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RESEARCH

Atividade física, de lazer e avaliação da saúde na perspectiva de usuários em hemodiálise

Physical activity, leisure and evaluation of health in the perspective of users in hemodialysis

Actividad física, ocio y evaluación de la salud en la perspectiva de los usuarios en hemodiálisis

Francine Ribas Fritsch ¹, Barbara Letícia Dudel Mayer ², Liamara Denise Ubessi ³, Rosane Maria Kirchner ⁴, Dulce Aparecida Barbosa ⁵, Eniva Miladi Fernandes Stumm ⁶

ABSTRACT

Objective: to characterize chronic renal users who do hemodialysis in a Nephrologic Unit in a city in the northwestern region of Rio Grande do Sul and to relate physical and leisure activities according to perceptions regarding the evaluation of their health in general. **Method:** quantitative, analytical, descriptive, cross-sectional research with 77 renal chronic users in hemodialysis program. Data was collected from April to July/2010, after approval of the Ethics Committee, Opinion 02780243000-09. Instruments: sociodemographic, physical activity, leisure, health assessment - KDQOL-SFTM. Data analysis using descriptive statistics. **Results:** the majority are men, married, 45.5% elderly, low education, 64.9% practicing physical activity, 61% of leisure, 37.7% need help with everyday activities. At the intersection of the variables "leisure" and "health assessment", out of 61.0% that realize it, 33.8% rated health as "good" and 24.7% as "regular". **Conclusion:** the performance of physical activity and/or leisure contributes to quality of life, allowance for qualification of care, prevention and health promotion. **Descriptors:** Renal failure, Hemodialysis, Nursing, Physical activity, Leisure activities.

RESUMO

Objetivo: caracterizar usuários renais crônicos que hemodializam em uma Unidade Nefrológica de um município da região noroeste do Rio Grande do Sul e relacionar atividades físicas e de lazer segundo percepções referentes à avaliação da sua saúde em geral. **Método:** pesquisa quantitativa, analítica, descritiva, transversal, com 77 usuários renais crônicos em programa hemodialítico. Os dados foram coletados de abril a julho/2010 após aprovação do Comitê de Ética, Parecer 02780243000-09. Instrumentos: sociodemográficos, atividades físicas, lazer, avaliação da saúde - KDQOL-SFTM. A análise dos dados foi realizada com estatística descritiva. **Resultados:** a maioria dos usuários são homens, casados, 45,5% idosos, baixa escolaridade, 64,9% praticam atividade física, 61% de lazer, 37,7% necessitam ajuda para atividades cotidianas. No cruzamento das variáveis 'lazer' com 'avaliação da saúde', dos 61,0% que as realizam, 33,8% avaliam saúde como "boa" e 24,7% "regular". **Conclusão:** a realização de atividade física e/ou lazer contribui para qualidade de vida, subsídio para qualificação da assistência, prevenção e promoção da saúde. **Descritores:** Insuficiência renal, Hemodiálise, Enfermagem, Atividade física, Atividades de lazer.

RESUMEN

Objetivo: caracterizar usuarios renales crónicos en programa de hemodialis de una Unidad Nefrológica en un municipio de la región noroeste de Rio Grande do Sul y relacionar las actividades físicas y de ocio de acuerdo con las percepciones sobre la evaluación de su salud en general. **Método:** investigación cuantitativa, analítica, descriptiva, transversal, con 77 usuarios en programa de hemodiálisis. Datos recogidos entre abril y julio/2010, después de la aprobación del Comité de Ética, Opinión 02780243000-09. Instrumentos: actividad sociodemográficas, físicas, de ocio, de evaluación de la salud - KDQOL-SFTM. Análisis de los datos fueron mediante estadística descriptiva. **Resultados:** la mayoría son hombres, casados, 45,5% de la tercera edad, bajo nivel educativo, 64,9% practica actividad física, 61% de ocio, 37,7% necesitan ayuda con las actividades cotidianas. En la intersección de las variables "ocio" con "evaluación de la salud", de los 61,0% que las realizan, 33,8% evalúa la salud como "buena" y 24,7% "regular". **Conclusión:** la realización de actividad física y/o ocio contribuye la calidad de vida, es subsidio para la calificación de la atención, prevención y promoción de la salud. **Descriptor:** Insuficiencia renal, Hemodiálisis, Enfermería, Actividad física, Actividades de ocio.

1 Nurse graduated by the Regional State University Northwest Rio Grande do Sul - UNIJUÍ. E-mail: frazinha_ribas@hotmail.com 2 Nurse graduated by Regional State University Northwest Rio Grande do Sul - UNIJUÍ. Master degree in Nursing by the Federal University of Santa Maria - UFSM. Technical responsible in cardiology service in São Francisco Hospital in Paula de Passo Fundo. E-mail: barbaraldmayer@gmail.com 3 Psychology, Nurse, Sanitarian by Regional State University Northwest Rio Grande do Sul - UNIJUÍ. Ph.D. Student in Science: Social practices in health and nursing by the Federal University of Pelotas - UFPel. CAPES scholarship. E-mail: liamaradenise@hotmail.com 4 Graduate in Mathematics. PhD in Electrical Engineering from the Federal University of Santa Catarina - UFSC. Professor of the Federal University of Santa Maria - UFSM, campus Palmeira das Missões. E-mail: rosanekirchner@gmail.com 5 Nurse. Ph.D. in Nephrology by the Federal University of São Paulo State - UNIFESP. Professor Assistant Professor of UNIFESP. E-mail: dulce.barbosa@unifesp.br 6 Nurse. Ph.D. in Nursing by the Federal University of São Paulo State - UNIFESP. Professor in the Master in Integral Health Care, Department of Life Sciences - DCV from Regional State University Northwest Rio Grande do Sul - UNIJUÍ. E-mail: eniva@unijui.edu.br.

INTRODUCTION

The Terminal Chronic Kidney Disease (TCKD) usually occurs slowly, is irreversible and determines total loss of glomerular, tubular and endocrine function of rins.¹⁻² It is characterized by increased serum levels of urea and creatinine in the blood and main causes are hypertension (H), diabetes mellitus (DM) and glomerulonephritis.³

When receiving the TCKD diagnosis, the individual inevitably requires a dialysis method for the maintenance of life. In this sense, the dialysis treatment modalities include: hemodialysis (HD), peritoneal dialysis (PD) and renal transplant (TX). They all have complexity and risk to the user and the staff and are costly. Among the available dialysis treatment, the HD is the most used, carried out by a machine that filters the blood, extracorporeally.⁴ The ideal treatment of TCKD comprises three supports: early diagnosis, prompt referral for renal treatment and adoption of measures to preserve renal function.⁵

Users have difficulties to do the TCKD treatment and, among them, there are interdialytic weight gain, water and food restrictions, continuation of drug treatment according to the symptoms of supporting diseases.⁶

A research in order to understand the meaning and impact of HD for four patients, found that when a person is faced the inevitable with a chronic disease, the activities of their daily lives are compromised and weaknesses physically leading to changes contributing to become dependent on others to meet their basic needs.⁷ Hemodialysis together with the advancement of renal disease causes damage to the limitations and physical health, psychological, functional, well-being, social interaction and user satisfaction in HD. It is considered that these aspects can have an impact on users' perceptions on hemodialysis regarding how they assess their health.⁸

The TCKD and treatment lead to disabilities, both physical and emotional and affect the lives of users in HD, limiting or preventing activities of their daily lives.⁹ In this context, physical activity is important, promotes feeling of well-being to people that perform it, improves cardiovascular, respiratory, endocrine function, among other benefits. On the other hand, physical inactivity constitutes one of the factors that determines clinical problems and mental disorders in renal patients.¹⁰

Regarding leisure activities, a study that identified risk factors for loss of functional capacity among elderly people showed that leisure activities, monthly relationship with friends, watch TV and perform manual activities constituted in protective factors preventing loss functional for adequate control of non-communicable chronic diseases.¹¹

The response of people with a disease and its treatment is individual, so there is the need of research on this approach to guide professional actions, with emphasis on nursing in the care of chronic renal user, on hemodialysis.¹² Based on these considerations, this study aims to characterize chronic renal users who do hemodialysis in a Nephrological Unit in a city in the northwestern region of Rio Grande do Sul and relate physical and leisure activities according to perceptions regarding the evaluation of their health in general.

METHOD

This is a quantitative, analytical, descriptive and cross-sectional study conducted in a Nephrological unit of a hospital size IV of a city in the northwest of Rio Grande do Sul. This article was produced from some results of a multicenter study, covering users who do hemodialysis in three renal units and the data analyzed here refer to one of them.

The population included all patients (102) who do hemodialysis in that Nephrological Unit and only 77 agreed to participate. The listed inclusion criteria were: chronic renal patients on hemodialysis in Nephrological Unit, have an interest in participating in the study after being informed about the objectives, be over 18 years old, accept to signing the informed consent term (TCLE), and not have a cognitive deficit. Exclusion criteria were: patients unable to understand or answer the research questions, be younger than 18 years old and disagree to participate in the research.

Data collection occurred during the months of May, June and July 2010, after approval of the research project by the Ethics Committee in Research of the Federal University of Santa Maria, under Opinion Embodied number 02780243000-09. The data collection instruments used were identification, demographic data, consumption of harmful substances to health, physical activity, leisure and perceptions of patients for the assessment of their currently health in general. This last question is about the use of the instrument Kidney Disease and Quality of Live-Short Form (KDQOL-SFTM) and crossing with the variables physical and leisure activities developed by the individuals who joined the research.

Patients were contacted by the researcher in the Nephrological Unit, explained the research objectives and invited to integrate it. Those who agreed, an interview, consistent time and place were scheduled according to their availability. Most of the meetings were held in a room next to the Nephrological Unit and other users in their own homes.

The analysis of the research data was performed using descriptive statistics, SPSS statistical software and data presented in tables. All the ethical principles governing a research with people were respected and observed.¹³

RESULTS AND DISCUSSION

Most users researched (70.1%) are male, and has children (87%). Regarding the age, 37.6% are in the age group from 50-60 years old, incomplete, 45.5% are elderly, 7.8% are under 40 years old and 9.1% are from 40 to 50 years old incomplete.

Regarding marital status of the users, 59.7% are married, 18.2% widowed, 11.7% were single and 10.4% were separated. It is evident that 42.9% of them live with a partner, 11.7% with children, 10.4% alone, 6.5% with parents, 16.9% with wife and children and 11.7% with others.

The variable "education" shows that 2.6% are illiterate, 66.2% had incomplete elementary education, 10.4% concluded elementary education, 15.6% completed high school and 5.2% higher education.

Regarding the income of respondents, 79.2% are retired, 14.3% receive sick pay/pension, and others have their own work and other forms of subsistence. It is also verified that 84.4% claims to be SUS user.

Table 1 refers to physical and leisure activities mentioned by users. It shows that over 60% claims practicing physical activities and more than half in approximate percentages, from one to three times per week. When asked about the difficulty to practice physical activity, almost half responded that have little difficulty and the others in similar percentages, said no having or that it is great.

Regarding leisure activities, more than 60% of users researched responded that they have and a similar percentage said that they do not need help for daily activities, however, it is evident that 37.7% responded needing help.

Table 1 - Physical and leisure activities performed by users - Nephrological Unit of Northwestern Rio Grande do Sul - May-July 2010.

Physical activity	N	%
Practice physical activity		
Yes	50	64,9
No	27	35,1
Frequency		
Daily	9	11,7
Three times/week	21	27,3
Once/week	18	23,4
Other	2	2,6
Difficulty to practice physical activity		

None	21	27,3
Little	37	48,1
Big	19	24,7
<hr/>		
Performe leisure activity		
Yes	47	61,0
No	30	39,0
<hr/>		
Need help to practice some daily activity		
Yes		
No	29	37,7
	48	62,3

Sequentially, Table 2 shows the frequency the consumption of harmful substances for health of the researched members and it shows that only sweets as described in the table, is consumed at the frequency “exaggerated” and 2.6% was highest percentage (70.1%), “No, or hardly consumes” refers to the use of alcohol. The other substances described in the table are consumed by users on hemodialysis, in the “mindly” frequency.

Table 2 - Frequency of consumption of harmful substances by users - Nephrological Unit of Northwestern Rio Grande do Sul - May-July 2010.

Substances	Ocurrence			
	Midly n (%)	Normally n (%)	Exaggerated n (%)	No or practically do not consume n (%)
Salt	69 (89,6)	3 (3,9)	-	5 (6,5)
Liquides	60 (77,9)	16 (20,8)	-	1 (1,3)
Fatty Food	56 (72,7)	3 (3,9)	-	18 (23,4)
Sweeties	48 (62,3)	16 (20,8)	2 (2,6)	11 (14,3)
Alcohol	23 (29,9)	-	-	54 (70,1)

Table 3 shows the characteristics of users about smoking. It shows that most of them do not smoke and more than 30% say that it ended the use of it. When asked if they live with smokers, most said no, but there was a positive percentage of 27.3%.

Table 3 - Characterization of the researched users about smoking - Nephrological Unit of Northwestern Rio Grande do Sul - May-July 2010.

Factors	N	%
Smoker		
Yes	7	9,1
No	70	90,9
Stopped smoking	25	32,5
Live with smokers		
Yes	21	27,3
No	56	72,7

Table 4 shows the intersection of variables physical and leisure activity of the respondents according to the assessment of their currently health in general.

It was found that 35.1% of users said they did not perform physical activity and most of them rate their health in general, as "average". On the other hand, respondents who said they had the habit of physical activity (64.9%), only 3.9% rated their health as "very good", 36.4% as "good", 22.1% as "average" and the others as "bad".

Table 4 - Physical and leisure activities of users according to the assessment of their currently health in general - Nephrological Unit, Northwest Rio Grande do Sul - May-July 2010.

Activities	Health assessment (currently)				
	Very good	Good	Average	Bad	Total
	n(%)	n(%)	n(%)	n(%)	n(%)
Physical					
Yes	3(3,9)	28(36,4)	17(22,1)	2(2,6)	50(64,9)
No	-	6(7,8)	19(24,7)	2(2,6)	27(35,1)
Leisure					
Yes	1(1,3)	25(32,5)	19(24,7)	2(2,6)	47(61,0)
No	2(2,6)	9(11,7)	17(22,1)	2(2,6)	30(39,0)

It is important to highlight, regardless not practicing physical or leisure activity, a small percentage (2.6%) of them rate their currently health in general as "bad".

Also in data of Table 4, it appears that for the leisure activities, 61.0% answered they practice, from them 32.5% rate their currently health in general as "good", 24.7% as "regular" and the others as "bad". In users not realizing leisure activities (39%), the highest percentage (22.1%) is of those who rate their health as average.

Regarding the predominance of males in the researched users, this result are similar to a research of 35 HD patients, in a hospital in Alfenas - MG.¹⁴ Most of them (74.3%) were

male, with an average age of 51.7 years old, a result differing from this study, in which age ranged between 50 and 70 years old or older. A study that analyzed the profile of patients on dialysis treatment in Brazil, found significant presence of elderly, a result similar to the research now analyzed.¹⁵

Marital status also is similar to the documentary study, conducted in 2008-2009, in a Hemodialysis Clinic of São Paulo-SP.¹⁶ The profile of nursing diagnoses of chronic renal patient starting of hemodialysis was described and this has 77.4% of married users, 16.1% widowed and 6.5% single.

The fact that more than half of the members of the research live with relatives is supported by a research that identified and characterized renal patients undergoing conservative treatment, as well as perceptions and knowledge regarding TCKD.² Results show that 70% of patients lived with relatives. Each person faces the treatment by a singular way, influenced by several events and the support of family and other close people are fundamental.⁶

The analysis of the variable "education" shows that most of them have low education and this result was also found in epidemiological, descriptive and retrospective study in a Nephrology Service of a city in southern Brazil.¹⁷ It is considered important that the professionals team responsible for HD users care has knowledge of their education, because it can interfere especially in health education activities performed by nurses in a Renal Unit.

Regarding income, a descriptive, transversal and quantitative study in a hemodialysis clinic of a University Hospital of Alfenas - MG with 30 patients, showed that most of the respondents were retired or sick leave (86.66%) and 50% had a family income 1-2 minimum wages.¹⁸ This result is also similar to this study and justifies another, were most of the respondents are only SUS users.

From the analysis of the consumption of harmful substances to health, it is evident that among those mentioned by respondents, those that deserve intervention team that takes care of these users are: consumption of sweets, liquids, fatty foods, alcohol and living with smokers. This last result differs from a study describing the client profile in Continuous Ambulatory Peritoneal Dialysis, and the results showed that 31.3% of respondents were smokers.¹⁷ Regarding the use of alcohol, the results are consistent in both studies.

The analysis of physical activities mentioned by users, shows that over 60% of them practice physical activity, one to three times a week. However, nearly half of them present little difficulty and the others have great difficulty or not perform them. The crossing of this variable according to the assessment of currently health in general, shows that users who perform physical activity rate their health more positively from those who do not practice.

In this context, a study done in order to explore the association of physical exercise and limitations in physical activity with mortality of new patients in the United States, with 2,507 people in HD, showed that exercise improved their survival and to a better performance and quality of life of them.¹⁹

Another result of research that contributes to valorization of physical activity is developed in satellite clinics CINE - Integrated Center of Nephrology (Guarulhos - SP) and Home Dialysis Center (Penha, São Paulo - SP), with physical activity program (AF), spontaneous adherence for patients on hemodialysis (HD).¹⁰ Its purpose was to compare the

cognitive ability among those who performed physical exercise and inactive ones. It was found that in active patients physical activity contributes to better cognitive ability.

Finally, the analysis of the variable “leisure activities” shows that over 60% of respondents perform them and say they do not need someone else’s help in their daily activities. This result is positive; however, 37.7% state that needs help. Therefore, it is important that nursing acting in this unit, knows these subjects to enable interventions targeted to their needs. The crossing of this variable shows that 61.0% who perform it, almost half (32.5%) rated their health as “good”. Of users not practicing leisure activities (39%), the highest percentage (22.1%) rate their health as average.

Therefore, based on these results it can be said that also on the variable “physical activity”, users performing leisure activities, assess their health better than those who do not practice it. With regard to nursing, it is considered important that users are encouraged to perform physical and leisure activities; however, respecting their limitations and this can only be accomplished if the nursing knows users, hence the relevance of this research.

CONCLUSION

The characterization of the users who have integrated this research is: men, married, retired, with children, living with a partner, 45.5% are elderly, with low education and, most of them SUS users.

Regarding the variable “physical activity”, more than half states that practice from one to three times a week, but 72.8% presents small or great difficulty to perform it. This result is worthy of further study with a qualitative approach, in order to analyze this topic in depth. The fact that even facing difficulties, physical activity is positive and can interfere with the welfare, in treatment adherence and in their own assessment regarding their health.

The analysis of the variable “leisure activities” shows that 61% of users perform them and this result, similar to physical activity, is positive. It is noteworthy the fact that 37.7% of respondents need help in their daily activities. This result is important and can be used by health professionals responsible for the care of these individuals, to a plan that aims at the implementation of actions that address the individual needs of users, in an integrated, multidisciplinary and interdisciplinary way.

Regarding the consumption of harmful substances to health by the researchers, it is considered that it is up to unit’s professionals to encourage users to reduce the consumption of sweets and work on relatives who smoke, in order to make them aware of the damage both substances can cause.

The crossing of the variable “physical activity” according to the evaluation of their currently health in general, shows that those who practice physical activity (64.9%), 40.3% rated their health as “good” or “very good” and those who do not perform physical activity, did not rate their health as “very good”. The intersection of leisure activities according to an evaluation of their general health, shows that 61.0% practice it, from them 33.8% rated their health as “good”, 24.7% “average” and the rest as ‘bad’. In users not practicing leisure activities (39%), the highest percentage (22.1%) is of those who rate their health as average.

The results obtained in this study may provide support to qualify the assistance to users with TCKD in particular to nursing, as well as the other members of the healthcare team. Researchers, health professionals and related areas, students can be motivated to build more investigations of this subject, including with other points of view and with emphasis on health promotion, prevention of kidney disease and improvement in quality of life of people with hemodialysis.



REFERENCES

1. Farias GM, Mendonça AEO. Comparando a qualidade de vida de pacientes em hemodiálise e pós-transplante renal pelo "WHOQOL-BREF". *REME rev min enferm.* 2009 out/dez;13(4):574-83.
2. Grício TC, Kusumota L, Cândido ML. Percepções e conhecimentos de pacientes com Doença Renal Crônica em tratamento conservador. *Rev eletrônica enferm [Internet].* 2009 [citado em 17 jul 2013];11(4):884-93. Disponível em: <http://www.fen.ufg.br/revista/v11/n4/pdf/v11n4a14.pdf>
3. Smeltzer SC, Bare BG. Brunner e Suddarth - Tratado de enfermagem médico-cirúrgico. 10ª ed. Rio de Janeiro : Guanabara Koogan; 2005.
4. Kirchner RM, Löbler L, Machado RF, Stumm EMF. Caracterização de pacientes com insuficiência renal crônica em hemodiálise. *Rev enferm UFPE on line.* 2011 mar/abr;5(2):199-204.
5. Bastos MG, Kirsztajn GM. Doença renal crônica: importância do diagnóstico precoce, encaminhamento imediato e abordagem interdisciplinar estruturada para melhora do desfecho em pacientes ainda não submetidos à diálise. *J Bras Nefrol [Internet].* 2011 [citado em 17 jul 2013];33(1):93-108. Disponível em: <http://www.scielo.br/pdf/jbn/v33n1/v33n1a13.pdf>
6. Maldaner CR, Beuter M, Bondani CM, Budó MLD, Pauletto MR. Fatores que influenciam a adesão ao tratamento na doença crônica: o doente em terapia hemodialítica. *Rev gaúch enferm [Internet].* 2008 dez [citado em 20 jul 2013];29(4):647-53. Disponível em: <http://seer.ufrgs.br/index.php/RevistaGauchadeEnfermagem/article/view/7638/4693>
7. Pereira LP, Guedes MVC. Hemodiálise: a percepção do portador renal crônico. *Cogitare enferm [Internet].* 2009 out/dez [citado em 19 jul 2013];14(4):689-95. Disponível em: <http://ojs.c3sl.ufpr.br/ojs2/index.php/cogitare/article/view/16384/10864>
8. Pilger C, Rampari EM, Waidman MAP. Hemodiálise: significado e impacto para o idoso. *Esc Anna Nery Rev Enferm. [Internet].* 2010 out/dez [citado em 17 jul 2013];14(4):677-83. Disponível em: <http://www.scielo.br/pdf/ean/v14n4/v14n4a04.pdf>
9. Santos I, Rocha RPF, Berardinelli LMM. Qualidade de vida de clientes em hemodiálise e necessidades de orientação de enfermagem para o autocuidado. *Esc Anna Nery Rev Enferm [Internet].* 2011 mar [citado em 18 jul 2013];15(1):31-8. Disponível em: <http://www.scielo.br/pdf/ean/v15n1/05.pdf>
10. Martins CTB, Ramos GSM, Guaraldo AS, Uezima CBB, Martins JPLB, Junior ER. Comparação da capacidade cognitiva de pacientes em programa de hemodiálise crônica entre os que realizam atividade física assistida e os inativos. *J bras nefrol [Internet].* 2011 mar [citado em 19 jul 2013];33(1):27-30. Disponível em: <http://www.scielo.br/pdf/jbn/v33n1/v33n1a03.pdf>
11. D'orsi E, Xavier AJ, Ramos LR. Trabalho, suporte social e lazer protegem idosos da perda funcional: estudo epidioso. *Rev saúde pública [Internet].* 2011 ago [citado em 19 jul 2013];45(4):685-92. Disponível em: <http://www.scielo.br/pdf/rsp/v45n4/2626.pdf>
12. Cordeiro JABL, Brasil VV, Silva AMTC, Oliveira LMAC, Zatta LT, Silva ACCM. Qualidade de vida e tratamento hemodialítico: avaliação do portador de insuficiência renal crônica. *Rev eletrônica*

- enferm [Internet]. 2009 [citado em 20 jul 2013];11(4):785-93. Disponível em: <http://www.fen.ufg.br/revista/v11/n4/pdf/v11n4a03.pdf>
13. Brasil. Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos [Internet]. 1996 [citado em 3 mar 2013]. Disponível em: <http://www.ufrgs.br/bioetica/res19696.htm>
14. Rocha CBJ, Araújo S. Avaliação das pressões respiratórias máximas em pacientes renais crônicos nos momentos pré e pós hemodiálise. *J bras nefrol*. 2010;32(1):107-13.
15. Cherchiglia ML, Gomes IC, Alvares J, Júnior AG, Acúrcio FA, Andrade EIG, et al. Determinantes dos gastos com diálises no Sistema Único de Saúde, Brasil, 2000 a 2004. *Cad saúde pública* [Internet]. 2010 ago [citado em 19 jul 2013];26(8):1627-41. Disponível em: <http://www.scielo.br/pdf/csp/v26n8/16.pdf>
16. Bisca MM, Marques IR. Perfil de diagnósticos de enfermagem antes de iniciar o tratamento hemodialítico. *Rev bras enferm* [Internet]. 2010 maio-jun [citado em 20 jul 2013];63(3):435-9. Disponível em: <http://www.scielo.br/pdf/reben/v63n3/a14v63n3>
17. Zillmer JGV, Schwartz E, Jardim VMR, Muniz RM, Bueno MEN, Feijó AM. Caracterização dos clientes em Diálise Peritoneal Ambulatorial Contínua-CAPD da região sul do Brasil. *Cogitare enferm*. 2009 abr/jun;14(2):318-28.
18. Terra FS, Costa AMDD, Ribeiro CCS. O portador de insuficiência renal crônica e sua dependência ao tratamento hemodialítico: compreensão fenomenológico. *Rev Soc Bras Clín Méd*. 2010;8(4):306-10.
19. Stack AG, Molony DA, Rives T, Tyson J, Murthy BV. Association of physical activity with mortality in the US dialysis population. *Am J Kidney Dis*. 2005 Apr;45(4):690-701.

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Contact of the corresponding author:
Eniva Miladi Fernandes Stumm.
Departamento de Ciências da Vida, UNIJUÍ.
Rua do Comércio, 3000, Bairro Universitário, Ijuí, RS, CEP 98700-000.
E-mail: eniva@unijui.edu.br