ORIGINAL ARTICLE

QUALITY OF LIFE OF PATIENTS WITH RENAL FAILURE IN HEMODIALYTIC TREATMENT

QUALIDADE DE VIDA DE PACIENTES COM INSUFICIÊNCIA RENAL EM TRATAMENTO HEMODIÁLITICO

CALIDAD DE VIDA DE PACIENTES CON INSUFICIENCIA RENAL EN TRATAMIENTO HEMODIÁLITICO

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ABSTRACT

Objective: to evaluate the quality of life of people with Chronic Renal Failure in hemodialytic treatment using the KDQOL-SF™ 1.3 instrument. Method: a quantitative, cross-sectional study with 65 patients from a renal clinic located in the Northwest region of the State of Rio Grande do Sul. A questionnaire was used that included sociodemographic aspects and the KDQOL-SF™ 1.3 instrument. The data were analyzed by the statistical program SPSS version 21.0. Results: women were predominant 33 (50.8%). The dimensions of KDQOL-SF™ 1.3 with lower scores were: emotional function (41,54), physical function (29,62), renal disease overload (53,56) and professional role (33,08). Higher scores were: social function (87,12), pain (74,23), dialysis team stimulus (90,58) and cognitive function (87,38). The quality of life of the patients is compromised in several aspects evaluated by KDQOL-SF™ 1.3. Conclusion: the instrument can assist the health team in planning care and implementing specific nursing actions. A large number of patients do not expect to improve. Descriptors: Renal Insufficiency, Chronic; Quality of Life; Nursing.

RESUMO

Objetivo: avaliar a qualidade de vida de pessoas com Insuficiência Renal Crônica em tratamento hemodialítico por meio do instrumento KDQOL-SF™1.3. Método: estudo quantitativo, transversal, com 65 pacientes de uma clínica renal, localizada na região Noroeste do RS. Foi utilizado um questionário que contemplou aspectos sociodemográficos e o instrumento KDQOL-SF™1.3. Os dados foram analisados pelo programa estatístico SPSS versão21.0. Resultados: houve predomínio de mulheres 33 (50,8%). As dimensões do KDQOL-SF™1.3 com menores escores foram: função emocional (41,54), função física (29,62), sobrecarga da doença renal (53,56) e papel profissional (33,08). Maiores escores foram: função social (87,12), dor (74,23), estímulo da equipe de diálise (90,58) e função cognitiva (87,38). A qualidade de vida dos pacientes apresenta-se comprometida em diversos aspectos avaliados pelo KDQOL-SF™1.3. Conclusão: o instrumento pode auxiliar a equipe de saúde no planejamento do cuidado e na implementação de ações específicas de enfermagem. Uma grande parte dos pacientes não possui expectativa de melhora. Descritores: Insuficiência Renal Crônica; Hemodiálise; Qualidade de Vida; Enfermagem.

RESUMEN

Objetivo: evaluar la calidad de vida de las personas con Insuficiencia Renal Crónica en tratamiento hemodiálitico a través del instrumento KDQOL-SF™1.3. Método: estudio cuantitativo transversal con 65 pacientes de una clínica renal situada en la región Noroeste de RS. Se empleó cuestionario que reflejó aspectos socio-demográficos y el instrumento KDQOL-SF™1.3. Los datos fueron analizados por el programa estadístico SPSS versión 21.0. Resultados: hubo predominio de mujeres 33 (50,8%). Las dimensiones del KDQOL-SF™1.3 con mayores porcentajes fueron: función emocional (41,54), función física (29,62), sobrecarga de enfermedad renal (53,56) y rol profesional (33,08). Mayores porcentajes fueron: función social (87,12), dolor (74,23), estímulo del equipo de diálisis (90,58) y función cognitiva (87,38). La calidad de vida de los pacientes se muestra comprometida en diversos aspectos evaluados por el KDQOL-SF™1.3. Conclusión: el instrumento puede evaluar al equipo de salud en la planificación, cuidado e implementación de acciones específicas de enfermería. Una gran parte de los pacientes no tiene expectativas de mejoría. Descriptores: Insuficiencia Renal Crónica; Hemodiálisis; Calidad de Vida; Enfermería.

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INTRODUCTION

Chronic renal disease is considered a worldwide public health problem, which has exorbitant costs for treatment. The prognosis of the disease is very worrying, and even so its incidence and prevalence are increasing every year in Brazil.1

Chronic Renal Failure (CRF) is a disease that can be diagnosed when it is in place for a period of three months or more. It is a silent, asymptomatic condition that causes progressive and irreversible deterioration, causing a metabolic and hydroelectrolytic imbalance of the kidneys, causing retention of toxic substances in the blood.2

When the kidneys can not fulfill their function of eliminating urea and toxic substances through the urine, an intervention, called Substitutive Renal Therapy (TRS), is necessary, that is, it is a treatment that performs the functions of the kidneys. Thus, there are three treatment options: peritoneal dialysis, hemodialysis and renal transplantation.3

Hemodialysis is a procedure in which blood passes through a machine, and it cleans and filters, thus eliminating all impurities, that is, it does the work that the diseased kidney can not do. The time taken to perform hemodialysis varies according to the patient’s clinical condition, generally four hours, at a frequency of three or four times a week.3

Patients requiring SRT undergo several changes in their life, work, changes in diet, sex life, their body image due to the catheters or the Arteriovenous Fistula used in dialysis, as well as changes in the coloration of the skin and hair. All these changes can lead to the individual’s withdrawal from their social groups, from leisure and also from their family.4

All of these changes directly affect the quality of life of these patients. In addition, other factors such as the reporting of negative feelings, fear of prognosis, disability, economic dependence and alteration of self-image. The expectation of improvement in the quality of life is in the recognition that the treatment enables them to wait for the transplant.5

In this way, quality of life has been used as an important evaluation tool, regarding the effectiveness of the treatment and the interventions of the health area. It serves to analyze the impact of chronic disease on people’s daily lives, through physical, social and mental indicators.6

OBJECTIVE

To evaluate the quality of life of people with CRF in hemodialytic treatment through the Kidney Disease and Quality of Life - Short Form (KDQOL-SF™ 1.3) instrument.

METHOD

A quantitative, cross-sectional study carried out in a Renal Clinic, located in the Northwest region of Rio Grande do Sul, which is a reference for the region of Middle High Uruguay.

The study participants were chronic renal patients on hemodialysis and were chosen by means of simple random sampling, used when the researcher, in front of a population larger than the necessary, selects a representative subset, thus, all are equally likely to participate.9,10

The sample size calculation was performed in the WinPEPI program version 11.43. For a 95% confidence level, a mean standard deviation of the KDQOL-SF™ 1.3 scores at 20 points and a margin of error of 7%, a minimum number of 63 patients was obtained. The
inclusion criterion used was to be 18 years old or older and to undergo hemodialysis for more than three months. As an exclusion criteria, clinical instability is present.

Of the 74 patients in the renal clinic, 65 participated in the study. There was exclusion for the following reasons: one patient died; one transplanted; two were weak and with communication difficulties and five did not accept to participate in the research.

The instrument used was elaborated by the researchers, considering sociodemographic questions and applying the Kidney Disease and Quality of Life - Short Form (KDQOL-SF™ 1.3), an instrument used to evaluate the quality of life of individuals with chronic renal failure who undergo hemodialysis. The use of this instrument was chosen because it contains important dimensions for the evaluation of the Health-Related Quality of Life (HRQoL) of chronic renal patients and for believing that, among the available instruments, it addresses a greater number of life aspects of the patient.

KDQOL-SF™ 1.3 includes the 36 Short-Form Health Survey Item (SF36), which consists of items that evaluate the general health of the individual, divided into eight dimensions and specific aspects of kidney disease (43 items), distributed in eleven dimensions. It presents a final score varying from 0 to 100, the higher its value the better the quality of life of the patient.

The participants' approach was carried out in the renal clinic by means of an invitation to all patients according to the inclusion and exclusion criteria of the study, considering the study sample and the total number of patients undergoing treatment. After acceptance, the objective of the study was explained, as well as the provision of the Informed Consent Form and the interview started, before the hemodialysis sessions in June-July 2015.

To analyze the data, they were entered, revised and codified in a database in the program Microsoft Excel® and after being imported into the statistical program Statistical Package for Social Science (SPSS) version 21.0.

For the descriptive analysis, this research used simple and relative frequency calculations of central tendency, dispersion measurements (mean and standard deviation for the variables with symmetric or median distribution and interquartile range for the variables with asymmetric distribution) and position, depending on the distribution of the data. As a descriptive study, statistical tests were not applied.

RESULTs

Sixty-five patients undergoing hemodialytic treatment participated in the study, most of whom were female 33 (50.8%), with a mean age of 56.3 ± 15.0 minimum 20 years old and maximum 83 years old. Among the participants, 41 (63.1%) reported being married or living with a partner and 53 (81.5%) had children. Regarding schooling, 44 (67.7%) participants state that they had not finished Elementary School.
In the evaluation of the quality of life of patients undergoing hemodialysis, KDQOL-SF™ 1.3 was used, which is a questionnaire divided into dimensions, which can range from zero, which is the worst result, to 100, as the best. For this, it was necessary to use the mean, median and standard deviation in order to obtain an accurate evaluation of the participants’ HRQoL. The overall health dimension is composed of eight items. The ones that obtained higher scores were social function (87,12) and pain (74,23). The items that obtained the lowest mean values of the score were emotional function (41,54) and physical function (29,62). These and other data are described in Table 2.

The dimension specifically related to renal disease is composed of eleven items. Those who had higher mean scores were: dialysis team stimulus (90,58) and cognitive function (87,38). The items that obtained lower scores were renal disease overload (53,56) and professional role (33,08). It should be noted that the sexual function component obtained a high percentage (84,03), however only 18 of the 65 interviewees reported having sexual relations, as presented in Table 3.
The results of the study reveal the predominance of women on hemodialysis. Similar values were found in other studies, with patients under the same conditions. However, in other studies, the prevalence occurred in males. It is believed that the gender distribution found in the present study may have been influenced by female predominance in the population of the municipalities that make up the area of renal clinic coverage in which the patients perform the treatment.

It could be seen that the mean age of patients undergoing hemodialysis is in line with other studies. The incidence of renal failure in the elderly has increased in the last decades, and the aging of the population is likely to lead to a continuous increase in the number of elderly people with chronic renal disease. As for the marital status, there was predominance of married or having a partner. This result coincides with that found in other studies. The fact that the patient lives with a partner and resides with the family can contribute to the care at home, because the CRF causes functional losses that compromise the independence and autonomy, especially in the case of elderly patients.

The incidence and prevalence of CRF have increased significantly each year. The increase in life expectancy, the increase in the indexes of chronic diseases such as hypertension and diabetes mellitus, which favor the development of the disease, as well as the increase of the survival of patients with CRF, due to the therapeutic improvement of the treatments. Patients with CRF who undergo hemodialysis end up having a life with restrictions, due to the burden imposed by the treatment. This results in a series of limitations in daily activities, physical, emotional and social changes, directly affecting the perception of quality of life.

Regarding the overall health of the study population, the social function obtained a high score, a result similar to other studies, which found a score of 79.02 and 80.94, respectively. Patients with CRF undergoing hemodialytic treatment need a lot of attention, support, caring and understanding mainly of family and friends. This dimension is extremely important, since patients with CRF have a physical and emotional dependence that arises at the time of the process of becoming ill and during the maintenance of life.

The pain dimension of the participants studied indicated good quality of life for this domain. A similar result was found in other studies, which found a score of 70.0 and 80.0, respectively. The result of this dimension is directly related to the good care of the multidisciplinary team working in the renal clinic, which is always available to patients for both renal disease and other problems that may arise during treatment. It should be noted that the stimulus dimension of the dialysis team was the one that obtained the best score in the study.

CRF has a great impact on people’s lives, especially on the emotional part of patients. In the same way, in studies found score 42.3 and 50.4 for the emotional function dimension. The interviewees, prior to the development of the disease, belonged to a group of apparently healthy individuals, who did not require frequent orientation and health care. However, from a moment, they are constantly dependent on health services, a hemodialysis machine, the multidisciplinary team and medicines. In addition, pathology and treatment lead to changes in lifestyle, social isolation, work-related difficulties, family economic dependence, difficulties in carrying out daily activities, and altered body image.

Table 3. Values Obtained for Each Specific Domain of Renal Disease Related to the KDQOL-SF<sup>11</sup> 1.3 Quality of Life Questionnaire of Patients on Hemodialysis.

<table>
<thead>
<tr>
<th>Components (n. of itens)</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms/Problems (12)</td>
<td>86,35</td>
<td>87,50</td>
<td>9,22</td>
<td>65</td>
</tr>
<tr>
<td>Renal disease effects (08)</td>
<td>81,83</td>
<td>84,38</td>
<td>13,71</td>
<td>65</td>
</tr>
<tr>
<td>Renal disease overload (04)</td>
<td>53,56</td>
<td>56,25</td>
<td>26,17</td>
<td>65</td>
</tr>
<tr>
<td>Professional role (02)</td>
<td>33,08</td>
<td>50,00</td>
<td>32,21</td>
<td>65</td>
</tr>
<tr>
<td>Cognitive function (03)</td>
<td>87,38</td>
<td>93,33</td>
<td>13,65</td>
<td>65</td>
</tr>
<tr>
<td>Social interaction quality (03)</td>
<td>83,08</td>
<td>86,67</td>
<td>9,87</td>
<td>65</td>
</tr>
<tr>
<td>Sexual function (02)</td>
<td>84,03</td>
<td>100,00</td>
<td>24,93</td>
<td>18</td>
</tr>
<tr>
<td>Sleep (04)</td>
<td>71,27</td>
<td>72,50</td>
<td>16,65</td>
<td>65</td>
</tr>
<tr>
<td>Social support (02)</td>
<td>85,38</td>
<td>100,00</td>
<td>18,75</td>
<td>65</td>
</tr>
<tr>
<td>Dialysis team stimulus (02)</td>
<td>90,58</td>
<td>100,00</td>
<td>14,33</td>
<td>65</td>
</tr>
<tr>
<td>Patient satisfaction (01)</td>
<td>60,77</td>
<td>50,00</td>
<td>13,32</td>
<td>65</td>
</tr>
</tbody>
</table>

DISCUSSION

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The patient who has CRF usually presents some restrictions and losses in the state of physical health. Similar results are presented in other studies, which found score 41.05 and 37.12, respectively, for the physical function dimension. According to the report of the participants of the present research, some symptoms such as tiredness, malaise, fatigue, weakness and nausea are common after the hemodialysis sessions, a situation that makes it difficult to perform their daily activities. In addition, they present limitations as a result of the disease, to walk, run, carry weight, climb stairs, resulting in a low physical function score.

In assessing the specific quality of life of renal disease, the prevalent dimension is the stimulus of the dialysis team. The high score is a consequence of quality care, performed from the first contact of the professional with the patient, where in addition to performing a complete care, he must work continuously to maintain a good bond with the patient in order to know him better identify and identify adverse situations that may interfere with the treatment.

The results found for the cognitive function dimension were similar to other studies, with a score of 89.3 and 83.3. It should be noted that even when obtaining a high score in this dimension, it was possible to perceive, during the data collection, the difficulty that many found to understand the questions of the instruments, as well as difficulty in memory and attention.

CRF patients constitute a risk group for cognitive decline due to the prevalence of diseases such as hypertension and diabetes mellitus and consequent daily use of medications, factors that may affect cognitive function. In addition, the human aging process affects not only the bodily and physical functions, but also the cognitive function.

The overload dimension of renal disease obtained a low score, as in study, which found a score of 33.7 and 49.0, respectively. Chronic renal patients, in addition to facing physical and psychological problems arising from the pathology, spend much of the time involved with the hemodialysis sessions and the necessary home care, and feeling of hindrance to their relatives.

The professional role was the dimension that obtained the worst score, similar to the studies, which found scores of 22.87 and 37.13, respectively. This demonstrates a major problem related to the professional situation, in which the majority of patients with CRF are unable to work because of the hemodialytic treatment burden. Patients' complaints at the end of sessions are frequent, reporting symptoms such as weakness, malaise, nausea, tiredness and cramps, which make it even more difficult to work.

The majority of patients did not maintain sexual activity, but those who reported maintaining, the results were consistent with the studies, which found scores of 84.58 and 89.42 for sexual function. Sexual problems are common in patients undergoing hemodialysis as a result of organic disorder. Neurological, endocrine, hematological problems, use of continuous medication and age, as well as psychological factors such as depression, low self-esteem and anxiety are highlighted. The limitations imposed by CRF, such as hypertension, peripheral vascular disease, diabetes mellitus and those related to body appearance (fistula, catheter and scars caused by hemodialysis) also interfere with sexual function.

### CONCLUSION

It was found that the quality of life related to the health of these patients is compromised in several aspects evaluated by KDQOL-SF™ 1.3. The professional role presented the worst score, followed by physical function, emotional function renal disease overload. On the other hand, there were satisfactory results in the stimulus dimensions of the dialysis team, cognitive function, social function and pain, which contributed to the HRqol of the studied population.

In this research, it was identified that a large part of the patients do not have an expectation of improvement of the disease. This may be related to the difficulties of adapting to changes imposed by CRF and hemodialytic treatment. In addition, many have reported turning away from family and friends after the diagnosis of the disease, claiming to be a nuisance to them.

Regarding the application of the questionnaires, many interviewees presented difficulties in understanding the issues. It was necessary to repeat many of them, changing the language to facilitate understanding. Even so, KDQOL-SF™ 1.3 has proven to be an efficient tool for assessing the quality of life of patients with CRF.

The use of the KDQOL-SF™ 1.3 serves as a tool to nurses working in the hemodialysis units, as well as to other members of the health team. Using the questionnaire periodically, it is possible to identify the problems that most impact the patients'
HRQoL, subsidizing care planning and implementing specific nursing actions.

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