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ORIGINAL ARTICLE

DAILY LIFE ACTIVITIES OF PATIENTS IN PERITONEAL DIALYSIS

ATIVIDADES DE VIDA DIÁRIA DOS PACIENTES NA DIÁLISE PERITONEAL

ACTIVIDADES DE VIDA DIÁRIA DE PACIENTES EN DIÁLISIS PERITONEAL

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ABSTRACT

Objective: to analyze the activities of daily living of patients after the beginning of peritoneal dialysis in the Nephrology service. *Method:* this is a quantitative, cross-sectional analytical study at the hospital dialysis treatment unit. The sample consisted of 50 patients. A questionnaire was used for data collection. An Excel database was elaborated and the data were presented in tables. *Results:* it was found that, of the 50 patients analyzed, the mean age was 56.92 ± 16.26 years; median time to discovery of chronic kidney disease was 50.64 ± 56.36 months; Treatment time with peritoneal dialysis was 16.68 ± 10.00 months. Was there significance between the crossings of "age" with "daily living activity" and "how long have you been peritoneal dialysis? (months) "x" activity of daily living ". *Conclusion:* it was found that the daily life activity of the patients changed, as the older the greater the difficulty in daily living activities. ***Descriptors***: Peritoneal Dialysis; Patients; Hemodialysis Units, Hospital ; Activities of Daily Living; Nephrology Nursing; Nursing.

RESUMO

Objetivo: analisar as atividades de vida diária dos pacientes após o início da diálise peritoneal no serviço de Nefrologia. ***Método*:** trata-se de estudo quantitativo, transversal, do tipo analítico, na unidade hospitalar de tratamento de dialítico. Constituiu-se a amostra por 50 pacientes. Utilizou-se um questionário para a coleta de dados. Elaborou-se uma base de dados no *Excel* e se apresentaram os dados em tabelas. ***Resultados:*** verificou-se que, dos 50 pacientes analisados, a média de idade foi de 56,92±16,26 anos; tempo médio em que descobriu a doença renal crônica foi de 50,64±56,36 meses; tempo de tratamento com diálise peritoneal foi de 16,68±10,00 meses. Houve significância entre os cruzamentos da "idade" com "atividade de vida diária" e "há quanto tempo faz diálise peritoneal? (meses)" x "atividade de vida diária". ***Conclusão:*** constatou-se que a atividade de vida diária dos pacientes sofreu alterações, pois, quanto maior a idade, maior a dificuldade nas atividades de vida diária. ***Descritores:*** Diálise Peritoneal; Pacientes; Unidades Hospitalares de Diálise Renal; Atividades Diárias; Enfermagem em Nefrologia; Enfermagem.

RESUMEN

Objetivo: analizar las actividades de vida diaria de pacientes después del inicio de diálisis peritoneal en el servicio de Nefrología. ***Método:*** este es un estudio cuantitativo, transversal, tipo analítico, en la unidad hospitalaria de tratamiento de dialítico. La muestra consistió en 50 pacientes. Se utilizó un cuestionario para la recolección de los dados. Se elaboró una base de datos en *Excel* y los datos fueron presentados en tablas. ***Resultados:*** se comprobó que, de los 50 pacientes analizados, el promedio de edad fue de 56,92 ± 16,26 años; tiempo promedio en que descubrió la enfermedad renal crónica fue de 50,64 ± 56,36 meses; tiempo de tratamiento con diálisis peritoneal fue de 16,68 ± 10,00 meses. ¿Qué importancia tiene entre los cruzamientos de "edad" con "actividad de vida diaria" y "cuánto tiempo hace diálisis peritoneal? (meses) "x" actividad de vida diaria". ***Conclusión:*** se comprobó que la actividad de vida diaria de los pacientes sofrió alteraciones, pues, cuanto más edad, mayor la dificultad en las actividades de vida diaria.***Descriptores***: Diálisis Peritoneal; Pacientes; Unidades de Hemodiálisis en Hospital; Actividades Cotidianas; Enfermería en Nefrología; Nursing.

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INTRODUCTION

The kidneys are known to be fundamental organs for the maintenance of the body's homeostasis and, consequently, the progressive decrease in renal function compromises all other organs. Among its functions are toxin excretion, erythropoietin hormone secretion and hydroelectrolytic balance.[1] Renal function is assessed by glomerular filtration (GF) and its decrease is observed in Chronic Kidney Disease (CKD) associated with loss of renal regulatory, excretory and endocrine functions.[2]

It has been established that CKD is a progressive, insidious disease, increases over months and years, manifests clinical signs when a 70.0% loss of renal function has occurred and since then renal replacement therapy (RRT) has been essential. [3]

The risk groups for primary diseases such as hypertension (34%), diabetes (30%), followed by chronic glomerulonephritis (9%) and polycystic kidneys (4%) are the most susceptible to CKD.[4] Other factors that may accelerate the progression of CKD are dyslipidemia, smoking, obesity and physical inactivity.[5]

The following treatment options were available as soon as the diagnosis of CKD, peritoneal dialysis (PD), renal transplantation (TX) and hemodialysis (HD) were determined.[6] It is reported that there are two ways to perform peritoneal dialysis: continuous ambulatory dialysis (CAPD), in which the patient uses a closed and manual system in which fluid enters and leaves the abdominal cavity by force of gravity; automated peritoneal dialysis (APD), which is performed at the time of the patient's choice and best adaptation, and may be performed at night by a cycler machine, which automatically infuses and drains peritoneal fluid.[1]

One of the most frequent complications related to peritoneal dialysis has been determined to be the risk of infection, called peritonitis.[8] It is clarified that peritonitis is inflammation of the membrane that covers the organs of the abdominal cavity and the inner wall of the abdomen. It is noticeable that this membrane is resistant to infections, but in peritoneal dialysis, it is common due to its intense manipulation, being important to know and control cases of peritonitis to minimize episodes and improve prevention.[9]

It is known that peritoneal dialysis needs training and guidance so that patient and caregiver have complete mastery and autonomy, performing it at home with competence.[10]

It is a major challenge for health professionals to not adhere to peritoneal dialysis treatment. It was shown in the survey conducted with Brazilian Dialysis Centers, from 2011 to 2013, that less than 10% of chronic renal patients are in CAPD or APD. This can be associated with the lack of nephrologists, trained nurses, lack of health policies and financial incentive for this type of treatment..[11]

It is considered that nurses play a fundamental role in this process, given that they are responsible for welcoming the user and family, as they provide the care base for them to be able to continue therapy at home, developing actions directed to self-care in view of the solution of possible complications in relation to PD.[12-3]

It is recommended that in order to perform peritoneal dialysis at home, it is necessary that family members and, if possible, the patient, undergo training provided by nurses. The training consists of theoretical and practical classes that aim to qualify the patient and their families to perform the procedure safely.[14]

It is believed that knowing and analyzing the changes in patients' daily life activities are important information in determining the initial conduct of patients with kidney disease, as well as in the more humanized and better quality nursing care.

OBJECTIVE

- To analyze the activities of daily living of patients after the beginning of peritoneal dialysis in the Nephrology service.

METHOD

This is a quantitative, descriptive, cross-sectional study. This study was carried out at the Nephrology Unit of the FUNFARME Base Hospital of São José do Rio Preto (SP), Brazil.

It is a teaching hospital that provides care in different medical specialties. Private, private patients and the Unified Health System (UHS) are cared for, mostly. This hospital is considered a reference center of the municipality and region that also serves patients from other states of Brazil. Nephrology service is located on the ground floor and on the fourth floor. The service consists on the ground floor of a hemodialysis room, emergency room, exam collection, clinics, pantry, meeting room, reception, among others. In addition, on the fourth floor there is the peritoneal dialysis service, where training is provided, full support for the dialysis patient, Tenckhoff catheter is passed and hospital peritoneal dialysis is performed in patients who are in the training phase.

The sample consisted of 50 patients undergoing peritoneal dialysis treatment at a teaching hospital. Inclusion criteria included patients aged 18 years and over, without cognitive impairment, who, during the study period, underwent peritoneal dialysis treatment, who were able to hear and answer the questionnaires and sign the

Free and Informed Consent Term. The instrument is formed by the characterization of the population studied, a questionnaire aimed at identifying health problems and activities of daily living during the treatment of peritoneal dialysis. Prior to data collection, this project will be submitted to the FAMERP REC Research Ethics Committee under CAAE Opinion No. 35299614.6.0000.5415.

An Excel database was created in which tables were built. Data was presented as percentage (%) or average($\bar{x}$) $\pm$ standard deviation (SD), subjecting them to statistical analysis test. Sociodemographic characteristics were investigated regarding age, gender, marital status, education, treatment time, underlying disease and activities of daily living.

Data was separated considering the following variables: age; sex; how long ago did you discover CKD? (months); How long have you been on peritoneal dialysis? (months); daily net intake; elimination of diuresis within 24 hours; arterial hypertension; diabetes; intestinal constipation; motor difficulty; eat; floor plan; take a bath; go to the bathroom on time; climbing stairs (one flight); medicate on the spot; walk close to home; shopping; leave driving; do house cleaning.

Data tabulation followed two statistical analysis functions: descriptive and inferential. The profile of the studied sample was descriptively traced, considering the analyzed variables and their consequences. The data were replicated absolutely and relatively in this first part. It is noteworthy that the independence results between the proposed variables were obtained through analysis of the P values (significance). Finally, all analyzes were obtained using the SPSS Statistics software (Version 23) linked to the Excel tool functionalities (version 2.016).

Prior to the start of the survey, all participants were explained the objectives, the right not to participate, the assurance that their assistance will not be affected if they do not agree to participate, or the answers provided, if accepted. Anonymity and confidentiality will be ensured, and those who agree to participate will sign the Free and Informed Consent Term.

RESULTS

For this study, we collected information from 50 records treated here as a sample of an existing population of approximately 65 patients on peritoneal dialysis therapy at the School of Medicine of São José do Rio Preto.

Table 1. Descriptive statistics, with groupings of the variables age, time discovered CKD, and time peritoneal dialysis. Sao Jose do Rio Preto (SP), Brazil, 2018.

Age group	n	%
Up 20 years	2	4.00
21 to 40 years	8	16.00
41 to 60 years	14	28.00
> 60 years	26	52.00
Sex		
Female	19	38.00
Male	31	62.00
Peritoneal Dialysis Time		
Up to 8 month	11	22.00
9 to 16 months	19	38.00
17 to 24 months	13	26.00
> 24 months	7	14.00
Total	**50**	**100.00**

Table 2. Presentation of the crossing "age" with "daily life activity" (p <0.05). Sao Jose do Rio Preto (SP), Brazil, 2018.

	Up to 20 years		21 to 40 years		41 to 60 years		> 60 years		Total	
Activities	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Eat (p = 0.001) No Difficulty	2	100.00	8	100.00	13	92.86	13	50.00	36	72.00
Walk on the flor No difficulty (p = 0.000)	2	100.00	8	100.00	13	92.86	4	15.38	27	54.00
Bathe (p = 0.009) Without dificulty	2	100.00	8	100.00	13	92.86	10	38.46	33	66.00
Climb the stairs (1 flight) Without dificulty (p =0.009)	2	100.00	8	100.00	7	50.00	4	15.38	21	42.00
Take medication on time (p= 0.009) Without dificulty	2	100.00	8	100.00	12	85.71	7	26.92	29	58.00
Walk close to home Without dificulty (p= 0.002)	2	100.00	8	100.00	13	92.86	5	19.23	28	56.00
Go Shopping (p= 0.023) Without dificulty	2	100.00	8	100.00	11	78.57	4	15.38	25	50.00
Clean the house (p= 0.000) Without dificulty	2	100.00	8	100.00	9	64.29	4	15.38	23	46.00
Total	**2**	**100.00**	**8**	**100.00**	**14**	**100.00**	**26**	**100.00**	**50**	**100.00**

* Only dimensions with significant evidence were considered in this table.

Table 3. Crossing for how long has been peritoneal dialysis (months) x daily life activity (p <0.05). Sao Jose do Rio Preto (SP), Brazil, 2018.

	Up to 8 months		9 to 16 months		17 to 24		>24		Total	
Activities	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Walk on the floor (p = 0.035)	6	54.55	9	47.37	7	53.85	5	71.43	27	54.00
Without dificulty										
With little difficulty	1	9.09	8	42.11	6	46.15	1	14.29	16	32.00
With difficulty	4	36.36	2	10.53	0	0.00	1	14.29	7	14.00
Take medicine on time (p = 0.017)	6	54.55	9	47.37	9	69.23	5	71.43	29	58.00
Without dificulty										
With little difficulty	2	18.18	9	47.37	4	30.77	1	14.29	16	32.00
With difficulty	1	9.09	1	5.26	0	0.00	1	14.29	3	6.00
Do not	2	18.18	0	0.00	0	0.00	0	0.00	2	4.00
Walk near home (p = 0.005)	6	54.55	9	47.37	8	61.54	5	71.43	28	56.00
Without difficulty										
With little difficulty	0	0.00	4	21.05	3	23.08	1	14.29	8	16.00
With a lot of difficulty	2	18.18	6	31.58	2	15.38	1	14.29	11	22.00
Cannot	3	27.27	0	0.00	0	0.00	0	0.00	3	6.00
Go shopping (p = 0.023)	6	54.55	7	36.84	7	53.85	5	71.43	25	50.00
Without dificulty										
With little difficulty	0	00.00	5	26.32	0	0.00	1	14.29	6	12.00
With a lot of difficulty	2	18.18	7	36.84	6	46.15	0	00.00	15	30.00
Connot	1	9.09	0	0.00	0	0.00	1	14.29	2	4.00
Does not	2	18.18	0	0.00	0	0.00	0	0.00	2	4.00
Clean the house (p = 0.026)	6	54.55	6	31.58	6	46.15	5	71.43	23	46.00
Without difficulty										
With little difficulty	0	00.00	2	10.53	1	7.69	1	14.29	4	8.00
With a lot of difficulty	0	00.00	7	36.84	2	15.38	0	00.00	9	18.00
Cannot	0	00.00	2	10.53	4	30.77	0	00.00	6	12.00
Does not	5	45.45	2	10.53	0	0.00	1	14.29	8	16.00
Total	**11**	**100.00**	**19**	**100.00**	**13**	**100.00**		**100.00**	**50**	**100.00**

DISCUSSION

In view of the diagnosis of chronic kidney disease (CKD), together with the need for peritoneal dialysis or hemodialysis, the patient is in a totally new and unknown universe, and the disappointment in having to deal with the disease and the heaviness for the family is a factor that alters the life changes.[14-5]

Peritoneal dialysis is currently believed to provide greater flexibility in patients undergoing renal replacement therapy with CKD, as it can be performed at home by the patient or caregiver himself.[16] It has been shown in some studies that this dialytic modality ensures greater satisfaction with treatment and less impact on patients' lives when compared to hemodialysis.[17]

Quality of life has been defined as "the individual's perception of his life and implies a system of culture and values in which he lives in relation to his goals, expectations, standards and concerns". It is reiterated that quality of life refers to the way that pathology and treatment influence the perception of those involved in the health-health context, [18] being pointed as a significant factor in the choice of treatment by the patient and caregiver.[16]

Data was collected in this study, such as age, CKD time, and peritoneal dialysis therapy time, relating them to their daily life activities.

It became apparent in the sample profile that males are predominant with 62% of patients, aged over 60 years, with an average age of 56.92 years, maximum age of 84 and minimum of 18 years. , associated with the time you discovered chronic kidney disease, with an average of 50.64 months and the time you treat peritoneal dialysis, with an average of 16.68 months.

The daily life changes of these patients undergoing peritoneal dialysis therapy were analyzed. Regarding treatment time, an average of 16.68 months was obtained. When comparing

research conducted at the Federal University of Maranhão with patients on renal replacement therapy on hemodialysis, with a mean time of 43.15 months, it is noted that longer hemodialysis time negatively influences the quality of life components.[19]

It was found from the results of this study that, when performing the crossing age x activity of daily life, 100% of patients aged up to 20 years and from 21 to 40 years had no difficulty in eating, walking in the flat, showering, climbing a flight of stairs, taking medicine at the right time, walking close to home, shopping, cleaning, showing that the younger patient is not affected by his daily life activities. The same results show that, with the increase of the age above 41 years, the activities of daily living begin to be difficult for patients and, with more than 60 years old, almost all can no longer perform the activities of daily living alone or without assistance. It corroborates the findings of this study by a study conducted with 101 hemodialysis patients in the city of São Carlos - SP, which verified, through logistic regression analysis, a ratio between age and this domain, and the risk of injury in quality of life increased the older.[20]

Advanced age has a relevant influence on the perception of quality of life and older individuals are a vulnerable group to the degeneration of physical and functional conditions.[21-2]

It has been observed that the disease progression, with the increase of therapy time, leads to more physical difficulties in daily life activities, such as climbing a flight of stairs, walking on the plane, taking medication on time, walking nearby, shopping, housekeeping, and impairment of autonomy, affecting their quality of life levels, noting that there were no findings about the context in other recent research articles.

CONCLUSION

It was found that the patients' life activity changed, being negatively affected in the dimensions: the higher the age, the greater the difficulty in the patient's daily life activities. Another relevant factor was observed in this study: disease progression and increased therapy duration are significantly associated with daily living activities in these patients.

It was concluded that the CKD patient needs professional assistance, as well as family and friends support, contributing to the treatment and treatment of the disease and minimizing the frustrations imposed on the patients' routine.

This greater difficulty in performing daily activities was associated with the fact that the elderly face a series of changes caused by aging and common changes imposed by individuals with chronic disease condition.

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