

Profile of patients submitted to hemodialytic treatment in a Theresin clinic

Perfil dos pacientes submetidos a tratamento hemodialítico em uma clínica em Teresina

Perfil de los pacientes sometidos a tratamiento en una clínica de hemodiálisis Teresina

Érica Costa Santana¹, Maria do Socorro Carvalho Silva², Thalita Ribeiro Gomes da Silva³, Adelia Dalva da Silva Oliveira⁴, Ivonizada Pires Ribeiro⁵, Maria Zélia de Araújo Madeira⁶

How to quote this article:

Santana EC, Silva MSC, Silva TRG, Oliveira ADS, Ribeiro IP, Madeira MZA. Perfil dos pacientes submetidos a tratamento hemodialítico em uma clínica em Teresina. Rev Fun Care Online. 2019 jan/mar; 11(1):142-146. DOI: <http://dx.doi.org/10.9789/2175-5361.2019.v11i1.142-146>

ABSTRACT

Goals: To characterize the study sample according to socioeconomic data; Identify underlying disease and hemodialysis time; To identify the type of access in hemodialysis treatment. **Methods:** Exploratory, descriptive, quantitative study performed in a clinic specialized in hemodialysis. The sample consisted of 129 medical records. **Results:** The male predominance was 85 (65.9%), the age group was 42 years old or over 97 (75.2%); Color / race, brown 85 (65.9%), municipality of residence Teresina 99 (76.7%), and marital status married 95 (73.6%). The most frequent disease was systemic arterial hypertension 53 (41.1%), hemodialysis time from 3 to 4 years 43 (33.3%) and the type of access was arteriovenous fistula of 118 (91.5%). **Conclusion:** The results allowed us to know the profile to aid in the planning of care directed to prevention and, consequently, to improve the life expectancy of those who undergo renal replacement therapy.

Descriptors: Health profile, Hemodialysis, Renal insufficiency.

RESUMO

Objetivos: Caracterizar a amostra do estudo de acordo com os dados socioeconômicos; identificar doença de base e tempo de hemodiálise; identificar o tipo de acesso no tratamento hemodialítico. **Método:** Pesquisa exploratória, descritiva, quantitativa, realizada em uma clínica especializada em hemodiálise. A amostra foi composta de por 129 prontuários. **Resultados:** Observou-se a predominância do sexo

- 1 Aluna de Graduação em Enfermagem pelo Centro Universitário Uninovafapi. E-mail: <erica-santana@hotmail.com>.
- 2 Aluna de Graduação em Enfermagem pelo Centro Universitário Uninovafapi. E-mail: <socorroc.silva@hotmail.com>.
- 3 Aluna de Graduação em Enfermagem pelo Centro Universitário Uninovafapi. E-mail: <thalitaribeirooo@hotmail.com>.
- 4 Doutora em Saúde Pública, Coordenadora do Departamento de Enfermagem e do Programa de Pós-Graduação em Enfermagem do Centro Universitário Uninovafapi. E-mail: <aoliveira@uninovafapi.edu.br>.
- 5 Doutor em Ciências, Professor do Departamento de Enfermagem do Centro Universitário Uninovafapi. E-mail: <ivonizeteribeiro@gmail.com>.
- 6 Doutora em Ciências, Professora do Departamento de Enfermagem e do Programa de Pós-Graduação em Enfermagem do Centro Universitário Uninovafapi. E-mail: <zeliamaideira15@yahoo.com.br>.

masculino 85 (65,9%); a faixa etária foi 42 anos ou mais 97 (75,2%); cor/raça, parda 85 (65,9%); município de residência Teresina 99 (76,7%); e o estado conjugal casado 95 (73,6%). A doença com maior expressão foi hipertensão arterial sistêmica 53 (41,1%); o tempo de hemodiálise de 3 a 4 anos 43 (33,3%); e o tipo de acesso foi a fístula arteriovenosa de 118 (91,5%). **Conclusão:** Os resultados permitiram conhecer o perfil para auxílio do planejamento de uma assistência direcionada à prevenção e, conseqüentemente, melhora da expectativa de vida dos que são submetidos a terapia de substituição renal.

Descritores: Perfil de saúde, Hemodiálise, Insuficiência renal.

RESUMEN

Objetivos: Caracterizar la muestra de estudio de acuerdo a datos socioeconómicos; identificar la enfermedad subyacente y el tiempo de hemodiálisis; Identificar el tipo de acceso en el tratamiento de hemodiálisis.

Metodología: Estudio exploratorio, descriptivo, cuantitativo realizado en una clínica especializada en hemodiálisis. La muestra consistió en 129 expedientes médicos. **Resultados:** El predominio masculino fue de 85 (65,9%), el grupo de edad fue de 42 años o más de 97 (75,2%); Color / raza, marrón 85 (65,9%), municipio de residencia Teresina 99 (76,7%), y estado civil casado 95 (73,6%). La enfermedad más frecuente fue hipertensión arterial sistémica 53 (41,1%), tiempo de hemodiálisis de 3 a 4 años 43 (33,3%) y el tipo de acceso fue fístula arteriovenosa de 118 (91,5%). **Conclusión:** Los resultados permitieron conocer el perfil para ayudar en la planificación de la atención dirigida a la prevención y, en consecuencia, para mejorar la expectativa de vida de quienes se someten a terapia de reemplazo renal.

Palabras clave: Perfil de salud, La hemodiálisis, Insuficiencia renal.

INTRODUCTION

Chronic kidney disease results from irreversible and progressive kidney damage caused by diseases that make the kidney unable to perform its functions. When the advanced disease affects 90% of its renal function, the 10% cannot maintain the health of the patient. At this time, it is necessary to use Hemodialysis (HD) or renal transplantation.¹

In Brazil, the percentage of individuals affected by arterial hypertension was 21.4% in 2013, which corresponds to 31.3 million people in the country who present one of the risk factors for the development of chronic kidney disease.² Specifically, there were 658 dialysis units in the country, with approximately 50,961 patients undergoing dialysis in the country, with a total population of 201.03 million.^{3,4}

The main form of treatment of chronic kidney disease is hemodialysis. This procedure simulates the physiological process of glomerular filtration, based on the diffusion mechanism. Therefore, patients are connected to a specific machine for a period of up to four hours, at a frequency of three days per week. Within this context, the chronic renal patient is confronted with several conflicts that cause changes in their daily lives with restrictions and impairment of their quality of life.⁵

Nowadays, hemodialysis therapy ensures greater efficacy and safety for the patient. There are several technological advances: machines equipped with ultrafiltration control, variable sodium, in addition to safety alarms that detect bubbles, change in temperature and change in blood flow. Even so, complications of intra-dialysis still occur.⁶

Nursing care should occur from the patient's entrance to the exit of the hemodialysis session, performing a pre-hemodialysis evaluation that involves: weight registration, vital signs checking, referral to the dialysis machine and observation and communication to the nurse and physician responsible any change during the last session; during the hemodialysis session the team should be attentive to the monitoring of vital signs, anticoagulation, proper functioning of dialysis machines such as temperature, roller, blood flow, dialyzed flow.⁷

Also, the nursing care has to take care of the patient comfort, interferences, complaints and/or their doubts. In the post-hemodialysis evaluation care should be taken for signs of bleeding at the site of the venipuncture, check vital signs, check the weight, at the end of the session, when removing the patient from the machine care must be taken to have a greater blood return to the patient with a lesser quantity of serum and to avoid gas embolism by the entrance of air by the return needle; remembering that the nurse and the multiprofessional team should recognize the patient, not as a passive receiver of care, but rather the agent of their self-care, knowing their treatment and participating in it involved in the development of their care plan.⁷

Renal transplantation does not cure renal disease, but it is a treatment modality for patients with renal disease, although it is an important therapeutic resource compared to hemodialysis, although surgery does not mean cure, but it allows the transplant a new perspective of life, providing greater freedom and autonomy, despite the possible existence of diverse complications in the evolution of the transplant, the rehabilitation is much superior to that in any other type of dialysis therapy.⁸

Given the aforementioned, the study aimed to outline the profile of patients undergoing hemodialysis treatment in a private clinic at Teresina city, in addition to identifying the primary disease and time of hemodialysis, and also to identify the access type in the hemodialysis treatment.

METHODS

It is a descriptive-exploratory study with a quantitative approach that was carried out in a hemodialysis specialized clinic, which is located in the Southeast of Teresina city, Piauí State, Brazil. All patients who underwent hemodialysis at the clinic from January 2013 to January 2016 participated in the study. The study allowed a census survey to be carried out on the 271 charts in the clinic. All the medical records that were in the clinic were included. And medical records that were incomplete, illegible letters, patients who died, transplanted and transferred were excluded, and 142 medical records were excluded, resulting in 129 samples.

The instrument used to collect data was a form developed by the researchers exclusively for this study, with items related to the demographic characterization (age, sex, color, marital status, primary disease, treatment time and access type). After the data collection, the data was double-typed in the Microsoft Excel 2010 spreadsheet for validation. The study sample was characterized by means of descriptive statistics, and the data

were processed by the software Statistical Package for the Social Sciences (SPSS), version 20.0, for Windows, being analyzed through descriptive and analytical statistics.

The variables were described using absolute (n) and relative (%) frequencies and position (average) measurements. The final results were presented in tables and graph.

The ethical aspects of this study are in line with the Resolution No. 466/2012 from the National Health Council of Brazil.⁹ The project of this research was approved by the Research Ethics Committee from the *Centro Universitário Uninovafapi, Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appraisal] No. 57931316.7.0000.5210 on October 2nd, 2016 and Legal Opinion No. 1.757.110.

RESULTS

Table 1 shows the participants' socio-demographic data. **Table 1** displays a predominance of males 85 (65.9%), age group of 42 years old or more 97 (75.2%); skin color/race, brown 85 (65.9%); *Teresina* as municipality of residence 99 (76.7%); and married marital status 95 (73.6%).

Table 1 - Socio-demographic characterization of the sample. *Teresina (PI)*, 2016. (n=129)

Variable	n	%
Gender		
Male	85	65,9
Female	44	34,1
Age Group (years)		
18 to 25	5	3,9
26 to 33	10	7,8
34 to 41	17	13,2
42 years old or more	97	75,2
Skin color/race		
Brown	85	65,9
Black	25	19,4
White	19	14,7
Municipality of residence		
<i>Teresina</i>	99	76,7
Other location	30	23,3
Marital status		
Married	95	73,6
Silgle	25	19,4
Divorced	5	3,9
Widower	3	2,3
Common-law marriage	1	0,8

Source: Direct Research.

Table 2 shows that the majority of the sample under study had systemic arterial hypertension, 53 (41.1%) and hemodialysis time (3 to 4 years) 43 (33.3%) as the primary disease.

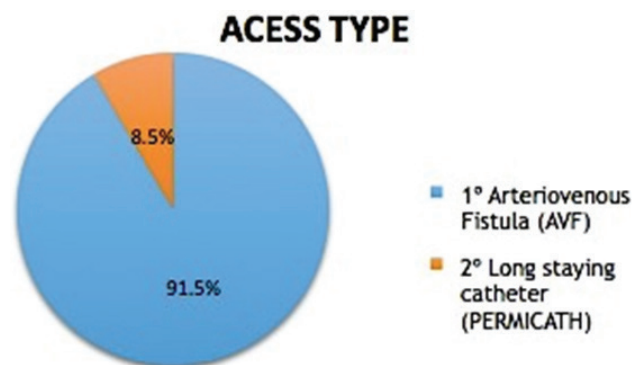
Table 2 - Identification of the primary disease and hemodialysis time. *Teresina (PI)*, 2016. (n=129).

Variable	n	%
Primary Disease		
Systemic Arterial Hypertension	53	41.1%
Diabetes Mellitus	13	10.1%
Systemic Lupus Erythematosus	1	0.8%
Other	28	21.7%
There is no medical record	17	13.2%
Unsure	17	13.2%
Hemodialysis Time		
< 1 year	16	12.4%
1 a 2 years	40	31.0%
3 a 4 years	43	33.3%
5 years or more	30	23.3%

Source: Direct Research.

Graph 1 shows that the majority of the sample surveyed has as access type the arteriovenous fistula 118 (91.5%).

Graph 1 - Identification of the access type in hemodialysis treatment. *Teresina (PI)* 2016. (n=129).



Source: Direct Research.

DISCUSSION

The socio-demographic profile of the study showed that the majority of the sample studied were male, 42 years old or more, brown skin color, living in *Teresina* city and married.

Comparative studies between men and women have proven the fact that men are more vulnerable to diseases, especially serious and chronic diseases, and that they die earlier than women. The male population suffers more health problems when compared to the female, which is evidenced by the morbidity and mortality rates of each year. The socialization of men has been associated with a negative factor in health care. The man does not care about his health, influence linked to the paradigms in the relationship man health that causes that the prejudice and the machismo permeate and obstruct the process of learning in the scope of the prevention of diseases and in the promotion of the health, thus bringing more probability of chronic noncommunicable diseases.¹⁰

The predominant age group was 42 years old or more, demonstrating that the study population is a young adult. Age is an independent factor to initiate Renal Replacement Therapy (RRT) and it is shown that the time difference between referral of patients to the nephrologist prior to the onset of HD at age 75 or older is 3.5 weeks, while for patients younger than 75 years old it is 20.5 weeks, precocity in the referral is not only associated with lower mortality at the beginning of treatment, but also provides the patient with the time needed to understand the modalities of RRT, make the correct choice and to plan the beginning of the therapy in a quiet way, with a better adherence to the chosen method, which is closely related to the improvement in life quality.¹¹

Results indicated that the majority of the sample is brown. This result is compatible with data from the IBGE (*Instituto Brasileiro de Geografia e Estatística*)² survey conducted in 2010, which pointed out that the highest proportions of brown skin color people are in the North and Northeast regions. Ethnically, the Piauí State is composed of: browns 63%, whites 33% and blacks 3%. In Brazil, Teresina appears in 7th position, behind Salvador, Belém, Macapá, Manaus, Rio Branco and Boa Vista cities. In the Northeast, after Teresina, then follows São Luís, Aracajú, Fortaleza, Recife, João Pessoa and Natal cities.

Concerning the marital status, there was a predominance of married couples. Data from the IBGE² survey indicate that almost half of the youngest population lives in the company of spouses and the tendency is to decrease the number of civil unions, but in the adult population, the marriage still remains.

It reports that family support can be beneficial and can be used as a coping strategy, serving as a shelter for the negative consequences during the decay of physical function in the process of becoming ill.¹³

Regarding baseline disease and dialysis time, there was a predominance of systemic arterial hypertension and time from 3 to 4 years. These data are similar to the results of the research performed by person¹² in Recife city, Pernambuco State, showing that the prevalent underlying disease is systemic arterial hypertension (33.8%) followed by diabetes mellitus (28.5%), the mean treatment time is 3 years. In the survey carried out in 2014 by the Brazilian Society of Nephrology, the basic disease of the majority of participants performing HD is systemic arterial hypertension (35%) and diabetes mellitus (29%).¹⁴

Treatment time is important in worsening comorbidities, and these have been pointed out in several studies, as being determinants in the survival of clients undergoing hemodialysis treatment.¹⁴

Most of the sample had the Arteriovenous Fistula (AVF) as the access route. Moreira reports that AVF is one of the existing modalities of access for hemodialysis treatment, and it is the one that approaches the ideal access because it allows adequate, long-term flow and with a low rate of complications.¹⁵⁻¹⁷

The survival of the chronic renal patient depends crucially on a route of access to the blood circulation. The AVF is the most secure and durable way of permanent vascular access, constituting in the subcutaneous anastomosis between an

artery and an underlying vein, done through a surgical procedure that allows dilation of the superficial venous network. It is preferentially implanted in the distal upper limbs, such as the radiocephalic, because it is the least risk of complications besides having good durability.¹⁸

CONCLUSIONS

The study showed the profile of the patients who undergo renal replacement therapy through hemodialysis. The results confirm the predominance of men over 42 years old, married, living in Teresina city, undergoing treatment from 3 to 4 years, who have AVF as the access route and have systemic arterial hypertension as the primary disease.

The results are compatible with most of the studies already published in relation to the subject, but it is important to keep this type of research for continuous verification of the epidemiology of patients with chronic kidney disease who perform HD.

Note that primary health care is the gateway to the early diagnosis of chronic kidney disease through risk groups such as systemic arterial hypertension, diabetes mellitus, and others; and that all patients belonging to the so-called asymptomatic risk group should be evaluated annually with laboratory tests of: urine type 1, serum creatinine, estimated creatinine clearance and microalbuminuria; in addition to preventive interventions or health promotion such as: healthy eating, regular physical activity, body weight control, smoking cessation and alcohol.

It is expected that the results of this research will support the development of both strategies and interventions for the prevention of precursor diseases of chronic kidney disease, as well as for renal replacement therapy services and multi-professional teams that provide assistance to patients with renal disease chronic. The limitation of this study refers to the size of the sample that is reduced in number by incomplete data, transfers and deaths.

REFERENCES

1. BARTMANN, M. *Enfermagem Cirúrgica*. Rio de Janeiro: Editora Senac, 2010.
2. IBGE. Censo Demográfico de 2010. Fundação Instituto Brasileiro de Geografia e Estatística. [Internet]. 2010 [acesso em 2016 nov 24]. Available at: <http://www.ibge.gov.br/home/estatística/população/censo2010>.
3. SBN- Sociedade brasileira de nefrologia, senso de 2013. [Internet]. 2013 [acesso em 2016 nov 24]. Available at: http://arquivos.sbn.org.br/pdf/censo_2013-14-05.pdf.
4. Mello DB, Moreira MCN, Batista LE. O protagonismo de jovens com DRC e a dívida na construção da saúde. *Saud Soc* [Internet]. 2016 [acesso em 2016 dez 13]; 41(1): 979-84. Available at: <http://dx.doi.org/10.1590/S0104-12902016138331>.
5. Frazão CMFQ, Delgado MF, Araújo MGA, Silva FBBL, Sá JD, Lira ALBC. Cuidados de enfermagem ao paciente renal crônico em hemodiálise. *Rev Rene* [Internet]. 2014 [acesso em 2017 jan 13]; 15(4):701-9. Available at: <http://dx.doi.org/10.15253/2175-6783.2014000400018>.
6. Falcão RA. Atribuições da enfermagem nas principais intercorrências durante a sessão de hemodiálise. Porto Alegre: UFRGS; 2010.
7. Santana SS, Fontenelle T, Magalhães LM. Assistência de enfermagem prestada aos pacientes em tratamento hemodialítico nas unidades de nefrologia. *Rev Cien ITPAC*. 2013; 6(3):1-11.

8. Abto- Associação de Transplante de Órgão. Diretrizes básicas para captação e retirada de órgãos e tecidos da associação brasileira de transplante de órgão. São Paulo, 2009.144p.
9. Ministério da Saúde (BR). Resolução, 466. Conselho Nacional de Saúde, do Ministério da Saúde, que impõe revisões periódicas a ela, conforme necessidades nas áreas tecnocientífica e ética. Brasília, 2012. [acesso em 06 nov 2016]. Available at: http://bvsmms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html.
10. Rocha EM, Medeiros ADL, Rodrigues KSLE, Cruz JPM, Siqueira MFC, Farias EFN, Lemes AG. A política nacional de saúde do homem e os desafios de sua implementação na atenção primária à saúde. Rev Eletr UNIVAR. 2016;15(1):43-48.
11. Franco MR, Fernandes NM. Diálise no paciente idoso: um desafio do século XXI - revisão narrativa. J Bras Nefrol. [Internet]. 2013 [acesso em 2017 fev 03]; 35(2):132-141. Available at: <http://dx.doi.org/10.5935/0101-2800.20130022>
12. Pessoa NR, Linhares FM. Pacientes em hemodiálise com fístula arteriovenosa: conhecimento, atitude e prática. Esc Anna Nery Rev Enferm [Internet]. 2015 [acesso em 2017 mar 03]; 19(1):73-79. Available at: <http://dx.doi.org/10.5935/1414-8145.20150010>
13. Araújo JBD, Neto VLDS, Anjos EUD, Silva BCOD, Rodrigues IDCV, Costa CDS. Cotidiano de pacientes renais crônicos submetidos à hemodiálise: expectativas, modificações e relações sociais. Rev. pesqui. cuid. Fundam, [Internet]. 2016 [acesso em 2017 abril 23]; 8(4): 4996-5001. Available at: <http://dx.doi.org/10.9789/2175-5361.2016.v8i4.4996-5001>.
14. Sesso RC, Lopes AA, Thomé FS, Lugon JR, Martins CT. Inquérito Brasileiro de Diálise Crônica 2014. J Bras Nefrol [Internet]. 2016 [acesso em 2017 jan 23]; 38(1):54-61. Available at: <http://dx.doi.org/10.5935/0101-2800.20160009>.
15. Madeiro AC, Machado PDL, Bonfim IM, Braqueais AR, Lima FET. Adesão de portadores de insuficiência renal crônica ao tratamento de hemodiálise. Acta Paul Enferm. 2010; 23(4):546-51.
16. Moreira AG, Araújo ST, Torchi TS. Preservação da fístula arteriovenosa: ações conjuntas entre enfermagem e cliente. Esc Anna Nery Rev Enferm [Internet]. 2013 [acesso em 2017 abril 23]; 17(2):256-262. Available at: <http://dx.doi.org/10.1590/S1414-81452013000200008>
17. BRASIL. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. Plano de Ações Estratégicas para o Enfrentamento das Doenças Crônicas Não Transmissíveis (DCNT) no Brasil 2011-2022. Brasília: Ministério da Saúde; 2011.
18. Pereira OR, Fernandes JS, Menegaz TN. Avaliação do tempo de maturação das fistulas rádio-cefálicas para hemodiálise. Arq. Catarin. Med. 2016; 45(2): 02-10.

Recebido em: 13/06/2017

Revisões requeridas: 12/07/2017

Aprovado em: 24/08/2017

Publicado em: xx01/01/2019

Autor responsável pela correspondência:

Érica Costa Santana

Rua Três, 1958, Santa Lia, Teresina, Piauí, Brasil

CEP: 64.058-790

E-mail: <erica-santana@hotmail.com>