v. 2, n. 24, 2022

International Journal of Health Science

CHARACTERIZATION OF ANXIETY AND STRESS IN CHRONIC KIDNEY PATIENTS IN HEMODIALYSIS

Catharina Garcia de Oliveira
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/7374867085197930

Halley Ferraro Oliveira
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/3430967306367115

Déborah Mônica Machado Pimentel
Universidade Federal de Sergipe, Aracaju
http://lattes.cnpq.br/6598537695862054

Thainá Ferreira Santos
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/9091838446436238

Gustavo Alves Aguiar
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/9996675569219609

Luise Oliveira Ribeiro da Silva
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/0037812032095800

Ana Carolina Menezes Sodré Lima
Universidade Nove de Julho, São Paulo
http://lattes.cnpq.br/1056952267760745

José Genivaldo Santos Andrade
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/4578526655821585

Victor Araújo de Oliveira Polycarpo
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/1309407063049802

Fábio Batalha Carvalho Silveira
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/5717611400082701

Dante Costa de Araújo
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/7145937374206565

Isabela Avila Fontes Carvalho
Universidade Tiradentes, Aracaju
http://lattes.cnpq.br/228938883236132)

Abstract: Introduction: Chronic diseases are not defined by their apparent or real severity, but by their incurable or very long duration. Adapting to the characteristics of kidney disease is an extremely complex process, with numerous implications and repercussions of various orders, and it is necessary to value the quality of this survival (RUDNICKI, 2007). Thus, in patients with CKD, who often present with anxiety, stress, pain and even fear of death, it is extremely important that the psychosocial context is understood so that effective measures are established. The current study, therefore, aims to characterize anxiety and stress in chronic renal patients on hemodialysis. **Methodology:** This is a cross-sectional, exploratory and quantitative study with a non-probabilistic sample on the relationship between pain and anxiety and stress in patients with chronic kidney disease. The questionnaires were applied at Hospital do Rim, in the city of Aracaju, state of Sergipe, and the population studied is made up of 65 patients. The questionnaires used, internationally validated, were: LIPP Stress Symptom Inventory (LIPP, 2000) and Beck Anxiety Scale (BECK, 1988). **Results:** Coexistence of anxiety was observed in 100% of individuals with CKD on hemodialysis, for whom 53.8% had the severe form and 46.2%, the moderate form. In view of stress, however, 38.5% of individuals did not present this condition. Even so, it is a minority against the amount of 30.8% who accused resistance and another 30.8%, exhaustion. **Conclusions:** These data allow us to infer characteristics of the stimuli present in CKD that drive anxiety, as well as strategies possibly adopted to overcome stress. The disease itself and its treatment cause symptoms that radically alter the individual's biopsychosocial functioning. Therefore, the current study reveals the importance of maintaining or improving quality of life, which is one of the

most important therapeutic goals for patients with chronic kidney disease undergoing hemodialysis.

Keywords: Anxiety, Stress, Chronic kidney disease, hemodialysis.

INTRODUCTION

Chronic diseases are not defined by their apparent or real severity, but by their incurable or very long duration. They cover, in particular, diseases that lead, in a longer or shorter term, to death. Adapting to the characteristics of kidney disease is an extremely complex process, with numerous implications and repercussions of various orders, and it is necessary to value the quality of this survival (RUDNICKI, 2007).

Fear of death is also a factor that affects the psychological condition of patients with chronic kidney disease (CKD). Peres et al. (2010) carried out a retrospective epidemiological study in a time interval of 15 years, in which 878 patients were admitted on dialysis. The annual mortality rate was 10.4% and, despite being considered positive when compared to the rate in other countries, it is a number that certainly affects the people involved psychologically.

Patients undergoing renal replacement therapy are subject to a decrease in their quality of life compared to the general population and a higher prevalence of mood disorders. The relationship between quality of life is inversely proportional to the prevalence of anxiety and depression, according to Muñoz. This condition can represent an increase in mortality and morbidity in dialysis patients, as well as compromise adherence to therapy and modulate their immunological and nutritional situation, both by the symptoms of depression or anxiety itself and by the associated symptoms, such as loss of concentration, loss of motivation, sleep disturbances, fatigue, depressed mood and difficulty understanding information (STASIAK ET. AL., 2014).

Thus, in patients with CKD, who often present with anxiety, stress, pain and even fear of death, it is extremely important that the psychosocial context is understood so that effective measures are established and, consequently, there is a offering a better quality of life for these patients. The current study, therefore, aims to characterize anxiety and stress in chronic renal patients on hemodialysis.

METHODOLOGY

This is a cross-sectional, exploratory and quantitative study with a non-probabilistic sample on the relationship between pain and anxiety and stress in patients with chronic kidney disease. The questionnaires were applied at Hospital do Rim, in the city of Aracaju, state of Sergipe, and the population studied is made up of 65 patients.

The internationally validated questionnaires used were: LIPP Stress Symptom Inventory (LIPP, 2000) and Beck Anxiety Scale (BECK, 1988).

At first, the questionnaires do not present any risk, but it is known that some type of question can generate embarrassment and, with this, it is suggested that the interviewees answer only those that bring them comfort to do so. Any damages that may occur as a result of the research will be the sole responsibility of the researchers. To ensure respect for the rights of the research and its participants, prior to using the questionnaires, they must complete and sign the Free and Informed Consent Term (ICF) developed.

As for the direct benefits, patients may be referred to specialized psychology services if very high levels of stress and anxiety are found. They will also be able to reflect on what in fact, in everyday life, contributes to the increase in stress and anxiety, and thus,

overcome them more effectively.

Indirectly, based on the results of the research, services and managers may pay more attention to these patients and, thus, reduce levels of stress and anxiety, as well as pain, as a result of referral to specialized services.

For statistical analysis, categorical variables were described using absolute frequency and relative percentage. Continuous variables were described using mean and standard deviation. The hypothesis of independence between categorical variables was tested using Fisher's Exact and Pearson's Chi-Square tests. The hypothesis of adherence to the normal distribution of continuous variables was tested using the Shapiro-Wilks test. As it is not confirmed, the hypothesis of equality in measures of central tendency was tested using the Mann-Whitney (2 groups), Kruskal-Wallis (3 or more groups) and Mann-Whitney tests with Bonferroni correction (multiple comparisons). The significance level adopted was 5% and the software used was R Core Team 2022 (Version 4.1.0).

RESULTS

	N	%
BAI		
Moderate	30	46,2
Severe	35	53,8
LIPP		
No stress	25	38,5
Resistence	20	30,8
Exhaustion	20	30,8

Subtitle: n – absolute frequency. % – percentage relative frequency.

Table 1. Results for anxiety and stress, according to Beck's questionnaire (BAI) and LIPP, respectively.

Coexistence of anxiety was observed in 100% of individuals with CKD on hemodialysis, for whom 53.8% had the severe form and 46.2%, the moderate form. In view of stress, however, 38.5% of individuals did not present this condition. Even so, it is a minority against the amount of 30.8% who accused resistance and another 30.8%, exhaustion.

DISCUSSION

PRESENCE OF ANXIETY IN ALL PATIENTS

Anxiety is a vague and unpleasant feeling of fear, apprehension, characterized by tension or discomfort derived from the anticipation of danger, something unknown or strange (CASTILLO ET. AL., 2000). Both in CKD and in its dialysis form, these feelings are everyday with regard to the anguish of an uncertain survival, such as the possibility of facing dangerous situations, such as hospitalizations, probes, coma, possibility of kidney transplantation, among others. In addition, hemodialysis is an invasive and uncomfortable process that, in these patients, is indicated in a schedule of sessions as needed, which reinforces continuous tension and discomfort.

Anxiety and fear are recognized as pathological when they are exaggerated, disproportionate to the stimulus, or qualitatively different from what is observed as the norm in that age group and interfere with the individual's quality of life, emotional comfort or daily performance. This is also why it shows an important relationship with chronic processes, such as kidney disease: the triggering stimuli of concern go beyond the frequency and intensity at which they occur in the healthy population. Thus, exaggeration, disproportion and difficulty in dealing well with the sum of adverse and inconvenient effects of hemodialysis, such as chronic pain, and the disease itself, become more common.

Some studies have already established the relationship between anxiety and some

comorbidities. In chronic pain, for example, an estimated one in five people have high levels of anxiety. In a study carried out among a population of 382 individuals with chronic pain and a general population of 5495, it was found that 35% of individuals with chronic pain had some form of anxiety, while in the general population, only 18% corresponded to some form of anxiety. anxiety (SYMRENG & FISHMAN, 2004).

Pain perception is characterized as a multidimensional experience, diversifying in quality and sensory intensity, being affected by affective-motivational variables (SOUSA, 2002). In this aspect, pain is reported as one of the most common and distressing symptoms in these patients, whose prevalence has been associated with greater psychosocial suffering, insomnia and depressive symptoms, which compromise their quality of life (DAVISON, 2019). In patients with CKD undergoing hemodialysis, chronic pain can coexist and be an important factor for anxiety through several stimuli: headache as an adverse effect of the procedure, pain at the fistula site and others related to the lack of control of CKD, such as bone pain due to osteodystrophy kidney disease and risk of fractures, arthralgia due to gout, myalgia due to nerve and muscle damage, chest pain due to pericarditis, among others. In addition, there is still the spectrum of psychosomatic pain incident in chronic patients due to modulation failure.

It is worth mentioning that the patient is faced with psychological changes resulting from the treatment itself, also due to the multiple losses: freedom, life expectancy, uncertainty about the future, the change of social role in the family, employment, fear of being alone (PHILIPP & HEEMANN, 2003).

LOWER PREVALENCE OF STRESS

The stress reaction is a complex process, with psychobiochemical components already genetically programmed in human beings since birth, in order to help them preserve their life. In moderate doses, the adrenaline produced, among other hormonal processes of stress, increases motivation, provides energy, vigor and can result in high productivity. In excessive doses, it has the ability to destroy and unbalance (LIPP & MALAGRIS, 2001; EBRECHT ET AL., 2004).

Since chronic illness involves personal mechanisms such as attention level, personality, emotional state and past experiences, stress can present both a cause and an effect relationship. As a cause, the chronicity of pathological processes is a common form of somatization. As an effect, a vicious cycle stems from the fact that the disease causes interpersonal and social problems, which evoke physiological stress responses.

Research on the stress-disease link has shown the physiological effects of stress in chronic kidney patients subjected to several stressors, including the disease itself, the hemodialysis procedure, the diet and water restriction regimen, the chronic ingestion of medication and, in in several cases, the expectation in front of the accomplishment of a transplant (STEPTOE, 2000).

Despite this expectation, the smallest part that did not show any signs of stress to the statistics may be linked to a recent diagnosis of CKD, with little pain repercussion (inherent to the disease or treatment) - once the temporal wear of repetitive disproportionate stimuli is discussed, or the coexistence of well-established psychosocial structures to condition support for these patients. Social support can be understood as the quality of emotional support available from the relationships established in social networks, and its presence or absence affects the health of individuals differently. The nature of this

relationship would explain why individuals with a support network in the form of family, friends and partners often have better physical and mental health conditions, given the emotional and/or material resources they obtain from it (HEIWE ET AL., 2003). In this case, more specific studies would need to be drawn up.

CONCLUSIONS

The coexistence of anxiety and stress in hemodialysis patients with chronic kidney disease is expected, since much is known about the incidence of the former in patients with chronic disease. In the study, however, the results showed an alarming prevalence: for anxiety, there was total manifestation. For stress, his absence stood out. These data allow us to infer characteristics of the stimuli present in CKD that drive anxiety, as well as strategies possibly adopted to overcome stress.

In any case, it is necessary to consider the real vulnerability of the chronic kidney patient and the feeling of helplessness in the treatment situation. It is at this point that satisfaction with the social support, psychological support and empathy of the health team throughout the treatment matter.

After all, the treatment of chronic kidney disease includes a series of psychological repercussions in the periodic performance of hemodialysis sessions. The disease itself and its treatment cause symptoms that radically alter the individual's biopsychosocial functioning. Therefore, the current study reveals the importance of maintaining or improving quality of life, which is one of the most important therapeutic goals for patients with chronic kidney disease undergoing hemodialysis.

REFERENCES

ARAGÃO, Mariana Serra de et al. Ansiedade, depressão e estresse em mulheres com dor pélvica crônica. 2011.

BECK, A. T. et al. An inventory for measuring clinical anxiety: psychometric properties. **Journal of Consulting and Clinical Psychology**, v. 56, p. 893-897, 1988.

BEZERRA, Júlia Carmo; DE OLIVEIRA, Luciana Carla Barbosa; MAIA, Eulália Maria Chaves. Estresse e qualidade de vida em crianças com doenças renais crônicas hospitalizadas. **Psicologia, Saúde e Doenças**, v. 17, n. 3, p. 382-388, 2016.

CASTILLO, Ana Regina GL et al. Transtornos de ansiedade. **Brazilian Journal of Psychiatry**, v. 22, p. 20-23, 2000.

DA SILVA MENEZES, Ana Karla; DE MOURA, Lorena Fleury; MAFRA, Vanderson Ramos. Transtorno de ansiedade generalizada: uma revisão da literatura e dados epidemiológicos. **AMAZÔNIA: SCIENCE & HEALTH**, v. 5, n. 3, p. 42-49, 2017.

DAVISON, S. N. End-of-life preferences and needs: perceptions of patients with chronic kidney disease. **Clin J Am Soc Nephrol**, v. 05, n. 02, 2010.

DAVISON, S. N. Management of chronic pain in chronic kidney disease - **UpToDate**, 2019.

DE GODOY, Rossane Frizzo. Ansiedade, depressão e desesperança em pacientes com doença pulmonar obstrutiva crônica. **Estudos e Pesquisas em Psicologia**, v. 13, n. 3, p. 1089-1102, 2013.

FRÂNCICA, Mayra C. et al. Relação Da Ansiedade, Depressão E Estresse Com a Incapacidade Funcional Em Indivíduos Com Dor Lombar Crônica. **RELAÇÃO DA ANSIEDADE, DEPRESSÃO E ESTRESSE COM A INCAPACIDADE FUNCIONAL EM INDIVÍDUOS COM DOR LOMBAR CRÔNICA**, p. 22, 2015.

FERREIRA, R. C.; SILVA FILHO, C. R. A qualidade de vida dos pacientes renais crônicos em hemodiálise na região de Marília, São Paulo**. J Bras Nefrol**, v. 33, n. 02, p. 129-135, 2011.

GIL, A. C. Métodos e técnicas de pesquisa social. Antônio Carlos Gil. – 6. Ed.- São Paulo: Atlas, 2008

GONÇALVES, Marcela Cavalcante dos Santos. Avaliação das fases do estresse e qualidade do sono em indivíduos com dor crônica. 2018.

LIMA, César de Andrade de et al. Qualidade de vida, ansiedade e depressão em pacientes com doença pulmonar obstrutiva crônica. **Revista Brasileira de Enfermagem**, v. 73, 2020.

LIPP, Marilda Emmanuel Novaes. Manual do inventário de sintomas de stress para adultos de Lipp (ISSL). **São Paulo: Casa do Psicólogo**, v. 76, 2000.

MARQUES, Veronius da Rosa et al. Pain intensity assessment in chronic renal patients on hemodialysis. **Revista Dor**, [s.l.], v. 17, n. 2, p.96-100, 19 abr. 2019. GN1 Genesis Network. http://dx.doi.org/10.5935/1806-0013.20160023.

MARTINS, M. R. I.; CESARINO, C. B. Qualidade de vida de pessoas com doença renal crônica em tratamento hemodialítico. **Rev Latino-am Enfermagem**, v. 13, n. 05, p. 670-6, 2005.

MASCELLA, Vivian et al. Stress, sintomas de ansiedade e depressão em mulheres com dor de cabeça. **Boletim academia paulista de psicologia**, v. 34, n. 87, p. 407-428, 2014.

PERES, L. A. B.; BIELA, R.; HERRMANN, M.; MATSUO, T.; ANN, H. K.; CAMARGO, M. T. A.; ROHDE, N. R. S.; USCOCOVICH, V. S. M. Estudo epidemiológico da doença renal crônica terminal no oeste do Paraná. Uma experiência de 878 casos atendidos em 25 anos. **J Bras Nefrol**, v. 32, n. 01, p. 51-56, 2010.

PINHEIRO, Ricardo Cardoso et al. Prevalência de sintomas depressivos e ansiosos em pacientes com dor crônica. **Jornal Brasileiro de Psiquiatria**, v. 63, p. 213-219, 2014.

RODRIGUES, Ana Maria Fernandes Mouta. **O doente com dor crónica: estudo da repercussão na ansiedade, na depressão e nas actividades de vida diária**. 2007. Trabalho de Conclusão de Curso. [sn].

RUDNICKI, Tânia. Preditores de qualidade de vida em pacientes renais crônicos. **Estudos de Psicologia (Campinas)**, v. 24, p. 343-351, 2007.

RUDNICKI, Tânia. Doença renal crônica: vivência do paciente em tratamento de hemodiálise. **Contextos clínicos**, v. 7, n. 1, p. 105-116, 2014.

SOUSA, F. A. E. F. Dor: o quinto sinal vital. **Rev. Latino-Am. Enfermagem**, Ribeirão Preto, v. 10, n. 3, p. 446-447, June 2002.

STASIAK, Camila Edith Stachera et al. Prevalência de ansiedade e depressão e suas comorbidades em pacientes com doença renal crônica em hemodiálise e diálise peritoneal. **Brazilian Journal of Nephrology**, v. 36, p. 325-331, 2014.