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Quality of life of patients with chronic renal failure undergoing hemodialysis

Qualidade de vida de pacientes com insuficiência renal crônica submetidos à hemodiálise

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RESUMO

Este artigo objetivaavaliar a qualidade de vida de pacientes com insuficiência renal crônica em tratamento de hemodiáliseTrata-se de umestudo transversal e descritivo, com abordagem quantitativa, realizado com 40 pessoas em tratamento hemodialítico em um centro de referência. A coleta de dados ocorreu mediante entrevista, utilizando instrumento semiestruturado e WHOQOL-bref. Não foram identificadas associações estatisticamente significativas entre a qualidade de vida e as variáveis sociodemográficas. O domínio Relações sociais apresentou a maior média (63,7) e o domínio Físico sofreu maior prejuízo na qualidade de vida, exibindo média de 45,4. Foi evidenciada uma redução na qualidade de vida dos pacientes renais crônicos submetidos a terapia renal substitutiva, sendo necessário que o profissional de saúde esteja preparado para cuidar dos problemas e dificuldades enfrentadas por essas pessoas. No âmbito da assistência em nefrologia, esta pesquisa propicia uma reflexão acerca de intervenções que visem melhorar a qualidade de vida dos pacientes submetidos ao tratamento hemodialítico.

Palavras-chave: Enfermagem em Nefrologia; Doença Crônica; Qualidade de Vida.

ABSTRACT

This article aims to evaluate the quality of life of patients with chronic renal failure in hemodialysis treatment. This is a cross-sectional and descriptive study, with a quantitative approach, performed with 40 people on hemodialysis treatment in a reference center. Data were collected through an interview using a semi-structured instrument and WHOQOL-bref. No statistically significant associations were found between quality of life and sociodemographic variables. The Social relations domain presented the highest mean (63.7) and the Physical domain suffered the greatest loss of quality of life, with an average of 45.4. It was evidenced a reduction in the quality of life of chronic renal patients submitted to renal replacement therapy, being necessary that the health professional be prepared to take care of the problems and difficulties faced by these people. In the context of care in nephrology, this research provides a reflection on interventions aimed at improving the quality of life of patients undergoing hemodialysis treatment.

Keywords: Nursing in Nephrology; Chronic disease; Quality of life.

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INTRODUCTION

Chronic renal failure (CRF) is a serious public health problem, with high rates of morbidity and mortality worldwide, mainly due to arterial hypertension and diabetes mellitus[1-2]. Increasingly, CRI had an estimated overall prevalence rate of 11-13% in 20163. In Brazil, the incidence of CRI has been increasing rapidly; in 2016 alone, 104,553 people were hospitalized for CRI-related complications, which generated a cost of approximately R$ 374 million for the government[4].

In the early stages, CRF can be controlled with medications, however, most people are diagnosed only in later stages of the disease, which requires treatment with renal replacement therapy (RRT)[5-6]. Hemodialysis is the most commonly used TSR, requiring three or more sessions per week over a period of up to four hours, each session[6].

In Latin America, records of such therapy in chronic end-stage renal disease patients by 2010 show an increase in treatment prevalence from 119 patients per million population (ppm) in 1991 to 413 ppm in 20103,7. Although it is essential for the health of these people, hemodialysis causes the commitment of several aspects of their daily life, mainly due to the time spent in the sessions and to the constant medical consultations and laboratory tests, besides the necessity of restricted diets, the difficulties to the development of certain activities, among others[8-9].

The indication of hemodialysis may interfere significantly with the patient's daily life, causing suffering and causing negative impacts on his quality of life (QoL)[6,10]. QoL is a widely discussed phenomenon in the health area, with research involving the most diverse public. In the 1980s, the World Health Organization created the WHOQOL Group (World Health Organization Quality of Life Group) to produce studies that could analyze QOL in several parts of the world. The group defined QOL as "the individual's perception of their position in life in the context of their culture and value systems in which they live and in relation to their goals, expectations, standards and concerns."[11:1405].

Given the importance of the evaluation of QoL, a number of instruments have emerged to measure it, such as the WHOQOL-100, which has one hundred questions related to the six domains: physical, psychological, level of independence, social relations, environment and spirituality/religiosity/personal beliefs. Subsequently, the abridged version (WHOQOL-bref) was elaborated, which also presents, quite broadly, questions related to QOL satisfaction, involving the individual and collective aspect[12].

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Studies on the quality of life of patients with CRF in hemodialysis treatment are scarce in Brazil. In a review published in 2013, only three studies were identified in this area in the country and its concentration occurred in the states of the South and Southeast Regions. In all the studies it was observed a greater commitment to the physical domain, that is, a lower mean score to be compared with the other domains of quality of life. Regarding the aspects with lower impairment, or with higher scores for QoL, it was identified that in two studies the social relations and psychological aspects, mainly for the body image facet and appearance, was more significant[13].

In this sense, it is necessary to study the frequency and severity of CRF, in order to study the impact of the disease and its therapeutics on people's lives, seeking to identify the aspects of their daily lives that are being affected. Studies analyzing this phenomenon may support the development of interventions aimed at health promotion and increase in the QoL of these patients. Thus, the present study aims to evaluate the quality of life of patients with chronic renal failure on hemodialysis treatment.

METHOD

This is a cross-sectional and descriptive study, with a quantitative approach, carried out at a reference center in hemodialysis in the city of João Pessoa, Paraíba, Brazil, which provides care to the Unified Health System. Data collection was performed between months of April and May of 2016. The population investigated was composed by the people in hemodialysis treatment in the mentioned service. For the data collection, participants were approached in the waiting room of the hemodialysis clinic.

Inclusion criteria were: age equal to or greater than 18 years, no complications related to CRF at the time of collection, and being in treatment for at least six months uninterrupted prior to the date of collection. Exclusion criteria were: patients who were unhealthy to respond to investigators at the time of data collection and patients with CKD-related complications involving neurological, cardiovascular, digestive, bone, tegumentary, others.

The calculation for finite populations with known ratios was used for sampling, based on a margin of error of 5.0% (Error = 0.05), degree of reliability of 95.0% (α = 0.05, which provides Z0.05 / 2 = 1.96) and ratio p = 92.0%. Thus, a sample of 40 participants was obtained.

The subjects' profile was identified through a semistructured instrument with information on the demographic characteristics (gender, age, marital status, schooling, professional status and income) and the presence of comorbidity associated with CRF. QOL was assessed through the WHOQOL-bref, which has 26 items, the first

two related to general QOL and the other twenty-four categorized in four domains: physical, psychological, social relations and the environment. The QOL scores are represented on a scale from zero to 100, where the closer to the maximum value, the higher the QV[12].

The collected data were compiled, stored and analyzed with the Statistical Package for Social Sciences program version 22.0. After typing and checking the consistency of the material, the distribution measures were calculated as absolute and relative frequency and measures of central tendency, and a descriptive analysis of the variables was performed. The Mann-Whitney and Kruskal-Wallis tests were used to associate the obtained results, because the sample did not present normal distribution, evaluated using the Shapiro-Wilk test.

The study respected all the ethical and legal aspects pertinent to research involving human beings, recommended by Resolution No. 466/12 of the National Health Council, and was approved by the Research Ethics Committee of the Health Sciences Center of the Federal University of Paraíba, under opinion No. 1,459,768.

RESULTS

The patients interviewed had a low QOL, corresponding to a mean of 56.38. The QoL was higher among the female subjects (57.73), elderly (59.20), married (63.50), nine years of schooling (59.05), retired (58.74) and who had between one and three minimum wages (56.94). No statistically significant associations (p≤0.05) were found between QoL and sociodemographic variables (Table 1).

Table 1. Quality of life and sociodemographic profile of patients on hemodialysis treatment, João Pessoa, 2017.

Variables	Quality of Life		P Value
	Average	Standard deviation	
Gender			
Male	55,16	7,82	0,336*
Female	57,73	6,11	
Age group			
Adult	55,67	7,40	0,171*
Elderly	59,20	5,11	
Marital status			
Single	56,85	6,08	0,732**
Married	63,50	13,36	
Divorced	55,38	7,23	
Widowed	53,97	9,24	
Schooling			
Illiterate	50,26	5,99	
Less than 6 years of study	55,81	6,88	
6 years of	58,25	8,43	

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study			
9 years of study	59,05	4,13	
Over 9 years of study	54,99	7,58	
Professional situation			
Retired	58,74	6,96	
Unemployed	53,03	10,58	0,705**
Self Employed	56,60	-	
Monthly income			
Less than a minimum wage	51,28	9,32	
From one to three minimum wages	56,94	6,72	0,191*
Total	**56,38**	**7,09**	

*Mann-WhitneyTest; **Kruskal-WallisTest.

Regarding the presence of comorbidities associated with CRF, mean values of QOL were higher among patients who did not present systemic arterial hypertension (58.00) or diabetes mellitus (56,78). There were no statistically significant associations (p≤0.05) between QoL and presence/absence of comorbidities (Table 2).

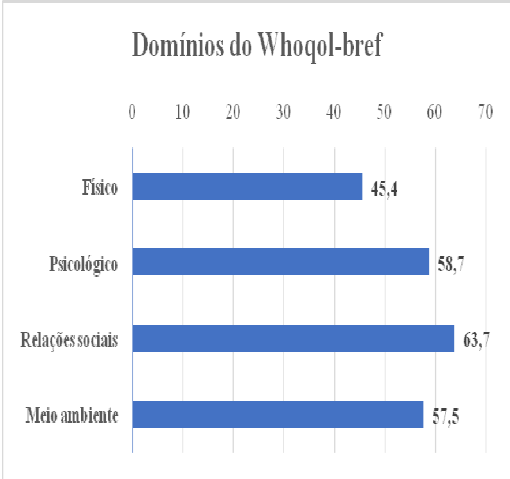
Table 2. Quality of life and presence/absence of comorbidities in patients on hemodialysis treatment, João Pessoa, 2017.

Comorbidity	Quality of Life		P Value
	Average	Standard deviation	
Systemic arterial hypertension			
Yes	56,09	6,58	0,570*
No	58,00	10,12	
Diabetes Mellitus			
Yes	55,45	7,77	0,825*
No	56,78	6,88	

*Mann-Whitney Test.

Regarding the analysis of the WHOQOL-bref, it is evident that the domain "Social relations" presented the highest mean (63.7) and the "Physical" domain suffered the greatest loss in the QoL, with an average of 45.4, according to Chart 1.

Graph 1. Descriptive Statistics of WHOQOL-bref domains, João Pessoa, 2017.



Among the facets of each domain, the highest and lowest means were identified, respectively, between "Medication dependence and treatment" (4.05) and "Work capacity" (2,50) for the "Physical"

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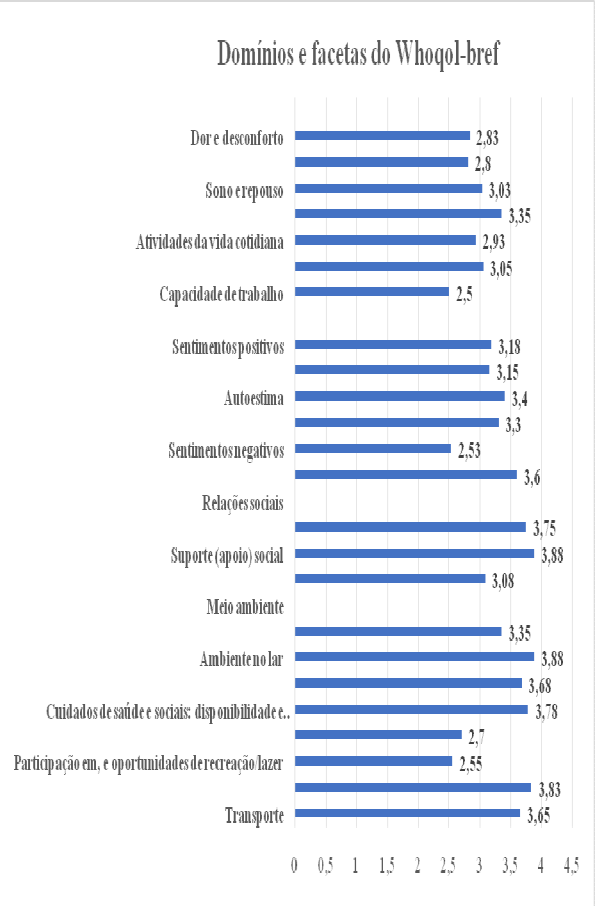
domain; "Spirituality / religion / personal beliefs" (3.60) and "Negative feelings" (2,53) for the "Psychological" domain; "Social support" (3.83) and "Sexual activity" (3.08) for the domain "Social relations"; and "Environment in the home" (3.88) and "Participation in, and recreation / leisure opportunities" (2,55) for the "Environment" domain (Graph 2).

Graph 2. Descriptive statistics of the WHOQOL-bref facets, João Pessoa, 2017.



DISCUSSION

The highest mean values of QoL were found among females, which could be justified by women presenting greater health care, adhering more effectively to the changes necessary for the treatment of hemodialysis14. In relation to the age group, it can be seen that the elderly had better means for QoL, a fact that may be associated with their experience with adversity over the years, providing the overcoming of the challenges through the adoption of effective coping strategies and that reduce the impacts generated by the IRC in their QoL[15].

Considering the marital status, living with a spouse influences positively the QoL, since the presence of the companion is referred to in the literature as an important form of support in times of difficulties, providing support for adaptation to stressful events resulting from hemodialysis therapy. The results are similar to a study that identified higher QoL between patients with the characteristic stable partner, emphasizing it as a variable of clinical relevance in the health conditions of patients undergoing hemodialysis.[16-17].

QoL was higher among patients who had a nine-year study, corroborating with a study[18] in which a direct and proportional correlation between level of schooling and care capacity was obtained, which directly interferes with the self-assessment of each patient's quality of life . The level of schooling is a relevant indicator for the evaluation of treatment in people with CRF, since individuals with more years of schooling express better acceptance of the disease,

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greater adherence to the necessary care for hemodialysis therapy and reduction of the impact generated by the disease in your life[19-20].

Increased demand for health services and greater self-care characteristics and prevention of injuries may be related to the findings of better QoL among retirees. It can be understood that this group, because they do not participate in formalized labor activities, have more flexible schedules for the search of the health units, making the treatment more effective and the complications reduced[14].

Regarding the best QoL in people with monthly income of one to three minimum wages, studies show that income can be considered an economic factor that positively influences QoL by providing access to the necessary service and consumption goods for care with health, financial stability, comfort and leisure in their daily activities. In a similar study, it was observed that the lowest score found in the "environment" domain was the facet "financial resources", relating this finding to the probable loss of employment and consequent decrease in the family income of these people[2,21].

QOL was higher among patients who did not present comorbidities associated with CRF, such as hypertension and diabetes mellitus. The absence of these diseases reduces the number of complications caused by CRI, which could interfere in a negative way in the daily life of these people, impairing their perception of QoL[2].

In relation to the domains of QoL evaluated by the WHOQOL-bref, the participants of this research presented higher average in the domain "Social relations". This domain evaluates the person's satisfaction with the facets: personal relationships, support received and sexual activity[12]. The scientific production in the health area evidences the importance of the social relations for adherence to the treatment and general well-being of the patient on hemodialysis[10,17]. With the chronicity of the disease, the patients in treatment for CRF become dependent on the support of relatives and/or friends, as they experience social, psychological, financial and physical changes[9].

Among the facets of the domain "Social relations", the highest average was presented by "Social support (support)", demonstrating greater satisfaction of the participants in this aspect. Social support has been a factor that facilitates coping with hemodialysis and favors the perception of the context of the disease, which positively reflects the prognosis and the QOL[17]. Patients with little or no social support are more difficult to rehabilitate, which can cause suffering and negatively influence their inability to modify inappropriate habits and maintain health-friendly behaviors[17].

Family and friends support can help maintain patient balance, taking into account

changes in individual habits and the continuous promotion of behaviors that improve general health, also involving the professionals who provide care to the patient, among them the nurse[22].

The "Sexual activity" facet of the "Social relations" domain showed lower satisfaction among study participants. Decreased sexual activity is common in CRF, and its cause is multifactorial, and may involve hormonal, physical, neurological and psychological changes. Because of this, individuals on hemodialysis most often have a less active sexual life than healthy people, and often men have erectile dysfunction, in women menstrual abnormalities, decreased libido and fertility in both sexes, which interferes negatively in their QoL[23].

The "Physical" domain presented the lowest mean for QOL, which investigates aspects related to the intensity of physical pain and how much it interferes with daily activities; how much you need medical treatment; the energy required for the development of daily activities, locomotion, satisfaction with sleep, performance of activities of daily living and work capacity[12]. The QOL of hemodialysis patients may be affected by a number of variables, including clinical manifestations of the disease, side effects of treatment, nutritional status and hospitalization, impairing the patient-family-family relationship and generating impacts that affect their physical health and well-being[9,17].

Among the facets of the "Physical" domain, the participants showed a higher average in the "Mobility" category. In CRF, the long duration of hemodialytic treatment, as well as the disease, lead to osteomuscular problems[10]. It is assumed that, among those interviewed, such manifestations are not accentuated to the point of impeding or hindering mobility and self-care.

Among the 24 facets of the WHOQOL-bref, the "Working Capability" of the "Physical" domain was perceived as a matter of lower satisfaction. Work is one of the most significant changes that occurs in the renal patient of productive age, making it impossible to reconcile treatment with work activity. Generally, these patients do not stay in the labor market, needing to receive benefits from the government, which is often lower than their income before illness, which also affects the family[19].

CONCLUSION

The findings of this study allowed us to understand different dimensions and specificities in the context of the quality of life of the chronic renal patient. Even with data showing the QoL self-assessment as good, the results of the study point to evidence of dissatisfaction with health. The areas "Psychological", "Social relations" and "Environment" had little impact on QoL, with

more significant evidence of the "Physical" domain, which was the most compromised.

In this sense, the results pointed out in this study evidenced a reduction in the QoL of the chronic renal patients submitted to TRS, being necessary that the health professional, among them the nurse, is prepared to take care of the problems and difficulties faced by these people. In the scope of nephrology care, this research provides a reflection about interventions that aim to improve the QoL of patients undergoing hemodialysis treatment.

It should be emphasized that the decision to study the population of a single hemodialysis center comprised the attempt to remove the bias induced by different ducts, common in multicentric studies, in order to provide greater uniformity for the sample. However, it is understood that this decision may introduce specific variations in relation to the reality of each center. However, all statistical analyzes were adjusted for differences observed between groups. Therefore, all these factors should be considered when inferring our results in other populations.

It is necessary to carry out longitudinal studies, important to investigate whether values referring to the domains of QoL could change over time, by performing hemodialysis treatment and developing patient-oriented interventions, including relatives.

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