):403-12. Available from: <http://www.cadernosdeterapiaocupacional.ufscar.br/index.php/cadernos/article/view/1367>. DOI: <http://dx.doi.org/10.4322/0104-4931.ctoARF0709>
15. Souza TT, Kumer AM, Silva ACS, Cardoso AM, Lage CR. Impactos da doença renal crônica no desempenho ocupacional de crianças e adolescentes em hemodiálise. *Cad Bras Ter Ocup*. [Internet]. 2019 [cited in 12 Nov 2020]; 27(1):72-80. Available from: [https://www.scielo.br/pdf/cadbto/v27n1/pt\\_2526-8910-cadbto-27-01-00072.pdf](https://www.scielo.br/pdf/cadbto/v27n1/pt_2526-8910-cadbto-27-01-00072.pdf) DOI: <https://doi.org/10.4322/2526-8910.ctoao1741>
16. Santos VFC, Borges ZN, Lima SO, Reis FP. Percepções, significados e adaptações à hemodiálise como um espaço liminar: a perspectiva do paciente. *Interface (Botucatu)* [Internet]. 2018 [cited in 30 Apr 2020]; 22(66):853-63. Available from: <https://www.scielo.br/pdf/icse/v22n66/1414-3283-icse-1807-576220170148.pdf> DOI: <http://dx.doi.org/10.1590/1807-57622017.0148>
17. Moraes AS, Souza AM, Sena TCCB, Falcão LFM, Corrêa VAC. Alterações no desempenho ocupacional de pessoas com doença renal crônica em diálise peritoneal. *REFACS* [Internet]. 2018 [cited in 26 Mar 2020]; 6(Supl 2):591-9. Available from: <http://seer.uftm.edu.br/revistaelectronica/index.php/refacs/article/view/3129/3015>. DOI: <http://dx.doi.org/10.18554/refacs.v6i0.3129>
18. Marinho CLA, Oliveira JF, Borges JES, Fernandes FECV, Silva RS. Associação entre características sociodemográficas e qualidade de vida de pacientes renais crônicos em hemodiálise. *Rev Cuid (Bucaramanga)*. 2010 [Internet]. 2018 [cited in 30 Apr 2020]; 9(1):2017-29. Available from: <https://revistacuidarte.udes.edu.co/index.php/cuidarte/article/view/483> DOI: <http://dx.doi.org/10.15649/cuidarte.v9i1.483>
19. Silva EMS, Silva LWS. Impacto da hemodiálise na vida de adolescentes acometidos pela insuficiência renal crônica. *Adolesc Saúde* [Internet]. 2011 [cited in 30 Apr 2020]; 8(1):43-50. Available from: [http://www.adolescenciaesaude.com/detalhe\\_artigo.asp?id=264](http://www.adolescenciaesaude.com/detalhe_artigo.asp?id=264)

20. Souto SGT, Lima GS, Silva PLN, Oliveira RS, Gonçalves RPF. Percepção do portador de insuficiência renal crônica quanto às implicações da terapia hemodialítica no seu cotidiano. Rev Enferm UERJ [Internet]. 2017 [cited in 12 Nov 2020]; 25:e8093. Available from: <https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/8093/24372> DOI: <http://dx.doi.org/10.12957/reuerj.2017.8093>
21. Lins SMSB, Leite JL, Godoy S, Tavares JMAB, Rocha RG, Silva FVC. Adesão de portadores de doença renal crônica em hemodiálise ao tratamento estabelecido. Acta Paul Enferm. [Internet]. 2018 [cited in 30 Apr 2020]; 31(1):54-60. Available from: <https://www.scielo.br/pdf/ape/v31n1/0103-2100-ape-31-01-0054.pdf> DOI: <http://dx.doi.org/10.1590/1982-0194201800009>
22. Silva GD, Fernandes BD, Silva FA, Dias YCB, Melchioris AC. Qualidade de vida de pacientes com insuficiência renal crônica em tratamento hemodialítico: análise de fatores associados. Rev Bras Qual Vida [Internet]. 2016 [cited in 30 Apr 2020]; 8(3):229-45. Available from: <https://periodicos.utfpr.edu.br/rbqv/article/viewFile/4426/3334>
23. Soares TCS, Marta CB, Silva RCL. Perfil dos usuários atendidos na sala vermelha de uma unidade de pronto atendimento 24h. Rev Enferm UFPE on line [Internet]. 2016 [cited in 30 Apr 2020]; 10(12):4619-27. DOI: <http://doi.org/10.5205/reuol.9978-88449-6-ED1012201625>

**Associate Editor:** Vania Del Arco Paschoal

#### CONTRIBUTIONS

**Bruna Caroline Voltarelli** participated in the design, collection and analysis of data and writing. **Andrea Ruzzi-Pereira** contributed to the design, collection and analysis of data, writing and reviewing.

#### How to cite this article (Vancouver)

Voltarelli BC, Ruzzi-Pereira A. Occupational performance of chronic kidney patients undergoing hemodialysis. REFACS [Internet]. 2021 [cited in *insert day, month and year of access*]; 9(3):631-641. Available from: *insert access link*. DOI: *insert DOI link*

#### How to cite this article (ABNT)

VOLTARELLI, B. C.; RUZZI-PEREIRA, A. Occupational performance of chronic kidney patients undergoing hemodialysis. REFACS, Uberaba, MG, v. 9, n. 3, p. 631-641, 2021. DOI: *inset DOI link*. Available from: *insert access link*. Access in: *insert day, month and year of access*.

#### How to cite this article (APA)

Voltarelli, B.C., & Ruzzi-Pereira, A. (2021). Occupational performance of chronic kidney patients undergoing hemodialysis. REFACS, 9(3), 631-641. Retrieved in *insert day, month and year of access* from *insert access link*. DOI: *insert DOI link*.

