

## **INTEGRATIVE REVIEW OF THE LITERATURE**

#### Scientific production on quality of life in patients with renal undergoing hemodialysis

Produção científica sobre qualidade de vida de pacientes com insuficiência renal submetidos à hemodiálise

Producción científica acerca de la calidad de vida en pacientes con insuficiencia renal sometidos a hemodiálisis

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#### ABSTRACT

**Objective:** To analyze the scientific production on quality of life of patients with renal failure undergoing hemodialysis. **Method:** This is an integrative literature review conducted on the banks of LILACS and MEDLINE databases. Were selected studies published between 2011 to 2013 and analyzed 24 articles. **Results:** The results indicated that the quality of life of hemodialysis patients is related to factors, physical, psychosocial, mental, social and presence and support of family. **Conclusion:** The development of studies involving the quality of life of individuals may assist healthcare professionals in the instrumentalization of a healthcare practice that really contemplate the multidimensionality of care to patients with renal failure undergoing hemodialysis. **Descriptors:** Renal failure, Hemodialysis, Quality of life, Treatment.

### RESUMO

**Objetivo:** Analisar a produção científica sobre a qualidade de vida de pacientes com insuficiência renal, submetidos à hemodiálise. **Método:** Trata-se de uma revisão integrativa da literatura realizada nos bancos de dados LILACS e MEDLINE. Foram selecionados estudos publicados no período de 2011 a 2013 e analisados 24 artigos. **Resultado:** Os resultados indicaram que a qualidade de vida dos pacientes submetidos à hemodiálise está relacionada a fatores, físicos, psicossociais, mentais, sociais e a presença e apoio da família. **Conclusão:** O desenvolvimento de estudos que envolvem a qualidade de vida do indivíduo pode auxiliar os profissionais da saúde na instrumentalização de uma prática assistencial que realmente contemple a multidimensionalidade do cuidado a pacientes com insuficiência renal submetidos à hemodiálise. **Descritores:** Insuficiência renal, Hemodiálise, Qualidade de vida, Tratamento.

#### RESUMEN

**Objetivo**: Analizar la producción científica sobre la calidad de vida de los pacientes con insuficiencia renal sometidos a hemodiálisis. **Método**: Se trata de una revisión integradora de la literatura realizada en los bancos de datos LILACS y MEDLINE. Fueron seleccionados estudios publicados entre los años 2011 a 2013 y analizados 24 artículos. **Resultados:** Los resultados indicaron que la calidad de vida de los pacientes en hemodiálisis se relaciona con factores, físicos, psicosociales, mentales, sociales y la presencia y apoyo da familia. **Conclusión**: El desarrollo estudios que envuelven la calidad de vida de los profesionales de la salud en la instrumentalización de una práctica asistencial que realmente contemple la multidimensionalidad de la atención a los pacientes con insuficiencia renal sometidos a hemodiálisis. **Descriptores:** Insuficiencia renal, Hemodiálisis, Calidad de vida, Tratamiento.

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## INTRODUCTION

Renal failure is a condition in which the kidneys lose their ability to perform its basic functions. Kidney failure can be acute (ARF) when occurs sudden and rapid loss of kidney function or chronic (CRF), when this loss is slowly, progressive and irreversible. The kidneys are responsible for regulating the balance of water and often constitute the major route of elimination of water from the body. When the amount of water consumed is small or the water lost increases, as during physical exercise, kidneys conserve water by producing a lower volume of urine, which is hypertonic with respect to plasma. When water intake is large, a high volume of hyposmotic urine produced. In a normal individual, urine is osmolality can vary from 50 to 1,200 mOsm / kg H2O approximately corresponding urine volume and may vary , approximately, 18 L / day to as little as 0.5 liters / day.<sup>1</sup>

ARF is characterized by a sudden decrease in renal function, resulting in the inability of the kidneys to perform their basic functions of excretion and maintenance of hydroelectrolytic homeostasis. Despite advances in the understanding of the pathophysiological ARF, still has a high degree of mortality.<sup>2</sup>

The CRF is a complex syndrome caused by the loss of renal excretory capacity, usually installed in a slow and progressive manner. As a result there will be a rise in plasma or serum concentrations of all catabolites derived primarily protein metabolism, characterized from by increased urea and creatinine. Among the causes of CRF are: primary renal diseases, systemic diseases, hereditary diseases and congenital malformations. Treatment should be focused on the restoration of low-protein diet, use of antihypertensive drugs, treatment of acidosis,

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Scientific production on quality of life in patients... hyperkalemia, anemia, renal osteodystrophy, dialysis or transplantation.<sup>3</sup>

The dialytic methods are currently available peritoneal dialysis, hemodialysis, hemodiafiltration and hemofiltration. These processes can be arteriovenous and venovenosos, and run intermittently or continuously. Hemodialysis is the most widely used extracorporeal method for specialized treatment of medical and nursing staff. Pathway is required for circulatory access can be arteriovenous and venovenous. The most used venovenous access in our environment is usually achieved by staining of double-lumen catheter in the internal jugular or subclavian vein. The blood flow of the patient by blood pump is controlled to obtain a constant value of 250-350 ml / min. The movement of solutes is bidirectional, there solute moving from the blood to the dialysate, as urea and potassium and other solutes, such as calcium and bicarbonate dialysate that moves into the blood. Most of the solute transport occurs by diffusion, and removal of fluid by ultrafiltration due to the hydraulic pressure gradient. It appears, therefore, that hemodialysis is much more efficient for correction of uremia and withdrawal volume than peritoneal dialysis.<sup>4</sup>

Therefore, through the dialysis are removed from the blood substances which, when in excess, bring harm to the body, such as urea, potassium, sodium and water. The dialysis is taken in a machine, through a dialyzer (or capillary filter). The dialyzer is a set of pipes called "lines", through which the blood passes an artificial extracorporeal filtration process. During filtration, blood is withdrawn from the body and returns to it through access lines of the veins and arteries simulate circuits. The dialyzer is reusable and after each hemodialysis session is performed chemical sterilization of this material.<sup>5</sup>

Formerly hemodialysis had intended just to avoid death by hypervolemia or hyperkalemia. Nowadays, in addition to reversing the uremic

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symptoms, this treatment seeks, over the long term, reduced complications, reduced risk of mortality, improving quality of life and social reintegration of the individual.

The CRF patients on hemodialysis have many physical, nutritional and social limitations and suffer a painful and distressing treatment of major risk during hemodialysis sessions, impacting their quality of life.

In this sense this study aims to analyze the scientific literature on the quality of life of patients with renal failure who are undergoing hemodialysis.

## METHODOLOGY

This is a study of integrative review of literature operationalized from the following steps: identification of the topic and selection of research question; establishment of criteria for inclusion and exclusion; identification of pre-screened and selected studies, categorization of the selected studies; analysis and interpretation of results, presentation of review / synthesis of knowledge.

The question that guided this study was: which is the scientific production on the quality of life of patients with renal failure undergoing hemodialysis?

To achieve the proposed objectives, a survey was conducted in the electronic databases: Latin American and Caribbean Literature on Health Sciences (LILACS) and International Literature on Health Sciences (MEDLINE). We chose these fonts because they are known databases, the wide distribution and easy access. Was used as descriptors for the survey of scientific production: renal failure, hemodialysis, quality of life and treatment.

For the selection of the sample was established the following inclusion criteria: online J. res.: fundam. care. online 2013.dec. 5(6): 338-347 DOI: 10.9789/2175-5361.2013v5n6Esp2p338

Scientific production on quality of life in patients... articles available fully that addressed the issues hemodialysis, renal failure and quality of life, and articles published in Portuguese, English and Spanish in the period 2011-2013. Exclusion criteria was chosen: research in pediatric services; studies in editorial formats, case studies, epidemiological studies, dissertations, theses and comments.

In the first search with descriptors 85 articles in LILACS and 1,147 were found in MEDLINE. After applying the inclusion criteria and full reading of the studies were selected for this study sample 24 articles.

**Frame1** - Presentation of search steps, inclusion criteria and selection of the study sample

Databases	Search with	Application of inclusion	Selecting sample after read	
	descriptors	criteria	it in full	
LILACS	85 articles	66 articles	4 articles	
MEDLINE	1147 articles	340 articles	20 articles	

Fonte: LILACS e MEDLINE 2011 a 2013

# **RESULTS AND DISCUSSION**

In the integrative review, were analyzed 24 articles that met the inclusion criteria previously established. Below in Frame 2, an overview of the reviewed articles will present itself.

Among the articles included in the integrative review, in relation to the year of publication 16 articles were published in 2011 and eight in 2012, no article was published in 2013. Regarding the type of journal in which the articles review were published included in the, three were published in journals of general nursing, three journals in perioperative nursing, both in medical journals and six were published in journals of other health areas. Of the 24 articles analyzed, 10 were published in Portuguese and 13 in English and 01 in Spanish. **Frame 2:** Distribution of studies according to the title of articles, authors, journal, year of publication and Language (2011-2013)

N					
01	TITULO Quality of life in patients with	AUTORES	PERIODICO a Clinics	2011	IDIOMA English
01	chronic kidney disease	Cruz MC, Andrade C, Urrut M, Draibe S, Nogueira- Martins LA, Sesso RCC.			Engusti
02	Depression and quality of life of hemodialysis patients living in a poor region of Brazil	Santos PR.	Revista Brasileira de Psiguiatria	2011	English
03	Predialysis therapeutic care and health-related quality of life at dialysis on set (The pharmacoepidemiologic AVENIR study)	Boini S, Frimat Luc, Kessle M, Briançon S, Thilly N.		2011	English
04	Hemodialysis in a Satellite Unit: Clinical Performance Target Attainment and Health-Related Quality of Life	Diamant MJ, Young A, Gall K, Xi W, Suri RS, Garg AX, Moist LM.	American Societ <u>y</u> of Nephrology	2011	English
05	Fatores associados com a qualidade de vida relacionada a saude de idosos em hemodialise	Braga SFM, Peixoto SV, Gomes IC, Acúrcio FA, Andrade EIGl, Cherchiglia ML.	Revista de Saúde Pública	2011	Portuguese
06	The confluence of human genomics, environment, and determinants of health-related quality of life among African American hemodialysis patients	Thomas CJ.	SocWork PublicHealth	2011	English
07	A fisioterapia pode influenciar na qualidade de vida de individuos em hemodiálise	Padulla SAT, Matta MV, MelattoT, Miranda RCV, Camargo MR.	Ciência cuidado Saúde	2011	Portuguese
08	A qualidade de vida dos pacientes renais crônicos em hemodialise na regiao de Marilia, Sao Paulo	Ferreira RC, Silva Filho CR.	Brasileiro de Nefrologia	2011	Portuguese
09	Percepções e mudanças na qualidade de vida de pacientes submetidos a hemodialise	Silva AS, Silveira RS, Fernandes GFM, Lunardi VI Backes VMS.	Revista ., Brasileira de Enfermagem	2011	Portuguese
10	Avaliação da qualidade de vida em idosos submetidos ao tratamento hemodialítico	Takemoto AY, 0kubo P, Bedendo J, Carreira L.	Revista Gaùcha de Enfermagem	2011	Portuguese
11	Comparação da qualidade de vida entre pacientes em hemodialise aguardando e nao aguardando transplante renal em uma região pobre do Brasil	Santos PR.	Jornal Brasileiro de Nefrologia	2011	Portuguese
12	Analise do estilo de vida de renais crönicos em hemodialise	Kirchner RM, Machado RF, Löbler L, Stumm EMF.	0 mundo da saúde	2011	Portuguese
13	Factores Psicosociales Relacionados conla Calidad de Vida em Saluden Pacientes Hemodializados	Urzua A, Pavlov R, Cortes R, Pino V.	TerPsicol	2011	Spanish
14	Nutritional status evaluated2011 by multi-frequency bioimpedance is not associated with quality of life or depressive symptoms in hemodialysis patients.	Barros A, Costa BE, Poli- de-Figueiredo CE, Antonello IC, d'Avila DO.	Ther Apher Dial	2012	English
15	Vitamin D deficiency, self- reported physical activity and health-related quality of life: the Comprehensive Dialysis Study	Anand S, Kaysen GA, Chertow GM, Johansen KL, Grimes B, Dalrymple LS, Kurella TM.	Nephrology Dialysis Transplantation	2012	English
16	Qualidade de vida de pacientes submetidos a hemodialise	Farias QFMC, Ramos PV, Lira CBLA	Revista de Enfermagem da UERJ	2012	Portuguese
17	Distance betweenresidence and the dialysis unit does not impact self-perceived outcomes in hemodialysis patients	SantosPR, Arcanjo FPN.20	BMC Research N otes	2012	English
18	Efetividade do exercicio fisico na insuficiência renal crônica	Nascimento LCA, Coutinho EB, Silva KNG.	Fisioterapia e movimento	2012	Portuguese
19	Avaliação da qualidade de vida dos pacientes submetidos a hemodialise	Grasselli CSM, Chaves ECL, Simão TP, Botelho PB, Silva RR.	Revista de Enfermagem da UERJ	2012	Portuguese
20	Differences in quality of life of hemodialysis patients between dialysis centers.	Mazairac AHA, Grooteman MPC, Blankestijn P, Penne EL, Weerd NC, Hoedt CH, Dorpel MA, Buskens E, Nubé MJ, Wee PM, Wit GA, Bots ML.	Quality of Life Research	2012	English
21	Influence of megestrol acetate on nutrition, inflammation and quality of life in dialysis patients.	Gołębiewska JE, Lichodziejewska- Niemierko M, Aleksandrowicz- Wrona E, Majkowicz M, Lysiak-Szydłowska W, Rutkowski B.	International Urology and Nephrology	2012	English
22	A systematic review and meta- analysis of utility-based quality of life in chronic kidney disease treatments	Webster CA, Howard K, Hayen A, Morton RL, Wyld M.	PLOSMediane	2012	English
23	Sleep and pain management are key components of patient care in ESRD	Unruh ML, Cohen LM.	Nephrology Dialysis Transplantation	2012	English
24	Pain, sleep disturbance and survival in hemodialysis patients	Harris TJ, Nazir R, Khetpal P, Peterson RA, Chava P, Patel SS, Kimmel PL.	Nephrology Dialysis Transplantation	2012	English

Regarding the type of research design of the articles evaluated, it is evident: one systematic review, twelve cross-sectional studies, five J. res.: fundam. care. online 2013.dec. 5(6): 338-347 Scientific production on quality of life in patients... descriptive studies, one propesctive study, a literature review, a multicenter, observational study a correlational study and a transeccional observational study as seen in Frame 3.

Frame 3 - Characteristics of studies according	to
the type of study and objectives (2011-2013)	

N°	TYPE OF STUDY	OBJECTIVES
01	Descriptive Study	Comparing the dimensions of quality of life in the stages of chronic kidney disea
		and the influence of sociodemographic, clinical and laboratory factors.
02	Descriptive and cross-	Determine the relationship between depression and quality of life of patients
	sectional study	undergoing hemodialysis.
03	Observational cohort	Determine the impact of the quality of predialysis nephrology care in health
	study	quality of life at the start of dialysis.
04	Cross-sectional study	Compare the mere realization of the clinical performance and quality of life
		related to health in hemodialysis patients in satellite hospitals and central
		hospitals.
05	Cross-sectional study	Identify factors associated with quality of life related to health of elderly paties
		on hemodialysis.
06	Cross-sectional study	Explore the intersection of sequencing the human genome, environmental facto
		that provide for understanding the etiology of complex diseases, and the
		components that constitute health related to quality of life for african-american
		patients on hemodialysis.
07	Descriptive study	Evaluate and compare the quality of life of patients undergoing physiotherapy
		with controls.
	Cross-sectional and	Compare the quality of life of hemodializers extremts without descenses (1) to
80	descriptive study	Compare the quality of life of hemodialysis patients without depression (A) to those with some degree of depression (B).
	Descriptive study	Knowing the perceptions of patients with chronic renal failure about changes in
07	bescriptive study	your routine life, from the treatment of hemodialysis, identifying the elements
		that influence their quality of life.
	Evel and a set of the set	
10	Exploratory and	Evaluate the quality of life of elderly patients with chronic renal failure,
	descriptive study Descriptive study	undergoing hemodialysis.
11	Descriptive study	Compare the level of QOL among hemodialysis patients enrolled and non-enrolle
		on the waiting list for renal transplantation.
12	Cross-sectional and	Evaluate the lifestyle of chronic renal failure patients on hemodialysis.
	descriptive study	
13	Transectional	Analyze the relationship between the variables age, time in treatment, gender,
	correlational study	perceived family support, mental health, perceived health status and quality of
		lite.
14	Cross-sectional study	Evaluate the current nutritional status, quality of life and depressive symptoms
		and to determine possible relationships with other risk factors for bad outcome
		in patients in stable hemodialysis.
15	Prospective study	The objective of this study was to determine the extent of 25-hydroxyvitamin D
		(25-OH vitamin D) deficiency and associations with self-reported physical activi
		and quality of health of life (QOL) among participants in the Global Dialysis Stu
		(CDS).
16	Cross-sectional,	Investigate the quality of life of patients diagnosed with chronic kidney disease
	descriptive study	hemodialysis, as with SF-36.
17	cross-sectional study	Find an association of distance between home of the patients and dialysis unit
		with quality of life, depression and confrontation between renal disease (ESRD)
		patients undergoing maintenance hemodialysis.
18	Study of literature	To review the literature on the influence of physical exercise in chronic renal
	review	failure patients undergoing hemodialysis.
19	Epidemiological,	Evaluate the quality of life of patients undergoing hemodialysis.
	descriptive, cross-	
	sectional study	
20	Cross-sectional study	Evaluate the differences in HROOL of hemodialysis patients between dialysis
		centers and explore what modifiable central characteristics could explain possi
		differences.
21	Amulticenter	To evaluate the efficacy and safety of megestrol acetate in undernourished
	prospective study	dialysis patients.
22	Study of Systematic	Determine useful grouped based on quality of life (the numerical value attache
	review with meta-	to the strength of an individual's preference for a particular health outcome) by
	analysis	modality of treatment of CKD.
	observational study	support the position that the results reported by the patient may present an

Source: LILACS and MEDLINE 2011 at 2013

On the instruments used to evaluate the quality of life of patients with renal insufficient undergoing hemodialysis, it is noteworthy that 18 studies used a scale and most of these, ten studies used the Kidney Disease and Quality of Life - Short Form (SF-KDQOL ) and the Short Form - 36 (SF-36) to collect the data. The instrument is considered the most complete and current to assess quality of

life in renal disease and hemodialysis, he has items of generic aspects and includes specific topics related to kidney disease.

The studies analyzed showed that several aspects influence in maintaining the quality of life patients with renal failure undergoing of hemodialysis. Here we outline the sociodemographic studies have shown that patients with a higher level of education have better physical performance than other with mid-level. Regarding the average scores on assessment of mental patients, Asian men and outperformed those without individual monthly income had lower values than those with some income.<sup>6</sup>

Regarding perceptions of the CRF patients about changes in their everyday life, from the treatment of hemodialysis, it is evident that the initial feelings were of anger and denial, but these have changed to the extent that patients were being strengthened to coping with the disease. The main difficulties reported were the restriction of food and water habits, incapacity or limitation of physical, occupational and leisure activities. It was also found that the support of family members and health professionals can help to overcome these limitations and adapting to the new lifestyle.<sup>7</sup>

Patients not awaiting transplantation evolved more frequently to die within 12 months. It was verified, therefore, that patients on dialysis who do not awaiting transplantation are at risk of experiencing poor quality of life, especially as regards the limitation due to emotional and physical aspects. It is recommended psychological support and physical rehabilitation for this group of patients.<sup>8</sup>

The quality of life of patients is negatively affected by factors such as the dimensions of professional role, vitality, physical function, emotional function, general health and overloading of kidney disease on patients' lives; associated difficulties and challenges caused by kidney disease and its treatment. The high scores found

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Scientific production on quality of life in patients... for the dimensions of patient satisfaction regarding the support received by family and friends, sex life, cognitive function, pain, sleep, social support, list of symptoms, effects of kidney disease, encouragement by dialysis staff, physical functioning emotional well-being, social functioning and quality of social interaction, have dimensions that had high levels of scores and contributed positively to the assessment of quality of life.

The studies analyzed showed that despite the limitations that hemodialysis treatment entails, there are more important factors that motivate and encourage these patients to cope with this phase of your life, such as the will to live and stay healthy.<sup>9</sup>

The habits and customs of the people also influence their quality of life. According to the study analyzed, few patients with renal insufficiency consume alcoholic beverages, just over half practice exercise and about 12.5% smoke. The results of these studies are of great value in assessing the quality of life of these patients by helping professionals, researchers and students in order to stimulate reflections and instigate further investigations about the lives of patients with CRF.<sup>10</sup>

In elderly patients with renal failure undergoing hemodialysis, studies show that the main component affected was the physical condition of the patients. In contrast, the contact and support from family and friends influence positively the social condition.<sup>11</sup>

Increasing age, female gender and number of hospital admissions are associated directly to decreased physical condition. The presence of selfreported chronic diseases was the factor that was significantly associated with worse quality of life in all components evaluated, showing the importance of knowing the profile morbidity in elderly patients undergoing dialysis therapy to decrease the effect of these conditions on quality of life for seniors.

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The treatment time was also negative influence on mental component of quality of life, suggesting a worsening of those aspects of the beginning of dialysis, which can be retrieved later.<sup>12</sup>

The perception of pain have greater importance for patients off treatment of hemodialysis than on hemodialysis, since they can be related both to the severity of disease as an adaptive response to treatment. It is important to find the cause of pain before treating it. Pain should be treated especially when they are out of hemodialysis, to improve the survival of these patients.13 Early adoption of palliative care is essential to improving the quality of life and, consequently, to increase the survival of patients with chronic renal failure.<sup>14</sup>

Malnutrition is a common clinical problem in patients undergoing hemodialysis. The use of megestrol acetate may help reverse the loss of appetite in dialysis patients, but does not reduce inflammation and improve the quality of life, and require continuous monitoring because of the high incidence of side effects.<sup>15</sup> However, one study showed no direct association between malnutrition and quality of life of these patients.<sup>16</sup>

The practice of physical exercise, either aerobic and / or resistance, have incremental effects on functional capacity, muscle function and quality of life of renal disease undergoing hemodialysis. With this we can see that physical training has to be considered a very important therapeutic modality seen improvements in the quality of life of these patients.<sup>17</sup>

Patients on hemodialysis have a trend toward better quality of life when treated with physiotherapy, so there need to be inserted in the education of physiotherapists, most comprehensive content in the area of nephrology.<sup>18</sup>

A deficiency of vitamin D proved of great importance to patients on dialysis. One can notice a decrease in serum concentrations in patients who undergo this treatment and there is a relation

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Scientific production on quality of life in patients... between this concentration with decreasing intensity of physical activity. This demonstrates once again the importance of the exercise in maintaining the quality of life of these patients. But more research is needed to determine whether the Hypovitaminosis D is causally associated with reduced physical activity.<sup>19</sup>

Hemodialysis is responsible for a series of changes in the quality of life of patients with renal disease. Among the psychological changes the major is depression. Despite being a consequence of low incidence, one should invest in social and psychological support for these patients.<sup>20</sup> CRF depressed patients have a poor quality of life because they suffer with a chronic disease that affects its physical aspects, and to feel mentally limited. With this we realize the importance of mental health-related quality of life of patients with renal disease.<sup>21,22</sup>

Canadian study with the objective to compare the clinical performance and quality of life in patients on hemodialysis treated at satellite health unit, closer to communities and other central unit, showed that the process of care is different in these units. In satellite unit patients received fewer visits from nephrologists, but proved to have the same clinical quality and performance similar to patients seen in the central unit life, this reinforces the increasing use of satellite units to provide care closer to the patient community.<sup>23</sup> Even if the quality of life to be a very important aspect of management for patients on hemodialysis, the study shows that there are clinically relevant differences between dialysis centers in various domains of quality of life.<sup>24</sup>

However, a study with the objective of identify an association between distance of residence of the patients and dialysis unit, with the quality of life showed no differences related to the quality of life among the three groups of patients: residents where clinical hemodialysis is installed; residents with a distance of 100 km and residents

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with a distance of over 100km, concluding that the distance is not a predictor of depression and neither interferes with the quality of life of patients.<sup>25</sup>

African-American patients on hemodialysis demonstrated that environmental influences of religiosity and social support and genetic factors had a significant impact on their quality of life.<sup>26</sup>

The quality of life of patients with CRF on hemodialysis has no relationship with the time to live with the disease, nor with sex and age. However, the dimensions of mental health has higher correlation with the dimensions of quality of life.<sup>27</sup> Patients on hemodialysis process have low quality of life due to successive situations that compromise the physical and psychological, for personal, family and social repercussions. As their quality of life, the dimensions of the vitality and mental health have higher averages and functional capacity and social aspects have lower averages.<sup>28</sup>

The hemodialysis is associated with a significant decrease in quality of life compared with patients treated with renal transplantation, this reflects the need for an economic evaluation of renal therapies useful for the adoption of a public policy on patient care chronic kidney disease on hemodialysis.<sup>29</sup>

# CONCLUSION

The integrative review enabled the construction of a synthesis of scientific knowledge and to identify factors related to the quality of life of patients with renal failure undergoing hemodialysis, and those related to the physical, psychosocial, mental, and other factors, which comprehend chronological age, the presence and support of the family.

It is believed that this research will contribute significantly to the construction of new knowledge, for analyzing the various areas that

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Scientific production on quality of life in patients... comprehend the quality of life of individuals may assist healthcare professionals in the instrumentalization of a healthcare practice that really contemplate the multidimensionality of care patients with renal failure undergoing hemodialysis. Furthermore, it is clearly important that more studies regarding this type of evaluation are implemented, providing opportunities to all individuals involved in this process a moment of intense reflection against daily practice of health professionals.

Although there is already a significant accumulation of knowledge regarding factors related to quality of life, it is necessary to conduct further studies both in relation to concepts regarding the construction and validation of specific scales to assess the various factors inherent in the care of patients with renal failure undergoing hemodialysis.

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